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Posthuman Elites and Monsters in Science Fiction

Artificial Superhumans and Exploited Cannibals in H. G. Wells's *The Time Machine*, Frank Herbert's *Dune* and David Mitchell's *Cloud Atlas*

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Ai miei genitori, Cristiana e Michele,

indomiti esploratori di mondi reali e letterari,

per avermi spalancato le porte dell'avventura

con il primo libro illustrato aperto

per raccontare le favole della buonanotte.

La libraria era il mondo chiuso in uno specchio;

di uno specchio aveva la profondità infinita, la varietà, l'imprevedibilità

- Jean-Paul Sartre

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Introduction

Characters in Science Fiction: Strange Encounters

Readers and writers alike have long been curious about the inner workings of fiction. What exactly is it that makes a story? How is it that it captures our attention? How is it able to elicit an emotional response? Of course, there are multiple answers to these questions, but one element that is particularly significant and fascinating is that of 'character'.

Character is often considered to be one of the most important aspects of a fictional text. In fact, while investigating how stories work, Yorke argues that in every story "you have a central character, you empathize with them, and something then happens to them, and that something is the genesis of the story" (3), thus identifying in character the key element that is at the origin of storytelling. Not only that, but Yorke stresses how it is the identification of the audience with the character that provides the basis for the reader's engagement with the story: "our favourite characters are the ones who […] embody what we all want for ourselves […] Effectively, they're us" (6-7).

Vogler as well pinpoints the importance in mythology and storytelling of a central character, the 'Hero', who presents "qualities that we all can identify with and recognize in ourselves" (30). However, Vogler goes one step further, stating that "every good story reflects the total human story, the universal human condition" (26). This makes stories, and therefore writing fictional characters, extremely human-focused, by connecting a character's capability (and therefore that of the story they inhabit) to capture the interest and the emotional investment of the reader to their being 'human'.

What happens then when the characters are not human, or not quite 'human' as according to our understanding of the word? This is a question one cannot avoid when confronted with works of science fiction, a genre often populated by non-human and not-quite-

human characters and whose central concern and topic of exploration has long been the question 'what does it mean to be human?' (Schmeink, 32-33).

It is exceptionally interesting investigating this focus on the 'human' when it comes to the creation of fictional characters. In particular, what is fascinating is the contraposition of humanism's traditional definition of 'the human' to the concept of hybridity developed by posthumanism, especially since, as argued by Ferrando, science fiction has been part of the latter's "theoretical landscape" since the beginning of the genre (239). Further exploration into the subgenres of science fiction, particularly climate fiction or cli-fi, whose core features are climate change and the various ways humans deal with its consequences, sometimes in a familiar context and sometimes in imagined potential futures (Kellogg), led me to a recent science fiction novel, *Cage of Souls* (2019) by Adrian Tchaikovsky.

The tale, told in first person as a testimony of sorts by the protagonist, Stefan Advani, describes his adventures in a post-climate change disaster apocalyptic world, and his many encounters with the different types of people left alive to inhabit it, while reflecting on the concept of humanity in its last days on a dying Earth. Reading this novel brought to my attention something that prompted me to further research in the field of science fiction, and led me to finding a thread unspooling across the genre, which will be explored in this thesis. In fact, a series of features in this novel's cast of characters stand out as particularly noteworthy since they can be found in other notable works of science fiction produced in different times, maintained surprisingly consistent despite different contexts and nuances.

Firstly, *Cage of Souls* portrays an apparent binary of two very distinct types of human characters: on one hand, there are Stefan Advani himself and the other wealthy inhabitants of the dilapidated but familiar city of Shadrapar, who appear perfectly human-like; on the other, the monstrous denizens of the criminal, dark Underworld underneath it.

However, it becomes soon apparent that 'humanity' is a shifting concept in Tchaikovsky's novel, prone to artificial and environmental manipulation both, which creates a contraposition no longer of traditional 'human' versus 'monstrous' characters in clear, uncomplicated opposition, but instead of characters that due to physical characteristics or behaviour can no longer be easily defined by the reader.

Thus, Shadrapar's elite become a class of scientifically-enhanced superhumans, who use "the old medical sciences to augment their children and their bloodlines: longer lives, resistance to disease, improved brains, stronger bodies" (Tchaikovsky, 66). And yet, they also

choose to signal their status physically by a "fashion of selective deformity" (Tchaikovsky, 66), "body-tailoring" into themselves deformities such as a humpback, a club foot or six fingers (Tchaikovsky, 66, 158, 205), traditionally interpreted since antiquity as marks of monstrosity (Claeys, 64-65).

Meanwhile, in the Underworld, we come across more distinctly monstrous figures such as the Transforming Man, who is also in the process of artificially changing himself into something not quite human anymore, since "mankind was doomed, and he intended to make himself into a shape that the world would permit to last" (Tchaikovsky, 357-358). We also meet the Mazen, distorted descendants of a deep-dwelling community, who have devolved into animal-like cannibals with "no clothing, tools or possessions of any kind to suggest intelligence" (Tchaikovsky, 380-81).

Yet, even these monsters paradoxically are acknowledged as something partly human: the Transforming Man struggles with "a flaw in his soul, a sliver of humanity he had not been able to pluck out" (Tchaikovsky, 358), and the Mazen are clearly recognised as 'people' in the text by the narrator (Tchaikovsky, 381). Such in-between characters are particularly significant in the tradition of science fiction, as often-found ambiguous figures of this genre are those with artificially created or modified bodies like the clone and the cyborg.

Finally, the most striking encounter in this novel, which goes on to inform a specific perspective of hybrid post-human characters portrayed in science fiction and the core of this thesis, is that with a peculiar character of *Cage of Souls*'s Underworld, Sergei. His description by the narrator, as well as the place he inhabits, position him squarely among the novel's cast of monsters:

> He was surely the most freakish sight I'd seen to that point. He always claimed to be six feet tall […] this incredible height was supported by a long-boned and spidery frame. His face […] was the palest I ever saw. I have seen dead people with more colour in their cheeks (Tchaikovsky, 343-344).

As Tchaikovsky's novel is told in first person, the reader experiences its far-into-the-future world uniquely from the narrator's point of view, Stefan: this brings us to automatically identify ourselves with him as a fellow human, just like the reader, not one of the grotesque elites nor one of the Underworld's twisted monsters. However, the truth, as we find out from Sergei, is quite another.

He tells the narrator in one of their conversations: "I am a cosmonaut of Union of Soviet Socialist Republics and I want to be in the year nineteen-seventy-two, not in this time of ruins waiting for world to die" (Tchaikovsky, 363). This passage gives the reader a strange shock, a mixture of a feeling of recognition as we realise Sergei was, actually, the character who was 'just like the reader', and a perturbed sense of dissociation. If the narrator saw him as such a 'freakish' creature, what then was recognisable as 'human' in the novel's portrayal of a faraway future? Could Stefan, the narrator with whom the reader empathises and identifies, be considered 'human' according to our traditional understanding of the concept?

Much like the last line of Fredric Brown's famous short story, *Sentry* (1954), this passage flips around the idea of who is the human and who is the non-human, by putting into question the humanity of its narrating character, and, more broadly, what exactly we identify as 'human'.

Exploring precisely the way in which science fiction has dealt with this question and its ambiguity, this thesis will analyse the posthuman and hybrid 'human-yet-not' nature of fictional characters in three texts, *The Time Machine* (1895) by H. G. Wells, *Dune* (1965) by Frank Herbert and *Cloud Atlas* (2004) by David Mitchell.

According to Jonsson, H. G. Wells's early science fiction novels are "cross-cultural classics" that have influenced several subgenres of science fiction (296), to the point that literary scholarship has paid homage to Wells as the "founding father of science fiction" (311). *The Time Machine*, his first novel, is not only an example of early science fiction (Youngs, 107-108) but it also already depicts the crisis of humanism's traditional 'human' and contains the posthuman as part of its repertoire (Schmeink, 34). In *The Time Machine*, Wells recounts the journey of the Time Traveller, a fictional scientist his contemporary, eight hundred thousand years into the future. Upon his return, the Traveller describes to a party of friends the world he found, which Wells populates, extrapolating from his contemporary society's class system, with a humanity that has evolved following Darwin's theories into two distinct humanoid species, the "capitalists" into the "Eloi", and the "labourers" into the "Morlocks" (Jonsson, 303). Both species have adapted to a new environment and to new power dynamics, and as a result they have become 'inhuman', or rather, posthuman hybrids.

Dune as well represents a significant milestone in the history of science fiction. Pak identifies the trilogy of novels that begins with this text as "one of the most influential examples of ecological science fiction", since its treatment of nature, which factors human worlds into ecological systems, has "informed science fiction discourse and influenced popular culture"

(118). Higgins agrees and grants *Dune* an "iconic status", arguing that it achieved widespread popularity in American and British culture, thus becoming a "representative cultural narrative" (228).

It tells the story of Paul, a young Duke in a far-off future who finds himself stranded on Arrakis, a desert planet source of a powerful psychedelic drug, the 'spice', the most important resource of the novel's socio-political system. Making use of his own superior mental capabilities, result of a program of selective breeding among the Imperium's aristocracy, and of the spice, Paul wins the loyalty of Arrakis's native population, the Fremen, seen by the Imperium as 'savages' and yet powerful warriors because efficiently adapted to their spice-rich, waterless desert environment, and leads them into a rebellion obtaining the Imperial throne for himself. Much like the characters in *The Time Machine*, here as well the reader is presented with two opposing hybrid not-quite-human populations, the aristocrats, and the Fremen, distinct and in conflict due to class and complex power dynamics.

Shanahan identifies the appeal of *Cloud Atlas* as "its innovative imbrication of diverse individual voices with collective struggles on a global canvas" (131). In fact this experimental work of fiction is composed of six interlocking stories, each centred around a different protagonist struggling against the "major injustices of the modern epoch from its post-Enlightenment inception to its fictional postmodern demise and catastrophic posthuman aftermath" (Rickel, 163) and told in a different storytelling medium from written to visual and even aural.

This thesis will focus in particular on a section of the novel, *An Orison of Sonmi~451*, in which, as noted by Machinal, Mitchell elaborates multiple facets of a posthuman world, social, political and environmental, and thus "asserts the necessity of pondering the future of humanity and explores what it means to be human" (128).

It is written as the transcription of an interview's video recording, and through its back-and-forth of questions and answers between an Archivist-interviewer and its protagonist, the clone Sonmi~451, the reader is introduced to the state-corporation of Nea So Copros, which has replaced Korea in a post-climate crisis wasteland. Here 'corpocracy' reigns supreme, with a strict pyramid hierarchy of 'strata' of hyper-capitalist consumers exploiting a labour force composed of enslaved 'inhumans', wombtank-bred clones. One of them, the fast-food chain female server Sonmi~451, despite having been manipulated by a fake resistance force into rebelling against the system, does manage in the process to reach independent personhood and claim for her fellow clones the status of 'humans'. After her capture and trial, she is made to

register for posterity a final interview before her execution, which constitutes the text of this section of the novel.

All these stories are set in distant futures where 'the human' has changed, artificially or by adapting to their new environment, splitting into two main populations of posthuman hybrids different from the 'baseline human' of humanist discourse, and yet not completely distinct from humanity. One is the most 'human-looking', despite having been tampered with biologically in a eugenic process, it represents an aristocratic minority, and it is usually the socially and politically dominant one, living in a rich Upperworld. The other is the 'monstrous-looking' one, removed from a humanist image of 'the human' by various physical characteristics. Its behaviour as well marks it as the most 'inhuman', as it is usually connected to the 'savage practice' of cannibalism and to servitude, living in the darkness of an Underworld.

The first part of this thesis will focus on the elites of these stories, with the first chapter examining the ways in which they make use of scientific knowledge and especially genetic tampering to maintain their power as a class of super-humans, and how, despite this, it is them who appear at first to the reader as the true 'humans' of each story. Instead, the second chapter will analyse how they are gradually revealed, oftentimes precisely due to such artificial tampering, as posthuman hybrids, occasionally just as monstrous as their counterpart.

In the second part the attention will shift to the latter, as the third chapter explores what it is that makes a certain group of characters in each story the 'monsters', with particular consideration for the role of the act of cannibalism as a mark of monstrosity. Finally, the fourth chapter will investigate the condition of exploitation that connects these 'monster' characters, and how it is directly linked to their role as 'subhuman' rather than posthuman characters in each novel.

Finally, this thesis will conclude by investigating the uncanny moment of shocked recognition and perturbed disconnection that the reader experiences in relation to the posthuman characters of these stories as their not-quite-human hybrid nature is revealed, and how it modifies our understanding of the portrayal of the human, or rather the posthuman, in science fiction.

Part One: An Upperworld of Super-Human Elites

Chapter One

A Matter of Class

'A place for every man and every man in his place' (Herbert, 561).

In each and every one of the novels analysed in this thesis, there is a binary opposition of two different populations of characters: the Eloi and the Morlocks in Wells's *The Time Machine*, the aristocratic Houses and the Fremen in Herbert's *Dune*, and finally the pureblood consumers and the fabricants (clones) in Mitchell's *Cloud Atlas*.

Despite the fact that all of these characters will eventually be revealed to be posthuman hybrids, albeit to different degrees and in different ways, one of the elements that make them contrast with each other is whether they are seen as 'human', or at least as closer to human, not only in the worldbuilding itself of the novel they are part of, but also in the perspective of the reader. In each case, we cannot help but notice that it is the set of characters belonging to the Upperworld, and the former or current dominant class in a social and economic sense that are granted this status of 'human-like'.

This has much to do with what, exactly, is traditionally meant by the term 'human'. Wells's novel is in this case a perfect starting point not only as the oldest work of fiction examined, but also as the only one among the three which offers the reader a convenient specimen of the exemplary 'human' character, the Time Traveller, against which the reader can not only contrast and compare the other characters of the novel, but in which they can also find themselves, mirrored. To the point that in the 1960 movie adaptation of *The Time Machine* directed by George Pal, the role of the Time Traveller is conflated with the author himself, H. G. Wells, while in the subsequent 2002 adaptation directed by Simon Wells the character is

changed into an American scientist. This may be due to how, as noted by Ostendorf in an article just one year before Simon Wells's *The Time Machine* came out, "post-Cold-War hegemony" gave American popular culture a "global reach" (339) and particularly influenced audiences' perspective of the Everyman, since it was precisely this emphasis on "the common man as king" in America that encouraged the creation of a popular culture industry and made it so successful internationally (Ostendorf, 351).

The Time Traveller represents, therefore, a perfect example of the humanist 'human'. As Schmeink argues, for more than two hundred years of Western thought 'the human' as a category has been determined by Enlightenment philosophy and its legacy of humanism (29). Therefore, in fiction as well, traditionally 'human' characters and protagonists, such as Wells's Time Traveller, have been fashioned following the liberal humanist's portrait of the human being: "a male of the species, white, European, handsome and able-bodied" (Matlock, 98), rational, independent, "reigning supreme over nature and all other species" (Tarr and White, ix-x). Wells's protagonist fully embodies this depiction, male, British, able-bodied enough to successfully explore the future world (Wells, 70) and fight the Morlocks (Wells, 99-100), and especially because of his profession.

In fact, as a scientist and inventor (Wells, 1), not only does he 'reign supreme over nature', to the point he transcends the natural laws of time itself (Wells, 10), but he also becomes the epitome of intelligence and rationality. Such qualities are pinpointed by Neil Badmington as the key feature that, according to humanism, distinguishes the human from all other creatures (Schmeink, 30), following Descartes's writings according to which reason is "the only thing that makes us men and distinguishes us from the beasts" (Badmington, 16).

It is evident therefore how being recognised as belonging to the category of the 'human' is traditionally a matter of class, due to the key elements mentioned in the case of the Time Traveller that boil down to, in terms of appearance, race, gender, beauty, and in terms of socio-economic privilege, knowledge and intelligence, a prestigious role in society, wealth. These are all the markers that typically grant a specifically dominant social status, and determine the formation of 'superior' elites that consider themselves inherently 'better' ontologically than their 'inferiors'.

This latter 'superiority' is also linked to our traditional understanding of the term 'human': Braidotti identifies "the binary logic of identity and Otherness as the motor for universal Humanism", with at its centre "the notion of 'difference' as pejoration: […] this humanist subject defined 'himself' as much by what 'he' excluded from as by what 'he' included in 'his' self-representation", and considered Otherness his identity's "negative and

specular counterpart" (10-11). This results in an identity (the human) built on the rejection of a set of characteristics and/or concepts, that are seen not only as 'other' (the non-human), but also as inherently 'worse', 'evil' or 'wrong' (the monster), which is evident, again, in all three novels where the 'inferior' populations of characters' humanity is called into question as 'monsters', 'savages', and clones.

In *The Time Machine* the intent of the author is that of satirizing upon the existing class system of his time (Claeys, 300), and therefore we are presented with a faded elite, the Eloi, descendants of the past dominant ruling class, "a real aristocracy, armed with a perfected science" (Wells, 66), living in a garden-like, bountiful Upperworld (Wells, 63).

However, they maintain many of the key characteristics of aristocratic elite, for example, a 'life of leisure'. Wells describes how the Time Traveller soon notices, and is puzzled by, a visible absence of industry and machinery in the life of the Eloi, who seem nonetheless to be provided with "heaps of fruits" (34) as sustenance and fine clothing of "pleasant fabrics" (55) despite indulging in a carefree, workless life: "they spent all their time in playing gently, in bathing in the river, in making love in a half-playful fashion, in eating fruit and sleeping" (Wells, 55).

While the Time Traveller's initial hypothesis is that of a future Utopia where "mankind" lives splendidly and freely "engaged in no toil" (Wells, 41), he posits a second theory after he is first confronted with the existence of the Morlocks (but not yet realizing the full truth about them). Extrapolating from the widening socio-economic gulf between the ruling and working classes of his time, he envisions an even deeper inequality developing between them in the future, leading to the present situation where "above ground you must have the Haves", that is, the Eloi as dominant elite, "pursuing pleasure and comfort and beauty", while "below ground" dwell their servants and inferiors, "the Have-nots, the Workers" (Wells, 65-66).

Moreover, the Eloi are also the most anthropomorphic and physically beautiful of the two populations of characters in the novel. They appear to Wells's Time Traveller as "beautiful and graceful" creatures (Wells, 29) with a "Dresden china type of prettiness" (Wells, 31), and he describes in detail every pleasant feature they possess:

> Their hair, which was uniformly curly, came to a sharp end at the neck and cheek; there was not the faintest suggestion of it on the face, and their ears were singularly minute. Their mouths were small, with bright red, rather thin lips, and the little chins ran to a point. The eyes were large and mild (31).

This comparison with 'Dresden china' is significant: it further ties in the Eloi with the idea of 'elite', both as an object favoured by the wealthy, who collected Dresden china as a "favourite hobby" for centuries (*The Artist*, 122), and in terms of aesthetic.

In fact, Wells's Eloi mirror the distinctive traits typical of the delicate, Rococo Dresden porcelain decorative figurines depicting shepherds and shepherdesses reminiscent of an Arcadian imagery that "entered royal, noble, and wealthy dwellings all over Europe" (Weinshenker, 45). Such porcelain, the first successfully produced true porcelain in Europe, is defined as "vitrified pottery with a white, fine-grained body that is usually translucent" (Britannica); and so the Dresden figurines are often graceful young men, women, and children with pure-white skin, usually accompanied by blue eyes and pale hair, markedly recognisable as European and 'white'. Claeys notes how "the Darwinian revolution also brought into focus concerns about race relations in the British Empire […] Victorian writers generally assumed that the 'white' races were superior and were intended by God to rule the rest" (301), and in *The Time Machine* as well, the characters who embody the 'elite' are strongly white-coded.

Concerning this matter, it is interesting to examine how the 1960 and the 2002 movie adaptations of *The Time Machine* dealt with translating into a visual medium the physical appearance of the Eloi. The 1960 adaptation, directed by George Pal, in fact, in an interpretation much closer to the original novel's characters, depicts the Eloi as beautiful, white, all-blonde people who are dressed in delicate pastel tunics and behave much like their novel counterparts, who "toil not" and "sit around" eating and relaxing (Crowther). The film does however leave out the Eloi's status as descendants of elite, and therefore the social satire and critique at the core of Wells's story, as the Time Traveller (and the audience) are informed by a surviving piece of ancient technology that the splitting of the human race into the beautiful garden-dwellers and the monstrous underworlders did not depend on their class, but on individual choice (*TTM* 1960, 01:12:28-01:12:57).

In contrast, the 2002 adaptation of *The Time Machine*, directed by Simon Wells, made a strikingly different choice in regard to the Eloi's physical appearance, most significantly in terms of ethnicity. Here H. G. Wells's Dresden china figurines and George Pal's "blond, blue-eyed race" have been transformed into "dusky sun people" (Ebert), brown-skinned and racially ambiguous, dressed and tattooed in such a way that they appear more reminiscent of 'exotic', tribal peoples, perhaps South-Asian or Oceanian. This choice of casting, despite being, ironically, probably closer to actual estimates by scholars, who foresee that in America "we will likely see a rise in the number of people who are perceived as 'racially ambiguous' or 'exotic'" by 2050 (Waring, 313), let alone by the year "Eight Hundred and Two Thousand Seven Hundred and One A.D." (Wells, 37), carries a series of significant implications for what concerns the Eloi's status as 'superior class'.

In the context of Simon Wells's movie, the word 'exotic' is particularly apt to describe the Eloi. Waring analyses how the word 'exotic' is defined as "of foreign origin or character", "strikingly unusual or strange in effect or appearance", and "of, pertaining to, or involving strip teasing" in the Webster dictionary, thus associating it with difference, appearance and sexual connotations (301).

While still, arguably, a 'beautiful people', as the word 'exotic' is also connected to the idea of 'beauty', since "there is a strong correlation between physical attraction and sexual desires for most people" (Waring, 301), the Eloi have lost their racially superior status of 'white dominant elite' in Simon Wells's adaptation of *The Time Machine*.

In fact, the term 'exotic' is also specifically connected to the "racially ambiguous body", which is not only a matter of phenotype, that is, skin colour, hair texture and eye colour, but it includes elements such as bodily adornments (i.e. hair styles, tattoos, etc.) (Waring, 305). This racial ambiguity can easily be recognised in the characters of Simon Wells's Eloi, who are, additionally, played mostly by Latino and Asian American actors, as shown clearly by their names appearing in the movie's closing credits (*TTM* 2002, 01:31:06), and these racial groups are "traditionally considered racially 'in-between'" (Waring, 310).

Such 'exoticness' not only is infused with assumptions and stereotypes (Waring, 305), for example the idea of 'paradise' implicit in Western attitudes toward certain Asian and Island countries and cultures, which fits the expectations of the Eden-like 'beautiful garden' the Eloi inhabit in the original book, but it is also "encoded with hegemonic ideologies that have to do with race, and draw attention to power" (Waring, 314).

Waring notes how the term 'exotic' is used to refer to any population across the globe that has been deemed "uncivilised" by a dominant group (301), and this neatly matches the 'primitive', pre-industrial culture of the Eloi in this movie, who are depicted as a non-European culture of fishers, farmers and gatherers, tilling the soil with simple tools and building homes, objects and ornaments out of wood, plant fibres and shells, unlike the original Eloi who did no work and were 'served' by those considered 'inferior', much like any colonial white elite.

Yet, there is indeed a white-coded elite in the 2002 adaptation of *The Time Machine*, who control a 'colonised' population of brown subjects: the Über-Morlocks, a caste of Morlocks created specifically for the movie, or rather a 'subspecies' who evolved not only greater intelligence, as we have seen a traditional mark of the humanist 'human', but even telepathic, mind-controlling powers. These they use to rule over the 'lesser' castes of Morlocks and, crucially, the Eloi aboveground, organizing their breeding, behaviour, and deaths (*TTM* 2002, 01:12:22-01:13:40).

The Über-Morlocks, as genetically superior rulers, have taken over the Eloi's role as dominant class, not only in the actual power dynamics between the two posthuman species of the future as it happened in the original novel, but also symbolically: towards the end of the movie the Time Traveller meets one of them, played by Jeremy Irons, and this Über-Morlock is portrayed not only as "chalk-white" (Ebert), but also as surprisingly human-looking if compared to his inferior and much more monstrous fellow Morlocks (*TTM* 2002, 01:12:11). Despite his almost-human appearance, the Über-Morlock does not inspire any fellow-feeling in the Time Traveller, who rebukes him for his inhuman cruelty, and eventually kills him along with the rest of the Morlocks to save the Eloi as a typical American white saviour protagonist (*TTM* 2002, 01:13:48, 01:20:50, 01:25:40).

However, in H. G. Wells's *The Time Machine* it is precisely their more anthropomorphic appearance that defines the Time Traveller's relationship with the Eloi. In fact, in the novel, the Time Traveller recognizes the Eloi only as human, since he sees them as the more 'human-like' hybrid, and it is with them that he associates (Pearson, 74) and creates an emotional connection, much like the readers, as the story is told from his perspective. Youngs as well notes how he is "unable to maintain an aloofness" (119) because, as he declares, "the Eloi had kept too much of the human form not to claim my sympathy" (Wells, 84) and are therefore the ones who most closely match the appearance of the humanist 'human' form. Youngs also argues that it is not only their physical 'humanity' alone that influences the Time Traveller in his judgement: his own (and the author's) class and position in society are also a factor (118). In fact, he identifies with the beautiful Eloi, an "aristocracy literally on top" (Youngs, 118), rather than with the Morlocks, from whom he distances himself instead.

This is particularly evident in the relationship the Time Traveller has with the character of Weena, an Eloi woman whom he saves and befriends:

> She was exactly like a child. She wanted to be with me always. She tried to follow me everywhere, and on my next journey out and about it went to my heart to tire her down, and leave her at last, exhausted and calling after me rather plaintively. […] She was, somehow a very great comfort […] by merely seeming fond of me, and showing in her weak, futile way that she cared for me, the little doll of a creature presently gave my return […] almost the feeling of coming home (Wells, 57-58).

Their "queer friendship" (Wells, 57) is significant as in the original novel it represents the only emotional connection the Time Traveller has left in the faraway future he visits. While Wells's 'human' character constantly recognises and reflects clinically, as a scientist might, upon the 'human' or 'other' status of the Eloi, Weena's affection for him is the catalyst that changes his perspective on these once aristocrats from an objective recognition of familiarity in their

almost-human form to a subjective, emotional involvement. Proof of this is how, as the Time Traveller finally unravels the mystery of the biological power dynamics that evolved between Eloi and Morlocks, and begins to look down upon the Eloi after learning of their loss of dominant class status, it is the thought of Weena that prevents him from scorning them as inferior beings, "mere fatted cattle" (Wells, 83). Here it is precisely through the character of Weena as the 'heart' of the story, the only character who clearly is connected to emotions such as affection and love, that she, and by association, the Eloi, manage to maintain their 'human' status despite no longer being a proper elite: "she always seemed to me, I fancy, more human than she was, perhaps because her affection was so human" (Wells, 85).

The character of Weena and her relationship with the Time Traveller are central elements as well in both film adaptations of *The Time Machine*. In both cases it is also emphasised as overtly romantic, and eventually it assumes an even more pivotal role as the reason that compels the Time Traveller to ultimately go back to the future (1960) or to forsake any chance of ever leaving it in the first place (2002), so that he can save her and be with her happily ever after.

As befits the role of the protagonist's 'love interest', in both movies Weena is not portrayed as a childlike, small and fragile waif of a creature hanging on the Time Traveller's coattails, but as a fully adult, beautiful woman. Yvette Mimieux, who plays Weena in the 1960 adaptation, is a typical Hollywood beauty who embodies the "ideal female: statuesque, thin, European, blue-eyed, blond-haired" (Cardona, 12). As Pal's adaptation is the more faithful to the original novel by Wells, there are still remnants of childlike behaviour and a certain mindless vapidity to his interpretation of the character – although that might also be due to the trope of the 'bimbo' blonde, beautiful but airheaded, a character often found in movies of the 1950s and 60s (The Take, 3:59-4:03). Yet she obviously sees the Time Traveller as a potential romantic partner, even enquiring after his 'marriageable' status (*TTM*, 1960 -01:30:49).

Meanwhile, in the 2002 adaptation Simon Wells turns Weena into a new, completely different character, the Eloi woman Mara, played by Samantha Mumba, an active and important member of her society, as a provider for her little brother and as holder and teacher of the knowledge of the Lex, or Stone Language (i.e. English) (*TTM* 2002, 00:40:20-00:40:35), learned from what is left of the monuments of the past. However, she still takes on the role of the Time Traveller's main emotional connection to this future world and to the Eloi, that of a damsel in distress for him to rescue, and that of his love interest, therefore she as well must be beautiful. A different kind of 'exotic' beauty, as discussed previously: according to Liebelt, in recent years "the fashion-beauty sector has become more heterogeneous with regard to the

beauty ideals it propagates, especially in respect of skin colour", managing to expand to a certain extent the dominant standards of beauty beyond the traditional 'white standard' (13). The character of Mara, played by a biracial actress, is precisely a representative of this latter "ethnicised" beauty (Liebelt, 15).

'Beauty' as a key feature of the visual representation of Weena and of the Eloi in general is a crucial detail, as it is also the last element that marks the Eloi as 'elite'. McClintok analyses how beauty and status are correlated, as "physically attractive individuals are treated preferentially, they enjoy improved school performance, greater occupational success, and higher earnings", which furthers the correlation since "income may help individuals purchase goods and services that enhance attractiveness" (578). Wen Hua as well, in her exploration of the cultural and socio-economic nuances of cosmetic surgery in modern China, notices how "people's appearance and figure are a product of their economic condition" (7). She also examines how Western beauty standards influence the choice of which elements to manufacture to create the 'status' of beauty: the features that are most often requested through surgery in order to approximate a "Caucasian" appearance are the eyes with "double eyelid", a "high-bridged nose", and "fair skin" (8-9). Yet, this is no mere matter of Asian women "imitating the global standard of white beauty", as both Wen and Liebelt remark in their research, for the true goal of such 'modifications' is "to mimic an auspicious appearance that is tied to local understandings of wealth and success" (Liebelt, 14 – Wen, 9).

