

WASTEFUL SPECULATIONS: AN EXPLORATION OF SCIENCE FICTION
THROUGH THE LENS OF WASTE STUDIES
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WASTEFUL SPECULATIONS: AN EXPLORATION OF SCIENCE FICTION
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TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
CHAPTER	
I. ABJECTION AND MARGINALIZATION: HUMANS AS WASTE IN <i>THE CHRYSALIDS</i>	20
II. MISUSE AND MISUNDERSTANDING: TECHNOLOGY AS WASTE IN <i>DO ANDROIDS DREAM OF ELECTRIC SHEEP?</i>	39
III. EXCESS AND OVERCONSUMPTION: RESOURCES AS WASTE IN <i>DUNE</i>	60
IV. DESTRUCTION OF TRUTH AND HISTORY: INFORMATION AS WASTE IN <i>NINETEEN EIGHTY-FOUR</i>	82
CONCLUSION.....	98
WORKS CITED.....	105

INTRODUCTION

When a person thinks about waste, many things might come to mind such as trash, sewage, and recycling. Thinking about these concepts often creates feelings of disgust and a desire to separate one's self from these “dirty” objects. The *Oxford English Dictionary* includes many definitions of the term “waste.” They vary from “something wasted or destroyed,” to “useless expenditure or consumption,” and “uninhabited (or sparsely inhabited) and uncultivated country” (*waste*). This gives us a wide range of directions to go in regarding the study of waste within modern culture. Yet, what is the point in studying things that have been purposely thrown away and disregarded? Susan Morrison notes that, “Waste Studies force us to confront our own ethics, ethical position and subjectivity” (*Postmedieval* 152). The act of consigning something to waste is also an act of separating the object from the self. In this act the object becomes the “other.” Morrison points out that, “there is an ethical dimension to creating waste, one that calls for a virtuous response. Waste deserves, indeed demands, moral attention” (*Postmedieval* 154). We throw away that which disgusts us, but what is it about a person or an object that results in such a vile emotional response? Why are some people bothered by others with beliefs, customs, and appearances which differ from their own? What does marginalizing a particular type of person or destroying specific categories of technology say about the people involved? These are some of the questions that my thesis explores.

I believe that Waste Studies can be applied to any genre of literature from any time period. Morrison uses Waste Studies to explore the history of waste through medieval literature. In her studies she is able to draw many conclusions about past customs with regard to filth, bodily functions and marginalized groups of people. The past certainly tells us where we have come from and to an extent where we might go. Yet, she notes that, “We don't need just presentist theory, but futurist theory, for our own and our society's pleasure and our own and our society's well-being” (*Postmedieval* 154). So, if we are to look at Waste Studies from a futurist viewpoint, then looking at texts within the Science Fiction (SF) genre is an interesting place to start.

Darko Suvin defines SF as, “*a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author's empirical environment*” (*Metamorphoses* 7-8). The necessity of estrangement means that a text must have qualities which do not fit within the reader's sense of reality typically through the use of what Suvin calls a “novum.” He says, “A novum of cognitive innovation is a totalizing phenomenon or relationship deviating from the author's and implied reader's norm of reality” (*Metamorphoses* 64). This novum can be a variety of things such as aliens, robots, alternative history, future setting, etc. SF must make use of some sort of novum in order to create an estrangement, but it must also explain the appearance or use of this novum in order to create a cognitive connection from the text to the implied reader's sense of rationality and plausibility. Suvin points out that, “this genre has always

been wedded to a hope of finding in the unknown the ideal environment, tribe, state, intelligence, or other aspect of the Supreme Good (or to a fear of and revulsion from its contrary)” (*Metamorphoses* 19). The search for an ideal world is a journey that involves, much like Waste Studies, delving into the nature of humanity's ethical subjectivity.

How can SF and Waste Studies combine to tell us more about our selves and our culture? Wasting is not typically confined to the individual; it is a social and cultural act. Likewise, SF does not typically deal with the individual. Darko Suvin points out that, “the originality of SF as a genre is that its characters are used in attempts at systematic analyses of the *collective* destiny involving a whole community – a people, a race, a world, etc” (*Positions* 54). He goes on to add that SF “which as a genre deals centrally not only with collective destiny but also – and more particularly – with *power relationships*” (*Positions* 55). The act of throwing something away, of discarding a person or a belief, or over-consuming to excess cannot happen unless one group has power over something else. Waste Studies deals with the abject, the marginalized, and the “other.” The “other” is also found in SF, often in the form of aliens, robots, mutants, etc. In dealing with the concept of the “other,” Waste Studies brings us face to face with our sense of ethics and morality. SF works in much the same way by forcing us to look at the possible ways in which today's society might react and behave towards the “other,” if certain circumstances were to arise.

SF often deals with “what if?” scenarios such as the result of global nuclear war. This is the circumstance in John Wyndham's *The Chrysalids* which is the focus of the

first chapter of this thesis. This chapter deals specifically with humans as waste and the fears and anxieties that sometimes accompany such feelings of hate towards a group of people. The concept of humans as waste is about rejection, abjection and often group or individual prejudices based on fear and misunderstanding. Zygmunt Bauman's book *Wasted Lives: Modernity and its Outcasts* explores the ways in which humans are placed within the category of waste in modern societies. He looks both at the reasons behind various groups of people being labeled waste and what this says about modernity. Bauman notes that, "Modernity is about rejecting the world as it has been thus far and the resolution to change it. The modern way of being consists in compulsive, obsessive change: in the refutation of what 'merely is' in the name of what could, and by the same token ought, to be put in its place" (23). This is the situation that is found in *The Chrysalids* and often in other works of SF. The desire to improve the world and lives of the majority sometimes results in unfortunate casualties. In *The Chrysalids* the community wants to rid itself of those who are not born in the perfect image with the purpose of pleasing God. They believe that pleasing God will ensure their survival by allowing their crops to grow and the community to reproduce healthy offspring. In order to accomplish this, something or someone must be sacrificed. Bauman points out that, "For something to be created, something else must be consigned to waste" (21). If the Labradoreans want to create a perfect race in order to please God, then those who do not fit the model of perfection that the system requires must be rejected from society.

A similar situation can be found in Margaret Atwood's *The Handmaid's Tale*

where the country has suffered from a significant decline in the birthrate and women are in constant fear of violence and sexual assault. The hope of improving the country's birthrate leads to an overturning of the government and the emergence of the Republic of Gilead. The new government focuses on improving the birthrate by dividing the country's female citizens into categories of fertile or sterile. Those who are sterile are rejected from the new society that the government has formed and are classified as unwomen. These unwomen are forced to live and work in colonies where they are subjected to hard physical labor and exposed to harmful pollutants. The government of Gilead, much like that of Labrador, makes the decision to consign a group of people to waste because they are not necessary in reaching their goal of an increased birthrate and a renewal of moral standards.

In *The Chrysalids* the decision to categorize a group of people as abject and unworthy of societal status is due to a fear of corporeal abnormalities. Lennard Davis' book *Enforcing Normalcy: Disability, Deafness and the Body* explores the history of prejudices and stigmas attached to those with minds and bodies that do not quite fit into the mold of what is considered normal by societal standards. Davis points out that, "Disability presents itself to normal people through two main modalities – function and appearance" (11). In *The Handmaid's Tale* the government forces those women whose bodies are unable to reproduce into abjection. Their bodies may still function in every other way, but the goal of Gileadean society is to produce offspring. Therefore, those who cannot reproduce are considered useless and disabled and society has no place for

them. Another example of the functioning modality causing marginalization is the way that the specials are treated in *Do Androids Dream of Electric Sheep?*. The specials are not able to mentally function at a high enough degree to be allowed to immigrate to Mars and escape the harmful pollution of Earth. They are left behind and forced to live on the abandoned planet in isolation because their disability has placed them into a substandard category of humanness.

The appearance modality is the main issue guiding Labradorean society in *The Chrysalids*. It is the physical sight of the deformed body that results in the rejection of those who are considered blasphemies in the eyes of the law. The mutant bodies are seen as grotesque versions of the normal human body. Davis says that, "The grotesque, as with disability in general, is used as a metaphor for otherness, solitude, tragedy, bitterness, alterity. The grotesque is defined in this sense as a disturbance in the normal visual field, not as a set of characteristics through which a fully constituted subject views the world" (151). Disturbing a person's visual field with something unexpected results in the person sensing that something is wrong. Believing that something is wrong within the visual field creates feelings of fear and anxiety.

Those who do not function properly or whose physical presence conjures up feelings of repulsion and disgust are considered to be out of place in normal society. Mary Douglas' book *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo* focuses on the different ways in which dirt is treated in a variety of cultures and contexts. Dirt is that which is considered to be out of place and Douglas explores the

rules and rituals that different cultures have regarding such objects and people. Douglas notes that, “Each culture must have its own notions of dirt and defilement which are contrasted with its notion of the positive structure which must not be negated. To talk about a confused blending of the Sacred and the Unclean is outright nonsense” (160). Douglas' theories help to make sense of the ways in which people allow themselves to treat others with such hatred and disregard. She points out that, “Where there is dirt there is a system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements” (36). The Deviants in *The Chrysalids* are viewed as a threat to Labradorean society because they do not fit within the system set up by those in charge; they are matter out of place. The first chapter focuses on the issue of human beings as waste by using the theories of Bauman, Davis, and Douglas to better understand the circumstances that lead to such marginalization and rejection of human beings by human beings.

Nobody wants to see themselves as matter out of place; we all do what we can to fit into the society in which we live. However, just because you do not want to be placed into the category of waste does not mean that you have that option. Often those who are considered waste are those who have been deemed useless or redundant. In order to avoid becoming redundant, humans often marginalize that which they see as a threat to their sense of self or group importance. In some circumstances the threat does not come directly from other humans, but instead from that which humans have created. The subject of the second chapter of this thesis deals with humanity's relationship with

technology, and why and how humans often discard technology which they do not understand. Philip K. Dick's *Do Androids Dream of Electric Sheep?* is about androids that are misused and misunderstood by humanity, which results in the androids being hunted down and retired. Technology is constantly progressing and often in ways that is hard for most humans to keep up with. The idea of a machine or computer taking over a person's job and livelihood is an issue that we see in our own reality. Machines and computers are often more efficient and less likely to make mistakes as are their human counter-parts. Yet, technology is not going away and it is therefore in humanity's best interest to understand the relationship which they share with technology in an effort to live a life without fear of humanity's creations.

The desire to understand humanity's relationship with technology is not a new concept. It has been explored by Martin Heidegger in his essay "The Question Concerning Technology." He says, "We shall be questioning concerning *technology*, and in so doing we should like to prepare a free relationship to it. The relationship will be free if it opens our human existence to the essence of technology. When we can respond to this essence, we shall be able to experience the technological within its own bounds" (3-4). The idea that humans must take the time to explore this relationship suggests that many of the ways in which humanity views and behaves towards technology are influenced by misconceptions. Heidegger points out that often technology is merely seen as a means to an end, and when this is the case, the essence of technology is often ignored. But if we look closely at technology with a fully informed perception, then we

will be able to understand the full potential and purpose of the technology that surrounds us in our daily lives. “Technology is therefore no means. Technology is a way of revealing. If we give heed to this, then another whole realm for the essence of technology will open itself up to us” (12). This makes sense when it is applied to an example of technology being misunderstood. In “Robbie,” the first story in Isaac Asimov's *I, Robot*, a family purchases a robot with the purpose of it being a nursemaid for their daughter, Gloria. After a couple of years Gloria's mother begins to listen to her neighbor's misguided opinions about robots. They view robots as monsters who are dangerous and set out to hurt humans. The problem arises when Gloria's parents take Robbie away from her, thus giving in to the misconceptions and hatred felt by their community. Gloria is depressed and does not understand why they have taken away her best friend. They have consigned Robbie to waste because they did not allow the robot to reveal his true essence. This is a simple story which cautions humanity to not misunderstand or misuse technology. In the end they find Robbie working in a factory, which he is not suited for, and he reveals his true essence when he saves Gloria's life. Robbie was being forced into a state that Heidegger calls the standing-reserve. “Characterized in this way, however, the machine is not thought at all from out of the essence of technology within which it belongs. Seen in terms of the standing-reserve, the machine is completely unautonomous, for it has its standing only from the ordering of the orderable” (17). Once Robbie is able to reveal his true essence, it is impossible for Gloria's mother to see him as the monster that she once believed that he was.

This is the same situation that is found in *Androids*. The humans have a misconceived notion that the androids' purpose is to act as slave companions for those who have immigrated to Mars. This point of view comes from seeing them merely as a means to an end. Heidegger points out that, "So long as we represent technology as an instrument, we remain held fast in the will to master it. We press on past the essence of technology" (32). Heidegger is concerned with the ways of thinking that lie behind technology. He wants humanity to acknowledge an innate dignity within technology, much the same as humans see an innate dignity in themselves. If humans learn to respect technology, then perhaps there would be more beauty and less destruction in the world.