As a matter of fact, a similar deliberate manufacture of 'artificial beauty', and of one very specific 'preferred' kind of beauty at that, is in itself an element symbolic of elite status quite poignant when considering the general prettiness of the Eloi: it is not simply about pure ethnicity, nor aesthetics. Both Youngs (111) and Partington (60) note, beyond the 'beauty' that characterises these characters, an incredibly uniform, "identical" appearance that reveals how the Eloi are the result of positive eugenics, at first applied by the Eloi's ancestors to themselves to maintain their superiority as a class, and later possibly by the Morlocks when farming them for food (Partington, 60). Thus, in Wells's novel, the Eloi represent a genetically engineered, biologically 'superior' class of posthuman characters. However, they are perceived by the Time Traveller as the only 'human' or 'near-human' characters in the book, due to the specific elements of their portrayal that are linked to their status of 'elite'.

H. G. Wells was critical of the idea of 'manufacturing' a genetically superior elite through eugenics, in fact, Partington notes how he "consistently rejected positive eugenics throughout his life" (61), while Claeys remarks how despite the fact that in his work *A Modern Utopia* (1905) Wells "trumpeted the need for a new leadership", he also "retreated from

eugenics solutions", since any "attempt to develop any class by special breeding" was doomed to failure (300-301). Obviously, the fate of the Eloi in *The Time Machine* demonstrates this belief by showing how the eugenic engineering of an aristocratic class leads humanity to devolution and degeneracy.

By contrast, in his novel *Dune* (1965) Frank Herbert not only portrays the 'breeding' of an aristocratic elite of super-humans as central to the main character of Paul, to the plot of the novel and its sequels, and to an efficient use of power to control the population of a vast intergalactic Empire, but also as the very metric through which it is decided who can be considered 'human'.

Burtchaell discusses in his review of Giorgio Agamben's *Homo Sacer: Sovereign Power and Bare Life* (1995) how

> the classic political traditions, both autocratic and participatory, had construed membership within the body politic as a status conferred and modified by birth, residence, ethnicity, family, language, privilege, class, gender, age etc. (625).

However, the line between political belonging and 'biological belonging' to 'humanity' as a species began to blur as

> the great modern declarations of human rights […] in vindicating the dignity of all human beings *as such*, not as citizens or subjects […] but simply as "bare" human beings stripped of every other status, won for Everyman a protection that has proven very bio-degradable politically (Burtchaell, 625).

In fact, the new equation between 'citizen with a certain set of political rights' and 'human being' changed the way those in power determined who was allowed rights no longer on the sole basis of what determined a certain socio-economic status, but on a matter of biological definition between who was accepted as 'human' and who, instead, was not. Therefore, those considered political or social 'undesirables' became also reduced to 'non-humans' by the ruling power: an example of this is that which Agamben uses in his book, that of Nazi Germany. Here Jews, Gypsies, Poles and other 'undesirables' were in fact not only exterminated but stripped of their very humanity, as they simply no longer qualified as 'humans' in the eyes of the Reich: "human rights were not being denied as such; the standards for being sufficiently "human" to qualify for those rights were simply changed" (Burtchaell, 626).

The matter of defining which characters represent the 'human' in *Dune*, and by which standards, is a trickier one when compared to Wells's *The Time Machine* : firstly, in this novel Herbert does not fashion any convenient contemporary 'baseline human' character like the Time Traveller to function for the reader as the model of the humanist 'human'. Both the Empire's aristocracy, exemplified by the protagonist, Paul, and the Fremen, Arrakis's 'savage'

natives, appear to the reader as posthuman hybrids, despite the fact that in *Dune* the posthuman changes to the humanist 'human' are depicted in a far more subtle manner. In fact, both aristocrat and Fremen characters are much more anthropomorphic than both Eloi and Morlocks, and much less biologically distanced from each other.

Secondly, in *Dune*, much like in *The Time Machine*, the central problem is "the widespread genetic degeneration of the human race" (Higgins, 242). However, in *The Time Machine* such 'degeneration' was the negative end result of the humanist 'human' changing and transforming into the posthuman, in fact Wells weaved a cautionary tale by describing how the evolution from 'human' to something different of both Eloi and Morlocks ultimately led to "general biological devolution" (Partington, 62).

Herbert, instead, imagines a 'genetic degeneration' of the 'human' caused not by transformation, but by the stagnation caused by the strict social separation of the population in "faufreluches", a caste-like system enforced by the Imperium in which is maintained "a place for every man and every man in its place" (Herbert, 561), thus limiting social and genetic movement both horizontally and vertically (DiTommaso, 315). And it is precisely the impetus of posthuman change that becomes salvation from 'degeneration' and extinction for humanity, a goading force rebelling against this imposed compartmentalization (DiTommaso, 316) and opening a way for "the need of the race to […] mingle and infuse their bloodlines in a great new pooling of genes" (Herbert, 214), which is embodied by the hybrid characters of the aristocrat Paul Atreides and his powerful army of desert-hardened Fremen.

The novel's protagonist, Paul, seems at first to be the character the readers are supposed to identify as *Dune*'s 'prototypical human'. From the very beginning of the book, already in the first chapter, his first meaningful interaction is that with Bene Gesserit Reverend Mother Gaius Helen Mohiam, that is, the test of the 'gom jabbar' (a poisonous needle), specifically meant to establish whether Paul can be considered 'human' or a mere 'animal':

> 'You dare suggest a duke's son is an animal?' he demanded.
>
> 'Let us say I suggest you may be human,' she said (Herbert, 8).
>
> 'Why are you doing this?' he demanded.
>
> 'To determine if you're human' (Herbert, 9-10).

Indeed, these 'Bene Gesserit' are an all-women society which is designed to facilitate a "quest for humanness" (DiTommaso, 318) in the world of the novel, and thus their whole reason of being is to "sift people to find the humans" (Herbert, 11). Their definition of humanity is similar

to the traditional humanist one, in fact, Higgins explains how they believe that self-control (defined as mastery over one's involuntary reactions) distinguishes humans from animals; therefore, they subject potential humans to extreme pain as a test of their humanity (237), to see if their 'human' mind is able to overcome their physical 'animal' instincts.

However, they also promote overtly and covertly a program of selective breeding centred around the genetic lines of the Imperium's aristocratic Houses, through marriages and concubinage to their acolyte women (Herbert, 13), who have to be determined 'human' in order to be allowed to survive, much like Paul (Herbert, 9), to obtain the Kwisatz Haderach, "a genetic superman produced through centuries of eugenic breeding" (Higgins, 236), something which they accidentally accomplish with Paul. DiTommaso argues that by 'bettering' the human genetic pool by employing selective breeding and rigorous training, rather than preserve traditional 'humanity' the Bene Gesserit pursue instead a posthumanist goal, attempting to lift "Homo sapiens from animal awareness […] to humans, and then to trained humans and perhaps beyond" (317).

Such 'posthuman uplifting' of humanity enacted by the Bene Gesserit, however, only actually applies to the aristocratic families, as they alone represent the genetic 'field' the society is interested and operates in. Much like the Eloi, *Dune*'s noble Houses are not-quite-human by way of genetic manipulation, benefiting from the breeding program of genetic engineering, which creates an "enhanced, superhuman class" (Diniello, 14).

From this fact we can also infer that, much like in Wells's *The Time Machine*, in *Dune* too the question of 'humanness' focuses solely on the characters belonging to the ruling class, who are also the characters closest to the humanist ideal of 'human'. In fact, according to DiTommaso, their superior status and their 'human' status are closely linked: he notes how Herbert "believes that humans are inherently inequal", therefore in Dune's rigidly hierarchical Imperium "some lives have a diminished value, others a greater value, and those of "humans" (as opposed to less-aware "people") exceptional worth" (311). This binary of 'humans' and 'people' is neatly translatable in social terms with that between 'nobles' and 'commoners', which transmutes a class superiority into a biological one of 'human' aristocrats over dehumanized subjects. Moreover, as the aristocrats are the products and physical result of the Bene Gesserit's human-selecting program, they are by definition the only proven 'human' characters in the context of the novel.

Yet unlike the Eloi, the aristocrat 'Upperworlders' of *Dune* are truly the dominant characters in the novel, despite their genetic stagnation. Their Upperworld is that of the authority granted by their socio-economic power, but it is no less physical: we find an example

of this as soon as Paul and his family arrive to their destined residence on the desert planet of Arrakis. Here water is so scarce that people have to "recycle their body moisture" just so they can survive, thus making water the most "precious" and valued good for the local inhabitants (Herbert, 32), and in fact the reader is presented with several physical symbols of the ducal family's status and wealth closely connected to water.

For example, the row of date palms in front of the palace, each of which requires "forty litres of water a day", and which in total consumes the amount of water necessary to sustain "one hundred men" (Herbert, 63-64). Another example is a leisure room Paul's mother finds in it, a sealed-off 'conservatory' containing the unnecessary luxury of wet-climate greenery and fountains, a conspicuous waste of water on a planet where it represents "the most precious juice of life" (Herbert 76-78).

Status symbols such as these visibly demonstrate what Herbert tells us about his novel's main setting: "Arrakis […] supports a ruling class that lives as ruling classes have lived in all times while, beneath them, a semihuman mass of semi-slaves exists on the leavings" (Herbert, 295). As we can see from this quote, the Arrakeen local population is not only defined as socially inferior semi-slaves but also as 'semihuman', for those who do not belong to the 'elite' are both exploited by their 'betters' and denied the right to be recognised as 'human'.

Moreover, *Dune*'s aristocrats not only belong to the 'elite' due to their social and political position, wealth, or to their physically enhanced bodies as subjects of eugenic engineering: they are also a mentally superior class. In fact, "the cream of the Imperial family and […] of the Great Houses [aristocrats] […] are the product of both an intensive juggling of bloodlines […] and a superb training program" (DiTommaso, 314).

They undergo from infancy, as we are shown through the protagonist, Paul, a rigid enhancing mental training to obtain extraordinary psychic capabilities, further amplified by the use of the powerful psychedelic drug, the 'spice'. Thanks to it, the aristocrats' mental 'consciousness' is capable of developing, according to Higgins, into a state of "superhuman awareness" which grants them a mental "advanced control" and changes these characters into "a separate race of evolutionary progress within humankind" (230-231). Paul himself represents the zenith of this training (DiTommaso, 314), for in him are combined his superior Bene Gesserit-engineered genetic history on a physical level, the teachings of the best trainers in mental development (DiTommaso, 315), and, finally, his heavy use of the spice. By the end of the novel, Paul manages through "increasingly powerful psychedelic trips" caused by the spice to attain "superhuman self-control and an expanded omniscient consciousness" (Higgins, 236) which he also employs to take the place of the current Emperor, thus attaining the status of

ultimate 'elite' in his "social and cultural milieu" (Higgins, 230) in terms of political, socio-economic and superhuman power.

Paul as a character is so remarkable mainly due to "his capacity to exert the dominance of reason and mind over body and emotion" (Higgins, 239). It is no accident that his and his class' 'superior' power is that of the mind: as previously discussed, a key element of the essence of the humanist 'human' is his intelligence and rationality: Nayar's description of the humanist subject highlights how the 'human' is traditionally marked by rational thinking/intelligence (White, 145-146), while, according to Schmeink

> Humanism claims that there is a unique and absolute difference that sets humans apart from the rest of creation: the difference of Cartesian reason. Neil Badmington explains Descartes's humanist philosophy quite ingeniously and defines the key argument: 'Reason belongs solely to the human and, as such, serves to unite the human race. "We" may have different types of bodies, but because reason is a property of the mind, deep down "we" are all the same' (30).

Of course, the 'we' who 'are all the same' in *Dune* solely applies to the ruling elite, the only characters recognised not only for their reason and rationality but also as members of 'the human race'. The Imperium's noble Houses thus represent a real dominant elite, 'armed' with not only 'human' but posthuman "higher intelligence, bigger memories, and longer lifespans" (Dinello, 9) due to class privileges such as genetic engineering, specialised training and the expensive spice drug, which they use to control other categories of characters, unlike Wells's Eloi but rather like the 'cerebral' caste of Über-Morlocks of Simon Wells's 2002 adaptation of *The Time Machine*.

Much like the original Eloi, instead, and as befits the traditional idea of 'elite', Herbert's aristocrats are beautiful, and if not explicitly white, white-coded. Such beauty can be considered a side effect of the Bene Gesserit's genetic control and breeding program, but it is not universally distributed to the characters of the nobility. In fact, it is only the ladies of the Bene Gesserit and the Atreides who are specifically described as beautiful in the novel; the villainous characters of noble House Harkonnen, meanwhile, are depicted as physically ugly to signal both their 'evilness' and their role as corrupted aristocrats and also, as we will see in the next chapter, as corrupted 'humans'.

This is because the physical appearance of Herbert's aristocratic characters seems to depend upon the Ancient Greek conventional idea of the kaloskagathos (beautiful and good person) (Reid, 20), according to which aristocratic mortals were characterised by virtue and "beauty […] attributed to divine heredity" that went hand in hand, a 'natural superiority' (Reid, 20-22). The very name 'Atreides' of Paul's family line is in itself an important connection to

Ancient Greek Western cultural roots, indeed in *Children of Dune* it is explicitly stated that the Atreides noble House descends from the famous Atreides of Greek mythology, such as King Agamemnon (Herbert, 298).

It is interesting to note how the characters most clearly described as beautiful in the novel are Paul, who as Herbert tells us has a

> face oval like Jessica's, but strong bones […] hair: the Duke's black-black but with browline of the maternal grandfather who cannot be named, and that thin, disdainful nose; shape of directly staring green eyes: like the old Duke, the paternal grandfather who is dead (7)

and also most Bene Gesserit women who appear in the novel, such as Paul's mother, Lady Jessica:

> the face was oval, under a cap of hair the colour of polished bronze. Her eyes were set wide, as green and clear as the morning skies […] The nose was small, the mouth wide and generous […] she had brought a regal beauty back into the Atreides line (Herbert, 53)

his future wife the Princess Irulan, "tall, blonde, face of chiselled beauty, green eyes" (Herbert, 494), or the wives of other nobles like Lady Margot, "golden-haired and willowy" with "grey-green eyes" (Herbert, 347).

We notice in Paul's description the highlighting of his genetic heritage, particularly important as it marks him as part of an aristocratic line and as a successful product of the Bene Gesserit's breeding program; but the influence and pivotal role of the Bene Gesserit's mission and methods are also hinted at in the description of their female acolytes. In fact, their beauty serves a very specific function: their appearance is "coded for strong visual and erotic impact", thus giving these characters women's "traditional exhibitionist role," while at the same time showing how they use the masculine gaze as a key instrument of their power (Matlock, 102). Thus, through beauty they obtain both marriages that cement their status as aristocrats, and even more importantly almost total control over the ruling class's reproduction and genetic lines, becoming a true, very powerful elite.

It is also significant that these most beautiful characters are the only ones that in the novel's worldbuilding have been proven 'human' by the gom jabbar test, thus once more connecting the idea of physical good looks to that of 'humanity'. And, much like the Eloi's beauty, Paul and the Bene Gesserit's portrayal of attractiveness follows an idealized Western standard of whiteness, with 'blond hair' and 'green eyes' as key features. The only exception to this perceived 'beautiful whiteness' of the aristocracy is Paul's father, the Duke Leto, "tall, olive-skinned", whose "thin face held harsh angles warmed only by deep grey eyes" (Herbert, 44). However, in his case, what matters is both that he retains a handsome appearance befitting of the kalsokagathos ideal as a noble and virtuous character, and also his connection to the

Mediterranean world, emphasised by his Ancient Greek name and by his father's habit of engaging in the Spainish tradition of corrida (Herbert, 56).

Concerning the portrayal of whiteness in the *Dune* saga, Higgins claims that "all the novels seem, on the surface, to reject biological racism. They are each multi- racial, and none explicitly espouse white superiority", as "race is not ultimately determined by skin color or by ethnicity but by the inherent capacity for enhanced consciousness" which signifies "a separate race of evolutionary progress within humankind" (Higgins, 231). Yet, he also notes how the Fremen, the most non-white coded characters in the books, "while virtuous and uncorrupted by civilization […] are still savages" and how Paul is one of the Fremen, yet he is also "above them" and proves himself 'superior' to them (293), eventually becoming their ruler and prophet.

This shows how despite the fact that Herbert's novel has been influenced by Islamic theology, mysticism, and the history of the Arab world, and even by historical events such as a mid-19th century Islamic holy war against Russian imperialism in the Caucasus (Collins), there is still very much the presence of a white 'human' elite of characters who ultimately dominate over all other dehumanised non-white characters.

In both the 1984 and the 2021 movie adaptations of Dune this is reflected by the choice of casting: in Lynch's adaptation (1984) both nobility and Fremen are played by white actors, and Villeneuve's 2021 adaptation follows in those steps by painting the Fremen as "generic people of colour", sprinkling "Brown and Black faces" among them (Durrani) but maintaining an all-white aristocracy and bene Gesserit society so far. The only exceptions in the 1984 adaptation are Emperor Shaddam, played by Puerto Rican actor José Ferrer and Lady Jessica, played by half-Brazilian actress Francesca Annis, while in the 2021 adaptation we have Duke Leto, played by Guatemalan actor Oscar Isaac and Rabban Harkonnen, played by Greek-Filipino actor Dave Bautista.

However, as we noted before while discussing the casting of the Eloi in Simon Wells's 2002 adaptation of *The Time Machine*, both Latinos and Asian-Americans are considered traditionally 'racially ambiguous' and can pass as white, also, in the case of Bautista, an appearance of 'whiteness' is even further emphasized by makeup. Thus, much as it happened in *The Time Machine*, the most 'human' characters are defined as such by their belonging to a white, beautiful, aristocratic elite.

The situation is more complicated in the section of David Mitchell's novel *Cloud Atlas* (2004) which we will focus on, *An Orison of Sonmi~451*. Here in fact we once again have a world that is "built upon a two-tier system of strictly segregated socio-economic groups of

haves and have-nots" (Schoene, 118), where the 'have-nots' are such due to their classification as subhuman while the 'haves', or 'purebloods' in Mitchell's novel, represent a wealthy 'elite' of 'human' characters. However, here the parameters of 'white, beautiful, aristocratic' that identify the elite as such in the other two novels discussed are more nuanced and depicted differently from what we have encountered before.

The most obvious difference is, of course, race: this particular story is set in an imagined futuristic version of South Korea, and therefore, most if not all of its characters are understood to be Korean, at least from their names, and as Asians cannot be considered 'white'. It is even noticed by the protagonist of the section, clone Sonmi~451, how defining one's class used to depend on "the quantity of melanin in one's skin" in the past (Rich), thus implying that her present society does no such thing and is, in a sense, 'post-racial'.

Yet, we can notice in this story a certain amount of colourism, which is defined as "prejudice or discrimination especially within a racial or ethnic group favouring people with lighter skin over those with darker skin" (*Merriam-Webster*). This is exactly what can be found among *Cloud Atlas*'s characters: while those belonging to a wealthy class and therefore recognised as 'human' are pale-skinned Koreans or Chinese, among the poor inhabitants of the slums around the megalopolis of Nea So Copros many are darker-skinned migrants come to escape poverty, disease and climate disasters from Production Zones such as Africa and Indonesia (Mitchell, 341).

These latter characters are defined in the book as 'untermensch' (Mitchell, 331), a Nazi term for 'inferior' races meaning 'subhuman' (*Oxford Reference*), here applied to 'racially inferior' migrants seen as no longer 'human', both due to their socio-economic condition and to actual physical traits that identify them as something 'other', not-quite-human, either because of natural mutations or artificial tampering (Mitchell, 333). Interestingly, it also applies to those 'human' Nea So Copros citizens that have backslid into poverty (Mitchell, 341) and have as a consequence lost their 'human' status, thus marking how 'humanity' truly depends upon one's wealth in this setting.

Particularly fascinating when considering the issue of 'whiteness' is the 2012 film adaptation of *Cloud Atlas* directed by Lana and Lilly Wachowski and Tom Tykwer. While in Mitchell's novel reincarnation is present only as a suggestion, through the use of a comet-shaped birthmark that appears on the six protagonists of each of the novel's stories, in the movie the same six actors playing the main characters in one story play other main characters in the

other stories as well, throughout the interwoven narrative, sometimes portraying a different gender, age, and race (Ebert, Blay).

In fact, white actors Jim Sturgess, Hugo Weaving, James D'Arcy and Hugh Grant appear in Sonmi's section of the story as Korean characters, wearing "black wigs" and "using tape and millions of dollars of CGI to make their eyes look Asian" while maintaining "the easily recognizable faces of our white protagonists just beneath the surface" (Blay). Of course, this choice of the directors has attracted much criticism and debate for a use of 'yellowface' by changing a white actor's face to appear Asian, considered deplorably racist (Blay) or simply a technique to enhance "the movie's overarching message that, regardless of gender or class or race or country, souls remain the same across time" (Rich).

What is noteworthy, however, is also that the four characters played by white actors in makeup which modifies their appearance to make them look Asian (something not dissimilar from what we have seen happens with Bautista in *Dune,* whose character appears 'white') all belong to Nea So Copros's elite, and therefore to the officially 'human' population of characters, ironically injecting an element of 'whiteness' otherwise absent into the superior class of characters in this story.

However, in this case, it is less a matter of a 'white' appearance of the elite and more of an 'artificially modified' appearance of the elite. In fact, while these four white actors and African-American actor Keith David (who also portrays a 'human' character, albeit one rebelling against the system) in theory are supposed to look Asian, "the 'slanty' eyes they've been given look nothing like the real Korean and Chinese actors in these scenes" (Rich) and it is clear to the audience that there is something manufactured about their physical appearance, especially in comparison to Bae Doona and Zhou Xun, the Korean and Chinese actresses playing the clone main characters.

By portraying the 'human' characters as non-Asian actors in strange-looking heavy makeup and the clones as actual Asian actresses, the 2012 *Cloud Atlas* adaptation manages to underline the artificiality of the appearance of the 'human elite', something that is clearly and constantly brought to the readers' attention in the original novel.

In fact, physical appearance is of central importance in the society of Nea So Copros. Firstly, it allows one to recognise who is human and who is not at a glance: clones or 'fabricants' such as Sonmi are genetically engineered or 'genomed' in batches of 'stem-types' (Mitchell, 188) that is, 'series' of clones all sharing the same identical appearance, for example the Sonmi

type or the Yoona type, which features mark them as non-human. The readers are constantly given little hints in the text as to what the protagonist looks like and to the fact that she is immediately recognisable as a fabricant by her "Sonmi features" (Mitchell, 230), to the point that she needs to visit a 'facescaper', a cosmetic surgeon, to change her revealing appearance to go into hiding: "she would dye my irises a pureblood color. Dimples could be punched in, and my tell-tale fabricant cheekbones removed" (Mitchell, 337). Significantly this word, 'genomed', doesn't only apply to artificially manufactured clones in the novel, but it is also used to describe the so-called 'purebloods', that is, the story's 'human' characters, and these latter are also the most assiduous visitors of the facescapers.

Rickel notes how in *Cloud Atlas*, Mitchell "repeatedly shows how some are produced as 'the moneyed, the privileged, the fortunate' by the devaluation and oppression of others" (165). In *An Orison of Sonmi~451* specifically, such 'production' and 'devaluation' acquire a literal meaning as they apply to the story's characters not only in terms of class, but also on a disturbingly physical and biological level concerning the body itself of the 'human', already from its artificially manipulated conception. Indeed, the protagonist Sonmi, a clone produced in vitro (or rather, in a 'wombtank'), is a living manifestation of "a monumental scientific breakthrough" which seems to confirm the fact that 'humans' have ascended into a form of "Nietzesche's ubermensch (superhuman), the 'masters of the earth'" (Rickel, 170). Major advancements in biotechnologies and genetic engineering have in fact allowed the society of Nea So Copros to harness a form of 'biopower'.

This term, that, according to Machinal, applies to a power exercising control over the life of populations or classes without taking into account the individual dimension, in Sonmi's world translates into not only birth control, but also "the choice over the way a child is genomed" (139), that is, bioengineered, in such a way as to match the wishes of the parents and their socio-economic status. This latter element is the most important one, as this 'power' is only available to the upper strata, the wealthy 'elite' at the top of the social pyramid, or it is a necessary step for one to join them. Examples of this in the text are the characters of a 'downstrata' student mocked for his glasses as they are a sign that "his family couldn't find the dollars to correct his myopia" (Mitchell, 218, 221), and the family of Hae-Joo, whom the readers first meet as a socially ascending enforcer in training, whose parents "were only natural conceptions […] who sold their second child quota and spent the dollars on having Hae-Joo genomed properly, which let him aim for his cherished career" (Mitchell, 237).

We have encountered a strikingly similar 'biopower', applied specifically to the breeding of the upper classes, before, with *Dune*'s Bene Gesserit society. There as well a supervising authority had widespread control of reproduction through arbitrary decisions that where only determined by said authority's agenda and did not take into account the individual, not even its own affiliates as in the words of Lady Jessica to be Bene Gesserit means to "exist only to serve" (Herbert, 25). Much like in Herbert's novel, in *Cloud Atlas* as well such genetic manipulation is meant to 'produce' the dominant class so that it becomes biologically superior to others. However, while Mitchell's wealthy 'purebloods' are by definition the only characters officially recognised as 'human' in the text just like *Dune*'s aristocracy, in his novel the focus of breeding control is less upon 'producing' a superior 'human' and more upon 'customising' the human body as any other good for sale in a consumerist society.

It becomes soon noticeable in *An Orison of Sonmi~451* how a markedly economic value is assigned to physical appearance even beyond bioengineered superiority: the idea of 'beauty' in this story is in fact no longer a simple connotation of class, humanity, or moral superiority, and becomes instead a marketable asset. This is particularly evident in the massive business of fashion in the novel, which has expanded to include the manipulation of the body thanks to the advances in cosmetic surgery. As noted by Wen, the 'manufacture' of beauty involves the influence on "an individual's life in its most intimate sphere, the body" of the capitalist market, as surgery becomes a matter of "consumer choice" (7).

This is exactly what happens in Mitchell's novel, where wealthy consumers constantly buy chemicals and cosmetic surgeries to modify their bodies and chase after the standard of 'beauty' presented by fast-changing fashion. "Dewdrugs" erase the physical effects of old age (Mitchell, 244), while facescapers have the ability to transform someone's appearance completely (Mitchell, 337), which allows the consumers to undergo surgeries "monthly" (Mitchell, 218), changing their features according to whatever physical traits are "in vogue" at any moment (Mitchell, 212) and creating a constant fluidity of appearance determined by the latest trend.

Furthermore, in *Cloud Atlas* there is a particularly interesting example of the 'marketable beauty' one can obtain through a genetically and surgically manipulated body, which concerns specifically the relationship with beauty of the female characters in Nea So Copros's upper strata. In her research Wen underlines how "despite dramatic social changes, some traditional gender norms that prize women's beauty over ability remain remarkably unchanged", which as a consequence leads the value of women's physical appearance to be of

utmost importance when considering social success, especially in the marriage market (208). We have already seen beauty and sexuality 'weaponised' by women in the context of marriage to obtain power or a specific social position with Herbert's Bene Gesserit characters, and such behaviour, there connected to a particular politic and genetic agenda, has become the norm for wealthy and ambitious women in *An Orison of Sonmi~451*.

Here beauty becomes not only a mark of status that distinguishes the 'elite' from others as those who can afford the high-cost maintenance and interventions such manufactured beauty requires, but also a potential key to joining said elite, and therefore an important investment in social climbing. According to Edmonds, physical attractiveness has an important role in consumer capitalism, as it becomes essential for the consumers' "economic and sexual competition, social visibility, and mental well-being"; its value is especially poignant for those "excluded from other means of social ascent" (9), such as women, who are often left with little other opportunities.

This is precisely the case of the 'pureblood' (that is, 'human') women of Nea So Copros, whose only way to advance upwards through the strata of the corpocracy pyramid is to invest their money into manufacturing their bodies so that they possess enough beauty and allure to capture the attention and desire of upper strata men. We meet two characters that embody this behaviour: the first is the "official wife" of a "xec" (Mitchell, 351), that is, executive, the other the wife of Seer Rhee, who has a more humble position and "lacklustre career" (Mitchell, 195) as Sonmi's supervisor and jailer in the Papa Song's dinery where she works as a fabricant server.

The former is a woman that Sonmi describes in the text as "genomed for sex appeal" (Mitchell, 350), and therefore was deliberately designed and genetically engineered before birth specifically so that her body would carry the type of beauty necessary for her future function as an object of male sexual desire. The latter instead, Mrs Rhee, is shown to take a more active role in the 'production' of her beautiful, sexualised body, which she herself modifies and wields "xuding glamour" as a tool to garner influence and social credit even superior to that of her husband, thus obtaining an actually higher position in the hierarchy of corpocracy's wealthy elite (Mitchell, 194-195). Meanwhile, she still makes use of her marriage as an economic resource, by using her husband "as a dollar-udder", a stable source of money which, in turn, is invested into maintaining and furthering her personal physical capital of beauty with "dewdrugs and facescaping" (Mitchell, 194).

These two female characters in *Cloud Atlas* exemplify the 'commodification' of the body, specifically the female body, for socio-economic mobility: the manufacture of beautiful bodies becomes a fundamental element that characterises the 'elite'. According to Waters, "women's desire to refashion their bodies and invest in erotic capital" in a consumerist society is a form of "conspicuous consumption" that is no longer limited to accessories and clothes, but grows to include "eyelids, breasts and noses", the 'human' body itself (Liebelt, 14). However, Mitchell's story expands this concept to encompass all of its characters: it is not only a matter of women's bodies, as all bodies are 'commodified' and become the 'raw materials' to be manipulated in order to produce profit as objects of consumerism on a genetic and physical level in the hyper-capitalist society of Nea So Copros.

Much like Wells did in *The Time Machine*, with its satire of social Darwinism and its dystopic warning concerning the worst possible consequences of a society were an aristocratic elite exploited the 'inferior' workers, Mitchell uses his novel to critique the faults of the globalised, capitalistic society in which he lives, imagining the most extreme consequences of its injustices. In fact, money, a word substituted with 'dollar' in *An Orison of Sonmi~451,* represents the key element around which the whole of the society depicted in the story rotates around, and as noted by Rollo, in this specific story the author "asks us to examine the way in which our lives are instrumental and without agency, dictated […] by global capitalism" (5).

Mitchell describes a new form of government evolved from our current circumstances into a capital-driven dystopia, 'corpocracy', in which corporations and their executives have taken the place not only of those old aristocratic classes we found in the other novels, but also of any other traditional authorities, such as religion, for example. All other characters are beneath their control, not only enslaved clones such as Sonmi or subhuman untermensch in the slums, but also the 'humans', called 'purebloods', or, significantly, 'consumers' (a word that has become a synonym of 'person' in this context). They are divided into a hierarchy of 'strata' according to income, and live predetermined lives from preassigned birth quotas to employment and spending requirements which are dictated to them (Rollo, 5), and ultimately a mandatory euthanasium, where they are sent to die once their limited lifespan has expired.

'Wealth' is, indeed, the only factor that has any influence on the arrangement of any and all of these matters, and in this novel more than any other discussed before it represents the crucial element which determines whether one can be considered a member of the 'human elite'. It is significant for this argument the fact that in Sonmi's story it is underlined how there is one particular object whose possession specifically sets apart the 'human' consumers from

the subhuman characters, especially clones. It is a "tiny metallic egg" implanted into the tip of a consumer's left index (Mitchell, 329), which functions partly as a credit card, partly as ID and tracking device, and also as a badge to access buildings or transportation, called 'Soul' (Mitchell, 187).

Such a name is particularly noteworthy, as in the traditional humanist conception of the 'human', the presence of a soul marks a fundamental distinction between 'human' and 'animal' to the same degree a 'rational mind' does, since according to Descartes "the truth of the human, of what it means to be human, lies, that is to say, in the rational mind, or soul, which is entirely distinct from the body" (Badmington, 16).

However, Machinal argues that "in Sonmi's world, soul has a very specific meaning", as a tool of surveillance and control over human beings, but also as a conveyor of capital, a literal indicator of how "the human body and soul have entered the exchange circuit" (140). In fact, in the text there is even a specific catechism in the new 'capitalist religion' of Mitchell's hyper-consumerist society which states that "A Soul's Value is the Dollars Therein" (Mitchell, 341). Thus, something that used to be seen as the metaphysical and ontological signifier of humanity itself is reduced to a purely economic mark of distinction, meant to bear proof only according to the 'dollars therein' both of a character's belonging to 'humanity' and, if wealthy enough, to the 'elite' exercising control over the whole of Nea So Copros's society.

In fact, despite how different the society portrayed in *Cloud Atlas*'s section *An Orison of Sonmi~451* is from the other examples of faraway futures examined in the previous novels, here too emerges clearly the presence of an 'aristocratic elite' of characters who are the only ones recognised in the text and by the reader as the closest to the humanist 'human'. They are depicted as rich corporate executives and consumers rather than as a proper class or noble lineages, but nonetheless they still exhibit the key characteristics that define the 'elite': not so much whiteness, due to the context of the story, although a remnant of racial tension is implied, but certainly the importance of beauty and biological superiority thanks to bioengineering and eugenics, and that of wealth as a means of exercising absolute power over the life of other 'inferior' characters seen as subhuman.

Much like in Wells and Herbert's novels, elite control is justified as "necessary for the proper functioning of the community" (Claeys, 452), a 'greater good' which serves to excuse any injustice and exploitation and is presented as the only possible way of life for a successful future. We find an example of this in *Cloud Atlas* in a passage where the Archivist interviewing the protagonist seems unable to imagine how anyone could live outside the corpocracy system

without descending into chaos (Mitchell, 342). A similar desire to give order to or 'save' humanity is the raison d'être of other authoritarian systems of control of a group or an individual belonging to a superior elite, such as the Bene Gesserit's quest for the Kwisatz Haderach, Paul's own jihad and the Golden Path set in motion by his son Leto II in subsequent books of Herbert's *Dune* saga, or as the once-complete dominion over nature and the fellow men of the Eloi's ancestors in Wells's *The Time Machine*.

The humanist conception of the human, "a conception that may have applied, at best, to that fraction of humanity who had wealth, power, and leisure to conceptualize themselves as autonomous beings" (Schmeink, 40) thus misleadingly appears to fit all of these white, wealthy and beautiful elites, who exercise their will and intelligence through their authority in Wells's, Herbert's and Mitchell's novels. Yet, all of these examples represent instead simply instances of prevarication over oppressed and exploited populations of characters seen as 'inferior' by "an augmented, reconfigured, or even a superior" (Niu, 88) group or individual, who takes advantage of its posthuman superiority to further agendas meant to accumulate power or maintain its condition of 'elite', thus becoming 'more' or simply 'other' than human through deliberate design which in most cases ultimately leads to a 'corruption' of the 'human', as we will explore further in the next section.

Chapter Two

Artificial Degeneration

'Humanity […] had used all its abundant vitality to alter the conditions under which it lived. And now came the reaction of the altered conditions' (Wells, 42).

The elites portrayed by Wells, Herbert and Mitchell in their novels all have in common a posthuman transformation due to eugenics and bioengineering into hybrids that are not-quite-human, which is often clearly visible in the physical changes that signal their divergence from the humanist 'human', although to different degrees in each story. Moreover, these shifts from the traditional 'human' are also connected to the degeneration of these upper classes, which becomes apparent through their negative role in each novel, where their hedonistic behaviour is both cause and mark of 'corruption' and devolution, not only for these characters but for their society as well.

Firstly, in *The Time Machine* we have the Eloi, who are the descendants of a once-powerful aristocracy and, although not the main antagonists of the story, are responsible for the devolution of the 'human' into cannibal monsters and weak 'cattle'. Meanwhile in the *Dune* cycle we have the corrupted nobles of the Imperium, particularly House Harkonnen, enemies of the protagonist and villains of the first novel, who in *Dune Messiah* (1969) and *Children of Dune* (1976) are joined first by other super-evolved elites such as the Bene Gesserit and the monstrous Bene Tleilax, and later on even by members of Paul's own Atreides family who become 'monsters': his sister Alia, the Abomination, and his son Leto II, who becomes a human-Sandworm hybrid and also, purportedly to 'save humanity', a terrible tyrant. Finally, in *Cloud Atlas* we have the characters of the consumers in *An Orison of Sonmi~451*, especially the xecs (executives), who have grown stupid and live a life of pleasure much like the Eloi, cruelly careless both of the lives of those who they see as 'inferior' and also of the destruction they are wreaking on the planet.

It has been discussed at the beginning of the previous chapter how a 'pejorative' quality is assigned to the notion of difference in those binaries that establish the identity of the humanist 'human' (Braidotti, 10-11), and it is no accident that it is their 'degeneration' that marks the almost-human characters of these elites as posthuman in each novel. Indeed, in the description of these characters, particularly of their physical artificially modified bodies but expanding at times to other aspects such as their level of intelligence, empathy, and 'morally reprehensible' behaviour, we often find that it is those elements which connect them to the 'worst' side of the humanist binaries (i.e., female rather than male, animal or monster rather than human, etc.) that reveal them as posthuman characters who evolved or rather devolved away from the humanist concept of 'human'.

We have seen how in *The Time Machine* the Time Traveller sees the Eloi as the most human-like, as they are the characters closest to the humanist 'human' in the text. However, this humanist model of 'human' is "made in the image of its inventor", and therefore inextricably linked to its historical context, and centred "around a nexus of social and biographical characteristics that represent power" (Schmeink, 31). In fact, in *The Time Machine* is already predominantly present the latter of the three "dramatic steps in philosophy and science" that, according to Badmington, have changed this context and therefore the perception of 'the human': the acknowledgment that the earth revolves around the sun, which challenged anthropocentrism, Freud's theories that dismantled humans' belief in themselves as rulers of their own minds, and Darwin's and others' theories, which made humans aware that they "were not created to be masters of all creatures but are themselves animals" (Tarr and White, ix-x). Jonsson reports how Wells was one of the first literary authors to "depict the human species in a Darwinian guise, by combining his knowledge of evolutionary biology with past and present sociological ideas" (296).

This appears evident in *The Time Machine*, were the Time Traveller often ponders over what course of evolution (Wells, 40-43), and later, devolution (Wells, 83-84), could have brought the 'human' race to its current state of 'non-humanity' in both Eloi and Morlocks. Both sets of characters represent an interesting example of how the shift in the perception of the 'human' caused by the changes in historical context earlier discussed manifests in fiction. This is especially noteworthy considering how for many Victorians "humans were a perfect species; for others, they would soon be so", thus seeing Darwinian evolution as a system that would simply reaffirm human superiority, the "species' destiny", an assumption that Wells was keen to correct (Abitz, 141) by showing instead in his writing an instance of negative evolution of once-human characters into no-longer-human hybrids.

In fact, the Eloi, despite their apparent anthropomorphism, can be considered 'hybrid' characters, for they are fashioned by Wells still in compliance with the binary logic of 'human' and 'non-human' typical of humanism. Yet, the author's introduction in their genesis of the complicating factor of Darwinian evolution and adaptation to the organism's surroundings adds to them an element of posthumanism, a theory which recognizes that 'being human' is not a fixed state, but a "dynamic, multifaceted condition in continuous evolution" (Tarr and White, x), changing to adjust to the environment it is "enmeshed" with (Chen, 182).

Already on a purely physical basis, the Eloi appear 'non-human' according to humanism's binaries. Both their feminine traits and their uniformity of appearance express the 'Other' of the humanist binary logic, in fact key elements of the 'human' are maleness (Schmeink, 31) and the uniqueness of the individual (Tarr and White, ix-x). Therefore, they do not look 'human' when compared to the Traveller. Their genetic tampering, rather than leading them to attain the 'perfection' of superior super-humans, caused them to develop the 'perfect' "Dresden china prettiness" (Wells, 31) they all share. These words used by Wells to describe the Eloi's beauty are particularly poignant, for as Degenhardt notes in her analysis of European representations of Chinese porcelain from early modern Europe to the eighteenth century "the notion that Chinese porcelain embodied a fragility that signified artifice and lack of integrity was commonplace by the early eighteenth century" (132).

Therefore, such a depiction would have evoked in the minds of contemporary readers of Wells's novel in association with the Eloi the characteristics of 'fragility', 'artifice' and 'lack of integrity' since the very first moment these characters appear in the text. These pejorative qualities signal their status as 'negative' characters, as they in fact represent an example of devolution brought on by the attempt to artificially fashion a 'superior', perfect human, which resolved instead into a 'weakening' of the humanist 'human', now 'corrupted' into an artificial 'lesser' body.

Moreover, Wells also uses the word 'consumptive' in relation to the Eloi's beauty (29), another term that carries interesting connotations. In her review of *Consumptive Chic: A History of Beauty, Fashion, and Disease* by Carolyn A. Day, McAdams mentions that a "positive aesthetic representation of consumption" was associated with "idealized femininity" in Britain between 1780 and 1850 (132), a specific ideal of fragile, pale and ethereal beauty (not dissimilar in fact from the appearance of many Dresden china figurines). She also notices the development of a 'gendering' of tuberculosis, arguing that while the Romantic idea of the consumptive was a "male vision of tubercular genius" modelled on the figure of the poet John Keats, this image

changed over time, gradually giving way to a "feminized, sentimental vision of the disease" (McAdams, 133).

Here becomes apparent how through their 'consumptive beauty' the characters of the Eloi are hinted in the text to be connected to an idea of femininity as a pejorative quality in the humanist binaries, embodying weakness. However, this is not all, as the imagery surrounding consumption, and specifically tuberculosis rather than any other similar 'wasting disease' (Stephanou, 39), is also an element that links the Eloi to the 'inhuman' itself.

In fact, a key characteristic of the disease is expectorating blood, as it causes the sufferer to cough up the elastic lung fibres called tubercles (Stephanou, 39). McAdams goes on to discuss how this as well was seen as a connection between consumption and femininity, and also female sexuality, as it was thought that "excess menstrual blood could be expectorated from the lungs" (133). However, Stephanou offers a different perspective on the importance of the element of blood in the imagery surrounding consumption: she argues that through it the illness was also linked to the monstrous figure of the vampire (40). Stephanou discusses not only how the "oscillation between life and death" of the consumptive is reminiscent of the "state of undeath" typical of the vampire (44), but also how "consumption, like the vampire, drinks up the vital stream" draining its victims of their lifeblood (42). Moreover, the figure of the consumptive/vampire in Stephanou's writing becomes an hybrid of femininity and inhumanity, as the visible physical symptoms of female consumptive patients were described in the medical texts of the time as a sexualised beauty, characterised by the "blooming red" of a feverish blush and the "sickly whiteness" of pallor (Stephanou, 42), an ambiguous mismatch of life and death very similar to the 'deadly' beauty traditionally assigned to vampires (Stephanou, 43).

Of course, in Wells's *The Time Machine* the Eloi are more strongly associated with the idealised femininity and fragility of the consumptive rather than the danger and allure of the vampire, especially considering the fact that in their narrative they cover the role of 'prey' to the Morlocks' 'predator'. However, the fact that there is something that connects these characters not only to the 'undesirable' side of humanity but also to the 'inhuman' is significant in the context of a posthumanist perspective.

As White claims, "posthumanism questions the binary oppositions that humanism has established" (137), and incorporates into a 'posthumanist self' "humanism's rejected Others", among which along with animals and machines we also find monsters, women, and minorities such as the LBGT community or the colonised (149). Such beings fall outside the specific set of characteristics humanism marked off as distinctly human (White, 149), as previously

discussed, and therefore the Eloi, despite those elements that seem to distinguish them as a humanist 'human' elite, by association with them end up closer to the opposite end of the spectrum and become 'inhuman' or posthuman characters instead.

Notably, such physical traits that signal the Eloi as posthuman are the deliberate consequence of their past use of positive eugenics in an attempt to become 'superior' beings (Partington, 60), an artificial tampering not limited to their body but extended to their surroundings as well, which backfired on both accounts. In fact, to the genetic manipulation that gave the Eloi bodies with a feminine and porcelain-like appearance and weakness, is summed their Darwinian adaptation to their environment, the garden they created, which on one hand provided them a life of "unchanging leisure" (Partington, 60-61), but on the other hand caused their physical degeneration into a feeble being due to a lack of struggle for survival (Philmus, 533). In this respect as well it is significant how Wells mentioned the word 'consumptive' in association with the Eloi, for McAdams discusses how the cause of consumption was identified for the middle and upper classes in an "indolent and inactive lifestyle", and how by the late eighteenth century "the disease was understood to be a consequence of civilization and refinement" (133).

Orwell as well points out how a 'soft' life weakens 'Man' even beyond a purely physical level, accusing hedonism of ignoring "the value of work as a creative activity", and, as a consequence, of making 'Man' less human by "weakening his consciousness, dulling his curiosity, and, in general, driving him nearer to the animals" (Claeys, 437-438). This appears evident in the characters of the Eloi, in fact there is another aspect of the humanist binary logic that applies to them concerning their intellect and behaviour: a lack of intelligence and rationality defines the 'Other' in accordance with Badmington's argument on the importance of reason for the 'human' (16), as does, to an extent, 'unfeeling' behaviour in opposition to the "self-regulating ethical behaviour" (Braidotti, 10-11) of the 'human'.

Thus, the Time Traveller is startled by the mental simplicity of the Eloi since their very first interaction on his arrival: "were these creatures fools?" (Wells, 31), he wonders, and later defines them as being "on the intellectual level of one of our five-year-old children" (Wells, 32). Braidotti pinpoints language as a "signifier of mastery" in the humanist 'human' (Matlock, 98), and Youngs argues that the Eloi's regression "is also apparent from their language" (115), with its simplicity of short sentences and absence of abstract terms (Wells, 52). Moreover, the Eloi also appear to be lacking in empathy and 'ethical behaviour', as noted by the Time Traveller in the passage in which he describes how he rescued Weena from drowning:

> It will give you an idea, therefore, of the strange deficiency in these creatures, when I tell you that none made the slightest attempt to rescue the weakly crying little thing which was drowning before their eyes (Wells, 56).

This scene was adapted with particular chilling efficacy in the 1960 movie adaptation of *The Time Machine*, with the other Eloi casually lounging on rocks in the river and indifferently watching as Weena attempts to reach for them while she drowns, even their expression completely devoid of feeling (*TTM* 1960, 00:52:17-00:52:26). Weena herself, in the film as in the novel, represents the only exception, as the single Eloi character who does show a more 'sentimental' side with her affection for the Time Traveller, which is, however, 'childlike' and connected to her femininity, and thus still 'irrational' and in conflict with the humanist definition of the 'human'.

Therefore, much like the Morlocks, the Eloi too are no longer 'human': their 'Other' traits that set them aside from the Time Traveller, both in terms of their artificially modified bodies and of their 'degenerated' behaviour and intellect, have blurred the demarcation lines between humanism's 'human' and 'non-human' categories, showing how they have evolved, or rather devolved, into hybrids that can be considered posthuman. In fact, as argued by White, while "humanism established boundaries between human and nonhuman", posthumanism challenges these boundaries, incorporating beings that do not display these characteristics and are therefore defined 'nonhuman' into "the assemblage that constitutes the posthumanist self" (149), allowing for the birth of hybrids such as Wells's characters.

While in *The Time Machine* the supposedly 'human' elite represented by the Eloi is eventually looked upon by the Time Traveller, and by extension, the reader, as an example of how humanity has 'decayed' and become lesser than it once was, in Frank Herbert's *Dune* the situation is quite different. We have discussed previously how in Herbert's novel the supposedly 'human' elites, despite possessing those key characteristics that should assimilate them to the humanist conception of the 'human', have actually significantly modified themselves both in terms of physical bodies and in terms of mind/consciousness in their attempt to reach a 'perfect' superhuman status. However, while Wells's Eloi are all uniformly artificially changed and subsequently 'devolved' in the same manner, in the *Dune* saga we see more nuance among the various elites and their characters, who are different both in terms of examples of hybridity and in levels of degeneration from the humanist 'human'.

In *Dune*, for example, we have the characters of Paul himself, the Bene Gesserit ladies, and members of other noble Houses, particularly Paul's enemies, the Harkonnens. In the first

half of this chapter, we have already described how all of these characters are the result of both the Bene Gesserit's eugenic breeding program and of specialised training meant to 'raise' these elites to superhuman status. While in the novel this 'superiority' marks them as 'human', for the reader it is also enough to reveal them as posthuman characters. However, some of them, specifically those characters we see aligned with 'good' in the story, such as the protagonist and his allies, physically appear perfectly 'human', and because of this the reader is led to perceive them as such and sympathise with them. Meanwhile, the 'villains' are instead depicted as much more 'inhuman' and 'monstrous' to signal their negative role in the narrative, and as such are perceived as disgusting or unsettling.

In fact, Paul and his mother Jessica, notably much like the other Bene Gesserit ladies in the novel, are described as beautiful people, whose bodies physically match the traditional 'human' appearance. It is only as Jessica and Paul join the Fremen that they develop the 'inhuman' mark of the blue-within-blue eyes without any white in them (Herbert, 16), mark of spice use as they are a consequence of "saturation of the blood" with the drug (Herbert, 42), thus becoming visibly not-quite-human. Yet, beyond the purely physical, they too appear immediately 'inhuman' to the reader, due to their superhuman mental powers. A mind superior to that of animals or 'subhumans', as we have seen, is one of the key characteristics that identify the humanist 'human', and as a consequence, when that element appears to have changed or to have been modified, it signals a troubling difference or deviation from the 'norm'. If in *The Time Machine* a changed mental capacity was a negative posthuman trait, sign of the Eloi's devolution, in *Dune* it represents both an empowering and a corrupting 'inner evolution' for the characters of the Bene Gesserit, and, by extension, Paul and his descendants who inherit the same training.

In fact, the Bene Gesserit acolytes receive training that brings them to develop not only superior skills in martial arts, persuasion and seduction, but also outright superhuman powers such as lie detection and mind control through a "psychological trick they deem 'the Voice', […] a frighteningly irresistible mental suggestion" (Mack, 39). Brigg notes how this mental 'enhancement' is "helped along and heightened by the use of ingesting spice, liquid or in powder, which in particular allows women a state of all-knowing transcendence between conscious memory from their genetic ancestors" (195). Moreover, such mental powers are not limited to the realm of the psychological or of consciousness. They are grounded in real effects on the very fabric of the body, as "prana-bindu" control over all of one's nerves and muscles (Herbert, 557, 569) or the ability to change chemicals at molecular level in one's own body (Herbert, 381), and even the transcendent memory-awareness of Bene Gesserit Reverend

Mothers is anchored to the genes in their bodies, inherited by their ancestors (Herbert, 382-385).

Such "development of human physiological and psychological potential" (DiTommaso, 317) applies to Paul as well. He is the product of a double 'shaping' by the Bene Gesserit, both as a product of their breeding program and as the subject of his mother's teachings and training (DiTommaso, 319). However, in him such teachings and genetic heritage manifest even greater power: on one hand, he becomes a Mentat, whose mind is able to function at a superior level, much like a computer "dealing with data, evaluating, computing, submitting answers" (Herbert, 209). On the other hand, Paul goes beyond the memory-transcendence of Bene Gesserit Reverend Mothers, as when he is exposed to high quantities of spice on Arrakis his mind climbs "another notch in awareness" (Herbert, 208) and he reaches prescience, experiencing visions of possible futures, "waking dreams" (Herbert, 211).

Over the course of *Dune*, Paul becomes the ultimate posthuman character of the novel: in him accumulate several instances of different types of hybridity that blur the line between the humanist binaries of the traditional 'human', such as human/machine, human/monster, male/female. For example, in Herbert's universe, Mentats are 'human computers', described as "thinking machines […] encased in a human body" (Herbert, 19). The fact that Paul is one makes him a strange sort of cyborg, a posthuman hybrid of man and machine not in terms of the body but in terms of his mind, which acquires the speed, capacity for data and cold calculation of a machine. Then, by joining the "wild", "fey" (Herbert, 96) Fremen, those characters that in the novel have the role of the monstrous 'Other', the character of Paul crosses another humanist boundary, that between 'human' and 'monster', and in fact acquires his only visible mark of Otherness, the all-blue eyes. Finally, in realising his potential as Kwisatz Haderach by undergoing the trial of spice trance and 'transcending' into a superior level of awareness by accessing his genetic memory (Herbert, 478-479) in the fashion of Bene Gesserit Reverend Mothers, Paul becomes himself "a male Bene Gesserit Reverend Mother" (Palumbo, 453). Thus his character blurs the line between the sexes, "uniting within himself the male/female polarity" (Palumbo, 453) and becoming "the fulcrum" between male and female nature (Herbert, 481), yet another example of hybridity.

These metamorphoses of his character in the text are accompanied by an ever-increasing rise in Paul's status and power, from ducal heir to Fremen leader and messiah to god-like Emperor founder of his own religious cult (Herbert, 116) at the end of *Dune*, tracing what should be a triumphant journey of the story's hero to his final apotheosis. However, Paul

himself early in the novel is the first to recognise how the Bene Gesserit breeding program and training shaped him into what he became, recognising in it an element of corruption which threatens to twist him into a monster, a "freak" (Herbert, 209).

In fact, both Paul and the Bene Gesserit characters often are perceived as ambiguous by other characters, "disturbing" (Herbert, 347) despite their good intentions for humanity: Mack notes how in the novel the Bene Gesserit ladies are constantly called "witches" (43), both by enemies (Herbert, 180) and allies (Herbert, 223). Such disquiet around the Bene Gesserit society is given physical expression in David Lynch's 1984 movie adaptation of Herbert's work, particularly through the character of the main Bene Gesserit antagonist of Paul, Reverend Mother Helen Gaius Mohiam, portrayed "as a biologically sexless individual", with "her female form hidden under flowing black robes" and "no hair or eyebrows, leaving few facial features to indicate that she is indeed a female" (Jonze).

Therefore, she appears 'unnatural' from her very first appearance at the beginning of the movie, becoming the visible proof that the Bene Gesserit themselves, despite their mission of 'sifting for humans', are no longer easily identified as 'human', at least not according to the humanist traditional parameters. As she emerges more and more as Paul's opponent towards the end of the movie, she also begins to gradually display "characteristics relatable to that of the monstrous-feminine, the form of evil personified in the embodiment of woman" (Jonze). Thus, her character demonstrates how the Bene Gesserit training does present a potential for degeneration into a form of negative hybridity, according to the 'undesirable' elements of the humanist binaries: that of the woman-as-monster. Even the Fremen are intrigued but also unnerved by the Bene Gesserit's skills, which they call "weirding way" (Herbert, 303), as well as by Paul, their saviour who carries however "something frightening" in himself (Herbert, 338).

Such potential for 'degeneration' in Paul's character emerges in the second and third books of the *Dune* saga, *Dune Messiah* and *Children of Dune*. In them, he becomes a destructive force, in the first book towards the rest of the universe as the tyrant Emperor (Herbert, 46) who unleashes the "religious butchery" (Herbert, 37) of the jihad and "even worse further horrors" (Herbert, 65). Later, in the second, after losing his eyes (Herbert, 213) and exiling himself into the desert as Fremen custom demands (Herbert, 215), he turns against the changes to the Fremen way of life (Herbert, 41) he himself initiated and also against the religion he shaped (Herbert, 233).

Despite Paul's 'corruption', his character is still recognisably an example of the archetypal hero in the *Dune* saga (Palumbo, 436) and in the first novel in particular. This emerges clearly from the text, where both he and his father are depicted as positive characters endowed with noble virtues:

> *This Duke was concerned more over the men than he was over the spice. He risked his own life and that of his son to save the men* (Herbert, 136).
>
> *My son has the Atreides sincerity,* Jessica thought, *He has that tremendous, almost naïve honour* (Herbert, 240).

In stark contrast, the other characters belonging to the aristocracy appear 'monstrous', such as the previous Emperor Shaddam IV, described as "a beast" (Herbert, 35), and above all the Atreides' sworn enemies, the Harkonnens, and their patriarch, the Baron.

From his first appearance in the novel, every detail about the Baron Vladimir Harkonnen signals not only his 'evilness' but also his status as a most 'inhuman' monster, by connecting him to numerous negative elements of the humanist binaries defining the 'human'. His very name "is redolent of Russian imperialism" (Collins), immediately identifying him as an enemy in a text written by an American author during the Cold War, and the way he is physically described only compounds the readers' hostility towards the character, adding revulsion to it:

> As [the Baron] emerged from the shadows, his figure took on dimension – grossly and immensely fat. And with subtle bulges beneath folds of his dark robes to reveal that all this fat was sustained partly by portable suspensors harnessed to his flesh (Herbert, 23).

A similar description highlighting the ugliness of the character is also given for another major member of the Harkonnen House, the Baron's nephew Rabban:

> The man […] was low built, gross of face and body, with the Harkonnen paternal line's narrow-set eyes and bulge of shoulders. There was yet some rigidity in his fat, but it was obvious to the eye that he'd come one day to the portable suspensors for carrying his excess weight (Herbert, 252).

As we discussed before, beauty is a key element in the readers' perception of characters as 'human'. Consequently, here the emphasis on ugliness and disgust marks the Harkonnen characters as 'monsters' and dehumanises them, linking them not only to animals – 'Beast' Rabban (Herbert, 39), the Baron defined a "gross and dangerous pig" (Herbert, 402) – but also to a negative interpretation of the cyborg through their use of machines to support their bodies. In fact, as noted by Dinello, the figure of the cyborg is often depicted as "monstrous", reflecting

a "pervasive anxiety that our technological lust will propagate grotesquely deformed, superhuman techno-creatures" (12), and this is precisely the case in *Dune*, where the villainous Baron is both a member of the 'superhuman' aristocracy and a malevolent, threatening cyborg.

Even the element of 'lust', albeit in this instance in a literal rather than technological sense, is a significant trait of his character. Much like in *The Time Machine* the Eloi 'degenerated' into a 'lesser' posthuman hybrid due in part to their hedonism, in Herbert's work too hedonism is shown to be not only a corrupting force, but also a symptom of monstrousness and inhumanity. In the character of the villainous Baron Harkonnen, in fact, two different forms of hedonism are showcased as proof of his 'degeneration'. The first is the Baron's gluttony. Not only he is repeatedly depicted in the text as enormously fat, thus suggesting his excessive indulging in food, but he is also connected to an unsettling predatory idea of hunger which emerges from the words he uses to describe his personal philosophy of life: "'You must be the carnivore […] You must be always hungry and thirsty.' The Baron caressed his bulges beneath the suspensors. 'Like me.'" (Herbert, 257). The sentence "I am hungry" (Herbert, 23) becomes almost the character's 'catchphrase' over the course of the novel.

However, his insatiable appetite is not limited to food: the Baron also displays predatory behaviour in his sexuality. This latter element of the Baron's characterisation is particularly significant, as he is explicitly portrayed as homosexual, with a specific interest in young boys. In fact, he expresses sexual interest in the text towards Paul himself, remarking that "the lad has such a sweet young body" (Herbert, 20), and he appears to engage in sexual relations with "slave boys" multiple times throughout the story (Herbert, 200, 394). Such a negative depiction of queerness in the novel identifies the Baron as the "rejected Other" in a humanist perspective, as one of the humanist binaries is that of heterosexual/not heterosexual (Tarr and White, xv).

In the 1984 movie adaptation of *Dune*, directed by David Lynch, another layer of meaning is added to the Baron's homosexuality: in fact, there he is represented as "a sweaty, obese man with grotesque boils and warts covering one side of his face" (Jonze) and daintily painted fingernails and toes, outright assaulting a young, beautiful servant boy and killing him in a disturbing scene rife with sexual implications in the actors' expressions and body language (*D* 1984, 00:36:06-00:36:22). According to Jonze, this is due to the fact that "the first recognised case of AIDS reported in 1981" influenced the film's aesthetics "with the public concern of contagion" (Jonze) connected specifically with homosexuality. Carrasco as well notes how "Harkonnens are constantly linked to the filth and their relationships stand for social threats such as AIDS and herpes disease" (Carrasco) in Lynch's film, once again presenting

these characters not only as disgusting and threatening, but also as dangerous because they may be able to spread their 'degeneration'.

An example of the Baron's ability to 'contaminate' other characters with his own monstrosity is his nephew, Feyd-Rautha. He is also arguably an object of the Baron's sexual desire, who thinks of him in disturbingly ambiguous terms, as "*a lovely boy*" with "*such a lovely body*" (Herbert, 251, 258). Thus, the Baron's character appears even more 'monstrous' as he infringes upon the incest taboo, seen as "fundamental and classic" in anthropology (Meigs and Barlow, 38) as one of the major taboos drawing a line between the 'human' and 'inhuman'. However, what is most notable about Feyd-Rautha's character is that he alone among the named Harkonnens is not described as having an ugly, 'monstrous' appearance, and appears instead beautiful and conspicuously not fat (Herbert, 346). This is echoed in his portrayal in the 1984 adaptation of *Dune*, were he is played by Sting and appears as a handsome, fit young man (*D* 1984, 01:32:44), although less so in the upcoming second part of Denis Villeneuve's adaptation of the novel, as in its official trailer his character appears to be just as 'monstrous', pale and bald (although not fat) as his uncle and 'Beast' Rabban (Warner Bros. Pictures, 0:41, 0:51, 1:51-1:53). Yet, in Herbert's book observer characters are careful to inform the reader that even though Feyd-Rautha does not share his family's evil-signalling ugliness, he is still a "*young monster*" (Herbert, 395) and due to his uncle's corrupting influence "could well grow to be worse" (Herbert, 364) than even him.