One of the major concerns in *Androids* is the ability for the humans to be able to discern the minute differences between themselves and the androids. Scanlan points out that, ". . . the creation of garbage is the result of a separation—of the desirable from the unwanted; the valuable from the worthless, and indeed, the worthy or cultured from the cheap of meaningless. And it is because differentiation is a fundamental human activity that garbage is everywhere as the bits, scraps, and leftovers of a variety of intact 'wholes'" (15). Humans have a need to separate the unwanted from the wanted because they need to ensure that they do not find themselves in this category. The problem with this concept with regard to technology, specifically technology that imitates human beings, is that it becomes more difficult to make these distinctions. The distance between the real and the artificial begins to disappear with what Jean Baudrillard refers to as a simulation simulacra. The simulation simulacra is more than a representation of a real object; it is

“the generation by models of a real without origin or reality: a hyperreal” (*Simulations* 167). The androids are not representations of human beings, but are simulacra since they share characteristics with humans yet were not modeled after any specific human being. They, therefore, have their own essence which is beyond that of a human and beyond that of a tool for human use. Baudrillard notes that, “It is always a question of proving the real by the imaginary; proving truth by scandal; proving the law by transgression; proving work by the strike; proving the system by the crisis and capital by revolution; and for that matter proving ethnology by the dispossession of its object” (177). Rick and the other humans need to prove their own worth and value through differentiating themselves from the artificial. In order to do this they reject the androids as real and consign them to waste. The second chapter explores these issues in detail using the theories of Scanlan, Heidegger, Baudrillard to better understand the nature of humanity's relationship with technology and why this relationship often leads to technology being consigned to waste.

Humans do not merely waste that which they find threatening and disgusting. Often people will use and misuse the natural resources that their environment provides them to the point of excess. The third chapter of this thesis deals with the definition of waste which entails over-consumption and excess. The novel this chapter focuses on is Frank Herbert's *Dune*. In this novel there are two types of resources, the melange spice and water, which are essential to the plot. There are also two groups of people, the Harkonnens and the Fremen, who treat each of the resources in different ways. The Harkonnens use everything in excess and with no regard for the environment or the

future, while the Fremmen respect the natural resources of their planet and do what they can to conserve and save. The relationship that a group of people share with their surrounding environment says a lot about the ethical nature of that group. Waste commonly deals with both ethical dilemmas and environmental issues. Scanlan points out that:

The word 'waste' in Old and Middle English originally referred to a land or an environment that was unsuitable to sustain human habitation, but as the Middle English lexicon expanded to replace this older sense of the term with equivalents like 'wilderness' and 'desert', new uses of waste emerged that began to indicate moral censure. But, if we are to generalize, we can say that in both its premodern and modern usages the notion of waste generally refers to an imbalance. (22)

Scanlan points to two main ways in which waste is viewed: land that is inhabitable due to a lack of necessary resources is often referred to as a wasteland, and that which indicates a moral judgment, such as the excessive use or misuse of a resource is a waste of that resource. An imbalance is created when a land is unable to support life, especially if the same land was once able to be populated. In *Androids* we see a future where our planet is quickly becoming unfit for human habitation. The dust leftover from World War Terminus has caused entire species of animals to die out and provides a risk of mental deficiency in humans. Humanity has created a wasteland out of its own planet and now the majority of people have immigrated to Mars. However, there is also an imbalance

created when a land's resources are removed at a higher rate than it is able to produce. Scanlan points to the desert as an example of an inhabitable land that might be viewed as waste. In *Dune* the state of the planet Arrakis' desert environment is the driving force behind the Fremen culture and behavior. They survive on a planet that is becoming closer and closer to being a wasteland, and this possibility is made worse by occupation by members of the Guild.

The main issue in *Dune* is the different ways in which the Harkonnens and the Fremen use the planet's natural resources. Scanlan notes that, "the meaning of 'waste' carries force because of the way in which it symbolizes an idea of improper use, and therefore operates within a more or less moral economy of the right, the good, the proper, their opposites and all values in between" (22). Therefore, when we look at the way in which one group of people misuse and mistreat the resources that nature has provided it says a lot about the ethical nature of that group.

The excessive use of a resource for no other purpose than recreation and grandeur is a form of unproductive expenditure. Georges Bataille's essay, "The Notion of Expenditure," examines the ways in which societies behave with regard to utility, loss and excess. He points to the concept of the unproductive expenditure, or those expenditures which have "no end beyond themselves" (118). For example, water has a purpose: it nourishes and cleans the body and it helps vegetation to grow and survive. Human and plant life cannot survive without water and in situations where water is scarce death becomes an everyday possibility. The Harkonnens repeatedly drop several cups of water

onto the floor purposefully within view of the Fremmen people who are dehydrated and overheating in the desert sun. Bataille points to the idea that, “It is only through loss that glory and honor are linked to wealth,” and the Harkonnens' excessive and wasteful use of water seems to be aimed at displaying their unlimited riches (122). Bataille further explains this concept: “Jealousy arises between human beings, as it does among the savages, and with an equivalent brutality; only generosity and nobility have disappeared, and with them the dazzling contrast that the rich provided to the poor” (124). It cannot be helped that a person who is dying of thirst will be jealous staring into the window of a room filled with basins of water being tossed about like unnecessary trash. The wasteful display of resources by one group in front of those in desperate need comes from a desire for glory, a greedy nature, and an utter disrespect for the land, people and resources that surround them.

Sustaining a land's useful resources is essential to human life and an assurance that humanity will progress into the future. SF texts often deal with future settings wherein one or more of a planet's resources have been depleted due to over-consumption and excess. An example of this can be found in Robert Heinlein's 1966 novel, *The Moon is a Harsh Mistress*, where the Earth has been importing hydroponic wheat from the moon to the point of near depletion. The problem with this is that there are people living on the moon. The over-consumption of hydroponic wheat by those on Earth results in food riots and ultimately a revolutionary war. In reality we are already searching for new sources of energy to replace the non-renewable sources that we are quickly depleting. We

may not be growing wheat on the moon, but the possibility of searching elsewhere for resources is a common topic of discussion. According to Terry Kammash and Ricky

Tang:

It is often said that while it is man's nature to explore the space around him, it is also man's unrelenting desire to secure resources that are either non-existent on Earth or rapidly depleting. . . . One of the main reasons for space exploration might be to mine some of the planets for materials that could address man's energy needs on Earth. Of special significance in this regard is the procurement of helium-3 which will be used to fuel fusion reactors of the future. (245)

Kammash and Tang point to the main issue that I discuss in the third chapter which is that it is in humanity's nature to use important resources to the point of excess and depletion. The result of wasting Earth's natural resources drives humanity to search for other means to survive. SF novels which deal with these issues do so with the facts of reality in mind. As readers we can understand the plight of the Fremen people because we understand their need to survive. Yet, we can also understand the behavior of the Harkonnens, since it is in human nature to consume to the point of excess without taking the time to consider future consequences. Chapter Three further explores the nature of over-consumption and excess through the theories of Scanlan and Bataille in order to understand why some cultures misuse and waste resources that are vital to their survival.

When a natural resource has been completely depleted it becomes physically

apparent to those who need and survive on that resource. When a group of people or a piece of technology has been consigned to waste and tossed aside it is hard to not at least be aware of the marginalization at hand. Yet, there is another type of waste that is often found in SF texts, one that can be thought of as intellectual waste. The subject of the fourth chapter of this thesis deals with the results of consigning truth, information and basic concepts to waste. The literary focus of this chapter is George Orwell's *Nineteen Eighty-four* where the country's government has thrown away the availability of truthful information. Every day human beings are given various types of information to sort through. Some of this information is retained and believed to be true and significant; other pieces of information are discarded and consigned to waste. Scanlan points out that, "In the history of knowledge what is often forgotten or passed over is the variety of defects that (despite their eventual uselessness) actually make a significant contribution to the progress of knowledge" (38). Every piece of information, even if it is false, is significant in coming to an understanding of the truth. What happens, then, if people are not given two sides to every argument? What if people are not allowed to discern for themselves what information is true and which is false? This type of waste often occurs in SF novels which belong to the sub-genre of dystopia. These texts, such as *Nineteen Eighty-four*, *Fahrenheit 451*, and *Brave New World*, often deal with the author's fear of government implemented repression and totalitarian rule. Yet, in totalitarian regimes the availability of information is often times non-existent to the general public. We receive information from a variety of sources: books, television, radio, people, etc. In

Fahrenheit 451 all books have been banned by the government; if you are found to be in possession of one you will be arrested and the book will be burned. When a source of information is taken away from a group of people, it significantly diminishes the amount of information that they are able to discern in their quest for determining the truth of any situation.

In *Nineteen Eighty-four* the government takes the repression of information even further than the destruction of books by actually rewriting books and newspaper articles in order to fit within their ideological agenda. They create a contracting language which removes concepts from the vocabulary, and they focus on indoctrinating the Party members with propaganda which further ensures their power over the country and its citizens. Louis Althusser's essay, "Ideology and Ideological State Apparatuses (Notes Towards an Investigation)," is useful in understanding the reasons behind a government's decision to indoctrinate their citizens with a particular ideology. Controlling the minds and behavior of a country's citizens is essential to ensuring that the ruling party will remain in power. Althusser notes that:

To put this more scientifically, I shall say that the reproduction of labour power requires not only a reproduction of its skills, but also, at the same time, a reproduction of submission to the ruling ideology for the workers, and a reproduction of the ability to manipulate the ruling ideology correctly for the agents of exploitation and repression, so that they, too, will provide the domination of the ruling class 'in words.' (132-3)

In order for the ruling party to ensure that their agenda is carried through, it is necessary to fill each citizen with a particular set of beliefs and to promote certain expected behaviors. The means by which a ruling party accomplishes this is by implementing the state's ideology through a variety of state apparatuses which work to control what each citizen believes by controlling the information available to them. What this does is to take away each citizen's power to discern the truth from the lies; the truth is automatically consigned to waste due to unavailability.

The restriction of information makes it easier for the ruling party to maintain control over its citizens. The use of language is important in implementing such restrictions. In *Nineteen Eighty-four* the government has decided to create a new language which removes words from the language which they find are in opposition to their ideological agenda. Ferdinand de Saussure notes that, "The linguistic sign unites, not a thing and a name, but a concept and a sound-image" (66). Linguistic signs are necessary towards understanding concepts. The purpose of words are for people to communicate with each other. If the citizens of Oceania are no longer able to converse on the topic of "liberty," then the concept does not exist within their culture. Therefore, it is not just the word or linguistic sign "liberty" that has been consigned to waste, but with the loss of the sound-image the concept itself becomes waste as well. The information which people are given, but do not use to form their concept of truth and reality, is considered waste. It is disregarded and tossed aside because it is deemed useless, redundant or false. If this is true, then the information which is at one time available, but

then is made unavailable is waste as well. If historical facts, current events and basic concepts are thrown away how does this change a group of people's perception of reality? The fourth chapter of this thesis explores the issues of waste in terms of information and language through the use of the theories of Althusser, Scanlan and Saussure with the goal of understanding what the result of removing truth, history and basic concepts from a culture does to the people involved.

SF is a genre that allows for both extrapolation and social criticism. Looking at SF works through the lens of Waste Studies allows us to find a greater understanding of the ethical aspects found within many of the common themes of the genre. Both SF and Waste Studies deal with human being's relationship towards their surrounding environment whether it be other humans, technology, resources or information. My thesis explores this theme in detail by focusing on specific aspects of waste found in society and how the SF genre helps to exemplify these traits.

CHAPTER I

ABJECTION AND MARGINALIZATION:

HUMANS AS WASTE IN *THE CHRYSALIDS*

In every society there are those who do not fit within the standard design that a culture creates and expects from its citizens. Those who do not quite fit the mold are often marginalized and rejected from society. Waste Studies looks at that which society has deemed redundant and out of place and the relationship that humanity shares with waste. This chapter looks specifically at SF literature where humans have been consigned to waste by their society and will also explore aspects of the present which allow for such extrapolations. Zygmunt Bauman explains the concept of humans as waste:

The production of 'human waste', or more correctly wasted humans (the 'excessive' and 'redundant', that is the population of those who either could not or were not wished to be recognized or allowed to stay), is an inevitable outcome of modernization, and an inseparable side-effect of *order-building* (each order casts some parts of the extant population as 'out of place', 'unfit' or 'undesirable') and of *economic progress* (that cannot proceed without degrading and devaluing the previously effective modes of 'making a living' and therefore cannot but deprive their practitioners of their livelihood). (5)

Wasted humans are present in every society and in each of these cultures there are reasons behind a group's marginalization and abjection; this chapter explores these reasons.

Applying Waste Studies to SF gives us a unique perspective because we are able to move beyond what has already happened and into the possibilities of the future depending on whether society continues down the current pathway or diverts into various other directions. Extrapolation is certainly not a way to see the future, but rather a way to understand the present by considering cause and effect. Humans being defined as waste, as Bauman points out, is “an inevitable outcome of modernization,” and, by looking at this concept specifically in SF, we are able to see past the immediate consequences of this reality to the possible outcomes that extreme examples of abjection through order-building may entail. Carl Freedman points out that “the potential future in science fiction exists, one might say, primarily for the sake of the actual present,” which when focusing on the subject of human beings as waste allows the reader to examine the possible consequences of society's current practices of marginalization (55).