The ambiguity of Feyd-Rautha's character, who indeed represents a more subtle example of monster/human hybrid in contrast to the Baron, is nonetheless extended to all of the Harkonnen House and to the Atreides themselves. Paul himself argues how the "Harkonnen animals" are "beings with human shape" (Herbert, 519), and further complicates their status and by extension that of his own family during a dialogue with his mother in which he remarks upon the difficulty of drawing a clear boundary between those who can be identified as 'human', albeit "twisted", and those who cannot:

> She said: 'You shouldn't refer to people as humans without –'
>
> 'Don't be so sure you know where to draw the line,' he said. '[…] And, mother mine, there's a thing you don't know and should – *we* are Harkonnens' (Herbert, 212).

Jessica is in fact "the Baron's own daughter" (Herbert, 213), which implies the fact that Paul himself, his sister, and his descendants are all potentially 'tainted' by the degeneration of the Harkonnen bloodline, furthering their condition of posthuman hybrids by connecting them directly to the most obviously 'monstrous' character in the novel. Indeed, we will see how the

Baron's corruption haunts the Atreides well after his death in *Dune*'s sequels, beginning with how he has an active role in the corruption of Paul's sister, Alia, in *Children of Dune*.

The character of Alia Atreides is another interesting example of aristocratic not-quite-human hybrid in *Dune*, as she represents 'one step further' in both posthuman evolution and degeneration compared to the character of Paul. In fact, like him she too is the result of the Bene Gesserit breeding program, thus already qualifying as a posthuman character due to the artificial manipulation of her genetic heritage. However, it is soon stated in the novel that between the two siblings there is a "mysterious difference" (Herbert, 59), caused by the spice trance Jessica underwent when she was pregnant with her, which marks her as more 'inhuman' than her brother straight from birth.

We have already analysed how the training of Bene Gesserit acolytes gives them both superhuman power and an unsettling sense of 'difference', a potential for corruption into monstrosity. With the character of Alia we discover what shape Bene Gesserit degeneration can take: when Jessica undergoes the transmutation into a Reverend Mother thanks to the spice, her unborn daughter undergoes that same change alongside her (Herbert, 384). Thus, she becomes what the Bene Gesserit call a 'pre-born', possessing from the womb "an otherworldly maturity and the full abilities of a Bene Gesserit Reverend Mother, including Voice, telepathy, and the fabled 'Other Memory' that grants full access to one's ancestral memories" (Mack, 57), essentially a child Reverend Mother in opposition to Paul's male Reverend Mother.

Alia's description reveals the ambiguity of her character as a strange hybrid of adult and child, as she, "little more than a toddler", nonetheless carries herself "with a calmness and awareness beyond her years" (Herbert, 425). Her "strangeness" marks her as a 'rejected Other' among the Fremen community, where she is seen as a "witch" who needs to be exorcised (Herbert, 417), and she, like Paul, appears fully aware of her difference and 'monstrosity', using even the same word, "freak", to describe herself (Herbert, 428).

It is interesting to note how her 'otherness', which unsettles so the adults around her, is portrayed in the novel as connected to sexuality:

> Adults were shocked to find her laughing at a subtle play of words between the sexes. Or they'd catch themselves listening to her half-lisping voice, still blurred as it was by an unformed soft palate, and discover in her words sly remarks that could only be based on experiences no two-year-old had ever encountered (Herbert, 425).

Later, when she reaches adolescence in *Dune Messiah*, Alia is depicted as "beautiful" but she remains an intensely sexually charged character, whose sexuality and femininity are seen as ambiguous and dangerous, conveying both "the first blazing innocence of youth" (58) and the wantonness of "the virgin-harlot – witty, vulgar, cruel, as destructive in her whims as a coriolis storm" (Herbert, 95, 237). This is reminiscent of how the predatory homosexuality of the Baron signals his 'inhumanity' and his status as a villain, and it is particularly significant as it represents a foreshadowing of the 'merging' of these two characters that will occur in *Children of Dune*.

In fact, while the pre-born are already unsettling and 'inhuman', the Bene Gesserit report how their condition can degenerate further, stating that "it is with reason and terrible experience that [they] call the pre-born Abomination. For who knows what lost and damned persona out of our evil past may take over the living flesh?" (Herbert, 9). An Abomination is what the Bene Gesserit call the being resulting from when "an acolyte surrenders her consciousness to the voice of an ancestor" (Mack, 57). This 'possession' is precisely what happens to Alia in *Children of Dune,* as she struggles more and more with her "inner multitude" (Herbert, 56), that is, the memory-identities of her ancestors and past Reverend Mothers 'awakened' into her consciousness by her mother's spice trance (Herbert, 426). Among them is the Baron Harkonnen, and it is him that "eventually supplants Alia's persona and usurps her body" (Palumbo, 72), exerting upon her his corrupting influence and 'contaminating' both her behaviour and her body, twisting Alia into something closer to himself.

Such 'degeneration' appears obvious first in how differently Alia acts in her role as Regent (Herbert, 11) after Paul's supposed death: under the Baron's thrall, she replaces him as tyrannical ruler, and begins to desire the throne of the Imperium "for herself" or at least for "the thing she has become" (Herbert, 97). In fact, in *Dune* to become Emperor was precisely one of the Baron Harkonnen's secret ambitions (Herbert, 352). Moreover, his warping influence extends to her sexuality as well, as he not only demands that she let him participate in "pleasures" such as sex with her lover (Herbert, 61), but he also pushes her to acquire new young men as paramours (Herbert, 62), in an echo of his own predatory hedonism.

Finally, the last element of Alia's transformation into a 'monstrous' amalgam of herself and the Baron is the metamorphosis of her very body: other characters note the "hint of self-indulgence" in Alia's mouth, and the "subtle gene-markers on Alia's face which betrayed the presence of her maternal grandfather" (Herbert, 11), that is, the Baron Harkonnen. Another passage tells the reader how "plumpness" had begun "to bulge her body" (Herbert, 345), where

the use of the word ‘bulge’ is particularly significant as it is immediately associated with the Baron’s own ‘bulging’ fat body.

Thus, the character of Alia, already born as a posthuman hybrid due to being both a child Reverend Mother and pre-born, is gradually corrupted into a being more and more distant from the humanist definition of ‘human’, becoming an hybrid combining the male/female binary, much like Paul, but also the human/monster binary in a much more extreme fashion. Palumbo notes how the “theme of metamorphosis into the other” is a predominant one in the *Dune* saga (73), and while we have seen that both Paul and Alia are examples of such metamorphosis, blurring the line between the sexes, ages, humanity and monstrosity, the most striking figure that embodies this theme in the saga is Paul’s son, Leto II.

Leto II and his twin sister Ghanima, who appear in *Children of Dune*, are another example of posthuman hybrids, as products of the Bene Gesserit breeding program and carrying the Kwisatz Haderach Atreides genes, like their father, and especially like their aunt Alia, as they too are pre-born and face the risk of degenerating into Abomination:

> They may be children in flesh, but they were ancient in experience, born with a totality of genetic memory, a terrifying awareness which set their Aunt Alia and themselves apart from all other living humans (Herbert, 5).

They appear even more ‘inhuman’ than Alia did in her childhood, for beside their Bene Gesserit skills and pre-born knowledge, they demonstrate a mastery of their “inner world” much superior to hers (Herbert, 70). They are deeply enmeshed with their ‘inner multitude’ of “persona-memories”, to the point that they are able to slip into one at will, for example embodying their parents for a certain amount of time (Herbert, 70-71), ‘becoming’ them and thus a strange mixture of ‘adult’ and ‘child’, ‘living’ and ‘dead’, before coming back to themselves avoiding possession (Herbert, 75). It is precisely this non-resistance, the fact that they accept they “are already amalgams of those lives within” (Herbert, 80), that allows Leto II and Ghanima to escape Alia’s fate of degeneration into an Abomination (Herbert, 49).

Another element revealing the twins’ ambiguity when it comes to whether they can be considered traditionally ‘human’ is how they are also enmeshed with each other: on one hand, the text describes “the singleness of their twinned lives” (Herbert, 30), suggesting that they are “the split reflection of an androgynous being” (Zeender, 227). On the other, a ‘darker’ side of their connection is the constant presence of “incestuous implications” (Zeender, 227), which, as we have seen, violates a major human taboo. In fact, Zeender notes both how “the Bene Gesserit toys with the idea of mating the Atreides offspring in order to fulfil their genetic

scheme" and how the pre-born knowledge possessed by Leto II and Ghanima allows them to "relive in words, in thoughts as well as in sensations the romance of Paul and Chani", their parents, and even that of their grandparents (227). Moreover, at the end of *Children of Dune* the twins officially marry by order of now-Emperor Leto II (Herbert, 419), although they will not consummate their union and will instead stand "back to back, each looking outward from the other to protect the one thing which [they] have always been" (Herbert, 420).

Yet, the character of Leto II specifically ventures even further away from a humanist understanding of the 'human' than his father, aunt, or sister, and eventually comes to unite in himself an exceptional variety of examples of 'metamorphosis into the Other', becoming the ultimate posthuman character in the *Dune* saga. We have explored how his Atreides and Bene Gesserit heritage, combined with his condition as pre-born and his complex relationship with his sister, already mark him as an 'inhuman' hybrid character whose existence blurs the line separating traditional humanist binaries such as those between male and female, child and adult, living and dead, due to the 'inner world' of memory-identities contained in his genetic memory.

However, such 'inner multitude' has on Leto II an even deeper and more fascinating effect than it does on the other pre-born characters. While Alia is ultimately overcome by the profusion of her memory-personas, allowing herself to be possessed by one of them, and Ghanima manages to shield herself from them, retaining her individuality, Leto II undergoes a different process, and becomes something new, not quite an Abomination, not quite a "singular being", but instead a multiple being, a "community" (Herbert, 384). At the end of *Children of Dune*, it is Leto himself who explains in his own words the process and the result of his transformation:

> She asked me if I were Abomination […] Ghanima escaped this, but I did not. I was forced to balance the inner lives under the pressure of excessive melange. I had to seek the active cooperation of those aroused lives within me. Doing this, I avoided the most malignant and chose a dominant helper thrust upon me by the inner awareness which was my father. I am not, in truth, my father or this helper. Then again, I am not the Second Leto. […] I'm a community dominated by one who was ancient and surpassingly powerful (Herbert, 417).

Zeender notes how Leto II experiences the self as "multitude of others at the same time" (227), and she observes as well that there is a "discrepancy between his physical being and his psyche", of course due to the fact that he is an ancient, multiple consciousness in a child's body (Zeender, 227), but also due to a form of 'dissociation' of Leto's self/selves from his body, echoed over and over throughout the novel in the character's refrain of "My skin is not my

own" (229). Leto II's disjointed and multiple selfhood-consciousness makes him a particularly interesting character in terms of posthuman hybridity.

In fact, as we have previously discussed, Badmington counts among the fundamental 'steps' that have challenged the humanist perception of the 'human' Freud's theories, which revealed how the 'human' is not the 'ruler' of his own mind (Tarr and White, ix-x). And this is precisely the case for the character of Leto, who is in fact not only not the one in control of his own consciousness, but cannot even be clearly identified as a singular consciousness/identity, marking him as distinctly 'inhuman' according to the traditional parameters of humanism, and posthuman when considering a changed, more complex philosophical context.

Moreover, Leto II's refrain of "*My skin is not my own*" (Herbert, 335) reveals his 'inhumanity' to the readers in a much more literal sense, for Leto's 'skin' by the end of *Children of Dune* truly is 'not his own'. Instead, it is the skin of the sandtrout, that is, the larval stage of Arrakis's sandworm, that cover his body after he "merges symbiotically" with them (Palumbo, 435):

> The sandtrout squirmed on his hand, elongating, stretching. […] He felt the sandtrout becoming thin, covering more and more of his hand. No sandtrout had ever before encountered a hand such as this one, every cell supersaturated with spice […] Delicately Leto adjusted his enzyme balance, drawing on the illuminated sureness he'd gained in spice trance. The knowledge from those uncounted lifetimes which blended themselves within him provided the certainty through which he chose the precise adjustments […] And at the same time he blended himself with the sandtrout, feeding on it, feeding it, learning it […] as he lured it into the role of a skin symbiote (Herbert, 339).

Out of this symbiotic relationship Leto II gains "invulnerability, great longevity, and inhuman speed and strength", but he also initiating a "gradual metamorphosis" that will ultimately turn him into a sandworm (Palumbo, 435-436), albeit one that retains distinctly human features (his face) thus making his character an authentic hybrid or "symbiosis" of man and beast (Palumbo, 453-454). As Leto "transcends his humanity" via his metamorphosis into a Man-Worm, he not only becomes an 'inhuman' being in that he erases the line separating the 'human' from the 'animal' – non-human par excellence according to the humanist binaries, but he also "fuses the polarities of good and evil" (Palumbo, 454) and complicates the binary separating the 'human' from the 'monster'.

Zeender describes how in the fourth book of the *Dune* saga *God Emperor of Dune* (1981) Leto II's metamorphosis begun in *Children of Dune* has fully concluded, and "he has

become […] an antediluvian monster weighing five tons and being five metres long", who calls himself a 'holy obscenity' or 'the ultimate alien' (231). He is also referred to in her article as a "terrible human-headed dragon" (Zeender, 230), "Shaitan", "Behemoth" and "Leviathan" (Zeender, 231), all terms that connect his figure directly to that of the Devil, "the greatest monster of all" (Claeys, 58), also often represented as a dragon and associated to the biblical figures of the Behemoth and Leviathan (Claeys, 84). Through the monstrous figure of the Leviathan specifically Leto is also linked to the Baron Harkonnen, to whom in *Dune* is referred this verse: "*And I stood upon the sand of the sea and saw a beast rise up out of the sea*" (Herbert, 195), which is a direct quotation from the Bible, Revelations 13:1-10, where the 'beast' is symbolic yet "the underlying mythological basis for this creature comes from the Leviathan theme" (Wallace, 66-67). And in fact, Palumbo remarks upon how Leto II by the end of his character arc in *God Emperor of Dune* has become a terrible tyrant, "more gross and evil that any Baron Harkonnen ever dreamed of being", evolving into a "monstrous physical parody" of the Baron, with his 'gross' bulk held aloft by 'suspensors' precisely like him (72).

Yet, again much like the Baron, Leto II remains a hybrid character, as he is never completely stripped of his humanity despite his unprecedented 'degeneration'. While he declares himself "no longer human" (Herbert, 418) after merging with the sandtrout, his sister Ghanima's words reveal the ambiguity of his new 'inhumanity' by grieving his 'lost humanity' and at the same time recognising the richness of the collective 'human' experience of all the memory-personas Leto-as-community contains in himself (Palumbo, 72). Even at his most monstrous, in *God Emperor of Dune*, "Leto II's character remains profoundly human" (Zeender, 226) in his loneliness and anguish caused by his decision to embrace such a drastic metamorphosis and the role of tyrant to "oppress humanity for three millennia in order finally to liberate it" (Palumbo, 437), serving like his father Paul as a sort of 'posthuman Messiah' who will guide humanity in its evolution for a better future.

To conclude this analysis of the most interesting examples of posthuman hybrid characters we encounter among the seemingly 'human' elites in the *Dune* saga, there is one last group of characters that is particularly noteworthy, as they represent an anomaly in the saga's universe: the "scientific amoralists" of the Bene Tleilax (Herbert, 5). They appear in the second novel of the saga, *Dune Messiah*, as the members of a society which, much like the Bene Gesserit, operates in the shadows according to its own interests and goals, while forging alliances and providing services to other elites, such as the Bene Gesserit, or figures of authority, such as Paul himself.

As we have seen, any and all of the posthuman characters of the *Dune* saga (including the 'savage' Fremen) have evolved or degenerated in a distinctively organic manner: through hereditary genes due to controlled breeding, the use of natural drugs (spice) or the training and mutation of the body. At most, one could talk about characters who are cyborg-adjacent, such as the Baron with his 'suspensors' or the Fremen with their stillsuits, as we will see in the third chapter. What sets the Tleilaxu characters apart from all the others is the fact that they represent a posthuman hybridity deliberately engineered through the use of technology and machines. As noted by Palumbo, the Tleilaxu "genetically engineer themselves" (76) using their mastery of forbidden technology, and moreover also create and sell "'creatures' they produce artificially custom-made for a purpose" (78), such as the Face-Dancers and gholas. The former represent interesting hybrids as "their genetically-engineered musculature enables them to mimic the appearance of any humanoid" (Palumbo, 75), thus destabilising the very concept of a singular and clear-cut identity typical of a humanist perception of the 'human'. But it is the latter creation of the Tleilaxu, the ghola, that is particularly fascinating from a posthumanist perspective, as it is the *Dune* saga's version of a key posthuman figure: the clone.

In fact, the Tleilaxu ghola is "a being reconstructed from the dead flesh of the original […], a product of the axolotl tanks" (Herbert, 74), equipped with the original's abilities and knowledge (Herbert, 74) due to the "pattern set by the genes" (Herbert, 77), yet not provided with the original's memory and therefore identity, except for rare cases in which they are forcefully reawakened by intense shock. Thus, they represent a strange sort of hybrid, whose body is artificially produced as a commodity, an 'inhuman' object or weapon, and yet at the same time their "flesh is human" (Herbert, 296), and moreover as an unnatural, "revenant" being made up of "two beings […] side by side" in the same flesh (Herbert, 84), dead and yet alive.

The Tleilaxu, who use their technological knowledge of forbidden machines and biopower to bioengineer both themselves and custom-made not-quite-human 'products' to sell and trade for influence and wealth, are a precursor of the supposedly 'human' elite we will see in the last novel examined in this thesis, the xecs and consumers of Nea So Copros in Mitchell's *Cloud Atlas*.

There is little to say, comparatively, about these so called 'purebloods', concerning the clues that allow the reader to identify them as posthuman hybrids, especially in their physical appearance. Once more, we have discussed in the first chapter how they are just as 'artificial'

as the clones in terms of genetically engineered or modified bodies 'made to order' according to the role they are supposed to play in a strictly hierarchic society.

In addition, their obsession with beauty causes these characters to use chemicals and constantly undergo cosmetic surgeries in order to follow the latest fashion, which can dictate also quite unusual not exactly 'human' traits, such as a "froggish mouth" (Mitchell, 212) or "azure teeth" (Mitchell, 218). Such a continuous 'customisation' of the consumers' bodies in *An Orison of Sonmi~451* leads to a somewhat fluid appearance, never quite settled but ever-changing (Mitchell, 218), that clashes with the traditional defined identity of the humanist 'human' and leads the readers to perceive them as 'different' from themselves. Even in the novel's 2012 movie adaptation, the fact that the white actors portraying the main officially 'human' characters wore heavy makeup in order to appear somewhat 'Asian' has the effect of giving them an 'uncanny' appearance instead, as they "look nothing" like the actual Asian actors playing the clones (Rich).

Further proof of how the consumers' artificiality distanced them from 'humanity' as the readers understand it is the passage in the novel depicting the encounter of Sonmi with a small enclave of people who choose a different lifestyle, antithetic to that of the consumers': they live as 'squatters' in an abandoned Buddhist abbey, and in Sonmi's words they remind her of people "from Cavendish's time" (Mitchell, 346). This is significant, as Cavendish's story is that which precedes *An Orison of Sonmi~451* in *Cloud Atlas*'s mise en abyme structure, which is set in contemporary (2004, per the novel's publishing date) England, thus the readers can easily recognise themselves in its characters, who therefore have a similar effect to that of the Time Traveller in *The Time Machine*. Ultimately, however, despite a feeling of unfamiliarity, at least on a physical level, in both novel and film adaptation the purebloods simply appear 'strange', but not quite 'inhuman', unlike their counterparts in *The Time Machine* or *Dune*.

As we have seen in both Wells's and Herbert's works, aside from physical differences, it is often the behaviour of the so-called 'human' elites that reveals them as Other and often 'monstrous'. This element is particularly noteworthy in Mitchell's *Cloud Atlas*, as it represents the pivotal clue that firmly identifies Nea So Copros's purebloods as 'inhuman'. Firstly, these characters, much like the Eloi and the Baron Harkonnen, carry the stigma of degeneration caused by hedonism, in this case in the form of the all-encompassing, obsessive consumerism dictated by their hyper-capitalist society. Its effects are especially visible in the behaviour of the young xec students Sonmi comes across while at Taemosan University. These characters spend their time living 'a life of leisure' and vice, drinking alcohol, using drugs, gambling and

watching "pornslash disneys on 3D" (Mitchell, 217, 221). Such indulgence in carnal, 'immoral' pleasures is reminiscent of the Baron Harkonnen's insatiable hunger and predatory sexuality, while the result of the students' 'soft', privileged lives is similar to that which we have seen with the Eloi: "xec postgrads" are described as "the worst", as "they have their asses wiped for them from kindergarten to euthanasium", "lack discipline; never think about others' needs" and are ultimately defined "a waste of space" (Mitchell, 214).

Their intelligence has similarly 'devolved', as well: their academic research is purely a façade, with one of them unable to avoid the simplest mistakes in his experimentation (Mitchell, 219), and another directly buying for himself the groundbreaking Ph.D. thesis written, notably, by a mere immigrant (Mitchell, 229) significantly lower than him in the social pyramid. In comparison to 'subhumans' such as this foreign refugee or Sonmi~451, a 'mere' clone, their intellectual dullness appears even more glaring, especially in relation to the clones, who are kept 'stupid' and mentally limited by drugs dampening their memorising and language skills, curiosity, etc. (Mitchell, 191,193,197).

The xec students' bodies as well, with their habit of "facescaping monthly" (Mitchell, 218), become an expression and an object of hedonism in the form of unrestrained consumerism. A recent study, collecting data in South Korea in order to "offer the first economic study of aesthetic medical procedures that examines the extent to which such procedures are effective in improving a person's beauty and his or her economic outcomes" (Lee and Ryu, 225), that is, whether cosmetic surgery can truly be considered an investment in human capital rather than a form of consumerism, reached the conclusion that "for a majority of people, plastic surgery may be justified as consumption (i.e., satisfaction with improved appearance) rather than as investment in human capital" (Lee and Ryu, 226). These findings mirror exactly the situation that we find in Mitchell's *Cloud Atlas,* exasperated of course to the extreme as is typical of dystopian science fiction: here, those who belong to the highest echelons of society undergo physical modifications often and on a whim, much as they would buy the latest fashionable clothing or trinkets.

Yet, the most striking and important 'clue' which reveals the allegedly 'human' purebloods as posthuman hybrids linked not only to the 'inhuman' but to the outright 'monstrous' as well is the fact that they engage in cannibalism. Once their 'working lifespan' has expired, the clones are killed and their bodies are 'recycled' into "reclaimed proteins", part of which is used to produce "food products, eaten by consumers [...] all over Nea So Copros" (Mitchell, 359-360).

As we will see in the next chapter, the act of cannibalism is the key 'dehumanising' feature shared by all the Underworld-dwelling 'monsters' in Wells's, Herbert's and Mitchell's novels, the crossing-of-the-line that truly defines them as Other than 'human'. It is particularly meaningful, then, how not only in *Cloud Atlas* we witness a most profound blurring of the lines that separate the almost-human elites and the enslaved cannibal monsters by linking both to such an 'inhuman' practice, but also how we can find hints of the 'dark shadow' of cannibalism around the elites in the subtext of the other two novels as well. In fact, in *Dune* the 'hunger' of the Baron Harkonnen takes on sinister implications as we see him eating meat in celebration of his victory over the Duke Atreides in front of his prisoner while discussing his future torture (Herbert, 195), and later on as well as he compares himself to his servants and enemies: "*Rabbits, all of them!* And how they covered when they saw the carnivore!" (Herbert, 196).

Meanwhile, in *The Time Machine*, on one hand there is the ambiguous connection of the Eloi, through their 'consumptive' appearance, to the figure of the vampire, a monster linked to cannibalism (Claeys, 73) not only for drinking the blood of the living but also for occasionally "eating their flesh" (Claeys, 73). On the other hand, as a much more direct and troubling detail, there are traces of a strange affinity between the cannibal Morlocks and the character of the Time Traveller, who can be considered much closer to the 'predatory' ancestors of the Eloi, at least in terms of class, privilege, and prevarication, than their meek descendants.

As noted by Pearson, "it is with the Morlocks that the Time Traveller really has the most association" as an inventor "loving machines", and "the eater of meat" (74). Indeed, he goes on to point out how in the second chapter of Wells's novel, the first appearance of the Time Traveller back from the future (Wells, 16) is hauntingly reminiscent of that of the Morlocks, as he "replicates the movements of the blind and stumbling Morlocks […] his hair is 'greyer', his face 'ghastly pale' like theirs, and he is 'dazzled by the light'" (Pearson, 74).

Another chilling detail is what he tells his waiting friends: "I'm starving for a bit of meat" (Wells, 17). Such emphasis on the word 'meat' is significant, as the precise same word appears again and again in *The Time Machine*, as the Time Traveller ponders what the "red joint" he discovered prepped as a meal in the Morlocks' underground lair (Wells, 72) could be and what exactly it may mean concerning the relationship between the two posthuman populations of the future (Wells, 77, 82). The fact that one of his first acts upon returning to his time is requesting 'meat' makes for an unsettling parallel with the Morlocks' "carnivorous" (Wells, 72) cannibalism.

Thus, while the Time Traveller associates himself with the beautiful Eloi, whom he calls 'human' or at least near human (Pearson, 74), he also reveals with his uncomfortable resemblance to the 'inhuman' Morlocks just how ambiguous and uncertain such a classification really is. In fact, it is not only the apparently or officially in-universe 'human' elites analysed in this chapter who are eventually revealed as posthuman characters, enmeshed with the Othering element of the traditional humanist binaries. Even the Time Traveller himself, who functions in Wells's novel as a 'paragon' of the humanist concept of 'human' for the reader, "is both the Eloi and the Morlocks" (Pearson, 73) and therefore can, in a way, already be considered a posthuman, hybrid character.

Part Two: An Underworld of Monsters

Chapter Three

Cannibalism: The Ultimate Inhuman Act

'The Weak are Meat the Strong Do Eat' (Mitchell, 508).

In this chapter, we move on to analyse the other population of characters in Wells's *The Time Machine*, Herbert's *Dune* and Mitchell's *Cloud Atlas* who represents the 'negative' side of the human/monster binary: Morlocks, Fremen, and finally fabricants. Unlike their supposedly 'human' counterparts, who as we have seen appear to fit the humanist image of the 'human' or are at least perceived as such by the reader at first, the 'monstrous' characters explored in this chapter are immediately introduced as 'inhuman' and Other.

In each novel they are the denizens of the 'Underworld', disconnected from 'humanity' and from the other characters of the story not only by marked and monster-like physical differences that visibly signal their 'inhumanity', but also by 'monstrous' behaviour, specifically the practice of cannibalism. In fact, this latter feature is the one which definitely sets a boundary separating these characters from the 'human', even if they are posthuman hybrids just like the elites of their stories, and as such are still ambiguously connected to 'humanity', albeit to different degrees and in different ways.

According to Lee, "it is a commonplace in interdisciplinary work on cannibalism" that in Western culture the cannibal has long been "a figure associated with absolute alterity" (250), necessary to the constitution of the humanist concept of Western humanity, as "the limit that humanity requires in order to know itself as itself" (Lee, 250-251). Claeys as well notes how

cannibalism has long been associated to traditional monstrous 'Others' such as the vampire or the werewolf: the former as an undead predator who emerges from the underworld to suck the blood of its victims (72-73), and the latter as an unnatural amalgamation of man and animal, specifically the wolf, "the archetypal hunter and symbol of bloodlust" (74).

Such 'othering' by means of a connection with cannibalism is however not limited to the realm of the fantastic, and it has expanded into very real historical and scientific contexts. It is once again Claeys who reports, while discussing the history of monsters and of those human beings dehumanised into monstrous 'Others', how cannibalism was often used in accounts regarding the 'savages' of the so-called New World in such a way as to exclude them from a Western, humanist definition of 'humanity':

> Cannibalism was a frequent theme in these narratives. Bernal Diaz has been accused of attempting the 'transformation of the natives into monsters' by categorizing all the southern American natives as outside of humanity, defining them in terms of 'a single central quality, monstrosity, by isolating and concentrating on certain features and forms of behaviour "against nature"', particularly cannibalism […] Michel de Montaigne's essay on 'The Cannibals' (1580) vividly bears out the centrality of the human fear of being eaten to exploration and the construction of the savage 'other' (Claeys, 70).

Moreover, after Darwin, "the great scientific optimism of the Victorians was tempered by fears of species, race, and national degeneration of various types" (Claeys, 77). Therefore, the old fear of a "regression to cannibalism" symbolised by lycanthropy or vampirism (Claeys, 74) was joined in the Western imagination by a more disquieting possibility, which H. G. Wells treated in various works: that of a 'devolution' of the supposedly 'civilised man' into 'cannibal savagery', with the implication that "we may as easily fall back into as rise above our animal nature" (Claeys, 299-300). As stated by Linda Dryden, Wells took one of the central tropes of *fin de siècle* Gothic, the "physical transformation from human to some bestial other" and applied to it a "scientific scrutiny" (Youngs, 107) influenced by Darwin's theory of evolution.

In fact, in the faraway future imagined in *The Time Machine* we are confronted with the monstrous figures of the Morlocks, who, as we learn over the course of Wells's novel, are actually a "second, subterranean species" (Youngs, 117) that developed out of the Victorian 'humanity' the Time Traveller knows, alongside the beautiful Eloi. Yet, despite the fact that we have seen how "it is with the Morlocks that the Time Traveller really has the most association" (Pearson, 74) rather than with the Eloi, the former are the characters who are unequivocally

painted as ugly, animal-like or reminiscent of the undead, and of course, as cannibals, embodying the nightmare of the 'human degenerated into Other' on multiple levels.

Firstly, it is their physical appearance, far from what is "recognizably anthropomorphic" (Philmus, 530) due to their unnatural ugliness and animal-like traits, that reveals to the reader the Morlocks' 'monstrosity'. As we shall see, this applies to all the populations of monster-Other characters in the three novels, for, as Braidotti claims, in the traditional humanist perception of what is 'human'

> both dialectical otherness (nonwhite, nonmasculine, nonnormal, nonyoung, nonhealthy) and categorical otherness (zoomorphic, disabled, or malformed), were pathologized and cast on the other side of normality - that is, viewed as anomalous, deviant, and monstrous (526).

Pordzik as well notes how, in *The Time Machine*, it is "the beautiful ones" who earn the support of the Time Traveller, while "the ugly ones […] deserve eternal damnation, which in the novel means death by fire" (147).

The Morlocks' damning ugliness – and therefore otherness – is the direct result of their condition of dwellers of a "dark, demonic Underworld" (Philmus, 531). In fact, they are described in the novel as living in an "artificial Underworld" of widespread "tunnellings" (Wells, 64), a terrible, threatening place characterised by "unbroken darkness" and air "full of the throb and hum of machinery […] stuffy and oppressive", and even carrying a "faint halitus of freshly shed blood" (Wells, 71-72) to complete its hellish picture. Such a setting that is half-cave and half-factory on one hand associates these characters with animals or primitive 'savages', and on the other with the working class, with its low social status and subservient position, and in fact there they carry out "such work as was necessary to the comfort of the daylight race" (Wells, 64).

Their adaptation to this "habitat" (Wells, 64) is what caused the extreme changes to the Morlocks' bodies, in a Darwinian evolution from 'man' into a new subterranean species. Once the Traveller has the occasion to catch a glimpse of one of them, his description reveals how different they look from not only himself, but also the almost-human Eloi: "it was a dull white, and had strange large greyish-red eyes; […] there was flaxen hair on its head and down his back" (Wells, 61). The "whiteness" that comes to distinguish the Morlocks in the Time Traveller's descriptions is a natural reaction to their changed surroundings, with pigmentation disappearing in response to the absence of light (Youngs, 117), as are the Morlocks' 'strange eyes' with their "extreme sensitiveness of the retina" (Wells, 64), so effectively altered by their environment that the Morlocks can no longer live upon the surface (Partington, 62).

But it is the Time Traveller's interpretation of their physical appearance as linked to the 'animal' and the 'monstrous' that transforms the Morlocks' evolution into a 'devolution', a degeneration from the 'human' form into something Other. In fact, Youngs notes how throughout the novel the Traveller associates the Morlocks with animals, referring to them as "greyish animal[s]", "ape-like creature[s]", "vermin", and even with mythological monstrous figures like "whitened Lemurs" (116-118).

Concerning this latter comparison, Lake offers a most interesting interpretation: while he as well notes how the characters of the Morlocks carry "suggestions" reminiscent of "the working classes, dangerous animals" and particularly that of the "ape, or degenerate ape-man", there is one figure in particular that merges in itself the suggestions of 'ape' and 'monster', specifically a monster connected to 'death' (79). It is precisely that of the "Lemur", a word which biologically indicates a "lower primate which goes on all fours", but that carries also another meaning, for it "originally in Latin signified a ghost" (Lake, 79).

Indeed, Lake interprets the "whiteness of the Morlocks" as going beyond the scientific explanation presented in the text, for he analyses the Morlocks' appearance as an example of Wells's "use of colour symbolism" even from the Morlocks' very first appearance in the text (78). Indeed, if the very first time the Time Traveller crosses unknowingly a Morlock in his frenzy to find his lost time machine he mistakes it for "some white animal" (Wells, 47), when he next properly sees the Morlocks he declares "I thought I could see ghosts" (Wells, 59). According to Lake, "here the greyish-whiteness of the Morlocks is attached to the idea of ghosts […] so at their first appearance, the Morlocks are associated with death, and the uncanny whiteness of things which were once alive but are so no longer" (78). Thus, through their connection to "the great and last Enemy", death, the Morlocks are perceived as even further from the 'human' (Lake, 79), and they appear not only as 'animals' but also as 'undead monsters' emerging from an "underground-grave" (Lake, 79) to drag down with them their hapless victims, the Eloi.

Regarding the Morlocks' physical appearance and its possible interpretations, it is fascinating to examine how George Pal and Simon Wells have chosen to portray these characters in the movie adaptations of the novel. In Pal's 1960 adaptation, the Morlocks have the looks of blue-greyish, stocky ape-men in loincloths, with facial features reminiscent of prehistoric Neanderthals such as enlarged noses and prominent supraorbital ridge, and finally long white hair and long fur covering their arms and legs (*TTM* 1960, 01:23:42). These traits

connect them not only to both the 'animal' other and the figure of the cannibal 'savage', but also to the threat of the 'human' backsliding into its uncivilised past.

Meanwhile, in Simon Wells's 2002 adaptation, the Morlocks' portrayal is more distant from their original depiction in *The Time Machine*, especially because they are actually separated into different 'subspecies', the Morlocks proper, or rather, the 'hunters', and the Über-Morlocks, their overlords and overseers. Said 'hunters' appear as a strange hybrid between ape-man and monster, with massive bodies and heads, faces that are both ape-like and skull-like (*TTM* 2002, 00:55:10), too-long limbs, and a more sparse covering of fur over darker, albeit still greyish skin. They seem to display at the same time both 'superhuman' physical abilities such as enhanced strength, speed and agility, and more animalistic traits in their body language, as they can be seen running on all fours (*TTM* 2002, 00:57:09-00:57:23) and squatting and grooming each other like monkeys (*TTM* 2002, 01:09:08-01:09:45).

In contrast, the Über-Morlock who appears in the movie represents a more uncanny figure. On one hand, his looks are closer to those of the original Morlocks in the absolute ghost-like whiteness of his skin, hair and eyes, (*TTM* 2002, 01:12:38). On the other, he is much more disquieting than the ugly 'hunters' in his anthropomorphism, as with the exception of his colouring he is very close to the Traveller's paradigmatic 'human' form, at least until he turns around exposing the telltale 'monstrous' quality of his malformed back, with its tumescent and protruding spine vertebrae (*TTM* 2002, 01:14:06). In these two variants of the characters we see most clearly what Lake meant by his interpretation of Wells's Morlocks as both "post-human ape and post-human ghost" (79), even though here they are split into two separate groups of characters rather than two different sides of the same coin.

Aside from their ugly and 'monstrous' physical appearance, the second 'othering' element that firmly locks the Morlocks into the role of the novel's 'monsters' is cannibalism, as previously discussed a mark of "absolute alterity" (Lee, 250) according to the humanist definition of what is 'human'. In fact, such an 'inhuman' practice is so abhorrent to the 'civilised man' that the Time Traveller refuses to recognise it for what it is for a long time in the novel, despite the fact that the "red joint of meat" he sees "laid [as] a meal" (Wells, 72) in the Morlocks' Underworld immediately brings distressing doubts to his mind. Not only he instantly finds himself wondering "what large animal could have survived to furnish" said meat (Wells, 72), which he has not yet encountered in his explorations of the faraway future he is visiting, but he also soon admits that the "meat" he has seen gives him "a vague feeling of something familiar" in its shape (Wells, 77-78). Still, the Time Traveller flinches away from this inner

awareness of what precisely The Morlocks' food source is for as long as possible, and reacts with horror to his final realization that the Morlocks feed on the Eloi's flesh: "for the first time […] came the clear knowledge of what the meat I had seen might be. Yet it was too horrible!" (Wells, 82).

The closest the Time Traveller comes to confronting the reality of cannibalism that is taking place in the story is his attempt "to look at the thing in a scientific spirit" (Wells, 83), distancing himself emotionally from the situation by analysing it and rationalising the causes and effects of the Morlocks' behaviour with a scientist's logical reasoning:

> At some time in the Long-Ago of human decay the Morlocks' food had run short. […]
>
> Even now man is far less discerning and exclusive in his food than he was – far less than any monkey. His prejudice against human flesh is no deep-seated instinct. And so these inhuman sons of men –! (Wells, 83).

Yet it remains quite noticeable how scientific rationalisation is not enough for the Time Traveller to overcome his horror, as he still avoids to outright use the word 'cannibalism' to describe what relationship links the characters of the Morlocks to those of the Eloi. The effect this choice of 'unwording' has on the reader is that of powerfully underlining and emphasising the 'unspeakable' nature of cannibalism, making it appear even more alien and 'monstrous', which of course extends to the characters practicing it, thus producing both in the Traveller and in the reader a violent and utter rejection of the Morlocks as completely 'inhuman'.

Both movie adaptations of *The Time Machine* go instead in the opposite direction, choosing to depict cannibalism in all its potential shock value by having the Time Traveller discover in the Morlocks' tunnels exposed human skeletons and bones in plates (*TTM* 1960, 01:20:37-01:20:48), or a refuse well full of the bloody remains of the victims, in the same room as the tools of the slaughter and eerie piles of their abandoned clothes (*TTM* 2002, 01:10:03-01:11:02). Here, especially in the case of the 2002 adaptation, the audience's 'rejection' of the cannibal characters as 'inhuman' monsters stems, rather than from a taboo of such magnitude that is very name must go unspoken, from the instinctive repulsion connected to gore and violence.

The haunting presence of cannibalism in Wells's novel is not only noteworthy, as we have seen, as the ultimate mark of 'otherness' on the characters of the Morlocks: in fact, paradoxically, it is also proof of their 'humanity', making them no simple 'monsters' but rather posthuman hybrids. If "Randall Bohrer's 'phenomenological' definition of cannibalism

identifies literal cannibalism ‘as the act of consuming one’s own kind’” (Frame, 18), it appears evident that in order to define these ‘inhuman’ characters as cannibals, they also have to be previously defined as ‘human’ in the first place, ‘sons of men’ as much as their victims.

A purely humanist idea of the ‘human’, however, cannot reconcile such a paradox, locked as it is into its system of opposing binaries; instead, it is up to a posthuman perspective to step in. As argued by White, while “humanism established boundaries between human and nonhuman”, it is precisely posthumanism that challenges these boundaries, incorporating beings that do not display these characteristics and are therefore defined ‘nonhuman’ into “the assemblage that constitutes the posthumanist self” (149), allowing for the birth of hybrids such as Wells’s characters.

And in *The Time Machine* it is exactly the Morlocks’ crossing of the ‘limit’ of cannibalism that, while damning them to humanist Otherness, demonstrates not only how it is in them, and not in the Eloi, that one of humanism’s key features characterising the ‘human', intelligence, survives, but also that they are actually the ‘superior’ posthuman hybrid species of the novel, thanks to their greater adaptability and in reversal of past power relations with the Eloi’s predecessors.

In fact, the Traveller speculates that the Morlocks retained some intelligence at first as a remnant of their role of caretakers of the Underworld’s machines and of servants providing for the needs of the denizens of the Upperworld (Partington, 61). Later, he himself is witness to further proof of their cleverness, as noted both by Lee (256) and by Partington (61-62), when he describes how the Morlocks took his Time Machine and his suspicions that they had “taken it to pieces while trying to […] grasp its purpose” (Wells, 107). Lee goes on to compare “the Morlocks’ curiosity with their predatory hunger”, noting how the Morlocks’ intelligence expresses itself “at its primordial, practical level where observation is a survival mechanism and watching is akin to hunting” (Lee, 256). Therefore, once the Morlocks’ food supply had “run short” (Wells, 83) because of the Eloi’s negligence, they had enough intelligence to find an alternative source of nourishment, driven by the need to survive, and ultimately thrived precisely thanks to their ‘monstrousness’.

As Schmeink argues, “the descriptions as monster or demon reveal the fear that humans experience [and] hint at the posthuman potential to supplant the human as the most dominant species” (169), and this is exactly what the Morlocks have done in Wells’s *The Time Machine*. The power dynamic that sees the beautiful, more ‘human’ people of the Upperworld as dominant and the ‘monstrous’ people relegated to the Underworld in their service has been

turned on its head, with the Morlocks assuming the role of masters who exploit the Eloi, reduced to "mere fatted cattle" (Wells, 83).

By contrast, as discussed in the previous chapters, in the *Dune* saga we have an actually dominant 'human' elite in the denizens of the Upperworld, the aristocrats of the noble Houses. Herbert too sets in opposition to these characters a 'monstrous' population of 'inferiors' and 'savages', who live in the 'Underworld' and practice cannibalism, albeit in this case their monster-like qualities are more subtle and ambiguous, as we will see: the Fremen. They are the native nomadic inhabitants of the desert planet Arrakis, who live in defiance of the Imperium's rule over their home-planet in underground villages called "sietches" (Herbert, 303), hidden into the farthest reaches of the desert.

This is their Underworld, which is twofold. In fact, on one hand it is composed of the network of literal underground tunnels and rooms the Fremen inhabit, more homely than the dark 'tunnellings' of the Morlocks to be sure, with "thick blue carpets on the floor, blue and green fabrics hiding the rock walls, […] draped yellow ceiling fabrics", creating the impression of "an ancient tent" (Herbert, 372). Despite this domestic appearance, the sietch is not exempt from ambiguity, as demonstrated by the detail of how Paul, a 'civilised' and 'human' character, perceives its smell:

> the odour of the place assailed him: unwashed bodies, distillate esthers of reclaimed wastes, everywhere the sour effluvia of humanity with, over it all, a turbulence of spice and spicelike harmonics (Herbert, 366).

While in this passage the 'unsavoury' smell of the Fremen's underground village, despite how it disgusts Paul initially, is called 'the effluvia of humanity', and thus seems to reinforce the 'human' status of its inhabitants, later in the novel Herbert uses the word "furry" to describe its odour (423), introducing animalistic connotations to these places and to these characters. On the other hand, the Fremen also inhabit a symbolic 'Underworld', represented by the desert, a place of death for ordinary 'humans', where only animals and monsters, the sandworms, dwell, with the exception of the Fremen, who are therefore associated with these categories.

And indeed the Fremen are seen as lowly and 'inferior' by the officially 'human' characters of *Dune*, the aristocrats, who ignore or sneer upon them, as demonstrated by the Baron Harkonnen who dismisses any concerns raised by the Fremen presence in the desert: "the Fremen aren't worth considering! […] They're rabble" (Herbert, 255-256). Yet, interestingly, the Fremen are just as posthuman – or, according to the Bene Gesserit's ideology, 'human' as the aristocrats. As pointed out by DiTommaso, "any Fremen […] is by definition human",

because Arrakis has acted as their "gom-jabbar", enhancing them and raising them to a "new level of humanness" (318). Much like the Morlocks, they have become 'superior' posthuman hybrids, stronger and more capable than the 'baseline human' to the point that Duke Leto covets them for his army as special troops, to match the 'monstrous' soldiers of the Emperor (Herbert, 48).

This hybrid condition of the Fremen is determined by their biological, behavioural and technological adaptation to their environment, the desert planet Arrakis. It is this latter feature of *Dune* that makes posthumanism particularly relevant to the interpretation of Herbert's work of fiction. The desert planet Arrakis, with its extreme ecological conditions and its scarcity of vital resources, well represents one of the key aspects of posthumanist theory when applied to contemporary debates and issues, that of "a conceptual framework necessary to reassess the human condition in contexts of ecological upheaval and global catastrophe" (Chen, 182). In this specific case, the planet Arrakis is characterised by an ecological status quo already presenting traits that are 'catastrophic' to life, particularly human life, with its environment lacking water and rich in spice-drug, ideal for the sandworm but challenging the survival of any other species.

In fact, the first form of adaptation the Fremen had to undergo in order to live on this planet, and that also had a deep impact on these characters, changing them into something 'other' than 'human', is the development of a tolerance to spice. On Arrakis, the drug 'spice' has such a widespread natural presence in "the air, the soil, the food" (Herbert, 210) that the Fremen constantly consume it. This "spice diet" (Herbert, 424), coupled with the use of this substance in sacred rites similar to Bene Gesserit ceremonies (Herbert, 379-380), has modified and enhanced the Fremen's bodies and minds just as much as those of the aristocrats have been by eugenic breeding and specialised training. Not only Arrakis's inhabitants can no longer live away from the planet, since their bodies have become addicted to the spice (Herbert, 211), but Paul's mother Jessica also remarks upon how the drug allows the Fremen to develop a form of 'collective mind', "the tau, the oneness of the sietch community", creating a shared mind-space in Fremen villages, which is the consequence of their continued exposure to spice (Herbert, 424).

However, their massive consumption of spice is also the reason for the main physical trait that sets the Fremen apart from the traditionally 'human-looking' aristocrats and their servants, making them appear immediately uncanny and monstrously 'Other': their eyes "of deepest, darkest blue without any white" (Herbert, 56). This feature of theirs is said not to be a

mutation, but rather a symptom of blood saturated with the drug (Herbert, 41-42); nonetheless, it also appears clearly from the text that it is a trait specifically linked to the "Arrakeen" population (Herbert, 18), thus becoming the physical mark of life in the precise environment of that particular planet.

Aside from the 'blue-in-blue' eyes, the Fremen present another 'ugly', monster-like trait that makes these characters appear 'non-human', in fact the Fremen appear to be unnaturally "wrinkled and desiccated" (Herbert, 56). This is caused by their adaptation to Arrakis's waterless environment, to the point that they have actually developed physical mutations that make them biologically different from the humanist 'human', for example, Fremen have developed "ultrafast coagulation" as a "moisture-conserving mutation" (Herbert, 59), and, as we learn in *Children of Dune*, a "longer, larger […] large intestine to take back water from everything which came its way" (Herbert, 349).

Both the 1984 and the 2021 movie adaptations of *Dune* choose to not (or cannot, in terms of internal mutations) show such physical differences, except for the 'blue-in-blue' eyes. These, however, appear less 'inhuman' than they do in Herbert's novel, for while there their description suggests the image of a blank expanse of dark blue between the eyelids of the Fremen characters, with no differentiation between iris and cornea (possibly pupil as well), in the movies they appear as darker blue irises against a pale blue cornea.

Instead, in Villeneuve's 2021 movie the element of race becomes a visible signifier of 'otherness'. As we have seen before, the two movie adaptations are quite different in this respect: Lynch's Fremen are portrayed as all white, and as wearing the exact same stillsuit as Paul and Jessica in the desert and nothing else distinctive of a separate cultural identity (*D* 1984, 01:27:31-01:27:37), although they do have smudged faces and a general 'scruffy' appearance to mark them as Paul and Jessica's 'inferiors'. Meanwhile, Villeneuve's Fremen are visibly different from the protagonist and his mother also because of racial and cultural implications, due to the "exotic aesthetics" of their portrayal as a "generic people of colour" played by Brown and Black actors (Durrani) wrapped not only in stillsuits, but also in billowy Arabian-style cloaks and veils (*D* 2021, 00:43:02-00:43:20).

By contrast, in Herbert's novels the matter of the Fremen's race is neither very prevalent nor made obvious in the text, as noted by Higgins (231). The author based these characters on "the warrior culture of the Islamic Caucasus" (Collins), and therefore the Fremen are "thoroughly Muslim", showing traits that connect them to "Islam, Middle East and North Africa" (Durrani). From an ethnic standpoint, the 'race' of the Fremen, for all that they are

culturally non-white coded, is unclear. The characters are sparsely physically described, but we are given at various points a few details of multiple Fremen characters' appearance such as "sandy hair" (116, 224) and "pale olive" skin (367), which would indeed fit both Caucasian and Middle-Eastern populations. However, the main element of 'otherness' between Fremen and other characters in the *Dune* saga clearly remains not any possible ethnical difference, but rather the fact that they have evolved into a posthuman people both physically, and more importantly, through the use of technology.

It becomes soon clear in the novel that the Fremen's lives depend entirely on a technological "garment", the stillsuit (Herbert, 57, 205), a full-body outfit that is permanently worn as a technological 'second skin' by the Fremen to avoid the dispersion of bodily fluids and recycle them into drinkable water (Herbert, 32, 118). The use of the stillsuit, a non-organic addiction to the Fremen's bodies, which allows them to better withstand the conditions they live in, makes these characters 'hybrid', not by connecting them to the 'Other' through animality, like Wells's Morlocks, but by making them reminiscent of the cyborg, a "hybrid of human and machine" (White, 138).

The addition to the body of non-organic parts that become "ameliorating devices" (Insenga, 59) introduces an element of 'Otherness' to that body, which goes to "irreparably modify our essential humanness" (Insenga, 56), creating a non-human being. However, it also creates a posthuman hybrid body, and in fact the figure of the cyborg was introduced by Donna Haraway in posthuman theory as an important metaphor of breaking through "dichotomies" (Schmeink, 36-37) and accepting change and hybridity as part of a 'humanness' adapted to the reality it inhabits. This is exactly the case of Herbert's Fremen characters, whose culture "clearly symbolises human toughness and capacity for survival" (McGuirk, 144), but whose adaptation to the reality of their arid environment also changes into a cyborg-like posthuman hybrid.

This deep level of adaptation of Herbert's Fremen hybrid characters to the water-lacking environment of Arrakis, main setting of the *Dune* saga, makes them a particularly interesting example in fiction of ecologic posthumanism. Chen argues that this branch of the posthuman theory is "critically focused on […] how changing environments affect the human body, and how […] they […] redefine the human experience materially, culturally, and biologically" (183), which applies to Herbert's Fremen characters. In fact, I have already discussed in previous paragraphs the changes brought on by their adaptation to Arrakis to the Fremen's bodies, but it is not only the material and biological aspects of their 'human experience' which

were redefined by their environment: their whole culture and identity as a people in *Dune* revolves around it.

Pak notes how when Paul is adopted into a Fremen tribe he realises that he is surrounded by "a way of life that [can] only be understood by postulating an ecology of ideas and values" (Herbert, 372), observing how much Arrakis's harsh environment has impacted on the way of life of its inhabitants (121). He goes on to explain that these "cultural systems" recognised by Paul are "metaphorical ecologies" which create the basis of the development of the Fremen's civilisation (Pak, 121), thus demonstrating how much the Fremen's environment informs not only their physical life but also their very culture as a people.

Braidotti's definition of the "subjects of the environmental humanities" as seen through a posthuman approach also applies to Herbert's Fremen: "nomadic, embedded, […] relational, and technologically mediated" (244). Indeed, Pak notes that the Fremen are a nomadic people (121), and DiTommaso defines the Fremen as an 'organic community,' "in union with each other and nature" (324), deeply 'embedded' into Arrakis's harsh setting thanks to the 'technological mediation' of the stillsuit and to the inter-village relations connecting all Fremen into "a tight-knit society", with an "identity tied to the specificities of the environment" by the "cultural importance" placed on the conservation of water (Pak, 124).

In fact, in later novels of Herbert's saga it becomes apparent how the changes enacted upon Arrakis's environment not only have a deep effect upon the planet itself, but they are also mirrored by significant corresponding changes in the Fremen way of life. The dream of 'terraforming' Arrakis, slowly changing artificially the planet's environment so that it will include water and plants, carefully cultivated in the Fremen by Imperial Planetologist Liet Kynes and his father before him (Herbert, 540-541), sees an acceleration and an early actualisation in *Dune Messiah*, under Paul as Emperor and Muad'dib. This double authority in fact gives him the power needed to command the planet "be remade from desert into a water-rich paradise" (Herbert, 70).

However, Paul himself notes in the text how Arrakis has its own agency and will, "a pulse as dynamic as that of any human", and how "it fought him, resisted" (Herbert, 70) the imposed changes, mainly through its Sandworms and sandtrout, disruptive to water (Herbert, 537), but not only: Paul also notes that "human resistance" to the planet's environmental transformation increased (Herbert, 40), as some of the Fremen rebel against him out of a yearning for 'the old ways' (Herbert, 203, 207).

For in the "new world" (Herbert, 207) of Muad'dib the Fremen are swiftly changing alongside their planet, whose 'softer' conditions of life make these characters 'soft' as well, much like their garden-world did to the Eloi in *The Time Machine*. Paradoxically, this process also makes the Fremen less 'other' and posthuman: just as they evolved and grew further from the humanist idea of 'human' to adapt to their harsh environment, when the latter changes and becomes less extreme so do they, 'regressing' back to a more recognisable 'humanity'. This becomes obvious in a passage of the third novel in Herbert's saga, *Children of Dune*, in which Stilgar, a Fremen chieftain embodying the way of life of his people before the coming of Paul observes the youngest generation of Fremen, pondering upon their difference from himself:

> Indeed, the young women of Arrakis were very beautiful that year. And the young men, too. Their faces glowed serenely with water-richness. […] They exposed their features often without any pretense of stillsuit masks and the snaking lines of catchtubes. Frequently they did not even wear stillsuits in the open […] Such human beauty was set off against the new beauty of the landscape. […] He knew himself to be of a dying breed (Herbert, 122).

In this description of the 'new' Fremen two elements are worthy of attention. Firstly, the emphasis placed on the association of 'beauty' to the youngest Fremen generations is significant, for, as we have discussed in the very first chapter, beauty is one of the key features of the humanist 'human' recognisable in the supposedly 'human' elites in each novel. In this passage, the fact that such a feature is shared by the young Fremen is symptomatic of their growing closer to that same definition of 'humanity'. Yet the most striking detail is that young Fremen no longer wear stillsuits: this once-essential for survival technological implement that had come to be seen as 'second skin', a fundamental cyborg-like addition to the Fremen body, is now rendered obsolete and unnecessary by the changed environment of Arrakis, no longer severely lacking water. Thus, the characters of the Fremen lose one of the most obvious elements that made them posthuman hybrids, even though they are still exposed to spice and therefore retain the 'blue-within-blue' eyes.

The importance that Herbert gives in *Dune* to the resource of water and its rarity in the original environment of Arrakis, however, makes the Fremen posthuman and hybrid characters in a more sinister way as well. It is at the source of their cannibalistic behaviour, which aligns these characters to the 'Other' figures of the 'savage' and the 'monster', much like the Morlocks of Wells's *The Time Machine*. Yet the Fremen's cannibalism is very different from that of the Morlocks: they do not consume the flesh of their victims, rather, they "distill water out of it" (Herbert, 334), consuming in truth only the filtered bodily fluids of those they kill. This practice assimilates the Fremen to the monstrous figure of the vampire, that as we have seen according

to Claeys has its origin in the idea of cannibalism (73), and the element of blood-drinking in particular is part of the prejudice and superstition surrounding *Dune*'s Fremen even on their home planet, as emerges from this passage depicting a conversation around the Fremen custom of reclaiming the 'water' of the dead:

> 'It's said that the Fremen scum drink the blood of their dead.'
>
> 'Not the blood, sir. But all of a man's water, ultimately, belongs to his people – to his tribe. It's a necessity when you live near the Great Flat. All water's precious there, and the human body is composed of some seventy per cent water by weight. A dead man, surely, no longer requires that water' (Herbert, 148).

Moreover, as appears obvious from this same passage, the Fremen do not apply such cannibalistic behaviour only to non-Fremen people, preying upon them as the Morlocks did with the Eloi, but they also 'cannibalize' themselves. In the novels of the saga there are multiple examples of both practices, and different 'degrees' of cannibalism, as it were.

In fact, in *Children of Dune* a distinct tribe of Fremen is depicted as outright cannibal, the Iduali, called "water hunters" (Herbert, 221) or "water stealers" (Herbert, 67), who appear in a passage as predators kidnapping outsiders to their specific tribe, "wealthy residents of an Arrakeen city" and "desert-born" Fremen alike, and killing them ritualistically for their 'water' (Herbert, 66-68). A detail of the interaction of these characters with their victims shows to what degree the Iduali are even more 'inhuman' than ordinary Fremen: some of their doomed 'prey' spit at them before being killed, a gesture that we are told in the text signifies "*see how little I value my water when it is taken by animals*" (Herbert, 68). This word, 'animals', marks how 'other' these characters are, true 'monsters' reviled by even their fellow Fremen, to the point that "the other tribes banded and wiped out the Iduali", making the very place their village used to stand "tabu" (Herbert, 221-222) as it was 'contaminated' by their depravity.

By contrast, it becomes clear since the very first meeting of Paul and Jessica with the Fremen in *Dune* that these characters ordinarily tend to display occasional, opportunistic cannibal predation. In fact, upon their discovery of Paul and his mother Jessica in the desert, the Fremen attempt to capture the "intruders" and kill them to gain possession of "the water of their flesh" (Herbert, 289). Jessica in particular is seen as useful only as a 'source' of water, however as soon as her Bene Gesserit skills prove her to be a better 'resource' alive, as a teacher of her valuable 'weirding' abilities, the Fremen change their approach and seek to have her join them alongside Paul. Instead, it will be one of their own who is eventually 'cannibalised' for his water, after Paul kills him in a ritual duel to gain official acceptance for his mother among

the Fremen. Thus it appears clear that for Herbert's Fremen both predatory cannibalism and self-cannibalisation are simply two sides of the same coin, and what really matters to them is the management of the scarce resources available on Arrakis, whether in the form of water or something else that can prove useful to their survival, such as the Bene Gesserit techniques.

The two aristocrats take part in the funeral ceremony in which the 'water' of the Fremen man who lost the duel is extracted and divided among the other tribesmen (Herbert, 338-339), however the reader does not actually see what exactly happens to the body, for there is no direct description of the process. In fact, much like in Wells's novel the word 'cannibalism' was avoided, here too the Fremen equivalent of this practice, that is, the physical act of distilling water from a human body, is surrounded by the powerful mystique of the unsaid and the unspeakable. While in Lynch's movie adaptation the unsavoury element of the Fremen's cannibalism is not acknowledged, and only briefly appears in a few lines of dialogue taken directly from the book (*D* 1984, 01:27:20-01:27:38 comp Herbert, 302), Villeneuve's movie obtains the same effect of ominous 'knowing silence' with a scene in which the camera focuses on the wrapped up body of the Fremen man being transported to be 'rendered down' for its water (*D* 2021, 02:26:05), which afterwards is never seen again leaving the audience to imagine what could have happened to it.

Another significant passage in *Dune* revolves around this 'distilling' ceremony for the dead, and it sheds light upon another aspect of the Fremen's version of cannibalism, less 'monstrous' but as we will see no less 'othering'. In it, after Atreides soldiers and Fremen have fought together against the common enemy of the Harkonnens, an Atreides man dies and in the aftermath of the battle the readers witness a culture clash between the two groups about what is to be done with the body.