The Chrysalids is a wonderful example of a particular group of humans being marginalized and forced into abjection in extreme circumstances which are based on modern realities. In *The Chrysalids*, John Wyndham utilizes the fear of global nuclear war that was prevalent during the mid-twentieth century combined with the horrifying practices of negative eugenics. The novel takes place in the distant future after an implied global nuclear disaster has wiped out modern society. The effects of the nuclear destruction has left not only the land largely infertile and what crops do grow largely

deformed, but it has also affected the human race in much the same way. The result consists of a eugenics-based society that marginalizes those who are deemed impure due to their physical deformities in order to build a perfect race that will please God. The deformed, or “Deviants,” are rejected from society and thrown into abjection, stripped of their identities and forced into the boundaries of society in an attempt to eventually eradicate them from the human race.

The study of eugenics was a popular subject in the late nineteenth century and the first half of the twentieth century. Eugenics came about at a time when Western countries were going through a transition from agricultural to industrial based societies. According to Sheila Faith Weiss, this resulted in an “increase in criminality, pauperism, alcoholism, prostitution, and the heightened awareness of the existence of a large number of mentally ill and so-called feebleminded individuals” (23). This led scientists and philosophers to develop methods for increasing the “good” population and eradicating the so called “bad” population. The Permanent International Eugenics Committee met in 1912 and unanimously agreed with the platform established by Jon Alfred Mjøen. According to Weiss, “Its hallmark: the difference between the right to life and the right to give life. The first, Mjøen, proclaimed, was an inalienable right; the second, a privilege that only healthy and 'fit' couples should enjoy” (38). One of the most well known examples of state implemented wasting of human lives comes from Nazi Germany. Weiss notes that:

On August 31, 1939, the day prior to the outbreak of the war, the Reich Ministry of the Interior decreed that the implementation of the

Sterilization Law should be drastically cut to cover only the most “urgent cases.” Only two weeks before, the Ministry mandated that doctors would have to report all children up to the age of three who were alleged to have certain diseases. This transition from the Nazi state's ability to revoke an individual's right to parenthood to “euthanasia” had begun. (172)

The Nazi implementation of eugenics began with sterilization of the mentally handicapped and diseased, but quickly escalated into a racially motivated cleansing in the name of Aryan supremacy. Sterilization falls under what is referred to as negative eugenics. Weiss says this is where states take, “legal and educational measures to reduce the number of the 'unfit' or 'defective' members of the state” (29-30). This is the type of eugenics that we find in *The Chrysalids* where the Labradoreans implement a state run sterilization program with the intention of cleansing the genetic pool of any deviant traits. In such situations groups of people are being rejected from society because of genetic “defects” that are beyond their control.

The practice of sterilization on groups of people has been applied to the mentally ill, particular races, criminals, and in the case of *The Chrysalids*, to the physically deformed. The narrator, David, is a child at the beginning of the story and therefore does not fully understand the reasons behind the prejudices that his family and neighbors have against the deformed. He meets a little girl named Sophie and has a wonderful time playing with her until it is revealed that she has six toes on each foot. She becomes terrified that her secret is out in the open and David, not fully understanding the gravity

of the situation, helps her back home. David knows that there is a correlation between what he has learned at church and the fear that Sophie and her mother feel regarding her deformity. He begins to put the two concepts together:

The commandments and precepts one learns as a child can be remembered by rote, but they mean little until there is an example – and, even then, the example needs to be recognized. Thus, I was able to sit patiently and watch the hurt foot being washed, cold-poulticed, and bound up, and perceive no connexion between it and the affirmation which I had heard almost every Sunday of my life. 'And God created man in His own image. And God decreed that man should have one body, one head, two arms and two legs: that each arm should be jointed in two places and end in one hand: that each hand should have four fingers and one thumb: that each finger should bear a flat finger-nail . . .'. (10-1)

Yet, for David, Sophie's extra toes are no big deal. He knows that he is supposed to see her as a blasphemy, but he is a young boy and only sees her as his friend. According to Lennard J. Davis, “repulsion is the learned response on an individual level that is carried out on a societal level in actions such as incarceration, institutionalization, segregation, discrimination, marginalization, and so on. Thus, the 'normal,' 'natural' response to a person with disabilities is in reality a socially conditioned, politically generated response” (13). Since David is a young boy and is therefore still learning the ways and beliefs of his society he has not yet developed the negative response to Deviants that his culture deems

appropriate. Having the narrator speak to us from the perspective of a child allows us to see that the aversion to deviations that his community holds is not innate, but learned. Every member of Labradorean society is taught to view those who deviate from society's standards as waste from an early age through religious indoctrination and under the guise of family and community values.

In *The Chrysalids* society's rules and values are derived from a religious text which indicates that the global nuclear disaster that their ancestors endured was a punishment from God called the Tribulation. The only books that they have from these pre-war times are *The Holy Bible* and a book entitled Nicholson's *Repentances*, which is the book that teaches that deviations from the norm are blasphemies against God. The decorations that adorn David's home are quotations from this religious text such as, "THE NORM IS THE WILL OF GOD and, REPRODUCTION IS THE ONLY HOLY PRODUCTION and, THE DEVIL IS THE FATHER OF DEVIATION" (18). The idea of combining eugenics with religion was actually one of the standard beliefs of many eugenicists of the twentieth century. Francis Galton, the man who coined the term "eugenics," believed that eugenics was a religious science: "It must be introduced into the national conscience like a new religion. It has, indeed, strong claims to become the orthodox religious tenet of the future, for eugenics co-operate with the workings of nature by securing that humanity shall be represented by the fittest races" (5). While there is no specific evidence that Wyndham was familiar with Galton or any of the other eugenicists that held this belief, the basic foundation of the plot of *The Chrysalids* is an example of

the possible consequences that a society built upon the belief of eugenics as religion might entail. David explains the history of their sacred texts to Sophie:

There was no telling how many generations of people had passed their lives like savages between the coming Tribulation and the start of recorded history. Only Nicholson's *Repentances* had come out of the wilderness of barbarism, and that only because it had lain for, perhaps several centuries sealed in a stone coffer before it was discovered. And only the Bible had survived from the time of the Old People themselves. (39)

This suggests that the people of Labrador believe that before the Tribulation people were living like savages and that it was during this time that Nicholson's *Repentances* was written and that the Bible was from an earlier time. The idea that Nicholson's *Repentances* is not a new text, but one that has survived since the time of the global nuclear disaster implies that this book could have easily been taken out of context. This idea works as a warning allowing us to realize that the works that we put out into the world may one day be taken out of context or to the extreme by our descendants. If the only two books to survive were the Bible and a book on a controversial science that calls itself a religion, then why would the people of the future not take it as seriously as this community does?

It is just this combination between something perceived as a science and something that calls itself a religion that will allow a community to marginalize and abuse a group of people with the belief that they are doing it for the better good or for a

desire to please a higher power. Bauman points out the rationalization behind this type of marginalization, “flawed beings, from whose absence or obliteration the designed form could only gain, becoming more uniform, more harmonious, more secure and altogether more at peace with itself” (30). When there is nothing that deviates from the standardized definition of normal, then people feel more at ease and happy. Therefore, when something does present itself to a group that is as outwardly uniform as the community of Labrador which deviates from this uniformity, the resulting reaction becomes one of disgust and rage. Davis suggests that, “the grotesque, as with disability in general is used as a metaphor for otherness, solitude, tragedy, bitterness, alterity. The grotesque is defined in this sense as a disturbance in the normal visual field, not as a set of characteristics through which a fully constituted subject views the world” (151). This “disturbance in the normal visual field” reminds those who experience it that they do not live in a perfect world, they are not without flaws and their life is not as secure as they pretend it to be. The Labradoreans use religion as a means of rationalizing their fear and disgust towards those who disturb their visual field and this allows them to easily place those people into a category of waste and abjection.

The community of Labrador has developed purification rituals in order to deal with the mutants, as they often call them, in a manner which removes the burden from the individual and instead turns that burden into a law dealt with by the government. Mary Douglas says that, “There are several ways of treating anomalies. Negatively, we can ignore, just not perceive them, or perceiving we can condemn” (39). In this case they

have chosen to condemn and in deciding this they have chosen to marginalize these anomalies and take away their status as human beings. While under the guise of the law, the purification ritual must be performed by the same inspector for crops, livestock and human babies. If your crops are deformed you must burn them, if your livestock deviates from normal standards you must kill it, and if your baby is deemed a mutant you must sterilize it and send it directly to the Fringes. The inspector, therefore, works as a type of priest since the laws which provide him his job are directed from an interpretation of their religious text. When David's sister, Petra, is born, nobody is allowed to even admit that there is a baby until the ritual has been performed by the inspector and he recognizes the child as a human child:

The arrival of my sister, Petra, came as a genuine surprise to me, and a conventional surprise to everyone else. There had been a slight, not quite attributable, sense of expectation about the house for the previous week or two, but it remained unmentioned and unacknowledged. For me, the feeling that I was being kept unaware of something afoot was unresolved until there came a night when a baby howled. It was penetrating, unmistakable, and certainly within the house, where there had been no baby the day before. No one, indeed, would dream of mentioning the matter openly until the inspector should have called to issue his certificate that it was a human baby in the true image. Should it unhappily turn out to violate the image and thus be ineligible for a certificate, everyone would

continue to be unaware of it, and the whole regrettable incident would be deemed not to have occurred. (66)

Luckily for David his sister was deemed a child in the true image and was allowed to be acknowledged and stay with her family. However, his Aunt Harriet is not so lucky when her child is born and out of desperation she seeks help from her sister who refuses to help and instead condemns the child by calling it a “monster” (70). David's mother tells her sister that she cannot help her based on moral grounds. “In all my life I have never heard anything so outrageous. To come here suggesting that I should enter into an immoral, a criminal conspiracy to . . . I think you must be mad, Harriet” (71). In a society built on group prejudices an individual must continue to tell themselves that their actions are based upon moral standards in order to fully rationalize their actions and beliefs to themselves. However, this supposed set of “morals” not only allows, but insists upon causing physical harm (sterilization), lying (denying the birth of deformed babies) and abandonment (exiling a newborn baby into the Fringes). The only way that one can rationalize this behavior is to deny that they are doing this to human beings. The inspector tries to explain this to David: “Well every part of the definition is as important as any other; and if a child doesn't come with it, then it isn't human, and that means it doesn't have a soul” (55). They must believe that these Deviants are truly abominations and then they can rationalize that they are not hurting anybody at all and are acting within a moral code when they force these babies into the margins of society.

In order to believe that your baby is not human and is instead a monster one must

never recognize the child as having an identity of its own. Douglas says that, “so long as identity is absent, rubbish is not dangerous,” which is a concept that helps the people of the village deal with their purification ritual (161). If the baby that is born wrong is never named and never even acknowledged, then the family can pretend that the child never even existed; it is not a threat to them and their family remains pure. Yet, through Aunt Harriet's desperation we can clearly see that this is not an easy belief to hold. She mentions that this child is not the first, or even the second child that has been condemned by the community. “He – he said we ought to notify at once. But I wouldn't let him – I couldn't, Emily. I *couldn't*. Dear God, not a third time!” (71). Aunt Harriet has trouble with the required ritual because she sees her child as a human being and she loves it. It is because she makes this acknowledgement that she is unable to deal with the consequences and ultimately commits suicide.

Aunt Harriet's suicide was a reaction to her third child being taken from her and sent to the Fringes. In other circumstances when a mutated child is given a name and the deformity is hidden the danger becomes even worse. This is what Sophie's parents do and it results in a situation wherein she has to pretend to be somebody that she is not and live in constant fear that she will be found out and persecuted. When her secret is ultimately discovered she is forced to give up her identity as a normal child and survive in the Fringes. This must be different for her, than from babies who are abandoned upon birth, since she was able to experience life as a seemingly normal child for the first few years of her life. This is a transition for her wherein she loses her identity. Douglas notes that:

In the course of any imposing order, whether in the mind or in the external world, the attitude to reject bits and pieces goes through two stages. First they are recognizably out of place, a threat to good order, and so are regarded as objectionable and vigorously brushed away. At this stage they have some identity: they can be seen to be unwanted bits of whatever it was they came from, hair or food or wrappings. This is the stage at which they are dangerous; their half-identity still clings to them and the clarity of the scene in which they obtrude is impaired by their presence. But a long process of pulverizing, dissolving and rotting awaits any physical things that have been recognized as dirt. In the end all identity is gone. (161)

By the time that David sees the adult Sophie in the Fringes she is merely a shadow of what she used to be or what her potential self might have been. She started out as a reject who was out of place and her presence caused her family and David (her only friend) to be in a dangerous position. The longer she is in exile the less of a threat she becomes until she is no longer even thought about by anybody on the outside. She is infertile and therefore is unable to be the mother that she truly wishes to be and she lives a lonely life in the Fringes as a result: “You've never known loneliness. You can't understand the awful emptiness that's waiting all around us here. I'd have given him babies gladly, if I could. . . . I – oh, why do they do that to us? Why didn't they kill me? It would have kinder than this . . .” (167). Sophie points out that by sterilizing her they have taken away more than just her life; she would have rather they killed her than to have left her an

empty vessel.