On one hand, the Atreides men, that is, the most 'human-like' characters by association with Paul's family and as non-Fremen, are horrified by the proposal of granting him a Fremen 'funeral', seen as disrespectful and unacceptable: "'Fremen don't bury their dead!' the man barked '[…] We know what they do.' […] [The Atreides] men advanced, angry looks on their faces" (Herbert, 230). Meanwhile, on the other hand, the Fremen unsettlingly see the same 'inhuman' act as a way of honouring the dead, and as a natural occurrence, a fact of life and death like any other form of funeral rite: "'Is it that your men wish to attend the ceremony?' the Fremen asked. *He doesn't even see the problem* […] 'We will treat your comrade with the same reverence we treat our own'" (Herbert, 230).

Moreover, the act of participating in this aspect of Fremen culture becomes a means of assimilation of outsiders into the tribe: for example, the Atreides men comrades of the one who the Fremen "render […] down for his water" (Herbert, 230) in the passage above are from that moment on considered as 'joined' with the tribe by a "bond of water" (Herbert, 229). But the most striking example of this is once again the character of Paul, for in his case there is an active participation in Fremen cannibalism when he drinks the 'water' distilled from the body of the man he defeated in his duel alongside the other Fremen of the troop (Herbert, 333-334). This act is what truly marks the beginning of Paul's metamorphosis into a Fremen, but it also represents the start of his transformation into a being that moves further and further away from a humanist definition of 'human'.

Interestingly, each step of Paul's physical and mental 'evolution' that will make him both 'superhuman' and 'monstrous' is connected in some fashion to Fremen culture, way of life and religion. Firstly there is the Fremen 'water cannibalism', introducing Paul to 'inhumanity' both as newly Fremen and as a participant in the breaking of a key 'human' taboo, as we have seen. Then comes the Fremen spice-rich diet (Herbert, 409, 423), which gives him the blue-within-blue eyes and enhances his prescient powers, and, eventually, the Fremen rite of the Water of Life, which allows Paul to realize definitely his potential as Kwisatz Haderach and as god-like Fremen messiah Lisan al-Gaib (Herbert, 478-481).

Paul's descent from his original official 'humanity' at the beginning of the novel further into 'otherness' as if 'contaminated' by the Fremen's way of life goes to show that, as noted by Higgins, the Fremen, despite their positive role in the narrative which marks them as "virtuous" characters, "are still savages" (239). In fact, not only they are outright defined as such in the text (Herbert, 319) but they are also often portrayed as 'monsters' having no traditionally 'human' "decency", and displaying instead disturbing, 'unnatural' behaviour such as Fremen women using their babies as weapons against their enemies (Herbert, 496) and Fremen children roaming the battlefield to finish off the wounded, marking them to be collected for their water later on (Herbert, 508). The Fremen are ultimately seen as the 'subhuman' traditional humanist 'Other' despite their advanced physical and mental posthuman status, and they are still the characters of *Dune* with the lowest social status, living in an Underworld of subterranean villages made of tunnels and chambers (Herbert, 369-371), in hiding from 'pogroms' ordered by the ruling Harkonnen aristocrats (Herbert, 370, 404).

So far, we have analysed how the 'monstrous' characters of lowest social status in the previous novels have become 'inhuman' – and posthuman – due to their adaptation to

environments made challenging by their scarcity of resources essential to survival, food in the Morlocks' case and water in the Fremen's. The section of Mitchell's *Cloud Atlas* '*An Orison of Sonmi~451*' instead, while still telling a "tale of two cities" with 'human' privileged characters living in an "upper city" and displaying real, overwhelming power over the marginalised 'inhuman' inhabitants of a "undercity" (Tarr, 251), presents a new, different reason for the posthuman and 'monstrous' status of these latter characters.

The world of its protagonist, clone server Sonmi~451, as we have seen in previous chapters is in fact "built upon a two-tier system of strictly segregated socio-economic groups of haves and have-nots", where the 'haves' are the 'humans', or "purebloods" (Schoene, 118), while the 'have-nots' are the clones, who form the "slave labour" that "serves a range of industries" (Hortle, 246). Sonmi herself "works in a subterranean fast-food restaurant" (Hortle, 246), a 'dinery' described by a character from a previous section of Mitchell's novel who saw it in a dream as a "nightmarish café, brilliantly lit, but underground, with no way out" (Mitchell, 80). This place represents her version of the Underworld and, indeed, her whole world at the beginning of the story, as "because she cannot go outside the diner, there is no 'real world' to give context to the artificial world in which she lives" (Irvine, 151).

She, as we will see, is as much of a posthuman adapted to her environment as the Morlocks and Fremen, for life in her artificial Underworld has altered her on both a physical and mental level in such a way as to render her 'other' from the humanist 'human'. However, while the Morlocks' metamorphosis into posthuman 'monsters' was an unforeseen, accidental process, and that of the Fremen proof of their strength and vitality, the 'othering' transformation of Mitchell's characters into something not-quite-human was imposed on them by others, who designed the clones to suit specific places and tasks.

Claeys remarks on how, while "for millennia we have worried about the boundaries between animal and human", another "great schizophrenia of identity" emerges in more recent times "as new beings are created", no longer "half-human, half-animal" but partly machine, such as cyborgs, or entirely artificial, such as androids or clones (78). We have touched upon the topic of such characters before, with the cyborg-adjacent Fremen and artificial Tleilaxu gholas in the *Dune* saga. Yet in Mitchell's *Cloud Atlas* one such character, Sonmi~451, takes centre stage, not only as the protagonist of her section of the novel but also because her story is told from her point of view and in her very words, with a first person narration.

The year of publication of the novel, 2004, is significant. In fact, as noted by Schmeink, "much early biological sf [science fiction] necessarily took a long-term and large-scale

approach to human development", since its scientific background was "determined by evolutionary and hereditary approaches" (20), as has been the case in both Wells's and Herbert's works, where the 'human' evolves slowly and artificial tampering is portrayed as an application of eugenics to controlled breeding programs, or as the use of transformative substances (although hints of what was to come were already present in the *Dune* saga's second novel, *Dune Messiah*, published in 1969).

Schmeink continues by arguing that

> by the end of the 1970s […] biology had moved beyond the hereditary model as a basis for genetics and had embraced resequencing through rDNA as the most promising technological development. From this point on, discourse on biology took a science-fictional turn in that the radical alteration of the human genetic structure came into scientific reach (20).

Indeed, experiments such as those of Dr. Hall (1993) and of the Roslin Institute (1997) demonstrated that "cloning humans was possible and that clones could be made of existing adults", and through an intuitive conceptual leap connecting their separate results "Dolly's existence, coming after the cloning of human embryos, implied that the cloning of adult humans was possible" (Irvine, 8).

This new scientific and technological background had profound effects on science fiction and the theoretical discourse surrounding it, for its novelties broadened the genre's "dimension of possibility", making genetic engineering appear scientifically feasible and thus "an object of near-future extrapolation" (Schmeink, 20) in fiction, while at the same time raising new concerns regarding "the repercussions of crossing the threshold of the human 'made-to-order'" (Schmeink, 60), whose civil rights soon became an ethical concern of many posthumanists (Tarr & White, xiii). Mitchell's novel *Cloud Atlas* is an example of how these anxieties found expression, being a "reflection on the possible political, social and ontological consequences of the third industrial revolution, that of biotechnology" (Machinal, 127) particularly concerning the figure of the clone.

White ponders whether the clone can be considered 'human', or posthuman, and concludes that not only it is certainly a posthuman figure, but it is also "the second most invoked example of the posthuman" next to the figure of the cyborg (138). Unlike this latter, whether the clone can be considered a hybrid of 'human' and machine is a matter of contention: some claim that while "cloning, genetic engineering, and embryonic selection are of course forms of biological technology", they represent merely the tools used to obtain a clone, which in itself instead is not technological (Irvine, 39) and as such cannot be considered a human/machine

hybrid. Others argue that clones are "humans by appearance, machines by purpose" and thus closely related to Donna Haraway's cyborgs (Berggren, 5), often seen as "less than human" due to their "technological aspects" which render them 'other' (Berggren, 9).

White's interpretation of this figure represents the best synthesis of these opposing arguments, as she stresses how despite the fact that the clone is "a reconstruction of manipulated human cells", whose substance is "one hundred percent human DNA", and thus not an amalgamation of technological and organic material like the cyborg, the clone's "artificial origins" and "the biotechnology involved in its creation" render it unnatural "and thus nonhuman [and] posthuman" (138).

On a more philosophical level, the clone is posthuman also because its very existence "challenges the liberal humanist idea of the self", a threat to "the concept of the individual as a separate and unique human being" (White, 139). For example, Hortle refers to the clone characters of *Cloud Atlas* both as an "exemplary posthuman otherness" and as "simulacra", that is, both image and imitation, "of human life" (247), putting these two traits in direct correlation. However, the consequence of this perception of the clone as "merely a copy" of the proper "liberal humanist self", despite the fact that "a clone is not an identical duplicate of a person any more than an identical twin would be", is that of a 'devaluation' of the figure of the clone, similar to that of an imitation compared to an original painting or a photocopy compared to the original document (White, 141).

Such 'devaluation' is precisely what determines not only the clones' nonhuman status, but often also their 'less-than-human' condition, which usually manifests as the lowest possible social rank, discrimination, and a troubling expendability as creatures that are not included in the protection represented by 'human rights', all characteristics that apply to Sonmi and to her fellow clone characters in Mitchell's novel. Moreover, Irvine points out how "in the case of genetically engineered or cloned posthumans, there would not necessarily be a visible physiological difference between the posthuman and the unmodified human", yet as the "biological status" of the clones "informs their social status", "they are made visually distinct so that unaltered humans can recognise genetic posthumans" (30).

This is the case in *Cloud Atlas*, where all clones are deliberately designed with 'monstrous', 'inhuman' physical traits that have the function of 'marks of otherness' and distinguish them from the 'humans' of the novel, the 'purebloods'. The most obvious example of this distinctive 'design' is, as reported in the first chapter of this thesis, the fact that clones or 'fabricants' all share the same set of features, with the only variety brought by the different

'models' or stem-types they belong to according to their purpose. Such specific, well-known appearance makes the clones immediately recognisable and distinguishable from 'humans' (Mitchell, 230) even if their bodies are mostly humanlike, as is the case of the protagonist, Sonmi~451.

Yet, it appears obvious from the various clues disseminated in the text regarding Sonmi's appearance that even her and those more 'human-looking' among the clones would not be able to pass as 'human', even if their faces were not instant giveaways of their true nature: while there are multiple little details of their bodies that clash with our idea of what constitutes a 'human' appearance, for example poreless skin (Mitchell, 212), it is their eyes that are their most striking and revealing 'inhuman' feature. In fact, in the very first pages of her story, Sonmi describes her friend and fellow clone Yoona~939's eyes as "ivory" (Mitchell, 190), and later explains how, to pass as a pureblood during her escape, she herself had to get her "ivory irises […] hazeled" by a facescaper (Mitchell, 337).

It is no coincidence that, much like *Dune*'s Fremen exhibited as their most obviously 'inhuman' trait the 'blue-within-blue' eyes, *Cloud Atlas*'s clones are also characterised by 'inhuman' eyes that could be described as 'white-within-white'. Considering the well-established idea that the eyes are 'the mirror of the soul' or 'the window to the soul', eyes that appear 'inhuman' not only represent a mark of otherness and 'monstrousness' for the characters that bear them, but they also call into question whether such characters have a soul – quintessential element of the humanist 'human' – for if the eyes do not look 'human', there is no guarantee that a 'human' soul looks out from them. Once again, this is the case of Mitchell's clone characters, as they are, in fact, soulless, in a very real, physical way: their bodies do not contain a Soul, the previously discussed metal implant carrying both credit and personal information essential to any pureblood and to life in Nea So Copros.

Another element that shows how the clones' posthuman bodies complicate the traditional binaries of the humanist 'human' is the matter of their sex. Although Sonmi refers to herself and to her "sisters" (Mitchell, 189) with feminine pronouns and terms, the sexuality of the clones is left ambiguous: Hortle notes how Sonmi defines herself "not xactly a girl" (252), and in the novel she also shows how such ambiguity is tangible and physical, talking about her "genomed-out breasts" (Mitchell, 352). Other passages also hint at the unclear sex of clone bodies, recounting how stolen fabricants need to be "made serviceable with clumsy surgery" before being put to work in the slum's brothels (Mitchell, 331) or defining the sexual encounter between Hae-Joo and Sonmi "necessarily improvised" (Mitchell, 361), thus

corroborating Hortle's argument that "the fabricated posthuman body can only approximate human sexual difference" (252).

Interestingly, in the Wachowskis' movie adaptation of the novel, the clone characters are precisely those that appear most 'human' in appearance, despite the fact that some 'inhuman' physical elements classifying them as 'other' are maintained. For example, the clones still have the same faces (*CA*, 02:18:41-02:18:43), and even a recognisable mark setting them apart from the 'humans' in the form of (rather than the book's more 'monstrous' all-white eyes) a brightly coloured lock of hair, differing from model to model, that Sonmi cuts off as part of her process of claiming 'humanity' for herself and her fellow clones in a powerful scene (*CA*, 01:11:41-01:11:51).

Furthermore, an aspect of the novel that is altogether missing from the movie adaptation but that is instead quite noteworthy is that in Mitchell's story the bodies of the clones differ from 'human' ones by design not only for ease of identification, but also as an integral part of their 'customisation'. At the beginning of this chapter it was noted how Sonmi and *Cloud Atlas*'s clones in general have been forcibly been made suitable to their work environment at the very moment of their creation, and as such are 'born' as posthuman characters 'adapted' to their surroundings. In Sonmi's case, such 'adaptation' is merely a matter of a few minor adjustments to the 'human' body, which nonetheless, as noted by Hortle 'weaken' her, creating a form of built-in "disability" when compared to purebloods bodies, for these "diminished capabilities" limit what she can do and where she can go (247).

For example, she is "genomed to be comfortable in hot eateries" and thus physically suitable only to a certain temperature, meaning that in the 'Outside' she is prone to suffering from the cold which "burnt [her] skin and lungs" (Mitchell, 230). Plus, as she was meant to spend the entirety of her existence underground, her body experiences difficulties when moving "against gravity", with such simple acts as riding an elevator or climbing a staircase causing Sonmi to struggle or fall over due to "feeble legs" and "vertigo" (Mitchell, 208, 211). Overall, however, the changes introduced into the 'design' of Mitchell's protagonist still allow her to retain much of a traditionally 'human' appearance. Instead, other clone characters in the novel have undergone a much more obvious and extreme 'redesigning' of the 'human' form in order to be 'fitted' to their assigned tasks, appearing truly 'other' and 'monstrous' as a result.

Sonmi's second friend, clone Wing~027, is one such case. He is described in the text as "a towering figure, over three metres tall", with "genomed out" lips, ears "protected by valves of nail-like substance", "two-thumbed" hands, and severely burnt skin creating streaks of

"scalded red, burned black and patched pale" on his body (Mitchell, 214). All these details add up to portray his body as characterised by a physical ugliness that makes him 'nonnormal' according to the humanist binaries (Braidotti, 526), and thus 'inhuman' and 'monstrous'. The same can be said also of other clones Sonmi encounters throughout the story, for example the "embryo fabricants" she observes in a "nursery" where their bodies are under production: despite displaying startlingly familiar and 'human' foetal behaviour such as sucking their thumbs or "scurrying a hand or foot" in their sleep, their eyes appear 'inhuman' and "bowl-like", for these clones are destined to work in "uranium tunnels" and thus their bodies have been adapted to function in the darkness, to the point that exposure to "unfiltered daylight" would drive them insane (Mitchell, 340).

Such clone bodies, produced with 'inhuman' traits deliberately so that they can better perform their destined tasks, have ambiguous and fascinating consequences in posthuman terms. On one hand, in fact, they further the enslavement and segregation of not-quite-human characters, both causing them to be perceived as 'less-than-human' due to the stigma attached to 'monstrous', ugly figures and trapping them into their designed area of labour by making them unsuitable to survive or live comfortably elsewhere, much like Wells's Morlocks trapped in their undergroung 'tunnellings'. However, and in this too Mitchell's fabricants show a certain similarity to the Morlocks, on the other hand, the same 'inhuman' traits also have the potential to make clones 'superior' to baseline humans: as Wing~027 boasts, his model of clone, the "disasterman", can survive "deadlands so infected or radioactive that purebloods perish there like bacteria in bleach" (Mitchell, 215).

In fact, the reason why clones like Wing~027 have been 'genomed' with physical features "that are antithetical to the cultural construction of normal human appearance" is that such changes "are necessary for their survival" (Chen, 186) in their workplaces outside and away from the city. This is due to the fact that, as a consequence of the xecs' reckless exploitation of the natural resources and waste-producing uncontrolled consumerism, in large swathes of land surrounding Nea So Copros the environment has become too extreme for 'human' life, due to irradiation, pollution, and the devastating effects of climate change (Mitchell, 215). Chen draws a connection of "direct causality between ecological abnormality and the destabilized ontological boundary between human and nonhuman", arguing that

> by retracing and remapping the human subject into an adaptive organism in destabilized ecology, these futuristic visions of human and environment participate in the ecological posthumanist discourse, which challenges the false integrity […] of the humanist self (192).

Such ‘futuristic visions’ can show how posthuman hybrids are ultimately the ones more suitable to life in said ‘destabilised ecologies’, and indeed in *Cloud Atlas* Wing~027’s ‘inhuman’ body, by making him and his fellow disastermen able to survive in a new environment incompatible with traditional ‘human’ bodies, has the potential to make clones physically ‘superior’ to purebloods in such a way that, as he tells Sonmi, “the day when all Nea So Copros is deadlanded […] will be the day of the fabricants” (Mitchell, 215).

Despite this potential of the clones’ posthuman bodies, however, they are kept ‘in check’ and subservient to the ‘human’ characters by another crucial physical feature that sets them apart from purebloods, that is, their only viable food source. Sonmi explains how “a fabricant xpires after forty-eight hours without a highly genomed Soap” (Mitchell, 341), which is the specific corporation-produced fuel essential to the clones’ ‘organic machinery’, as they cannot eat or process “pureblood food” (Mitchell, 356). This suggests the presence in their bodies of a biologically different digestive system designed to make them dependent upon the ‘human’ elite for survival.

Moreover, besides being another ‘inhuman’ element added to Mitchell’s clones, the matter of their diet also brings us to discuss how *Cloud Atlas*'s 'monster' characters engage in the practice of cannibalism. The question is, in fact, what exactly is ‘Soap’ made of? Frame claims that “one of the most profoundly shocking moments of David Mitchell's *Cloud Atlas* is the fabricant Sonmi~451's discovery that she has unwittingly cannibalised her fellow clones by consuming ‘soap’ […] which is revealed as deriving from the bodies of their executed ‘sisters’” (17). As a matter of fact, hypercapitalist Nea So Copros society has created a self-fuelling loop of ‘resources’ when it comes to the clones’ inhuman bodies: the “biomatter” necessary both for their production in “wombtanks” and for their feeding during their working lives, in the form of Soap, is “recycled” from the flesh of those clones whose usefulness has expired, and that are therefore disposed of without any waste of ‘material’ (Mitchell, 359).

Such ‘recycling’ takes place in industrial slaughterhouses were Sonmi witnesses the oblivious clones being killed and how their bodies undergo a ‘processing’ at the hands of workers who “stripped clothes, shaved follicles, peeled skin, offcut hands and legs, sliced off meat, spooned organs” (Mitchell, 359) that ‘deconstructs’ and literally ‘dehumanises’ the clones until they are reduced to mere meat. Hortle notes how this gives Mitchell’s clone characters a sense of “animalness”, lowering them to a condition of “less-than-human livestock” (250) similar to that of any meat-producing animal. At the same time, the use of the meat of ‘recycled’ clones as food for the ones still actively working dehumanises these

characters in a different way as well, for it involves them into the practice of cannibalism, which, as we have previously discussed regarding both Morlocks and Fremen, is the trait that definitely marks a population of characters as 'monstrous'.

However, *Cloud Atlas*'s depiction of cannibalism is unique, as the "auto-cannibalistic" (Hortle, 250) behaviour of the clones is not only unknowing but also imposed by others. Sonmi and her sisters do not know that they are consuming their 'retired' sisters, nor can they choose to do otherwise, for as previously stated their bodies were designed by purebloods 'genomicists' and corporations in such a way as to subsist exclusively on Soap. Thus, they are at the same time 'monster' and very 'human' victim of a dystopian society in which a cannibalistic system created by the real 'monsters', paradoxically the officially recognised as 'human' consumers, force them into their 'inhuman' practice. It is with them that readers are led to empathise, feeling horrified *for* Sonmi and her sisters rather than *of* them, as was the case with Wells's Morlocks and, to a lesser extent, with Herbert's Fremen.

In addition, the fact that Nea So Copros's whole society is based on the cannibalisation of clones destabilises humanist preconceptions regarding the 'human' on different levels as well. Firstly, as noted by Ng "one of the cornerstones of civilisation is based on the presumption that practices such as cannibalism are the domain of 'primitive' peoples" (112), and in fact this was the case both with the Morlocks, 'primitive' as animal brutes, and with the Fremen, 'primitive' as an exotic tribal culture. Yet this is no longer the case with Nea So Copros's clones and consumers, as here Mitchell depicts an exasperated form of very familiar civilisation, and moreover, despite its Korean setting, a type of civilisation, capitalism, usually associated with the West.

Secondly, since it is not only the clones who engage in cannibalism, but the consumers as well, as "the leftover 'reclaimed proteins' are used to produce Papa Song food products, eaten by consumers […] all over Nea So Copros" (Mitchell, 359-360), this practice blurs the line between the posthuman and the humanist 'human' not only by putting into question who truly is the 'monster' who behaves 'inhumanly' in this scenario, but also at a biological level.

Ng claims that "cannibalization also entails the assimilation of something external into one's own body, as a result of which the latter is irreversibly altered" (117) and therefore strengthens Hortle's argument that in *Cloud Atlas* the clones' "posthuman bodies are 'reclaimed' by the human population through the bodily and digestive act of eating (251). As a consequence, "human purity is compromised", for by physically incorporating the clones' posthuman bodies so-called purebloods become "posthuman themselves" (Hortle, 251), beyond

the level of posthuman hybridity they already possessed as a not-quite-human elite product of eugenics and artificial tampering and in a way that connects them directly to the 'inhuman', 'monstrous' and animal-like clones, muddling the boundary between the two variations of posthuman characters in the novel until it is only maintained by sheer authoritarian power in a way that we have not encountered before.

This is echoed in the novel by the ending and the purpose of Sonmi's story, that is, her *Declarations*, in which she demands that clones be recognised as 'human', that Nea So Copros as a society acknowledge that "fabricants are purebloods" (Mitchell, 362), and her character's reinterpretation from an 'inhuman', expendable worker to a posthuman revolutionary defying the human/nonhuman binary (Rickel, 172) and indeed joining both 'monsters' and 'elite' characters of the novel into one single population of posthuman hybrid characters affected by extreme disparity.

Mitchell's portrayal of cannibalism in his novel, even in the other sections that make up *Cloud Atlas*, supports such an elision of the difference between the dominant elite of characters who are recognised fully human rights and the subservient, oppressed characters seen instead as less than fully human. In fact, Frame remarks on how Mitchell's novel engages with cannibalism "in both a literal and symbolic sense", dealing not only with literal cannibalism, which as we have seen is defined 'as the act of consuming one's own kind', that is, humans eating human flesh, but also with "symbolic cannibalism" (19). This latter is defined as "consuming 'what is like the self'", and Mitchell uses it to denounce various forms of oppression and discrimination by reimagining many different examples of "relations of exploitation" such as colonialism, rape, environmental destruction and even plagiarism "through the language an imagery of cannibalism" (Frame, 19).

The word 'exploitation' is key here to understand why not only Sonmi and her fellow clones, but also the Morlocks and the Fremen, are and have to be perceived as the 'subhuman', 'monstrous' dwellers of the Underworld, despite the fact that the corresponding so-called 'human' elites of their stories are just as posthuman: they need to be dehumanised so that their exploitation and enslavement can be justified, becoming palatable. A passage in *Cloud Atlas* alludes to this directly, declaring that "to enslave an individual distresses the conscience, but to enslave a clone is merely like owning the latest mass-produced six-wheeled ford" (Mitchell, 191). Here it appears evident how the distinction human/clone, which evolves into the distinction sentient subject/inanimate object, is meant to "obfuscate the cannibalistic

implication behind consuming the labour, and by analogy the body [albeit that latter very literally in this case], of 'one like the self'" (Frame, 24).

Such a reduction of 'undesirable' posthumans to the level of 'things' is not limited to *Cloud Atlas*. In fact, in a passage of Wells's *The Time Machine* the Time Traveller uses this exact word in relation to the Morlocks to justify his desire to kill them: "very inhuman, you may think, to want to go killing one's own descendants! But it was impossible, somehow, to feel any humanity in the things" (Wells, 89-90). The Traveller here excuses his own violent behaviour by denying the humanity of his victims, and a similar dehumanisation becomes apparent towards each of the three 'monstrous' posthuman populations of characters we encountered so far, functioning as the reasoning supporting their exploitation, as will be analysed in the next chapter.

Chapter Four

Exploited Bodies

'Purebloods force us to work trapped underground […] so they can enjoy the beautiful places on the surface without sharing them' (Mitchell, 198).

As we have analysed so far, Morlocks, Fremen and clones represent the most dehumanising interpretation of the posthuman 'Other' in their respective novels. Through their more obvious hybridity with something other than 'human', which emerges clearly in their physical 'inhuman' features, and through their practice of cannibalism, varied as it might be, they acquire the status of 'monsters' seen not only as non-human, but as 'less-than-human'.

Consequently, these characters are 'segregated' into an often physical and certainly social 'Underworld' by the not-as-obviously posthuman, and as such considered officially 'human', elites that appear as their counterparts in each work. The latter also take advantage of, or deliberately manufacture, the former's 'dehumanisation', in order to strip them of those rights that are accorded to those recognised as 'human', reducing them to non-human, and therefore exploitable, bodies to be used as the elites see fit.

As mentioned in the first chapter, Giorgio Agamben theorised how the concept of 'biological belonging' to 'humanity' has proven unstable in providing a truly all-encompassing protection in the form of 'human' rights, rather than a partial, conditional protection only to those acknowledged as 'human' by governments/authorities depending on their agenda/ ideology, as these latter are prone to stripping not only their rights but their very 'biological' status as 'humans' from those they consider 'undesirables' (Burtchaell, 625-626). Thus, "the fundamental activity of sovereign power is (though an act of abandoning subjects) the

production of naked life, that is, of "a mode of existence" characterised by "abandonment and/or exposure to sovereign violence, on/in the threshold/zone of indistinction" (Ek, 366).

Such a 'less-than-human' condition, outright exploitable by law or at least vulnerable to exploitation due to its ambiguous legal standing, applies particularly to posthuman hybrids, as their 'posthumanity' itself exposes them to being very easily portrayed as biologically 'inhuman' and 'subhuman' by the officially 'human' (or 'superhuman') sovereign power. In fact, concerning the potential power dynamics between 'posthuman' and 'human', Niu wonders not only whether a posthuman "augmented" or "superior being" should dominate over the "human", but also whether the official "human" should "control and monopolize the nonhuman", both in terms of "artificial" beings or hybrids such as the cyborg (88). And indeed, similar situations of power imbalance due to the 'human' or 'nonhuman' status assigned to certain of their posthuman characters are exactly what we have analysed in Wells's, Herbert's, and Mitchell's science fiction works.

In all three novels appears a variation of the posthuman paradox analysed by Irvine, who, when discussing the bioengineering of "genetic posthumans", claims that while

> scholars of the 'posthuman' future tend to speculate that genetic engineering (and other technologies) will create superhumans, […] recent fiction […] envisages not a programme of enhancement, but rather the creation of a new genetic class system in which cloned or engineered human-like organisms form an oppressed or abused minority (2).

Of course, *Cloud Atlas*, with its clone characters and its 'properly genomed' 'superhuman' purebloods, fits this description of which beings could populate a 'posthuman' future perfectly – including the detail of its publication date (2004) marking it as 'recent fiction'.

However, similar possible 'posthuman' futures inhabited by, on one hand, 'improved humans' or 'superhumans' who form the ruling elite, and on other, oppressed minorities of 'monsters' or 'subhumans' do not appear solely in recent fiction, nor are they limited only to the form of 'posthumanity' produced by genetic engineering. As we have explored in the previous chapters, older sci-fi works that predate the technological advancements informing fiction's portrayal of genetic engineering like *Dune* and *The Time Machine* present this precise situation as well, the former with its 'superhuman' aristocracy having the power of life and death over the 'inhuman' 'desert rabble' of the Fremen, and the latter with the Eloi's powerful ancestors attempting to 'better themselves' into 'superior humans' while keeping the 'inferior' working class of the Morlocks' ancestors trapped underground.

In the posthuman futures imagined by Wells, Herbert, and Mitchell, not only we find an 'oppressed minority' of posthumans seen as 'less-than-human', but the dehumanisation and reduction to 'naked life' of such characters through their 'monstrosity' (and therefore 'inhumanity') is also a feature closely interconnected with their exploitation by the official 'human' elite, either as its direct consequence, as is the case with the characters of the Morlocks, or as its justification, signalling how their bodies are but a mere resource to be made use of, which is instead the case of both Fremen and fabricants.

Irvine goes on to identify "three main ways" of positioning certain posthuman characters as "disadvantaged beings" (2) in works of fiction, in such a way as to recall oppressed groups or forms of oppression familiar to the reader from historically rooted socio-political contexts:

> Firstly, they are presented through metaphors that position them beneath 'real' or authentic people. Secondly, they are economically exploited in a manner which recalls historical instances of slavery and ownership. Thirdly, they are animalised and demeaned to the status of beasts via rhetorical tropes familiar from the historical animalisation of exploited races (15).

As we will see over the course of this chapter, all three of these methods apply to each dehumanised 'monstrous' population of posthumans in Wells's, Herbert's, and Mitchell's novels, identifying them as the 'oppressed' characters of their respective story.