Clearly, fertility is a significant factor in the Fringes since the community of Labrador take measures to ensure that those who deviate from normal standards will not be able to reproduce. Sophie seems to feel that her infertility makes her less of a true woman and therefore sees women like Rosalind as a threat. She takes measures to ensure that Rosalind is safe from her own mate, Gordon, but not merely because of her good nature. If Rosalind were to give Gordon a baby, then Sophie would lose her position as his mate and therefore become a waste within a society of waste. The fact that Gordon is interested in Rosalind for her fertile abilities points to an interesting notion: if Rosalind's fertility means that she could give Gordon children, then he must not have been sterilized. This suggests that when deviant babies are exiled to the Fringes, it is only the female babies who are sterilized. If this is true, then it seems likely that the female is at least partially blamed by this society for the deviations in the children that they birth. Therefore, like many highly religious cultures, the female is already considered to be a lower, more abject version of a human being, thus situating them in the category of the "other" and therefore waste.

It is clear that the community of Labrador views those with physical deformities as waste and wants them out of sight and therefore out of mind. The problem that arises in this story is that the prejudice the community has against those who are different goes beyond mere physical deformities. David has the power of telepathy through sharing mind pictures with the eight other children with the same gift in his community. His

sister Petra and cousin Rosalind are among those with the power. They understand that what they see as a gift would be considered a deviation to the community and they therefore go through a similar transition as Sophie did. They know that they are not who they pretend to be and fear for their lives knowing the danger that lies ahead of them when their secret is eventually revealed. Anne decides that she is going to separate herself from the group and attempt to ignore her true self in order to live a normal and safe life in the village. Her sister, Rachel, also shares the gift and therefore has a hard time with her sister's decision. "From Rachel, her sister, we learnt that she would listen only to words, and was doing her best to pretend to herself that she was a norm in every way, but that could not give us enough confidence for us to exchange our thoughts with freedom" (97). Anne believes that she has a choice; she thinks that if she acts like a normal person, then she can live a normal life. The fear of being found out is forcing her to take on a false identity and denounce her true self. When her husband, Alan, is murdered she is filled with suspicion and paranoia, and ultimately takes her own life. It becomes evident that Anne's death was not merely a matter of losing her husband, but also due to the fact that she was not strong enough to live a false life. Michael, another member of the group, says, "One of us has been found not strong enough . . ." (103). Aunt Harriet, Sophie and Anne all tried to manipulate the system and ignore the community's rules for categorizing those who are different as waste. Unfortunately, the system and the prejudices of the community are too strong and fighting against the system is a dangerous endeavor.

Anne believes that she can remove herself from the category of waste. She knows that in the eyes of the community her abilities put her into this category, but since her ability is still a secret from the community she believes that she can change her destiny. Bauman notes that, “for anyone who is once excluded and assigned to waste there are no obvious return paths to a fully fledged membership. Nor are there any alternative, officially endorsed and mapped roads one could follow (or, for that matter be forced to follow) towards an alternative title of belonging” (16). Anne does the best that she can to avoid the stigma of abjection, but ultimately cannot endure the pain of living with the fear of rejection. As Bauman points out, you cannot ever truly escape who you are; society will not allow it. Both Anne and David's Aunt Harriet succumb to suicide because this reality becomes apparent to them. Anne may be able to turn off her ability, but it is in the same way that someone can change their hair color; both are temporary and false.

Once a Deviant is recognized as such it is not enough to sterilize it and ignore its existence; it must also be placed out of sight. Susan Morrison points out that, “Humans as waste repulse us; in them, we see what we could become at any time. Consequently, we put them out of sight in camps or slums” (*Waste Studies* 147). Morrison is referring to the Jews who were consigned to ghettos in medieval Europe, thus becoming people without a state. This is exactly the case in Labrador where those who are labeled Deviants by Labradorean society are cast out and rejected from the state. Morrison notes that, “Those without a state do not officially exist; as such, it is simple to reject them” (*Waste Studies* 147). Once a Deviant baby has been exiled to the Fringes it becomes

easier to ignore the fact that the child ever existed. The atmosphere of the Fringes is full of waste imagery. It is not only outside the boundaries of the community, but it is the land that the community has deemed a wasteland. This is because the only types of vegetation that grow there are considered Deviations and would be burned if they had grown on official land. The land does not grow crops well enough to feed those exiled to the Fringes and they are therefore forced to raid the town in order to survive. David's uncle Axel tries to discourage him from running away to the Fringes until completely necessary because of the hardships of surviving in a wasteland: "Man alive, you'd not want to go to the Fringes. Why, they've got nothing there – not even enough food. Most of them are half starving, that's why they make the raids. No, you'd spend all the time there just trying to keep alive, and lucky if you did" (56). David's uncle, his only confidant outside of the group, knows that his nephew does not belong in Labrador and that if his secret ever got out it would be very dangerous for him. However, he also knows that being sent to the Fringes will define him absolutely as waste and that is just as risky. Bauman says that, "However hard one tries, the frontier separating the 'useful product' from 'waste' is a grey zone: a kingdom of underdefinition, uncertainty – and danger" (28). It is the uncertainty of survival that is the most dangerous aspect of the Fringes; it causes those who occupy that space to live as criminals, running violent raids for food and supplies.

The Fringes not only hold the outcasts of society, but every person in the Fringes was born to one of the families in the area. They are family even if the non-Deviant

members of the family refuse to recognize them. When David is present during a raid he recognizes one of the Fringes men as a relative. “But when I looked at the other I had a shock which brought me up dumbfounded, and staring at him. I was so jolted I just went on staring at him, for, put him in decent clothes, tidy up his beard, and he'd be the image of my father . . .” (33). David has just seen face-to-face the reality of the Deviant exile practice; this man is clearly a close relative, possibly an uncle and yet has never been mentioned or recognized within the family. When his father sees who he knows to be his relative “his colour drained away, and his face went blotchy grey,” but he walks away and never acknowledges what he has just seen. This leaves David feeling disturbed and gives him an insight into the ways in which the community's belief system separates families for things as simple as a man having unusually long arms.

The Deviants are sent to the Fringes in order to keep the fact of what the community is doing to their own family members out of sight, and therefore out of mind. Bauman points out that, “waste is the dark, shameful secret of all production. Preferably it would remain a secret” (27). David was not supposed to see and recognize his relative from the Fringes because the Fringes people are not supposed to cross the boundaries into normal society. They are no longer members of the community and are therefore not supposed to exist. It is clear by his physical reaction that David's father never expected to run into his family member and it was a shock to see the reality of his family's actions right in front of him. Yet, he continues to work within the belief system and takes part in the chase to capture his children when their secret is finally revealed. When people see

that which they have purposefully thrown away make its way back into their view, it causes a reaction of disgust in them. The object, or person in this case, is out of place and it disturbs that person's visual field. Nothing will be quite right again until the problem has been removed from sight and placed back into the category of waste where it belongs.

Wyndham takes from his own time and culture the fears and anxieties that were growing strong about the possibility of a global nuclear disaster. In 1949, "President Truman issued his epochal announcement that the Russians had achieved an atomic explosion" (Fleming 522). This created a new sense of anxiety for both Americans and the British, and the idea of global nuclear disaster became a topic for both discussion and in Wyndham's case for literary speculation. This combined with the fact that the world was now aware of the horrors that Nazi Germany inflicted upon human beings forced people to recognize the hatred and disregard that humans are capable of having for other humans. It is important to note that Nazi Germany may have practiced a more extreme version of negative eugenics, but even countries such as the United States had mandatory sterilization laws. Weiss points out that, "Beginning with the first law in Indiana passed in 1907, twenty-three American states had sterilization laws on the books by 1929" (58). The idea that humans have the capacity to destroy each other and the earth allows one to speculate that any survivors from such a disaster would be changed in ways that would affect their sense of self, morality and their understanding of the world. The true anxiety here is that within moments anybody can go from being normal to being placed within the waste category. If something as terrible as a global nuclear war were to occur the

survivors would have to re-build society and nobody can guarantee that each person will hold the same social position as they had before the disaster.

Humans fear losing their place in the societies in which they belong. In the 1950s the threat to this place of comfort may have been war, but the anxiety of losing one's self and identity can be caused by numerous occurrences. For example, in Margaret Atwood's *The Handmaid's Tale* the loss of position in society and identity come from one's ability to conceive and whether or not they are married for the first time. These concepts were certainly debated issues in the 1980s, yet they were not issues that would cause you to lose your place in society. However, by taking the debate on these issues to the extreme Atwood is able to explore the possibility that labeling these concepts as stigmas could bring to a nation. Humans as waste are an unfortunate reality and a person cannot guarantee that he or she will never find themselves in this category. SF allows us to explore the potentialities that this subject can open up to the world.

CHAPTER II

MISUSE AND MISUNDERSTANDING:

TECHNOLOGY AS WASTE IN *DO ANDROIDS DREAM OF ELECTRIC SHEEP?*

In the previous chapter I explored the ways in which the genre of SF uses the concept of waste through the abject human subject. I established that it is humans that force other humans into this category and that by looking at this concept from the perspective of an estranged, yet familiar world we see can speculate the many ways in which humans might marginalize other humans if humanity's worst fears are realized. Humans often fear and feel threatened by that which they do not understand, and this concept goes beyond other human beings. Technology is constantly becoming more sophisticated and for many people difficult to understand. Technology is often created to mimic the activities and jobs of human beings. We have computers that play chess because we need a gaming partner, we have robotic vacuum cleaners to replace maids, and at the MIT artificial intelligence lab we have Cog, “the most humanoid robot yet attempted” (Dennett 191). While humans create this technology with the intention of simulating human actions, they nonetheless often find themselves fearing, misunderstanding, and sometimes destroying that which they themselves have created.

SF shares a close relationship with the world of technology. Writers often imagine new technologies, thus allowing the reader to experience the simulation of the

many advantages and disadvantages that often come with these novel inventions. Technologies found in SF are often imagined exaggerations of the technologies that already exist within our own reality. Humanity already has space ships and robots; the difference is that our spaceships cannot move faster than the speed of light and our robots would be difficult to mistake for an actual human being. Adam Roberts points out that, “Technology is something with which we are simultaneously familiar and already estranged from; familiar because it plays so large a part of our life, estranged from because we don't really know how it works, or what the boffins are about to invent next” (147). It is this uncertainty that humans feel towards technology that instills emotions such as fear, anxiety and mistrust. Yet, it is this familiarity that allows humans to be interested in, impressed by and in awe of technological progression. Jean Baudrillard notes that, “From the classical (and even the cybernetic) viewpoint, technology is an extension of the body. It is the evolved functional capacity of a human organism which allows it both to rival Nature and to triumphantly remold it in its own image” (*Science Fiction* 313). This idea insinuates an intimate relationship between humanity and technology which therefore peaks man's interest in exploring the potentialities of this close connection, often through SF.

In this chapter I will focus on Philip K. Dick's novel, *Do Androids Dream of Electric Sheep?* because here we find a world where humans have created technology in their own image, fear this technology, misunderstand it, and ultimately set out to destroy it. Dick takes us to this estranged world in what appears to be an attempt to force us to

explore our relationship with technology. Humans have created and used technology in order to survive, to learn and to progress throughout history. Humanity's ability to create is and has always been fundamental to human existence, from the primitive tools of our ancestors to the pacemakers which allow people to live longer lives. Martin Heidegger notes that, "Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it," and this truth allows us to acknowledge that we do have a relationship with technology and it is in our best interest to understand this relationship instead of consigning it to waste due to the fears and anxieties that are sometimes associated with change and progression (4).

The novel begins with Rick Deckard's desire to replace his electric sheep with an authentic natural animal. His conversation with his neighbor, Bill Barbour, immediately gives us insight into the importance that the humans left on the post World War Terminus Earth place on the natural vs. the artificial. Rick once had a genuine sheep, but after it died of tetanus he was unable to afford to replace it and had to settle for an electric sheep instead. Having an electric pet is not uncommon, but it is not something that you want people to know about. Rick notes that, "Nothing could be more impolite. To say, 'Is your sheep genuine?' would be a worse breach of manners than to inquire whether a citizen's teeth, hair, or internal organs would test out authentic" (7). Owning and caring for genuine animals is one thing that sets humans apart from androids, and those who have decided to remain on Earth where toxic dust has caused them to become susceptible to losing their mental capabilities find it necessary to prove their humanness through

ownership of an animal. Showing others how much they love animals is essential to living within the social norms of society. Barbour claims that he never noticed that Rick replaced his sheep with a fake one. If nobody can tell the difference, then why does it matter whether his sheep is real or electric? It is this desire to differentiate the real from the so-called-artificial that drives the plot of this novel.