For example, H. G. Wells "explicitly relates his metaphors of bodily alteration to social conditions" (Youngs, 107) in his works, and in *The Time Machine* this is particular obvious when it comes to the characters of the Morlocks: the physical transformation into 'monsters' of these characters is directly caused by the social conditions not only of their ancestors in the narrative, but also that of the real working class of Wells's time, which inspired him while crafting his story. In fact, the first element that reveals to the reader how, despite the fact that at the time of the Traveller's journey to the future the power dynamics between Eloi and Morlocks have reversed and it is the latter who occupy the role of 'cruel masters', the Morlocks actually used to be the 'oppressed' group of characters of the novel is the fact that they live, quite literally, 'beneath 'real' people', in their underground tunnellings. The idea of such an 'Underworld' comes, as explained by Youngs, from how in this novel "Wells takes existing conditions in the city [London] and projects them forwards within Darwinist and quasi-Marxist terms", pushing them to their most extreme consequences in order to critique his contemporary society (110).

In this case, "Wells has in mind the present 'tendency to utilize underground space for the less ornamental purposes of civilization'" (Youngs, 117), an interesting euphemism for that

work which is considered ‘unsightly’ and ‘degrading’, carried out by the lowest classes and progressively pushed ‘out of sight and out of mind’ much like the living conditions of those who perform it. The examples of such work listed by Youngs include “the Metropolitan Railway, subways and underground workrooms and restaurants […] the miners who toiled underground to supply society’s energy needs” (117), while Fokkema identifies as the real-world models for the characters of the Morlocks “factory workers”, adding that in the future portrayed by *The Time Machine*, much as it was already happening in Wells’s contemporary London,

> with the advance of industrialisation the factories had been relocated underground and the workers had followed suit, thus confirming the split between the well-to-do Eloi in their dilapidated palaces and the poor, uncivilised Morlocks in their underground dwellings (290).

The Traveller himself refers to the working class as the existent counterpart of the Morlocks directly, drawing a parallel between their similar conditions of ‘oppressed’ labourers.

He reflects upon “the growing gulf between the rich and the poor” in his own time, “with the former seeking to distance themselves further physically and socially from the latter” (Youngs, 118), as he speculates upon the events that led the Morlocks to their present situation, and paints a vivid picture for the reader of how the Eloi’s ancestors not only had managed to create an aristocracy “literally on top” (Youngs, 118) of the working class, but were also exploiting the Morlocks’ labour to the extent that it became an almost biological instinct for them to serve.

In fact, in the text Wells tells us that

> The Morlocks made their garments, […] and maintained them in their habitual needs, perhaps through the survival of an old habit of service. They did it as a standing horse paws with his foot, or as a man enjoys killing animals in sport: because ancient and departed necessities had impressed it on the organism (77).

Youngs describes this ‘habit of service’ as “an unconscious instinct” (118), so deeply ingrained that it has become a way of life internalised to the point that the Morlocks still perform their assigned tasks, despite the fact that it so no longer necessary for them to do so in their current situation as de facto ‘rulers’. Thus, their toil is depicted as a physical, mindless act, reducing these posthuman characters to mere working ‘organisms’, bodies that go through the motions of service guided not by intention but by brutish instinct.

Moreover, Braidotti's definition of 'habit' adds a complicating element to the Morlocks' 'servile instinct', for she raises a troubling suggestion for where such 'instinct' may truly come from. In fact, she describes "habits" as "socially enforced" behaviours that "by sheer uncreative repetition engender forms of behaviour that can be socially accepted as 'normal' or even 'natural'" (30). This interpretation is significant, as it implies that 'habits' such as those developed by the Morlocks, so persistent that they have changed into 'instinctive' behaviour, must have been carefully enforced by society, and therefore determined by some form of controlling authority, in order for them to come to be accepted as 'natural'.

And indeed, while such an 'enforcement' of the condition of servitude of the Morlocks' ancestors is not outright described in *The Time Machine*, from the Time Traveller's musings regarding the past power dynamics between Morlocks and Eloi emerge some sinister details which hint to the possibility of coercion to keep the former 'in their place' as workforce. As the Traveller speculates, once the Morlocks had gone to live underground following the displacement of their workplaces, "they would no doubt have to pay rent, and not a little of it, for the ventilation of their caverns; and if they refused, they would starve or be suffocated for arrears" (Wells, 66).

Here comes into play the second of Irvine's 'methods' to signal how a certain set of posthuman characters is an 'oppressed group': the Morlocks' exploitation is in fact twofold, for on one hand their bodies are seen as mere working 'tools', as they have been conditioned into an instinctive habit of service; and at the same time, they are shown to have been "economically exploited" (Irvine, 15) in the past. As the control over those resources that are essential to the workers' survival puts the Upperworlders in a position of sovereign power over the Morlocks, for they ultimately control whether the latter live or die, they can demand both the Morlocks' labour and economic 'compensation' for letting them lodgings in the underground.

Said lodgings are however a double-edged sword, for if in origin they served as a weapon for the Eloi's ancestors, who could use the very environment they had trapped the Morlocks into to threaten their lives, over time they became instead the catalyst for the Morlocks' metamorphosis from 'dehumanised' victims into posthuman 'monsters'. As Young argues, "the Morlocks would not be the creatures they have become had it not been for the bourgeois Elois' suppression of […] those they made serve them" (113): as such, the re-emergence of the Morlocks from their Underworld as predators of their past masters' descendants represents a violent return of the socially repressed (Youngs, 113), and a warning

from Wells to his contemporaries of the terrible consequences of exploitation not only for its victims but for its perpetuators as well, eventually.

Finally, in the 'monstrous' Morlocks encountered by the Traveller we observe the third and last method mentioned by Irvine as mark of oppression, the "animalisation" (15) of the exploited posthuman characters. As analysed in the previous chapter, the 'animalisation' of these characters appears obvious from the very beginning of the novel, as it takes some time for the Traveller to even realise the Morlocks are not 'animals' but "sons of men", (Wells, 83), a process not aided by the fact that the Morlocks' bodies no longer fit the humanist expectation of what constitutes a 'human' appearance.

Yet there is also another form of animalisation of the Morlocks in *The Time Machine*, related both to these characters' original social status and to the real-life working class of Wells's time who inspired them. In fact, Youngs remarks upon how in his novel Wells uses the words 'human rats' and 'human spiders' to refer to the Morlocks, and how "whether or not Wells intends the link, it recalls the description of the urban poor as rats" and other vermin (119) in contemporary texts, for example in Israel Zangwill's *Children of the Ghetto*, published the same year as *The Time Machine*, as the narrator talks about the "dull, squalid, narrow thoroughfare in the East End of London", the dwellings of the poor are compared to "spiders' webs", and the poor themselves to "spiders" (117).

By contrast, in both movie adaptations, as mentioned in the first chapter, the social critique at the heart of Wells's novel is absent. Pal's 1960 movie in fact portrays the development of humanity into two posthuman species of beautiful garden-dwellers and monstrous underworlders as a matter of casual choice, not class dynamics. Meanwhile, Simon Wells's 2002 movie imagines a version of *The Time Machine* in which the Morlocks, or rather the Über-Morlocks, a superior 'caste' with telepathic, mind-controlling powers, are the true elite in control of both 'inferior' Morlocks and Eloi, who are depicted simply as an exploited source of food with no past connections to sovereign power. However, this latter adaptation in a way still portrays the 'lesser' Morlocks as mere bodies there to be used by the elite for its purposes: in fact, the 'hunter' Morlocks are meant to exist as "eyes and ears" and "muscle" for the elite (*TTM* 2002, 01:12:44-01:12:55), and they form literally mind-controlled 'brute force' troops to be deployed as the Über-Morlocks choose. We will see more of a similar situation in the *Dune* saga, where one of the ways in which the 'monstrous', socially inferior posthumans are exploited is by being weaponised as troops for the aristocracy.

In fact, despite the differences between these characters, much like the Morlocks do in *The Time Machine*, in *Dune* it is the Fremen who represent the novel's 'oppressed group' of dehumanised and exploited posthumans, as we will analyse following Irvine's "three main ways" of signalling such a situation (15), to see how they apply to Herbert's characters as well.

Viberg notes how "the societal structure within *Dune* is inherently repressive" (8) and divided into "*faufreluches*", a "rigid class distinction enforced by the Imperium" (Herbert, 561), creating an "issue of caste" (Viberg, 8) according to which some people are 'superior' to others. Moreover, it is not by accident that such a caste system exists in the context of "an authoritarian 'Empire'", which Viberg argues represents "a common tool within the genre of science fiction": in fact, many authors of science fiction writing in the same years as Herbert use 'empire' to criticise real-life imperialism, and indeed so does Herbert in his narrative as he crafts specific aspects of his worldbuilding so as to "problematize the notions of social injustice and abuse of power by highlighting these features within the institutions that are portrayed" (Viberg, 5), for example, the *faufreluches*.

The Fremen "are said to exist beyond the reach of the faufreluches" (Viberg, 9), as appears evident from the very first pages of the novel, when Dr. Yueh – one of the men from Duke Leto's inner circle – tells Paul that "the faufreluches class system was not rigidly guarded on Arrakis" (Herbert, 5). Yet, later on Dr. Yueh is also the one to tell Paul that "[he]'ll not be permitted to mingle with" the Fremen (Herbert, 42). In fact, despite the fact that the Fremen are seen as living outside the 'civilised society' of the Imperium, as "will-o'-the-sand people […] marked down on no census of the Imperial Regate" (Herbert, 5), this is not enough to protect them from the detrimental effect of the hierarchical stratification of *Dune*'s society, as "they are still treated as a lower caste and are certainly not free from oppression" (Viberg, 9).

As Viberg goes on to explain, during the first novel of the *Dune* saga Arrakis's Fremen represent the part of the population "with closest resemblance to the proletariat", and they are "held in great contempt by the repressive powers that aim to govern and exploit this land" (9), something that appears glaringly obvious when observing the words, already mentioned in earlier chapters as emblematic, with which the Harkonnens, the noble family who was in charge of Arrakis before Paul's own Atreides House, refer to these characters: "The Fremen aren't worth considering! […] They're rabble" (Herbert, 255-256). Indeed, according to the Harkonnens, the entire population of Arrakis is composed by nothing but "slaves" to be driven into "utter submission" (Herbert, 256-257).

And the Fremen in particular come from a long history of slavery, having been subjected to "Imperial raiders" who "harvested" their people in order to plant "human colonies" on other planets, where they would be reared in "slave cribs" and then 'selected' and scattered with "brutal ferocity" (Herbert, 385). This past marked by exploitation and violence changed them into something 'other' and 'wild', "a people whose living consisted of killing, an entire people who had lived with rage and grief all of their days" (Herbert, 419), not unlike what happened to Wells's Morlocks due to their forced labour underground, although from his novel we are not given to understand their feelings on the matter. This last detail of the Fremen's history as a people, combined with their current status as "ragged scum of the desert" (Viberg, 8) in the eyes of those who hold power over their planet, firmly positions these characters as "beneath 'real' people" (Irvine, 15) from a social point of view.

However, among *Dune*'s posthuman characters, who qualifies as a 'real' person is also a 'biological' matter, while still definitely a matter of class. Irvine explains that "when genetic control via eugenic breeding was proposed in the early twentieth century, it was heralded as a tool of enhancement" (33), and such posthuman enhancement can become a cause of concern when interpreted as "an embodiment of privilege" (36). This is precisely the case of *Dune*'s 'human' elite of posthumanly enhanced aristocrats: their class privilege takes the form of biological and physical aspects of 'superiority', as seen in the second chapter, due to their training and to the eugenic breeding promoted by the Bene Gesserit.

As one of the main 'authorities' over the Imperium's population, the Bene Gesserit wield a form of 'biopower' through their "control over breeding", which allows them to biologically separate 'humans' into "categories of 'stock'" even to the point of ascribing "attributes of 'human' and 'animal' to different castes" (Viberg, 10-11). In the words of their Reverend Mother, in fact, the Bene Gesserit "sift people to find the humans" (Herbert, 11), however what she leaves unsaid is that those who are not recognised by them as such are automatically an inevitably stripped of their 'humanity' and reduced to the status of "animals" (8). As stated in the first chapter, Bene Gesserit ideology therefore effectively limits 'humanity' to the products of their breeding program alone, that is, the noble Houses and the Bene Gesserit acolytes, while lower social classes such as the Fremen are not included, being seen instead as mere 'animals'.

Such "animalisation" (Irvine, 15) of these characters contributes to their dehumanisation as a people, and in fact in the text we find that the Fremen were actively "hunted for sport" by the Harkonnens (Viberg, 8) much in the way exotic animals would be. Moreover, they are

constantly portrayed in the novel as 'wild', and their connection to Arrakis's most important creature, the Sandworm, is so strong that not only they see him as their God called "Old Man of the Desert" (Herbert, 572), a title that could easily fit any seasoned Fremen as well, but, tellingly, it is also the first truly half-Fremen and Fremen-raised Atreides, Leto II, who eventually physically fuses with this animal.

However, the consequences of the 'sifting' performed by the Bene Gesserit go beyond the reduction of a large portion of the Empire's population to 'animals': it also has the effect of "cementing the difference between classes" in such a way that it empowers a societal system ensuring the "subjugation of individuals" they need in order to pursue their vision of "the progress of the human race" (Viberg, 10-11). The result is a society divided into so-called 'humans', 'real' people, that is, the aristocracy, and those who are instead 'beneath' them, the 'non-humans' meant to 'submit' to the aristocracy and to be exploited by those in power.

As noted, once again, by Viberg, "the universe within *Dune* is a place of intricate political manoeuvring with various factions and institutions utilising both subtle and open means of exploitation" (1). In fact, the narrative of the novel investigates different forms of subjugation, including, as we have seen, "societal structure", but also "religious authoritarianism" (Viberg, 1) and the "totalitarianism" of the Empire, which is connected to "issues of colonialism and monopolised trade" (Viberg, 6-7). This latter is especially interesting, for not only Herbert created the characters of the Fremen drawing inspiration from "a mid-19th century Islamic holy war against Russian imperialism in the Caucasus" (Collins), but these characters also bear a resemblance to "many repressed social groups throughout history, notably the North Vietnamese who drove the occupying American forces from Vietnam" according to the author's son (Viberg, 15). Viberg goes on to argue that "the 1950s and 60s are generally considered the decades that marked the end of colonialism", and that the concept of "decolonisation" not only from past occupation but also from 'modern' American imperialism "plays an important part in *Dune*" (Viberg, 15-16). Indeed, at the beginning of the novel the desert planet Arrakis appears precisely as "as a subjugated colony vital to imperial economics" (Higgins, 236), due to the importance of its "unique natural resource" (Viberg, 6-7), the spice.

This substance, also known as melange, is key not only to such physical enhancements such as an extended lifespan, or 'mystical powers' in the case of the Bene Gesserit Reverend Mothers and Paul himself, but also to interstellar transportation, as its use is what allows the spacing Guild Navigators to find a course among the galaxies (Herbert, 566). Therefore, "the

acquirement and distribution of said resource plays a vital role in the story, primarily because of its relation to the power dynamics within the aristocracy", as achieving control over it also means acquiring "power over travel, transportation and commerce" (Viberg, 6-7). Add to this the fact that spice has the potential to generate incredible wealth through its sheer price alone (Herbert, 46, 92), and that it is highly addictive (Herbert, 566-567), to the point that interrupting its consumption could cause the death of the user (Herbert, 210), and it becomes quite easy to understand why it is so coveted.

Due to its role as irreplaceable 'fuel' of the Empire's entire society and way of life, fictional spice in the *Dune* saga has been compared to real-world resources, specifically "to the importance of oil in late twentieth-century global economics" (Viberg, 14). Moreover, the intestine wars among *Dune*'s noble Houses, fighting each other in an attempt to gain control of Arrakis and its spice, are reminiscent of the conflicts around the control of resources involving Western countries as imperialist powers. Viberg in fact argues that "in *Dune* we are presented with a similar conflict, one where a colonial power keeps occupied territories in order by means of repressive force due to the dependency of vital resources, in which spice is considered the allegorical counterpart of oil" (14).

However, much as it was the case for the colonised people whose territories were exploited for their resources in reality, in *Dune* as well the spice is at the root of another aspect of the Fremen's dehumanisation: because of its presence on their planet, they are "economically exploited" (Irvine, 15). In fact, the only way the majority of the Arrakeen population and the Fremen themselves are involved in the spice trade is as workers in the process of "the gathering and the refinement of spice", but they do not benefit from this resource, nor is the Fremen's own "need for spice in order to produce materials and food" taken into consideration (Viberg, 8-9) by the aristocrat families ruling the planet, who see the native inhabitants of Arrakis either as a cheap labour force or as subhuman 'pests' to be eliminated so that they do not bother their business. The most defiant among the Fremen, those who inhabit the deepest desert, belong to this latter category, and were subjected by targeted killing meant to wipe them out first by the Harkonnens (Herbert, 48) and then, after the Atreides' arrival and downfall, by the imperial elite troops Sardaukar, in the form of "pogroms" (Herbert, 255).

The Sardaukar are notable characters in *Dune*, as they represent "the military branch of the empire […] the sole repressive force to be wielded at any instance" in order to bring to bear on any opposition the sovereign power "to let live or make die" (Viberg, 6-7), and, in particular they embody the "military power being deployed on foreign worlds as a means of claiming

cultural and economical supremacy" (Viberg, 15) in the case of Arrakis. Through these characters Herbert expresses a particular form of anxiety quite widespread in the 1950s and 60s in America, the "nuclear paranoia" generated by "a general concern" over the threat "of imminent destruction as the result of nuclear weapons" after the end of the Second World War and during the Cold War (Viberg, 13). According to Viberg, such 'paranoia' is very much present in *Dune* as well, albeit given a different form: in fact, while so-called 'atomics' are mentioned and their use is strictly forbidden, the true 'weapon of mass destruction' that the Emperor holds over the heads of noble families and general population alike is his Sardaukar "dread Imperial troops" (Viberg, 13-14), made up by "ferociously" trained unstoppable "soldier-fanatics" (Herbert, 571) the mere mention of which strikes terror and inspires utter obedience throughout the Imperium.

Furthermore, the Sardaukar's very existence becomes the catalyst for yet another form of exploitation the Fremen are subjected to, this time only peripherally connected to economic wealth, in the sense that it proves fundamental for Paul to gain control over the spice trade, and thus the whole Imperium: the 'weaponisation' of the Fremen's posthuman bodies.

As discussed in the previous chapter, the harsh environment of Arrakis has had a profound effect on the Fremen, both from a cultural and a physical perspective, turning them into a fierce warrior culture of resilient posthuman characters that, despite being seen as subhuman 'monsters', should really be considered 'superhumans' in their own right. Indeed, it is not only due to the fact that a technological implement, the stillsuit, is crucial to their survival, that the Fremen can be assimilated to the important posthuman figure of Donna Haraway's the cyborg. Rickel claims that the hybrid "posthuman condition" of Haraway's cyborg is "empowering" due to its "defiance of the human/inhuman binary" (172), and truly such a statement is fitting for the Fremen in *Dune*, not only in a physical sense, as their posthuman hybridity grants them the sheer strength and adaptability essential for life on Arrakis, but also politically. In fact, it is worthy of attention how before Paul's arrival and takeover of the Fremen tribes, this people appeared in the text as a proudly independent faction on Arrakis, in open conflict with the imperial centralised power and not cowed by it, rather in full control of the deep desert and therefore of large swathes of the planet's surface, precisely thanks to their posthuman adaptation to its environment.

However, the potential 'empowerment' originating from the Fremen's posthuman bodies is soon turned against them. Much like the cyborg "was born as an astronaut and a weapon", as its "earliest imaginings [...] in the 1960s involved a never-implemented military

plan to surgically and pharmaceutically modify the bodies of astronauts" for space conquest (Dinello, 12), the Fremen too are seen by the Atreides noble House as a potential 'weapon', just another 'resource' to be exploited in the pursuit of their goals. Even before Paul becomes directly involved with the Fremen and their culture, his father the Duke came into possession of the planet Arrakis with a precise plan to implement the locals, who as 'hardened' posthumans have the "potential for a corps as strong and deadly as the Sardaukar" (Herbert, 48), as his own elite army (Herbert, 97) to rival that of the Emperor.

Duke Leto dies before being able to put his plans into practice, while Paul later in the book succeeds in transforming the Fremen from independent people to his own version of Sardaukar, the "Fedaykin, death commandos" (Herbert, 438). Thus, the Fremen become Paul's private military oppressive force, not only on Arrakis, but across all of the universe, as we see in the following novel of the *Dune* saga, *Dune Messiah*, which portrays Paul's Empire as fully established, after his Fedaykin armies have "carried their religious war across space in a Jihad" that "brought all but a fraction of the human universe under one rule" (Herbert, 4). What is also interesting to note in this sequel is that in it we encounter the consequences of the military exploitation of the Fremen's posthuman bodies as well, in the form of two examples of Fremen veterans, a father and son (Herbert, 44) and another older man (Herbert, 201).

Two things emerge clearly from how Herbert depicts these characters. Firstly, how the Fremen troops pay the price of the victories they win for Paul with their bodies, and indeed one of them says this outright: "I do not think our Muad'dib knows how many men ha had maimed" (Herbert, 48). In fact, the father and son both are missing body parts, and they are described respectively with an "empty sleeve" and "empty sockets" (Herbert, 44-45), while the older man's face is ruined by "scars" and his body is debilitated by an illness he contracted while on a campaign (Herbert, 201-202). Secondly, how the Fremen's lives have very much not improved under Paul's rule, but rather their condition, especially for veteran Fedaykin, has worsened both socially and economically, as emerges from how they talk of and yearn for the past. The character of the father, for example, declares that before Paul's Empire Fremen "were a noble people" and he and his son "were not of the cast out" (Herbert, 44), while now they are ostracised as their bodies are not 'whole'. Meanwhile, the other old soldier was driven into poverty by his attempt to find a cure for his illness (Herbert, 202, 204), and laments that "it was better when we were alone in the desert with only the Harkonnens for enemy" (Herbert, 207).

Such passages show that, while "some in SF [science fiction] circles have noted how Herbert's epic fits into the 'white saviour' narrative" since the "Islamicite Fremen, as central

as they are to Herbert's epic, never seem to be able to get their act together without the help of House Atreides" (El-Din, 10), thus leaving "an elite agent from the imperial centre (the equivalent of an enlightened American or European)" to lead "colonised subjects to a better situation" (Higgins, 238), this dynamic does not quite apply to the *Dune* saga.

While Paul is indeed the one who "successfully liberates Arrakis" from the Harkonnes' and the Emperor's oppressive control, which "does imply that outside help is needed to rid oneself from oppression" (Viberg, 15), this does not however actually bring freedom to the Fremen. McGuirk notes how in this regard the Fremen people's very name is misleading, as its "symbolism" is "not static": while in the first part of Dune it does seem straightforward, this lasts "only until the developing plot leads us to question how 'free' a man can be whose great need is to be enslaved by a Redeemer" (144). This is precisely what happens to the Fremen, as Paul, rather than truly decolonising Arrakis, "seeks to use the planet's power (both its natural resources and its military potential) in order to gain control of the Empire" (Higgins, 236), and therefore, as Viberg claims, the "alleged notion of freedom" he won for the Fremen "is in fact merely a continuation of the cycle of oppression, and Paul's reign might prove even more tyrannical than that of the former empire" (18). In fact, not only the socio-political condition of the Fremen portrayed in *Dune Messiah* corroborates this claim, but the third novel of the saga, *Children of Dune,* further confirms it, as at the end of it a new emperor rises, Leto II, who will prove himself the ultimate tyrant.

The most striking proof of how Paul's rule has the effect of ultimately crushing any potential posthuman empowerment of the Fremen people is the transformation he himself notices in the character of Fremen chieftain Stilgar, who throughout the novel embodies and showcases the best qualities of his people: "Paul saw how Stilgar had been transformed from the Fremen naib to a *creature* of the Lisan al-Gaib, a receptacle for awe and obedience. It was a lessening of the man" (Herbert, 507). This passage also contains the key word which reveals how exactly Paul was able to obtain such devastating power over the Fremen, 'Lisan al-Gaib,', that is, the name the Fremen have assigned to Paul as their 'prophet'.

This brings us to the last, but not least important, way in which the Fremen are exploited by offworlders and authorities that reduce these people to 'tools' to be used in the pursuit of their own goals. In fact, Paul's authority over the Fremen is contingent upon two very specific elements: Paul's status of religious leader and 'messiah' among the Fremen, and his promise of realising the Fremen dream of terraforming Arrakis. Both are represented as crucial aspects of Fremen culture in *Dune,* so entrenched in their everyday life and spirituality that they exercise

a profound influence upon their mentality. Yet, both are also the result of exploitative manipulation enacted by outside forces even before Paul's arrival.

The first of these 'cultural manipulations' is that involving the Fremen's religion, and the religious authority that in the novel is "represented by the Bene Gesserit" (Viberg, 9). Specifically, it is carried out by one of their chapters, the Missionaria Protectiva, which Herbert defines as "the arm of the Bene Gesserit order charged with sowing infectious superstitions on primitive worlds, thus opening those regions to exploitation by the Bene Gesserit" (567). Arrakis is in fact one of the worlds, and the Fremen one of the populations, in which the Missionaria Protectiva have "implanted" (Herbert, 59) legends meant "as a safeguard should any members of the school be trapped there and require sanctuary" (Herbert, 552).

Despite this stated purpose, what the legends really accomplish is the religious indoctrination of the Fremen, achieved in such a way that they are "beautifully prepared to believe in (the Bene Gesserit)' and will serve their needs should the need arise" (Viberg, 17), thus making them easily exploitable without any obvious show of oppressive force. And in fact, this religious 'paving the way' for the order's interests is also the most significant reason for Paul's own apparently 'spontaneous' rise to power among the Fremen, for the "authority ascribed to Paul [is] due to the past religious indoctrination of the Fremen" (Viberg, 12) who 'recognise' him as the 'prophet' connected to those 'implanted' Bene Gesserit legends.

The second form this cultural exploitation takes, instead, relates to the Fremen's deep connection to their environment, and to their dream of terraforming Arrakis so as to turn it into a more habitable planet. However, in the *Appendix I - The Ecology of Dune* (Herbert, 533) at the end of the novel, the reader learns how this dream came to be, and discovers it is the result of the influence of Pardot Kynes, the previous Imperial Planetologist of Arrakis, over the Fremen, whose culture and posthuman resilience he co-opted to accomplish his own end of "reshaping" the planet "to fit it to a man's needs" (Herbert, 533). His view of the Fremen as a mere means to an end becomes glaringly obvious through his own words on the matter: "What a tool they could be! Fremen: an ecological and geological force of almost unlimited potential" (Herbert, 533), to be exploited in order to change the planet as he himself saw fit. Pardot Kynes's own path to prominence among the Fremen, which is what allows him to 'implant' his own dream so firmly into their culture and mindset, parallels Paul's almost perfectly, as, like him, Kynes gains the Fremen's trust by fighting Harkonnens, is recognised as a 'prophet' (Herbert, 534-535), and eventually marries a Fremen woman (Herbert, 533) and joins them, all

in order impart them the "ecological literacy" (Herbert, 540) they need to possess so that they can function as 'terraforming force' for his project.

This analysis shows how history of Herbert's Fremen is one fraught with dehumanisation, exploitation and oppression both physical, social and cultural in nature, to the point that even these characters' posthuman potential is not enough to grant them independence and freedom. On the contrary, it becomes instead the root of their 'enslavement' to various powerful authorities' purposes, and also of their position as the 'subhuman monsters' of Herbert's saga. As we will see, Mitchell's *Cloud Atlas* as well portrays a situation, although in this case brought to even more extreme consequences, in which an officially 'human' elite exercises sovereign power over dehumanised posthuman bodies, controlling them by means not only of physical and social oppression but also of psychological manipulation.

While Mitchell's novel deals with and portrays a powerful 'elite', seen as superior, oppressing and exploiting a particular group of characters who are declared to be officially 'subhuman' and 'inferior' by their society in a wide variety of context, it section *An Orison of Sonmi~451* is the one most thought-provoking in terms of what concerns posthumanism and not-quite-human characters. In fact, in it the role of 'superior' characters possessing life-and-death sovereign power over others is fulfilled by 'purebloods', who as discussed in previous chapters represent the only characters officially recognised as 'human' by Nea So Copros's society. Meanwhile, the 'non-human' clones or 'fabricants' are deliberately brought into existence as subhuman slaves, whose only purpose is to provide posthuman bodies for the purebloods to exploit, not only in terms of labour, but also, in an even more dehumanising sense, as sheer 'meat' to be consumed.

Arguably, it is the deliberateness involved in manufacturing not only said posthuman bodies themselves as dehumanised in such a way as to specifically fit their exploitation, but also a whole socio-economic system to ensure they shall be both subhuman and a 'useful resource' surrounding every aspect of their lives, and especially their deaths, which makes *Cloud Atlas* stand out in comparison to the previously analysed novels. This is due to the fact that, while in *The Time Machine* and in *Dune* Morlocks and Fremen came to be seen as potentially useful resources by their respective 'human' elites (in the Morlocks' case even before they developed any posthuman hybridity) and as a consequence of this suffered both exploitation and dehumanisation, *Cloud Atlas*'s fabricants were created to be a subhuman resource in the first place.

Wells's and Herbert's novels presented a critique and a warning relevant to the concerning exploitative tendencies of their contemporary society, in one case, the conditions of the working class, in the other, imperialism, and Mitchell's novel does so as well, with unrestrained capitalism and consumerism as his chosen targets. Rickel argues that "*Cloud Atlas* asks the reader to imagine the culmination of [capitalist] ideology in Sonmi" who, as someone "cloned for the sole purpose of extracting her labour […] exemplifies the way workers are dehumanised for the sake of generating capital" (170). Moreover, her characterisation as a clone also means that

> the novel not only urges the reader to acknowledge a Marxist critique of free-market capitalism through Sonmi, but it also prompts the reader to reconsider the idea of a universal human from a posthumanist perspective by presenting Sonmi as a tragic posthuman figure (Rickel, 170).

As a posthuman and subhuman figure, Sonmi~451 is in fact excluded from 'the idea of the universal human', and as a consequence, from any 'human' supposedly inalienable rights, thus exposing how "narrow definitions of the human may be used to exploit" (Rickel, 171).

As mentioned earlier in the chapter, while posthuman speculation regarding the use of generic engineering in the future predicts that such technology will create "superhumans" and be turned towards "the practice of 'improving' the human form" (Irvine, 2), something that we do witness in the pureblood characters of *Cloud Atlas* (as analysed in the second chapter), that is not the only possible application of such new scientific discoveries. As a matter of fact, Irvine argues that instead "recent fiction on bioengineering" imagines, rather than the 'bettering' of the 'human' due to a "programme of enhancement", the more sinister employ of such knowledge for "the creation of a new genetic class system in which cloned or engineered human-like organisms form an oppressed or abused minority" (2), which is precisely the case of Mitchell's enslaved fabricants.

Such beings exist in what Rickel calls "a zone of indistinction", for as not-quite-humans their exploitation cannot be considered a breach of 'human' rights and thus "morally wrong" (Rickel, 171). Instead, it helps official 'humans' define themselves by contrast not only as 'proper humans', but also as more powerful beings, for example in Nea So Copros's society "people define themselves as human and demonstrate their own mastery by dehumanizing and enslaving clones like Sonmi" (Rickel 171), creatures whose only purpose "is to empower and serve unmodified humans" (Irvine, 12).

Rickel goes on to explain how in fact the novel "shows how corpocracy depends on the belief that Sonmi is expendable and defines her as an inhuman worker clone who occupies the

position of *homo sacer* ('bare life')" (172). Thus, the dehumanisation of the clones serves a specific purpose, that of making them vulnerable to being legally oppressed by the novel's dominant group, as they are officially "beneath 'real' people" (Irvine, 15). Indeed, as clones, they are automatically seen as inferior to 'real' humans, doubly so, since, as discussed in the previous chapter, they are 'subhuman' both as beings born from technological manufacture and as mere copies of 'real' humans.

However, since the society depicted in *An Orison of Sonmi~451* is an hypercapitalist 'corpocracy' in which wealth and money determine every facet of its characters' lives, including 'humanness', the main way in which it becomes increasingly obvious just how far 'beneath real people' clones truly are is through the portrayal of how they are "economically exploited" (Irvine, 15). As noted by Schoene, "the extreme dystopia of Sonmi's early life […] is presented as little more than a very rational simplification of socio-economic relations" (Schoene, 117), in which the workers are 'produced' by their employers (or rather exploiters), 'designed' in such a way as to specifically fit their destined occupation, and finally 'used' until they become obsolete and are therefore 'recycled' and substituted with newly 'produced' workers, much like a piece of machinery.

Regarding this idea of 'workers as machinery', it is interesting to note how the word 'robot', which we usually refer to "a machine that resembles a living creature in being capable of moving independently […] and performing complex actions" and "such a machine built to resemble a human being or animal in appearance and behaviour" (Merriam-Webster), originally was explicitly related not only to the exploitation of the working class but also to the dehumanisation of workers depicted as artificial 'organic machines', much like Mitchell's fabricants. In fact, it was Karel Čapek who in his famous play *R.U.R.* (1920) "gave the world the term *robot*, from the Czech, *robata*, meaning forced labour" which "beautifully illustrates the dehumanization of mankind by technology in the metaphor of the working classes becoming like machines, and manufactured on an assembly line" (Claeys, 335). However, "unlike the conventional concept of robots made of wires and metal, Čapek's robots are human-like creatures; made from a chemical substance that could imitate living matter", making them artificial beings "in the chemical and biological, not the mechanical sense" (Khalil, 454) and thus even more similar to *Cloud Atlas*'s clone characters, 'manufactured' from a "liquefied biomatter" (Mitchell, 359).

Moreover, clone bodies, literally mass-produced by the 'corps', that is, corporations who own and exploit them in series, or "stem-types" (Mitchell, 188), of identical copies much

as any piece of machinery, become a way for said corporations to control clones thanks to in-built physical fetters, sort of 'safety devices' to make sure they are in control of their organic machines. For example, an 'emergency off switch' is implanted in the clones' necks under their collars. It consists of a "subcutaneous barcode", which is made impossible to remove as it explodes on contact with air, killing the clone (Mitchell, 335), thus preventing any clone from escaping or attempting to pass as 'human'.

In the Wachowskis' movie adaptation of the novel the function of this hidden 'kill switch' in the clones' necks is made even more literal and explicit, as seen in the episode of the attempted and failed escape of Sonmi's friend and fellow server clone, Yoona~939. Book and movie alike portray her as the first clone who displayed signs of "ascension" (Mitchell, 191), that is, sentience and 'human-like' behaviour that should be (and must be) impossible for a clone, as we will see. Her progressive development of independent 'humanness' leads Yoona to a desperate attempt to reach the surface and escape her condition of subhuman slave.

In the movie, during this scene Yoona runs to the elevator and the clones' overseer, as she now represents a dangerous, 'deviant' clone gone out of control, disposes of her by pressing a button on a device that has her neck implant explode, severing the major blood vessels in her throat and causing her death (*CA*, 00:31:17-00:31:33). In the novel, instead, Yoona is killed by enforcers who shoot her down before she can even step out of the elevator outside the dinery (Mitchell, 202), and the readers learn of the presence of the implant through Sonmi, as she is only able to succeed (albeit temporarily) in her escape thanks to the outside help of the rebel group Union, who has an expert technician remove it (Mitchell, 335).

The other 'safety device' keeping the clones in check, as mentioned previously, is the fact that they are completely dependent upon their 'fuel', the "highly genomed Soap", without which they cannot survive, not only because it represents their only food but especially because fabricants die in forty-eight hours if they stop consuming it (Mitchell, 341). As Soap is produced exclusively by corps, this gives them absolute control over access to a resource that is essential for the clones, and therefore over the clones themselves.

Yet, the physical 'fetters' designed into their posthuman bodies to keep the clones under the 'human' elite's control are not the only way in which the latter hold power over the former. Irvine notes how "Mitchell does not let genetic control act as the only means by which his masters control their slaves" (144). In fact, clones are "born into debt" (Mitchell, 198), as they have to repay the "Investment" of the corp that made them (Mitchell, 190, 196). Not only this 'debt' is used to justify why the clones have to work untenable hours, unpaid and abused by

consumers and overseers, but it also functions as an additional 'fetter' preventing them from leaving their wretched condition, in a way that

> closely resembles the modern practice known as 'debt bondage', in which a human trafficker sells victims to businesses […] which then force the victims to pay back the 'debt' of their purchase price with unspecified amounts of interest (Irvine, 144).

This conviction forced onto the clones that they 'owe' the corps for their existence, which has the consequence of enslaving them economically to their masters, is only one aspect of a much larger manipulative system of beliefs surrounding fabricant characters in *Cloud Atlas* in order to control them and persuade them of the legitimacy of their exploitation.

Indeed, Mitchell's purebloods utilise both chemical and psychological manipulation in order to influence the clones' minds. On one hand, Sonmi explains for the readers how corps mix into the fabricants' Soap 'repressive' drugs, such as "amnesiads", (Mitchell, 191) and "soporifix" (Mitchell, 205). This latter is simply a sedative, meant to keep the clones 'docile' by inducing in them a mild stupor-like state as they work, but the former is particularly devious. Its effect is in fact that of erasing the clones' memories, both of new things learned, for example "new words, grammar and idioms" (Mitchell, 193), thus severely limiting their means of self-reflection and self-expression, key traits that distinguish the humanist 'human', much like the ability to use language itself (Matlock, 98), and even of events and their fellow clones (Mitchell, 205), which contributes to keep the fabricants 'calm' and 'content' as no matter what comes to pass, they exist in the dazed 'eternal present' of their serving routine.

Furthermore, Irvine points out how besides these effects of active and continuous "drugging", Mitchell implies that the clones also undergo a veritable form of "brainwashing" (144). In fact, Mitchell often mentions "orientation" (Mitchell, 191), a 'conditioning' of the clones at the beginning of their working lives, and "reorientation" (Mitchell, 200), a never-specified re-training the clones are sent to if they are deemed 'defective' in terms of behaviour. In addition to this, the 'brainwashing' of the clones is supported by the corps' purposeful creation of an entire manipulative clone 'culture'. As they limit the fabricants' exposition to reality by controlling their working/living environment, the pureblood xecs make sure that the clones can only know as 'real' and 'true' what their corps' mascot or Logoman (Mitchell, 188) tells or shows them, to the point that they see him as a 'father' or 'god' figure.

Earlier in the chapter, we analysed how religion played a role in the oppression of *Dune*'s Fremen, as the Bene Gesserit Missionaria Protectiva manipulated their beliefs in order to use these characters to further their society's goals. And in *Cloud Atlas* as well we find a

similar situation, as it becomes evident in the novel how religion provides those in power with an exceptionally effective manipulative tool to control their 'inferiors', not only by convincing them that their exploitation and wretched condition are 'natural' and 'fair', but also to persuade them of their own 'subhuman' status.

This is precisely what corpocracy's "Six Catechisms" (Mitchell, 188) are for. Irvine notes how "the novel's human masters create distorted, vaguely Christian theologies to help the fabricants understand the version of the world that their masters wish them to know", structured into a "pseudo-religion" for "fabricants alone", which worships capital and corps above all else:

> the servers are kept in line with their promise of their heavenly 'Xultation', they learn their rules of service via 'Catechisms', they attend Sermons at which they make 'the sign of the dollar', they refer to their 'Logoman' as 'Him' with a capital H and live for his praise, and their misconduct is labelled blasphemy (Irvine, 144-145).

Such cult-like doctrine has both practical and controlling functions, as prescribes rules of behaviour from the daily routine of the dinery (Mitchell, 188) to how clones are supposed to think and feel in order to please their 'Logoman-god' (Mitchell, 240).

Moreover, it is instrumental in establishing the clones as 'subhuman': Catechism Seven, as mentioned earlier in this thesis, recites that "A Soul's Value is the Dollars Therein" (Mitchell, 341). Such a dogma not only showcases the capital-centric ideology of Nea So Copros's consumerist society, which reduces even the concept of 'soul' to mere 'dollars', but also implies that having or not a 'soul' is also a simple matter of 'dollars'. As analysed in the third chapter, clones, since they represent the 'inhuman Other' in Mitchell's novel lack the essential 'human' trait of a Soul, both in the literal sense of the object that identifies characters as purebloods in the story and in a metaphorical sense as 'nonhuman' characters. Now an added layer emerges, that of an economic interpretation of this 'lack' of a soul, as the clones, debt-slaves to their corps, cannot own anything, "even thoughts" (Mitchell, 196), and certainly not 'dollars', thus precluding them from possessing a 'Soul'.

Both Machinal and Irvine argue that the crux of the matter is not that fabricants do not have souls, but rather that they "are not allowed to have souls" (Machinal, 140) as a "political choice made by humans" (Irvine, 147). Irvine goes on to claim that *Cloud Atlas* "posits that the Soul is a human invention, and possession of one is merely a sign that the holder has been endorsed as a member of an ingroup" (147), showing how the clones' 'subhumanity' is a matter of deliberate choice on the purebloods' part, who decide (and have the power) to withhold souls and 'humanity' from clones in order to reduce them to exploitable 'bare lives'.

To further demonstrate how the clones' 'inhumanity' is entirely manufactured as an ad hoc excuse for their enslavement, while, as Sonmi herself eventually declares, "fabricants are purebloods" (Mitchell, 362), part of the 'heaven' promised to the fabricants by pureblood corps is, at long last, the attainment of 'human' status, including the possession of a Soul (Mitchell, 190). Such a 'reward' "mocks the arbitrariness of the line between human and clone" (Irvine, 146), blurring it even further than it already was, for as analysed in the second chapter, Mitchell's pureblood characters do not quite qualify as 'humans' according to a humanist perspective, and they are instead just as posthuman as his fabricants.

Of course, this promised 'humanness' is not granted, as the entire concept of Xultation, or 'clone heaven' is nothing but a lie created as a pacifier for the clones, a "sony-generated simulacrum" (Mitchell, 360) constructed to give them something to hope for as a palliative for the gruelling work they diligently perform in order to repay their 'investment'. Instead of finally reaching a 'human' status with all of its privileges at the end of their working lives, the 'subhuman' condition of Mitchell's fabricants is reinforced, as they are "animalised" (Irvine, 15) in the most extreme fashion encountered yet.

In fact, what awaits them as they board their corps' arks, supposed to deliver them to paradise, is a slaughterhouse for fabricants. In it, Sonmi witnesses how her 'sisters' are killed "on mass scale" (Hortle, 247) by their corps for the meat, or rather "the nutritious protein" of their bodies (Ng, 111), which, as detailed in the previous chapter, will be recycled as food for both fabricants and purebloods. The process the clones' bodies undergo in Mitchell's novel as they are slaughtered is particularly significant, as it is chillingly identical to that used to slaughter cattle in reality, as emerges clearly from a comparison between said process and that described by Welty in his analysis of how animals are killed in abattoirs in the United States (175). Each and every step of the actual procedure is echoed in *Cloud Atlas*, from the stunning via a bolt driven through the skull (Mitchell, 359; comp. Welty, 176), to lifting of the body, clones by their head, cattle by their left hind leg (Mitchell, 359; comp. Welty, 177), and finally to the bleeding and butchering (Mitchell, 359; comp. Welty, 177).

The fact that the fabricants' animalisation is so closely linked to their bodies is not a coincidence, nor does it become apparent for the first time in the novel's passage depicting the slaughterhouse. Throughout the story, it is precisely their posthuman body that represents the cause of the fabricants' 'subhuman' status. As noted by Hortle, "the triumph of the human mind over the earthly conditions of the body" is typical of the "Cartesian humanist subject", yet even as Sonmi's mind continues to develop during her "humanist ascension" until she becomes

indistinguishable intellectually from a pureblood (Mitchell, 362), her "vulnerable body continually marks her as posthuman and therefore expendable" (Hortle, 248). Indeed, the clone body's 'inhuman' features allow 'real humans' to identify fabricants, and to control them through Soap and implants; it is exploited as a source of "low-cost" labour and even as "a kind of consumer novelty" since "a new stem-type is considered 'a new attraction'" (Irvine, 143). Finally, it is animalised in death and its meat is consumed as any non-human organic product.

However, *Cloud Atlas* does not conclude simply with such a harrowing vision for the future of posthumans, but in its sixth and final story, subsequent to that of Sonmi~45, it implies that, as society's definitions of the 'human' and of the 'subhuman' who is legally exploitable shift, so does the fate of those in possession of posthuman bodies. Indeed, Rickel interprets the figure of Sonmi

> not as inhuman but as posthuman […] celebrated as a revolutionary for challenging the system of corpocracy that enslaved her. In this instantiation, Sonmi is Donna Haraway's cyborg, a subject whose posthuman condition is empowering in its defiance of the human/inhuman binary (172)

And in the final story of Mitchell's novel, she has risen even further from her past enslaved station after her execution, becoming a 'superhuman' entity much like Herbert's Paul, a "god" (Mitchell, 254) to a post-apocalyptic primitive people who, ironically, live in the Hawaii (Mitchell, 249), precisely were the Xultation clone paradise was said to be (Mitchell, 190).

The characters of Wells's Morlocks, Herbert's Fremen, and Mitchell's fabricants display in their respective stories how the potential empowerment of posthuman hybridity is thwarted or twisted into something 'monstrous' when it is deliberately suppressed into 'subhumanity' by the sovereign power possessed by 'real humans', intent on rendering lower-class posthumans 'bare lives' and thus legally exploitable. Such man-made 'monsters' are, of course, fictional characters, however all of them were crafted by their authors as warnings inspired by real-life oppression of various abused groups across history, who fell victim to uncomfortably similar ideologies, manipulations and power dynamics surrounding not human rights per se, but who can be qualified to enjoy them as 'human' in the first place.

Conclusion

Human and Not: Walking Through the Uncanny Valley

This thesis has thoroughly examined how H. G. Wells, Frank Herbert, and David Mitchell have portrayed a variety of posthuman characters in their science fiction works, complicating and challenging the humanist binary determining what is 'human' and 'not' through the depiction of both the officially 'human' elites and the so-called 'monstrous' figures inhabiting their novels. However, how does the presence of such characters affect the reader's response to said novels? How can the reader relate to these not-quite-human characters, and thus engage with the story?

Capturing the interest and emotional involvement of the reader is indeed a complex challenge for any author of science fiction. On one hand, as noted by Irvine, fiction is invested with a "speculative power" that allows it to "enter the perspective of any character – even one with no analogue in reality" (13). This is particularly true of science fiction, which has long represented (Schmeink, 32-33) "an ideal space for exploring the emotions, perceptions, and pulses of those whose humanness is doubted" (Irvine, 13) due to their 'Otherness', and among these latter, posthuman characters feature prominently.

On the other, Jonsson argues that

> Though it is a mistake to evaluate fiction solely by the criterion of realistic verisimilitude, it is also a mistake to believe that fiction can be moving without appealing to real psychological mechanisms for imaginative immersion. We need fiction to be concordant to some degree with the world we experience – enough to make the fiction comprehensible and interesting (302).

Thus, according to Jonsson, an element of familiarity is necessary for the reader to establish a connection with the story, and the same idea applies to "literary characters", which it allows to be "evocative and compelling without being realistic" (302). Again, such a statement is especially poignant when applied to the genre of science fiction, whose natural province tends

to be exactly what is "non-realistic" and *un*familiar, a "marvellous universe that differs from the one we live in" (Spiegel, 372).

Spiegel also claims that science fiction "makes the strange familiar" (372), and so identifies a key characteristic of the genre precisely in the ability of striking a balance between the 'familiar' and the 'other' in such a way as to create a combination of these elements that is both speculative towards unrealistic possibilities and solidly rooted in everyday reality. Such a delicate balance of opposites applies to the portrayal of posthuman characters as well, who, as figures that are 'human' and 'not' at the same time, must incite in the reader a sense of recognition and disconnection both. A useful model for understanding how this paradoxical perception of not-quite-human characters comes to pass is the uncanny valley effect, and in fact this word, 'uncanny', is one that has been often mentioned throughout this thesis.

Chu reports how

> In an article titled *Bukimi no Tani* (Uncanny Valley; 1970), the Japanese roboticist Masahiro Mori posited a theory to explain how humans react to humanoid artifacts. According to Mori, humans tend to respond with increasing sympathy to a series of increasingly humanlike entities until a certain point (someplace around 85 percent humanlike) whereupon the aesthetic response drops abruptly from sympathy to profound revulsion—before ascending again (toward 100 percent humanlike) to create what looks, when graphically delineated, like a precipitous valley. For this reason, Mori's theory has come to be known as the "uncanny valley" (76).

Afterwards she goes on to explain that the usual objects to which Mori's theory is applied are "robots, puppets, and other humanoid figures" such as mannequins, who elicit a reaction of "intellectual uncertainty over whether something is inanimate or alive" (Chu, 76).

However, the uncanny valley effect can be applied to the 'humanoid' figures of posthuman characters as well, in fact for example Berggren links it directly to the reader's response to clone characters, simply noting how, in this case, the 'intellectual uncertainty' is related to doubting whether such characters are "genuinely *human* [emphasis added] and alive" (10). Indeed, by taking advantage of the 'dip and rise' of sympathy the reader experiences towards 'humanoid' creatures due to the uncertainty over their 'human' status, the authors of science fiction novels involving posthuman characters can take us for a stroll across the uncanny valley, as we experience sympathy or revulsion towards their characters in waves, sometimes at once.

Such a response fits perfectly the necessity of the genre to portray an overlap of 'familiarity' and 'otherness', as the reader can empathise with uncanny posthuman characters

as long as they are perceived as 'human', and therefore familiar, while also undergoing the feeling of disconnection caused by encountering something utterly 'other' as their 'inhuman' traits emerge. This creates an effect similar to what Shang describes when discussing stories told from the perspective of non-human narrators, which he calls "unnatural narratives" (751) and in which, as explained by Barnaerts,

> non-human narrators prompt readers to project human experience onto creatures and objects that are not conventionally expected to have that kind of mental perspective (in other words, readers "empathise" and "naturalise"); at the same time, readers have to acknowledge the otherness of non-human narrators, who may question (defamiliarise) some of the readers' assumptions and expectations about human life and consciousness (Shang, 752).

This interplay of empathy and defamiliarisation employs the full speculative potential of science fiction to 'make the strange familiar' through posthuman characters who challenge the humanist idea of the 'human', and therefore what it means to be 'human' in the reader's own perception by being both 'human' and 'not'.

Examples of such uncanny posthuman characters are, as mentioned in the introduction, the titular character in Brown's *Sentry* and a few key figures in the cast of characters in Tchaikovsky's *Cage of Souls*, but also the posthuman elites and 'monsters' of Wells's *The Time Machine*, Herbert's *Dune* and Mitchell's *Cloud Atlas*. In fact, Hortle's description of the reader's reaction to characters initially perceived as 'human' and only later revealed as posthuman portrays perfectly how the reader responds to the characters of Wells's Eloi, the Imperium's noble Houses such as the Atreides in Herbert's *Dune*, and Mitchell's purebloods. He claims that the "initial misrecognition" of posthuman characters as human gradually changes as their posthuman status is revealed, making them "'something else, something troubling and strange', which in turn shakes the reader's recognition of their own human identity" (89).

And indeed, when the reader first encounters the elite characters of the three novels analysed in this thesis, at first, they both appear more physically 'human' than their counterparts and are officially recognised as the only 'human' characters in-story, therefore the reader identifies with them, experiences a sense of recognition and empathises with these 'familiar' characters. However, as the story progresses, and their uncanny posthumanness emerges together with their most 'other' and 'monstrous' aspects, this fellow-feeling transforms into a sense of disconnection and 'revulsion', or rejection of any similarity between them and the

reader, challenging their understanding of the concept of 'humanity' even when applied to themselves.

Meanwhile, the 'monstrous' dwellers of the Underwold in each novel undergo an almost opposite process of dissociation/recognition due to their ambiguous and uncanny status of posthuman hybrids, due to their more 'strange' and 'other' physical traits, 'inhuman' behaviour and generally dehumanised status in-story. In this regard, Wells's Morlocks represent a notable exception, for as they do not appear particularly 'humanoid' in shape at the beginning of the novel, to the point that they are believed to be mere animals, here the shock of the reader is caused not by the discovery of an uncanny posthuman nature of the characters, but rather by the revelation that they are in some way 'human'. Of course, the reader, much like the Time Traveller, absolutely rejects any familiarity with these animalistic, cannibal 'monsters', and yet neither Traveller nor reader can fully escape the recognition of a certain 'familiarity' carried by these posthuman "sons of men" (Wells, 83).

Herbert's Fremen and fabricants like Sonmi in *Cloud Atlas,* instead, follow a more standard -pattern, since they appear very anthropomorphic from the very beginning of their novels, with only a few key physical difference to what we consider an ordinary 'human', such as the 'blue-in-blue' or 'ivory' eyes, that make the reader perceive them as uncanny and 'other', inspiring a feeling of disquiet and dissociation. However, the line between 'other' and 'familiar' starts to blur as the reader is allowed, through the filter of fiction, a "humanising view of [their] interiority" (Irvine, 2) by imbuing them with characteristics we recognise as 'human' (Irvine, 28). For example, Sonmi~451, despite being an 'inhuman' clone, once 'ascended' and thus free of what dampened her true self into 'subhumanity' "is depicted as a character of great intellect, humanity, and sensitivity" (Irvine, 148), 'human' qualities that emerge more and more clearly as she tells her story from her own perspective.

Similarly, the 'wild' Fremen, while maintaining their 'otherness' and 'strangeness', after Paul and Jessica join them in *Dune* are revealed to be a people with a complex culture, profound spirituality, and a strong sense of community, all elements that prompt the reader to 'project human experience' onto them, as they represent fundamental features of 'humanity'. This 'familiarity' is then strengthened and further explored in following novels of the saga such as *Dune Messiah* and *Children of Dune,* as the omniscient narrator often writes from the perspective and 'through the eyes' of more Fremen characters, especially chieftain Stilgar, the quintessential Fremen.

Here emerges the fundamental literary technique that allows the authors to create uncanny posthuman characters, both 'familiar' and 'other', in their novels: the use of point of view. The reader's perception of the characters, in fact, is shaped by how the characters are perceived in-story, by the narrator or other characters. Thus, the importance of from whose point of view the readers see the story unfold is paramount, as it controls from which perspective the reader has access to the characters' physical appearance, behaviour and inner world, and therefore whether said characters are categorised as 'familiar' or 'other', and in the case of posthuman characters, to which degree.

In the three novels discussed in this thesis, the point of view from which the story is told varies greatly, and with it, the perception of the uncanny 'humanity' of their posthuman characters. In the first, Wells's *The Time Machine*, the story is told in the first person, mostly from the point of view of the Time Traveller, a character who represents almost an 'author insert' and certainly a perfectly humanist 'human' who experiences an outsider perspective of the uncanny posthuman characters populating the future in-story. Friedman claims that the effect of telling the story from the point of view of such a "witness-narrator" character "who speaks to the reader in first person" is that "the reader has available to him only the thoughts, feelings, and perceptions of the witness-narrator" (1174) through which to interpret the story and its elements, including of course the other characters.

As a result, as analysed in the first chapter of this thesis, since it is the Eloi whom the Time Traveller identifies as 'familiar' and therefore recognises at first as 'human', the Traveller empathises with them, and due to the influence of his narration the reader does as well. Only gradually, as emerges in this thesis's second chapter, the Traveller develops a disconnection from these characters caused by his discovery of uncannily 'inhuman' traits in their physical bodies and behaviour, and the reader experiences the Eloi's 'otherness' alongside him, although they are still eventually perceived by Traveller and reader alike as the most 'human-like' among the posthuman characters of the novel.

In fact, the other posthuman characters portrayed by Wells in his novel, the Morlocks, appear at the very beginning as entirely 'nonhuman', assimilated to animals and monsters and described as such by the Traveller to the reader due to their 'monstrous' posthuman bodies and cannibalistic behaviour, as examined in the third chapter of this thesis. Later, the realisation that these characters are not 'inhuman', but indeed posthuman, descendants of 'humanity' much like the Eloi, and especially that their dehumanisation is a consequence of the deliberate oppression at the hands of the latter's ancestors (as seen in fourth chapter of this thesis),

represents a shock of recognition that challenges the Traveller's and the reader's assumptions about a humanist idea of the 'human', even if it is ultimately resolved by the denial of any 'familiarity' and the rejection of the 'monsters'.

By contrast, in *Dune* and in the following books of the saga, Herbert writes as an omniscient narrator, but shifting seamlessly in and out of the limited third person point of view of multiple characters, including both the officially 'human' aristocrats and the 'inhuman' Fremen. For the reader to have the story "told as if by a character in the story" through their personal limited perspective in such a way means perceiving "the action" as filtered through the consciousness of that specific character (Friedman, 1164). Thus, it also means having direct access to the character's 'inner world' of thoughts and emotions, experiencing 'familiarity' or 'disconnection' with them directly, something which becomes particularly interesting when the points of view are multiple and alternate offering different 'angles' from which to interpret the novel's universe and characters.

In fact, by focusing on the point of view of the protagonist, Paul, or main characters such as his mother Jessica, for example, the narration establishes them and their respective in-groups, the nobility, specifically the Atreides, and the Bene Gesserit, as the only real 'human' characters of the novel. Thus, as the most 'familiar' figures, the reader is led to empathise with them, as discussed in the first chapter. However, as the second chapter goes on to explain, despite the fact that the 'elite' posthuman characters in *Dune* are generally closer to physically to what a humanist perspective considers 'human', in Herbert's work there is no baseline 'human' character whatsoever, and the full cast of characters inhabiting his world present a wide variety of 'inhuman' traits, including the aristocracy. Therefore, even these officially 'human' characters are quickly revealed as the product of eugenic breeding and as possessing uncanny 'superhuman' powers, creating a feeling of disconnection in the reader who is no longer able to fully identify with them. This is especially true for the Atreides protagonists, such as Paul himself, Alia or Leto II, who grow progressively more 'monstrous' and further from our traditional idea of the 'human' throughout the saga.

Moreover, through his use of a limited third person narration Herbert also gives the reader both an outsider perspective and a glimpse of the 'inner world' of the more obviously not-quite-human characters of the novel, the Fremen. The former in fact portrays the Fremen clearly as 'monstrous' posthuman characters, 'other' from both the elites and the reader, creating a sense of disconnection chiefly through their connection with the extreme and 'alien' world of their planet that makes them uncanny via 'strange' details such as their blue-within-

blue eyes or their stillsuits, as explored in the third chapter. The latter, instead, displays for the reader their rich, Islam-inspired and thus both 'other' and 'familiar' culture, alongside the Fremen's most positive 'human' qualities such as loyalty and honourability. This, added to the discovery of how these characters have been dehumanised and exploited by the dominant aristocracy (including Paul and his descendants), as shown in the fourth chapter, provokes in the reader a sense of 'recognition' and fellow-feeling.

Finally, with *An Orison of Sonmi~451* in Mitchell's *Cloud Atlas* we go back to a first person narration, as the story is told by a literal 'witness-narrator' in the form of an interview script. Yet, the key difference between this story and *The Time Machine* is that here we have a specifically 'other' posthuman protagonist, a clone, speaking of and for herself. This unique perspective, startlingly familiar in its otherness, lowers the 'barrier' of uncanny revulsion experienced towards something too human-looking and distinctly 'inhuman' at the same time.

In fact, though even through Sonmi's limited perspective the pureblood characters are still recognisable as the official 'human' ones in the story, as examined in the first chapter, and thus as the ones the reader should identify with, here the recognition of the 'familiar' is only negative towards these characters, who fully embody the worst faults of the reader's own contemporary society made more extreme by their uncanny 'inhuman' traits and behaviour, as shown in the second chapter, which prompts the reader to reject them utterly. Meanwhile, the fabricants, despite their clear posthuman 'otherness', appear as "pure-hearted, unjustly exploited" (Irvine, 148) characters, innocent even of their cannibalistic behaviour, as unlike Wells's Morlocks and Herbert's Fremen Mitchell's clones engage in it unknowingly and unwillingly, for it is imposed on them (and knowingly shared) by purebloods, thus reflecting back negatively on these supposedly 'human' characters and making them 'monstrous' instead, as analysed in the third and fourth chapters.

Ultimately, the ebb and flow of the interplay analysed in this thesis between a humanist perspective of what constitutes the 'human' and the challenging exploration of posthuman hybridity in Wells's *The Time Machine*, Herbert's *Dune* and its sequels, and Mitchell's *Cloud Atlas*, is a direct consequence of these authors' skilful use of point of view. The posthuman perspectives they employ to create strangely familiar worlds and their uncanny inhabitants also have the potential of guiding the reader in a personal journey of speculative discovery through their fiction, hopefully destabilising expectations and prompting a reflection on the risks of binary thinking surrounding what, and who, is considered 'human' and 'not'.

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