Rick's desire to have an authentic animal results in the high motivation that he feels to retire five androids, or andys, because the one thousand dollars he will get from each one will be enough to purchase a real animal. Therefore, in order to prove that he is human he must risk his life to hunt and kill the non-human androids. They are nearly indistinguishable from real humans in much the same way that Rick's electric sheep has fooled his neighbors. Why has this society placed such importance on distinguishing humans from the technology that they created with the intention of imitating themselves? Christopher A. Sims points out that in this novel, "Dick is exploring the question 'why do we value the natural more than the artificial?' 'Why,' he is asking, 'is technology considered something unnatural?'" (68). Rick struggles with this concept throughout the novel; he must constantly convince himself that there are differences between humans and androids and that these differences are enough to condone ending their so-called-lives.

In this society the androids are even further down on the food chain, so-to-speak, as are the specials, or "chickenheads." The specials are forced to live outside of normal society within abandoned apartment buildings and they are not allowed to immigrate to Mars with the majority of human beings. John R. Isidore is a special who lives in one of

these abandoned buildings. The dust leftover from World War Terminus has left him mentally deficient and he has been left behind to survive on his own. He, along with all other specials, are forced to live with the rest of the waste leftover from the war. Isidore refers to the garbage which surrounds him in the abandoned apartment building as “kipple.” “Kipple is useless objects, like junk mail or match folders after you use the last match or gum wrappers or yesterday's homeopape” (52-3). The kipple sets up an atmosphere of Earth as a wasteland with only that which was not important enough to take to Mars left behind to wither away and decay over time. *Blade Runner*, director Ridley Scott's film version of *Androids*, sets up a gritty atmosphere with kipple pouring out into the streets along with a dark and smoky sky due to the pollution leftover from World War Terminus. This dark and gritty atmosphere is often seen in later SF works under the sub-genre of cyberpunk. Dani Cavallaro notes that, “Cyberpunk's characters are people of the fringe of society: outsiders, misfits and psychopath, struggling for survival on a garbage strewn planet . . .” (14). The influence of Dick's work on cyberpunk has been noted by both critics and cyberpunk authors themselves. The garbage strewn planets found in cyberpunk are definitely seen here in *Androids* and are a major focus of the setting of *Blade Runner*. The specials have been left behind in much the same way as the kipple; they are useless and no longer wanted by mainstream society. Instead of being exiled, as is often the circumstance regarding wasted humans, the specials are abandoned.

Pris is an android who has escaped her life on Mars and therefore finds refuge in

Isidore's home since she too is viewed as a meaningless and disposable object. The difference is that Isidore is still allowed to work and live a somewhat normal life, even if it is in a marginalized state. He has a job, and while he is not allowed to immigrate, he is not being chased after by anybody for being what he is. The androids, on the other hand, are in a lower state of abjection than are the specials. So long as the specials are kept with the rest of the rubble they are not perceived as a threat to the rest of humanity, but with the androids the desire is to know who and where they are at every moment. Society does not want to risk allowing an android to just blend in with the rest of the trash; they must find them and completely obliterate them.

The differences that separate humans from androids are minute and difficult to notice. The Nexus-6 brain unit is what the newest android models have and it requires that the bounty hunters are extremely careful in verifying their status as androids before retiring them. The only sure way to know if someone is an android is to test their bone marrow. However, Rachel Rosen points out that it is illegal to force a person to take such an intrusive test: “‘Legally,’ Rachel said, ‘I can't be forced to undergo a bone marrow test. That's been established in the courts; self-discrimination’” (42). Instead, the bounty hunters rely on the Voigt-Kampff test which tests a person's empathy or an android's lack of empathy. This is not completely reliable because some people have what is referred to as a “flattening of affect” due to schizophrenia (31). So, if it is that difficult to even distinguish between a human and an android, then why is it so important that humans are able to do so and why is it acceptable to hunt and kill them?

The relationship that humans have with technology is explored by Heidegger: “Everything depends on our manipulating technology in the proper manner as a means. We will, as we say, 'get' technology 'spiritually in hand.' We will master it. The will to mastery becomes all the more urgent the more technology threatens to slip from human control” (5). Yet, the problem with humanity's desire to master technology as a means lies in the fact that technology is more than a mere means to an end. According to Heidegger, “Technology is a way of revealing. If we give heed to this, then another whole realm of essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth” (12). This revealing of truth allows humans to understand that the essence of technology goes beyond the instrumental definition of a means to an end; it is a way of revealing the truths of reality. The androids were created for a specific purpose, and because of this the humans see them as technology which is limited to that purpose. Yet, Dick reveals to us through his novel that the androids are more than a mere means to an end; they are more than slaves for lonely humans. Unfortunately, humans do not always look and listen; instead, they misinterpret what technology says to them and therefore end up misusing it. Sims points out: “the more sophisticated the technology becomes, the more serious the consequences become for misusing the technology” (69). Since the androids are not nearly being used to their full potential they can be designated into a category which Heidegger calls “the standing-reserve” (17). Heidegger gives the example of an airplane on a runway to show what he means by this term: “Yet an airliner that stands on the runway is surely an object. Certainly. We can represent the machine so.

But then it conceals itself as to what and how it is. Revealed, it stands on the taxi strip only as standing-reserve, inasmuch as it is ordered to ensure the possibility of transportation (17). Dick's androids are in this same situation. They are revealed as a standing-reserve because they are not allowed to show their full potential. At the point in time in which this novel begins many androids are no longer under the control of humans; they have revealed that they have their own desires and agendas beyond being slave companions for humans. It is humanity's inability to see this truth that causes them to succumb to the category of the standing-reserve and therefore into the category of waste. Whether or not a person is a human or a machine they are wasting their lives by not being allowed to express the truth of their nature. Humans created the androids to be as close to humans as possible, but they are not allowing them the freedoms that come with being a human being. Therefore, the androids that Rick is searching for are fighting against being forced into the category of waste, and at the same time Rick is struggling to place them solely into this category.

The humans in Rick's world do not see the truth that the androids reveal about themselves and about humanity. They do not see the suffering that the androids endure by being programmed with false memories which results in real feelings of loneliness and anger. The android, Pris, explains to Isidore, "this is nothing. You think I'm suffering because I'm lonely. Hell, all Mars is lonely. Much worse than this." (119). She is sad that one of her friends has been killed and she is frightened because she too is on the bounty hunter's list. Rick knows that androids display emotions, but at first he does not

realize how real these emotions feel to the androids. When he meets Phil Resch he is unsure whether he is a human or merely an android who believes that he is a human. Phil is also unsure because he has been tricked into working as a bounty hunter for androids and he knows that many androids are unaware of their artificial lives because they have been programmed with false memories. The trouble is that Phil shows little empathy and instead exhibits more apathetic behavior traits than some of the androids that Rick has encountered. The uncertainty of whether or not Phil is an android forces Rick to question his own humanity and this points to the question of whether or not the difference is truly significant. Donna Haraway writes that, "Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert" (152). Haraway points to the truth that Rick is realizing which is that humans often feel emotionless towards their artificial counter-parts. They see them as a means to an end while ignoring their sophistication and potentiality. Iran, Rick's wife, spends her day hooked up to the Penfield mood organ which controls her mood and emotions. This coupled with the idea that one must own and care for an animal in order to prove that one has empathy creates a world in which human emotions are forced and often artificial. On the other side, the android's emotions are a result of artificial memories, but feel as real, if not more real, than the emotions displayed by the humans.

So, the question at this point becomes, "What is living?," and from the perspective

of this novel the question becomes difficult to answer. Vivien Casimir notes that, “The cyborg becomes a metaphor of the blurring of any dichotomy, but I would argue that it stands also for the discursive space where a crisis occurs – a crisis of postmodern thought, a crisis in the representation of the 'living' or what it means 'to be alive'” (279). Rick is beginning to understand this idea and it indeed causes a crisis for him since he begins to question not only whether or not he himself is an android, but whether or not it is right to kill these seemingly living beings. Casimir goes on to say that:

Living used to have a specific signified: the “vital force” and the principle of “organization” in the nineteenth century and the “DNA,” the “teleonomy,” and other criteria in biology in the twentieth-century. However, with cyberspace, the representation of *living* in science fiction films shows a displacement of signifieds from a structural level to a functional level: being alive is a matter of subjectivity and not of biological/technological definition. (279)

The androids in this novel are composed of organic material, but they lack some of the characteristics that humans use to define themselves as human. Physically they are not different enough to distinguish from real humans. Rick, in fact, has physical desires for both Luba Luft and Rachel Rosen, and when he has sex with Rachel he finally acknowledges that she is alive:

“If you weren't an android,” Rick interrupted, “if I could legally marry you, I would.”

Rachel said, "Or we could just live in sin, except that I'm not alive."

"Legally you're not. But really you are. Biologically. You're not made out of transistorized circuits like a false animal; you're an organic entity." And in two years, he thought, you'll wear out and die. Because we never solved the problem of the cell replacement, as you pointed out. So I guess it doesn't matter anyhow. (155)

Rick realizes that he has feelings, of both desire and empathy for Rachel, yet up until now he was able to keep androids at an emotional distance because they are essentially trash. Their short life span associates them with an "out with the old, in with the new" mentality; new models are constantly being created that are better than last year's model. However, the feelings that Rick has force him to question whether or not he can do his job. Rick no longer misunderstands or fears the androids, but he feels sorry for them and he does not want to kill them. Yet, it is his job and the rules of the society in which he lives to treat the androids as objects of waste. He decides, therefore, that he must go through with it whether or not he believes that it is wrong.

Rick understands that androids are programmed to feel emotions, but it is not merely emotions that the Voigt-Kampff scale tests. The scale is used to specifically test for empathy and a proper reaction time to react empathetically. The need to differentiate the real from the artificial has become a process of refinement. John Scanlan points out that, "Refinement separates, withdraws, and distils a sphere of value from the crudity of existence, which itself remains (in terms of our knowledge of it) inexact or random in its

natural condition” (89). In order to differentiate themselves from the androids, the humans have come up with this scale in which the judgment is refined down to a fraction of a second reaction time. Rick decides to test Rachel with one last question after he had previously determined that she was a human. He could have let it go after she passed his first round of questions, but the desire that Rick has to know for sure causes him to try once more:

“Babyhide,” Rick said. He stroked the black leather surface of the briefcase. “One hundred percent genuine human babyhide.” He saw the two dial indicators gyrate frantically. But only after a pause. The reaction had come, but too late. He knew the reaction period down to a fraction of a second, the correct reaction period; there should have been none. (47)

Rick was ready to believe that Rachel was a human until she failed to react by a microsecond. This refinement is what allows the humans to treat the androids with a distanced or even lack of emotion. Phil has no problem killing androids; Rick realizes that Phil actually enjoys the kill. “I hope to god you do test out as an android.’ . . . ‘I see a pattern. The way you killed Garland and then the way you killed Luba. You don't kill the way I do; you don't try to – Hell,’ he said. ‘I know what it is. You like to kill’” (109). Yet, Phil turns out to be human and this leaves Rick with the realization that he empathizes with androids and that this emotion of his is not shared by the other bounty hunters. Empathy is an important factor when it comes to finding androids, but it is not normal social behavior to have empathy for the androids themselves. This suggests that the

refinement of emotions that is supposed to separate the real from the artificial is of no value in and of itself. What is the point of testing the androids for empathy when the humans themselves feel no empathy towards the androids? Humans are supposed to keep themselves at an emotional distance from the androids, yet Rick finds this to be a difficult task.

Rick's empathy for the androids suggests that Dick is not telling us to fear technology, but as Ryan Gillis points out: "the threat comes, instead, when technology obtains the ability to disguise itself as human, and our ability as observers to differentiate one from the other is lost" (266). This inability to separate the real from the artificial is the driving force of *Androids*, but it is not unique to this novel. In the 2003 series *Battlestar Galactica*, the humans are at war with the Cylons. The Cylons, like the androids, are human creations that have advanced beyond human control. A problem arises when Sharon, one of the members of the ship *Galactica*, is discovered to be a Cylon sleeper agent. She, like Rachel, was programmed with memories of a human past and until she was activated had no idea of her Cylon origin. This creates conflict on the ship because the Cylons are the enemy of the humans, yet Sharon had been a member of their crew for two years. The difference between *BSG* and *Androids* is that the conflict between the humans and their artificial counter-parts has escalated to war in *BSG*. However, I believe that the fear of the androids' advanced status is one of the main motivations for categorizing them as waste in *Androids*. If the humans continue to retire any androids that attempt to assert their individuality, then they can maintain the power in

the relationship. Yet, if the bounty hunters cannot tell the difference between the two, then this results in the androids having a definite power over the human population.

Rick's Voigt-Kampff scale does end up working on Rachel and eventually on the escaped androids as well, however he still begins to struggle with the morality of killing these beings. He thinks about verified humans such as Phil and his wife, Iran, whose emotions are either non-existent or programmed artificially and he begins to realize that the androids are not what is dangerous to humanity. Sims points out that:

As the novel progresses Rick slowly loses confidence in the significance and morality of his work, because he begins to realize that the androids themselves are not inherently dangerous, but that the real danger stems from losing our human empathy by guiltlessly enslaving the androids through the moral loophole of antiquated technological hierarchies that privilege the user over the instrument. (70)

It is humanity that is dangerous to humanity. They are the creators of the androids, and they are the ones who have misused, misunderstood and are now setting out to destroy their own creations. Yet, the hunt for escaped androids continues because the humans need to feel that they hold the power. Sims notes that: "The only way to ensure the conformity of the android to traditional power systems and technical paradigms is to insist on maintaining a difference (through the realignment of social values) and on creating a means to measure and identify that difference" (70). Rick may have realized the truth, but he cannot ignore the rules of society. The religious figure, Mercer, tells him in the

apartment building, “What you are doing has to be done” (173). Mercer is not telling him that he is doing the right thing in a moral sense, but that his job is important in maintaining order and ensuring social balance.

In order to be able to hunt and kill androids a bounty hunter must believe that he is doing the right thing. Rick previously believed that he was because androids do not have empathy which allows them to kill their masters and escape from Mars. Yet, if an android is held captive is it not in their own self-defense that they kill their captors? How is it acceptable for the bounty hunters to kill escaped androids, but not right for them to kill their captors? The androids are not being captured and then given a trial for the murder of their masters. Nobody is proving that the androids are actually murderers; they are merely retired. Gay Hawkins reminds us that “what we want to get rid of also *makes* us who we are” and in this novel the humans are destroying that which they have created in their own image (2). This is a very telling aspect of the novel and of humanity's relationship with technology.

The humans have not merely created a representation of themselves, but a simulation of simulacra. The androids would fall into the third order of simulacra according to Baudrillard where “their aim is maximum operationality, hyperreality, total control” (*Science Fiction* 309). Baudrillard poses a question that Dick is also concerned with in this novel: “There is no real and no imaginary except at a certain distance. What happens when this distance, even the one separating the real from the imaginary begins to disappear and to be absorbed by the model alone?” (*Science Fiction* 309). The humans

see the androids as mirror reflections of themselves and of reminders of their own mortality. However, while they were built in the image of humans, they are not actual copies of any existing human. They have been made to be more advanced in many ways than humans and instead they simulate the ideal model of human attributes. Baudrillard uses the example of somebody pretending to be ill. In order to simulate the illness that person must in effect produce real symptoms. In this case, “simulation threatens the difference between 'true' and 'false'” which leaves the observer uncertain of the truth (*Simulations* 168). It is the same with the androids; they appear to be human in such detailed ways that the line between real and fake is blurred. The one aspect where the simulation fails is that the androids are disposable; their lives only last for a few years. This produces a problem for anybody desiring to fully believe the simulation because this particular difference is so extreme. Zygmunt Bauman notes that: “We, the humans, know that we are mortal – bound to die. This knowledge is difficult to live with. Living with such knowledge would be downright impossible were it not for culture” (97). Rick's society has developed a culture wherein they separate themselves from that which reminds them of their temporal existence.

The idea of facing one's own mortality, in this novel, creates a world that avoids the truth. They follow a religion, Mercerism, that has been proven to be false by the android Buster Friendly. Yet, even though the humans are now told the story of how their fake religion was created they continue to believe in it anyway. Rick has an experience in the desert after leaving Isidore's apartment. He feels that life is meaningless at the end of

his ordeal retiring the androids. So, “He goes to the place where no living thing would go. Not unless it felt that the end had come” (179). Here he can see the city from a distance and he realizes how sad the Earth has become:

In the early morning light the land below him extended seemingly forever, grey and refuse-littered. Pebbles the size of houses had rolled to a stop next to one another, and he thought, It's like a shipping room when all the merchandise has left. Only fragments of crates remain, the containers which signify nothing in themselves. Once, he thought, crops grew here and animals grazed. What a remarkable thought, that anything could have cropped grass here. (180)

His experience from the day before has left him with a new outlook on what is left of life on Earth. He feels humiliated and helpless and utterly alone until something hits him: “At that moment the first rock – and it was not rubber or soft foam plastic – struck him in the inguinal region. And the pain, the first knowledge of absolute isolation and suffering, touched him throughout in its undisguised actual form” (182). Even though Mercer has been proven to be a false religious leader, Rick nonetheless finds himself understanding his point of view. He understands the suffering and isolation that has been taught and shared by the artificial leader. When he finds a toad in the desert, which is believed to be extinct, he believes that he is seeing through Mercer's eyes. He thinks, “So this is what Mercer sees, he thought as he painstakingly tied the cardboard box shut-tied it again and again. Life which we can no longer distinguish; life carefully buried up to its forehead in

the carcass of a dead world” (187). Finding this toad gives him hope and allows him to feel connected with the world despite all of the death that surrounds him. So, even though Buster Friendly outed Mercer as a fake, Rick is still able to find truth in the artificial religion. Rick tells Miss Marsten, “‘Mercer isn't a fake,' he said. 'Unless reality is a fake’”(185). It is not that Rick necessarily believes that Buster Friendly's evidence is false, but he needs Mercerism in order to keep from feeling alone and mortal. After his experience with Mercer at the apartment he feels one with Mercer: “But if I'm Mercer, he thought, I can never die, not in ten thousand years. *Mercer is immortal*” (185). Rick has made the choice to deny the truth of his own mortality because believing in Mercerism allows him to have the hope and connection that he needs to survive in a lonely world. When he returns home with the toad, his wife discovers that the toad is electric, but it does not seem to faze Rick at all. They decide to ignore the truth of its artificiality and keep the toad, treating it like they would treat a real one.

This is exactly how the humans relate to the androids; they deny the truths that the androids reveal because the truth of their own mortality and the situation that their lack of empathy has led them to is a harsh reality. Sims reminds us that: “World War Terminus came about because the empathetic gift of humanity was discarded, and the humans behaved more like solitary predators than a group” (81). This left humans feeling lonely and the androids were created with the intention of simulating human bonds and companionship. However, the humans were also left with the inability to form these emotional bonds and rely instead on devices like the Penfield mood organ to simulate

these lost emotions. This also resulted in these androids, who were designed to be human companions, to feel lonely as well.

Rick struggles in understanding man's relationship to technology and comes to realize a truth about humanity. He realizes that it is not the androids, but the humans who are a danger to humanity and that the society to which he belongs misunderstands this truth. However, in the end, he decides to continue to follow the rules of society and to deny the truth that humans have ruined their own lives and blames this on the technology instead. The androids continue to be placed in the category of waste because removing them from this category would mean facing a harsher truth. Bauman points out: "Most importantly, for anyone who is once excluded and assigned to waste there are no obvious return paths to a fully fledged membership. Nor are there any alternative, officially endorsed and mapped roads one could follow (towards an alternative title of belonging)" (16). Rick tells Miss Marsten that he will no longer be working as a bounty hunter, but she thinks that he just needs to rest. It does not matter if he continues to work as a bounty hunter or not because there will always be another bounty hunter. One person cannot make enough of a difference to change the way a culture works; everyone must take the time to reevaluate their understanding of humanity's relationship with technology.

If we go by the ending of *Do Android's Dream of Electric Sheep?*, then we might say that if change occurs it will be a very slow and gradual process. Even though Rick goes through so much, he is still only slightly more enlightened by the end of the novel. Rick finds the toad believing that it is real, deciding to keep it although it is not. "The

spider Mercer gave the chickenhead, Isidore; it probably was artificial too. But it doesn't matter. The electric things have their lives, too. Paltry as those lives are” (190). He recognizes that the artificial beings have lives, but he still consigns those lives to rubbish. Iran thinks that perhaps she should have let him go on believing that the toad was: “No,’ Rick said. ‘I’m glad to know. Or rather –’ He became silent. ‘I’d prefer to know.’” (190). Rick still feels the need to differentiate the real from the artificial and the lesson that he learns from Mercer is: “Sometimes it’s better to do something wrong than right,” which tells us that the real lesson that he learned is that killing androids is wrong, but conforming to the rules of society is more important (191). Rick’s insistence on differentiating the artificial from the real even after his ordeal shows that the threat he feels outweighs the empathy that he has developed for the androids. His experiences with the androids allows him to see that they have human-like feelings and an intense desire to live. It is not hard to understand after witnessing how hard the androids will fight to live and be free from slavery that the humans might be left in a state of fear. They were created to be slaves, but they have clearly proven that they will not settle for that status in society. SF often deals with the artificial turning on those who originally created them. If the only way that the androids can break free of the chains of slavery is to rise up and fight against humanity, then one group will be victorious while the other is destroyed and consigned to waste. Dick leaves us with a complicated message, but he nonetheless forces us to think about our relationship with technology and how we as a society might misunderstand, misuse and ignore the truths that technology reveals to us and what the

consequences of such ignorance might entail.

CHAPTER III

EXCESS AND OVERCONSUMPTION:

RESOURCES AS WASTE IN *DUNE*

In the previous chapter I focused on how man's relationship with technology often results in that which man creates being consigned to waste. The ways that humans see themselves in relation to technology directly affects the ways in which they determine the value of their own creations. However, this chapter focuses on the ways in which humans relate to their surrounding environment. I will explore the relationship that certain groups share with their environment based upon the degree of value which they place on one natural resource over another. I will also look at the ways in which unproductive expenditures result in the oppression of the poor and working class resulting in both wasteful behavior and the abjection of a group of people. John Scanlan points to two aspects to understanding how waste works: "On the one hand notions of degradation point to the overuse of once valuable resources, where land, for instance, becomes barren or depleted through overuse, and where objects and places are exhausted of some capacity prior to being garbaged – that is, abandoned" (23). The over-consumption of natural resources in one's environment often causes the land to be consigned to waste and the people who are from that land to suffer due to the resulting depletion of their much needed resources.

The other way that waste works according to Scanlan is that: “there seems to be some idea of a kind of natural blankness – of nature having no existence beyond its human uses – and this has historically informed an understanding of the significance of wasteland, and to beliefs that certain parts of nature are inhospitable (meaning unfit for human habitation or sustenance) as in the vast of the oceans, the snow-covered lands and empty spaces” (23). The combination of these two aspects can be found in *Dune* by Frank Herbert, wherein on the one hand there are the Harkonnens and the Guild to which they belong who over-consume the melange spice, which is found only on the planet Arrakis, to the point of causing a violent battle for the control of this valuable resource. The Guild does not care about how their excessive mining for the spice affects the native Fremen or the land of Arrakis. On the other hand, there are the Fremen who must survive on their desert planet where water is scarce and where the Harkonnens, who occupy their planet, flaunt and waste water even if this wasteful behavior might eventually cause the planet to become an uninhabitable wasteland. The juxtaposition of the Harkonnen's wasteful behavior set up against the conserving nature of the Fremen culture allows us to see how differences in culture can affect the ways in which people view and treat their surrounding environment.

According to Carl Freedman, “the science-fictional world is not only one different in time or place from our own, but one whose chief interest is precisely the difference that such difference makes, and, in addition, one whose difference is nonetheless concretized within a cognitive continuum with the actual” (43). The world of *Dune* is enormously

different from the world of Frank Herbert's 1960s America, yet we can still follow the problems that face the Fremen through a cognitive familiarity with the real issues at hand. Arrakis is a novum which estranges us from the world of the novel, yet the underlying issues are familiar enough to allow the reader to relate to the plights of the characters. As readers we may not be able to relate directly to the over-consumption of Arrakis' melange spice or to living in a world where we must recycle our bodily waste in order to survive one more day, however by taking us to a different world we are allowed a deeper insight into the actuality of the concept of resource waste and depletion which humanity does, at times, have to deal with and understand. We can also relate to similar circumstances that occur within our own reality. For example, the exploration and mining for spice can easily be compared to oil exploration in the Middle East by the United States and other countries who are desperately in need of vast amounts of fuel. Humans have fought many wars and displaced thousands upon thousands of native peoples in the pursuit for oil and other resources throughout history and continuing into modern times.

Dune begins with the Atreides family moving from their home planet of Caladan to Arrakis by order of the Emperor. Arrakis had up until this moment been controlled by the Harkonnens who are not happy to be leaving. Baron Vladimir Harkonnen, their leader, devises a plan to regain control of the desert planet because of the high value of its prime resource, the melange spice. He has Paul's father, Duke Leto Atreides, assassinated and believes that Paul and his mother Jessica have also been killed. However, they are taken in by the Fremen and Paul is believed to be the Muad'Dib, who is foreseen to be the

savior of the Fremen and their land. *Dune* follows the characters Jessica and Paul as they transform from people of the Guild to Fremen people and this transformation allows us to see the significance that culture has on the ways in which humans relate to their surrounding environment. This chapter focuses on the melange spice and the water separately and the difference in how the Fremen and the Guild members use and relate to each resource and therefore relate to each other.

The Fremen people are natives of Arrakis and therefore know the land much better than their Guild occupiers. The melange spice is a resource found only on the desert planet of Arrakis and according to *Dune's* appendix it is: “chiefly noted for its geriatric qualities, is mildly addictive when taken in small quantities, severely addictive when imbibed in quantities above two grams daily per seventy kilos of body weight” (523). It is also used for space navigation, mentats who are like human computers use it in order to advise leaders, and it is also known to enhance one's prophetic abilities. However, the Fremen use the spice as part of their water of life ceremony wherein their Reverend Mother drinks a concentrated dose of the spice and turns it into a milder form so that the people of the tribe may drink it and experience a temporary heightened awareness. It is a religious ceremony for them and they take it very seriously. When Jessica goes through the ceremony in order to become the new Reverend Mother she becomes one with the memories of all Reverend Mothers:

Whirling silence settled around Jessica. Every fiber of her body accepted the fact that something profound had happened to it. She felt that she was

a conscious mote, smaller than any subatomic particle, yet capable of motion and of sensing her surroundings. Like an abrupt revelation – the curtains whipped away – she realized she had become aware of a psychokinesthetic extension of herself. She was the mote, yet not the mote. (354)

Not just anybody can become a Reverend Mother; the concentrated spice is a poison to anybody who is not trained properly. Jessica was born with the intention of her being trained as a Bene Gesserit, in fact, she grows up not knowing who her father is because she was bred specifically for this purpose. *Dune's* appendix defines the Bene Gesserit as “the ancient school of mental and physical training established primarily for female students after the Butlerian Jihad destroyed the so-called 'thinking machines' and robots” (514). The young girls are taught to control their surroundings with their minds, voices and body. They are only supposed to reproduce female offspring who will then go into Bene Gesserit training. Jessica ignores this command when she produces Paul. The Fremen use Bene Gesserit trained Reverend Mothers as their religious leaders and therefore the use of the spice in this ritual carries spiritual significance. In this way the Fremen use of the spice is a controlled and necessary expenditure. They only use what is needed for the ceremony and they only use it for the purposes of spiritual awareness. If someone were to misuse the spice, such as for mere recreation, it would be considered a great waste within their culture.

Carol Hart looks at melange spice in comparison with the real world drug

ayahuasca, and therefore compares the Fremens' use of their drug with the way that the indigenous Amazonian tribes use ayahuasca. She says, “The traditional process of preparing Vine of the Soul (ayahuasca) has an ingenuity comparable to the Fremen method of distilling the Water of Life (melange) by drowning a stunted sandworm or “little maker” to produce a liquid that then must be detoxified by a Reverend Mother” (3). This comparison suggests that Herbert wanted the Fremen tribes to be paralleled with real world indigenous tribes who use mind altering drugs for serious spiritual and traditional purposes. The process of changing the drug into a safe form and the Shaman ensuring a controlled experience for the Amazonian tribes paralleled with the role of the Reverend Mother for the Fremen tribes allows us to understand the relationship that these tribes share with their religious drugs. The Water of Life ceremony carries great meaning to the Fremen tribes who value water over almost everything. Chani recites the lines used in the ceremony to Jessica: “Here is the Water of Life, the water that is greater than water – Kan, the water that frees the soul” (353). The Fremen culture is controlled by their need for water and their desire to create a future paradise on their land, therefore for something to be considered greater than water it must carry the highest value.

The spice is clearly an important part of Fremen culture; they use it in religious ceremonies and value the Water of Life as greater than water itself. The Harkonnen's relationship to the spice is based mostly upon its monetary value, according to the index at the end of *Dune*: “Its price on the Imperial market has ranged as high as 620,000 solaris the decagram” which implies that it is highly valued, only not in the same way as

it is for the Fremmen. Melange, we must remember, is a drug which has geriatric qualities, causes prescience and the Guild navigators rely on this prescience for their travels. The spice, from this perspective, is a resource that is in high demand, and therefore the Guild's need for constant mining is pertinent to their economic culture.

The novel begins with the Atreides family taking over the planet of Arrakis from Harkonnen rule through the Emperor's orders. The Duke Leto Atreides explains to his son, Paul, the importance of the spice on their new planet from his perspective:

“Arrakis has another advantage that I almost forgot to mention. Spice is everything here. You breathe it and eat it in almost everything. And I find that this imparts a certain natural immunity to some of the most common poisons of the Assassin's Handbook. And the need to watch every drop of water puts all food production – yeast culture, hydroponics, chemavit, everything – under the strictest surveillance. We cannot kill off large segments of our population with poison – and we cannot be attacked this way, either. Arrakis makes us moral and ethical.” (104)

Leto and his family have just left Caladan, a planet with vast oceans, and they therefore must adjust to the idea of living on a desert planet. Leto knows that the desert is difficult terrain to survive in, but as a member of the Guild he looks at the advantages of the spice as having value over the hardships of desert life. Leto reminds us that, “It would be missing one of Herbert's major concerns not to see that melange is a means for controlling both individuals and whole societies” and here we see that Leto understands

this and is ready to use the spice in this way (14). Of course, Leto never gets the chance since he is assassinated early in the novel and therefore the control of the spice is returned to the Baron Vladimir Harkonnen who does not see a need for morality nor ethical considerations in his ruling methods.

The Baron Harkonnen is a terrible ruler and he allows his employees to become addicted to the spice and then exploits them. He kills for the mere pleasure of it and he also exploits the Fremen people in order to secure more and more melange for its monetary value. The way in which the Harkonnens exploit and over-consume the melange spice can be seen as a type of unproductive expenditure. Georges Bataille notes that this would be an expenditure that involves things such as, “luxury, mourning, war, cults, the construction of sumptuary monuments, games, spectacles, arts, perverse sexual activity (i. e., deflected from genital finality) – all these represent activities which, at least in primitive circumstances, have no end beyond themselves” (118). The Harkonnens do not care whether or not they are depleting the land of its major resource, thus ensuring that Arrakis will one day become a wasteland. As Scanlan points out, a land may be perceived as a wasteland if it has no resources for human use. They do not care that they are taking an important resource away from the native Fremen culture and wasting it merely for wealth and pleasure.

As a recreational drug the spice can be highly addictive and we see this happen through the Baron's mentat, Piter. The Baron explains to his nephew the outcome of spice addiction: “Ah! Indeed but! But he consumes too much spice, eats it like candy.

Look at his eyes! He might've come directly from the Arrakeen labor pool. Efficient, Piter, but he's still emotional and prone to passionate outbursts. Efficient, Piter, but he still can err” (17). Becoming addicted to melange results in Piter, who as a mentat is supposed to be equated to a human computer, instead having high emotions and frequent outbursts. Hart comments that “It is just possible that Piter's dependence on melange as a recreational drug (he referred to it as one of his expensive 'pleasures') was the vehicle for corrupting and degrading him” (5). This points to the idea that by allowing one's mentat to become addicted to the spice and in fact encouraging it, the Baron has given himself control over Piter's sense of self and morality. As a mentat he is supposed to be highly logical and it is this extreme logic that is valuable to leaders. Piter is wasting the planet's biggest commodity in order to feed his addiction and the Baron allows him to over-consume in an effort to control his employee. At the same time the Baron is wasting Piter as a human resource, because by encouraging this addiction he is also encouraging Piter to lose his logical mindset and therefore his value to the Guild.

Using the spice as a recreational drug is especially wasteful when you take into account the significance of the spice in Fremen culture. Hart points to the problem with outsiders partaking in spiritual drugs without cultural perspective or guidance by comparing it with ayahuasca:

Outside of its ritual uses, when taken by researchers or novelty seekers ayahuasca has unpredictable effects that can be overwhelmingly negative.

Yet, to the indigenous peoples of the rainforest, it enables the visions of the

gods, the creation of the world, and the ancestral past, as well as telepathic contact with others. Their expectation of a revelation gives them the strength to withstand the vine's equivalent of the "spice agony," the jarring physical symptoms that precede the liberating visions. Outside of the cultural context that gives them meaning, the visions produced by ayahuasca can be disturbing and disorienting in the extreme if, when everyday reality is stripped away, the consciousness is unprepared to interpret what takes its place. (4)

Hart makes an important comparison in terms of understanding the difference in experience between the spirituality of the Fremen use of the spice and the mere recreational and often detrimental use of the spice on outsiders. The effects of the drug are taken out of context for the Guild members and they therefore lose their capabilities instead of enhancing them. Piter is practically useless because of his addiction and when the Baron is put in the situation of saving him or letting him die he chooses to leave him shut in with the poison while he escapes. "The Baron felt no gratitude to Piter. The fool had got himself killed" (183). He got himself killed in the sense that he was not functioning with his full mentat abilities due to his spice addition, and therefore realized too late that the Duke had poison in his tooth. However, the Baron admits to being responsible for killing Piter when he speaks to his nephew Raban: "I make a point," the Baron said. "Never obliterate a man unthinkingly, the way an entire fief might do it through some due process of law. Always do it for some overriding purpose – and know

your purpose” (236). We already know that he planned on having him killed because he had “outlasted his usefulness,” and that he already had another mentat being prepared to take Piter's place (176). Piter is a prime example of one of the ways in which the spice is misused and therefore wasted within Harkonnen culture.

It is not enough that the spice is misused by the Harkonnens, but it is also removed from the planet in mass quantities and it will eventually become a depleted resource. The Harkonnens do not consider this because the monetary value is so high and they are only economically invested in the land. They do not think about the Fremen tribes whose resource they are stealing and they do not even consider the fact that the Fremen will fight back. Sharlotte Neely looks at this situation from an anthropological perspective: “The influences of anthropology is obvious in Herbert's creation of the Fremen, a tribal people in danger of being destroyed by a technologically superior society bent on getting at Fremen natural resources” (86). The Harkonnens know that they are taking from the indigenous people of Arrakis and they do it believing that there are not enough of them to fight back. The Baron has instructed his nephew to oppress the Fremen and to meet the spice quotas which are insanely high. Hawat tells the Baron, “Demand your baronial profits, but be careful how you make your demands. Require fixed sums of Rabban. We can – ' . . . 'I know my nephew,' the Baron said. 'This would only make him oppress the population even more.' 'Of course he will!' Hawat snapped” (378). Bataille points out that in a situation of class struggle, the ruling class will force the working class into abjection:

The end of the workers' activity is to produce in order to live, but the bosses' activity is to produce in order to condemn the working producers to a hideous degradation – for there is no disjunction possible between, on the one hand, the characterization the bosses seek through their modes of expenditure, which tend to elevate them high above human baseness, and on the other hand this baseness itself, of which this characterization is a function. (126)

The goal for the Harkonnens is to take what they want and leave both the land and its people destroyed in the end. Neely notes that: “Historically, native peoples have been attacked and displaced to get at natural resources as diverse as gold, silver, rubber, timber, fish, oil, coal, natural gas, uranium, and even water” (86). Herbert did not create the problem of one culture invading and stealing a people's natural resource. What he has done here is to create a dichotomy of proper use of a land by its people as opposed to the destruction of a land by a group of people who are from a more advanced society.

We can read newspapers and see that there are troops in the Middle East fighting for oil, but we can also distance ourselves from the problem because we do not have a personal connection to these people. Yet, when we are given information in a form that is in an unfamiliar setting, but wherein we are given insights into the personal plights of the people, we are better able to empathize and therefore recognize the significance of similar phenomena in our own reality. Neely points to the real-world example of the Cherokee tribe who were forced out of their own land by the white Christians expanding westward.

Neely notes that, “Cherokee lands were agriculturally superior, and white farmers wanted the Cherokees removed” (87). Things got worse for the Cherokee once the white farmers began to take over portions of their land. Neely says that, “The fate of this Native American group was sealed, however, when gold was discovered on Cherokee land. When removal ultimately became a reality, many Cherokees fled to the sanctuary of remote caves as the Fremen do in *Dune*” (87). This is an incredibly similar scenario to that of the fictional Fremen. The Fremen have the unfortunate circumstance of living on a planet which produces a resource that is as precious as gold was to the American pioneers. The Harkonnens do not see the Fremen as being an obstacle to the removal of the spice, nor do they care if they are harmed in the process.

The Fremen have lived on the desert planet Arrakis for many generations and they have had to survive on this planet where water is scarce, therefore causing them to create a culture that is based on their need for water. When the Atreides family first arrives on Arrakis they are not used to living in a place where water is scarce, and therefore the Fremen customs are unfamiliar to them. When the Duke, Paul and his men first have contact with Stilgar, a Fremen, there is a misunderstanding of cultural behaviors:

The Fremen stared at the Duke, then slowly pulled aside his veil, revealing a thin nose and full-lipped mouth in a glistening black beard. Deliberately he bent over the end of the table, spat on its polished surface.

As men around the table started to surge to their feet, Idaho's voice boomed across the room: “Hold!”

Into the sudden charged stillness, Idaho said: “We thank you, Stilgar, for the gift of your body's moisture. We accept it in the spirit in which it was given.” And Idaho spat on the table in front of the Duke.

Aside to the Duke, he said: “Remember how precious water is here Sire. That was a token of respect.” (93)

Idaho, as the only one of the Atreides group to have spent time with the Fremen, saves the Duke's men from reacting with actions that would ultimately have been a terrible mistake. They saw the act of spitting as a sign of disrespect because they are new to this planet and are just now realizing the significance of water for the Fremen people. Neely sees this through an anthropological perspective and points out that: “Idaho speaks and acts as an anthropologist would” (84). She also points out how the reader goes through a similar experience: “*Dune* begins with a description of a world so different from our own that the reader experiences some culture shock. One struggles to grasp the social organization of this new world and to deal with all the new terms” (84-5). Just as we are introduced to a new world with new customs and terminology, the Atreides are also dealing with a similar estrangement. They are learning the significance of water on this desert planet from the perspective of people who are from a planet with seemingly unlimited water resources. On Caladan, a planet covered with water, they were never in a situation where they might run out of a resource which they require to survive. They begin to see that the habits that they have brought with them from Caladan are not only wasteful, but offensive to the Fremen.

After his father is killed, Paul and his mother are left with the task of surviving in the desert and hoping to be found by a Fremen tribe. The significance of water and the importance of their stillsuits quickly becomes apparent to them as they face the uncertainty of survival in the desert storms with limited water supplies. The desert often signifies death due to the small amount of life that can survive in such hot and dry circumstances. In *Androids*, Rick sees the desert as a reminder of the decaying aftermath of humanity's destruction of the planet. Finding oneself in the desolation of a drought stricken landscape can also remind a person of their own mortality. Yet, those who are survivors in such desolate wastelands know how strong they truly are. Rick found life in the desert and it comforted him, even if the toad turned out to be artificial. It is much the same in *Dune* where the desert is viewed by non-natives as a land of death and emptiness, yet the Fremen find strength in their ability to survive. Paul and Jessica, at this point in the novel, have never been in a situation where they are faced with such a high probability of death. This is their first time to be in the desert without a Fremen guide and a safe place in which to return. The reality of their own mortality quickly becomes apparent to them when Jessica becomes engulfed by a sandslide. The desert swallows Jessica and if Paul were not able to retrieve her body from the sand she would have quickly wasted away. They know that if they do not make it to a Fremen sietch they will not only die from overheating and thirst, but their bodies will never be discovered.

Yet, it is not until they are incorporated into Stillgar's sietch that they truly realize the significance of water in the Fremen culture. When it comes to Stilgar's attention that

Paul and Jessica have extra water in their packs, he is suspicious: “Did you know there're those among us who've lost from their catch-pockets by accident and will be in sore trouble before we reach Tabr this night?” (299). Jessica gives the water to the tribe in order to save the lives of those who lost their catch-pockets, and therefore saves herself and Paul from being under suspicion of having an agenda. Water, they find, is seen as a source of wealth and this point is further exemplified after Paul kills Jamis: “‘They're recovering Jamis' water,’ Chani said, and her thin voice came out nasal past the nose plugs. ‘It's the rule. The flesh belongs to the person, but his water belongs to the tribe . . . except in the combat’” (310). The Fremen recycle the water of their dead and in this circumstance they give this reclaimed water to the man who did the killing, Paul. Paul is not comfortable with this concept; he had never killed anybody before and the idea of drinking the man's water felt wrong to him. Yet, Jessica at this moment realizes the significance of being given water in this culture and tells Paul that he must accept it.

The saving of every drop of water from the body, whether dead or alive, is essential to survival. Gay Hawkins notes that, “The normalization of recycling could not have happened without the convergence of three crucial ideas that made it thinkable: environmental crisis, living responsibly, and rubbish as resource” (103). This is precisely the way in which the Fremen have incorporated recycling into their culture. They live in an environmental crisis because of the lack of water on Arrakis, and they must and do act responsibly in order to survive in such an extreme environment. In order to survive they have found that they can recycle their bodily waste through use of their stillsuits which

uses sweat, urine and feces to ensure maximum use of each tribe member's body. They have created a world in which recycling is a means for survival and anybody who does not partake in the recycling regiment would be dishonoring the hard work and ingenuity of the creators of the culture. The Fremen's insistence on saving and reusing is in stark contrast to the Harkonnen's culture of waste and excess which they are forcing onto the Fremen's precious planet. Arrakis is important to the Fremen; they consider the future of their planet and their tribe with every decision they make. The Harkonnens only think about what they want at this moment with no regard to the potential disaster that their over-consumption will entail.

The goal of the Fremen people is to turn their desert planet into a water filled paradise where the future generations will not have to suffer as they do. They have a reservoir wherein they stash water in order to someday realize their goal. They do not only save water in order to survive, but they survive on less water in order to secure a better future. Therefore, any wasting of water, such as Stilgar spitting, also carries great significance. It is seen as a sacrifice, not only on the individual, but also for the group. This is why spitting is a sign of respect; a Fremen would not give their water for no reason. Paul was present during the spitting incident, but he had not yet fully realized the significance of wasting one's water until Jamis' funeral. "A voice hissed: 'He sheds tears!' It was taken up around the ring: 'Usul gives moisture to the dead!'" (314). This was an involuntary reaction for Paul, or Usul as the tribe now calls him, however the tribe sees it as a sacrifice. "I touched his cheek,' someone whispered. 'I felt the gift.'" (315).

Jessica realizes that they see this as a sacred action, something that members of the tribe do not do at funerals. Along with honoring the dead, the point of the funeral is to reclaim water, not to sacrifice it. This incident points to the extreme difference in the ways in which one culture sees a resource as sacred while another culture takes the same resource for granted.

The Harkonnen's behavior towards water points to the grandiose nature of the Imperial culture as well as the class struggle that the Harkonnen rule has instilled upon the planet. What we essentially see with this instance of resource exploitation is another category of humans as waste. The Harkonnens flaunt their excessive use of water, knowing that the Fremen do everything to conserve it, in an attempt to maintain power, show disrespect for the lower class and to place the Fremen into a state of abjection. When the Atreides take over Arrakis they are also walking into already established customs and practices that the Harkonnens left behind. Duke Leto is a wise man and he understands that wasting water, especially in front of the Fremen, is an insult to their culture. He sees that the Harkonnens had been doing just that when he enters the dining hall for the first time:

He shook his head.

Beside each plate on the long table stood a flagon of water. There was enough water along the table, the Duke estimated, to keep a poor Arakeen family for more than a year.

Flanking the doorway in which he stood were broad laving basins

of ornate yellow and green tile. Each basin had its rack of towels. It was the custom, the housekeeper had explained, for guests as they entered to dip their hands ceremoniously into the basin, slop several cups of water onto the floor, dry their hands on a towel and fling the towel into the growing puddle at the door. After dinner, beggars gathered outside to get the water squeezings from the towels. (127)

The absolute grandiose nature of this custom is appalling to the Duke and he demands that the servants take the basins of water and give full cups to the beggars on the street. The Harkonnens have had water shipped to Arrakis so that they can live in comfort, while the natives of the land they have invaded survive in the desert by recycling their own bodily waste. When the Duke informs the water-shipper, Lingar Bewt, that the wasting of water is no longer a custom in his house Bewt points to the fact that the house also has a nature conservatory: “Water customs are so interesting,’ Bewt said, and there was a smile on his face. ‘I’m so curious what you intend to do about the conservatory attached to this house. Do you intend to continue flaunting it in the people’s faces . . . m’Lord?’” (130). This question puts the Duke in a difficult position. Bataille notes that, “expenditure, even though it might be a social function, immediately leads to an agonistic and apparently antisocial act of separation. The rich man consumes the poor man’s losses, creating for him a category of degradation and abjection that leads to slavery” (125). Leto is new on the planet and the significance of water is still a growing realization, but he does understand that “Destruction of water facilities might well destroy Arrakis,” and that he

therefore must keep the conservatory even if that results in an act of separation between his government and the Fremen (130).

Jessica understands that the conservatory is necessary in realizing the possibility of future climate change on Arrakis. When she first sees the conservatory she notes, 'Water everywhere in this room – on a planet where water was the most precious juice of life. Water being wasted so conspicuously that it shocked her to inner stillness' (71). She finds a note left by her female predecessor of the house, Lady Fenring, who reminds her:

TO THE LADY JESSICA – May this place give you as much pleasure as it has given me. Please permit the room to convey a lesson we learned from the same teachers: the proximity of a desirable thing tempts one to overindulge. On that path lies danger. My dearest wishes, MARGOT LADY FENRING. (72)

This message points to the corrupt nature of the Harkonnen family who over indulge in both spice and water consumption. The Harkonnens did not build the conservatory with the Fremen dream of a water filled planet, instead they acted as Bewt indicates by flaunting their water wealth in the faces of the natives. It is not in the interest of men like Bewt for Arrakis to transform into a water filled paradise; for he would be out of a job. The control of water means that the Harkonnens can continue to oppress the Fremen people and use them in their goal of taking all of the spice from Arrakis, but they will soon find out that this is more dangerous than they ever considered it might be.

The Fremen are native to Arrakis and therefore use the resources and lack of

resources that their land provides them to survive and improve their land for the future of their tribe. They use the spice with spirituality in mind and they take the custom very seriously. More importantly, however, is their dream of a water filled planet and in the end they decide that they are willing to sacrifice the makers of the spice, or sandworms, in order to save their planet from the Guild. “He who can destroy a thing has the real control of it,' Paul said. 'We can destroy the spice' (446). The Fremen culture is based on sacrifice for the greater good and a dream of a better life for their progeny. They respect the land that they live in and they refuse to allow it to become a barren wasteland. In this attempt to save their planet they do intend to waste Arrakis' main resource, but in hopes that in return they will have a chance at their desired paradise. The sandworms and the melange spice are native to Arrakis, yet the Fremen decide that in order to reach their goals they must give up on all that the sandworms and spice offer their society. They are making a group decision to label this resource disposable and because of this decision their behavior is now parallel with the Harkonnen's disregard for Arrakis.

The Fremen have made the decision to disregard the necessity of one resource over their desire for another, but they do so with full knowledge of the consequences that their actions will entail. On the other hand, the Guild members take from the planet with no regard to what might result from their behavior in regard to the planet's ecological position. They are perfectly happy to leave Arrakis depleted and consigned to waste. They have no respect for the land or the people who call it home. They flaunt their imported water in the faces of those who desperately seek enough to merely survive. The

absolute different positions that these two groups take on the use and value of these two natural resources points to the different ways in which people relate to their environment and the ways in which they are influenced by the cultures in which they participate. The Atreides family falls in the middle of these two extremes because they are outsiders to both cultures. They do not fit within the Harkonnen's corrupt nature and are therefore sacrificed, and they are also outsiders to the Fremen culture because they come from a land filled with oceans and waterfalls. It is by following their transition from marginalized Guild members to Fremen leaders that we are given a look into the importance of culture and class structure on environmental waste practices.

CHAPTER IV

DESTRUCTION OF TRUTH AND HISTORY:

INFORMATION AS WASTE IN *NINETEEN EIGHTY-FOUR*

Knowledge and information are what allow people to understand what is going on in the reality that they perceive. What someone believes as truth is directly connected to the information that they are given and the ability that they have to discern the lies from the truth. John Scanlan suggests that any knowledge or information that does not lead to the understanding of a truth is consigned to waste: “Because language and knowledge are always engaged in a process of connecting to a world that is taken to be real (or, indeed, 'objectively' knowable), we can easily fail to remember the parts that are detached and consigned to the garbage pit of error and defect, rendered unimportant or insignificant” (38). Comprehending and discerning between significant and extraneous information, and understanding how each bit of information relates to the world in which we live helps us to create a well-rounded view of our own reality. What happens if individuals are not given the ability to discern between which piece of information is significant and which is extraneous? Certainly a person's understanding of reality is influenced by their community through shared values and group understandings. Yet, every group is made up of individuals who contribute to this understanding through their own perspective of the truth. When a government censors the information that its citizens receive and

restricts their body of knowledge, then the ruling party members are the ones who choose what information is consigned to waste and what information is available to form an individual's idea of reality.

The concept of totalitarian governments who restrict their citizen's information is often found in dystopian SF. This chapter focuses on one of the better known dystopian novels, George Orwell's *Nineteen Eighty-four*. In this novel Orwell has given us a world where the government, following the doctrines of Ingsoc, controls every aspect of the Party member's lives through both physical repression and ideological indoctrination. The government has created a new language, called Newspeak, which not only restricts the meanings of words, but also removes previously used words from the vocabulary which allows the government to further control the minds of its citizens. The government has also created a Ministry of Truth whose job is to rewrite history so that what is known of the “past” is what is best for the Party in the present, resulting in the destruction of truth and a propagation of lies. This forces people to question and discard their own personal memories of events because the tangible evidence that exists is contrary to what they remember. Recorded history is a way for future generations to learn from the preceding generation's victories and mistakes. Orwell believed in the importance of recorded history and feared totalitarian destruction of it. In 1944 he wrote that, “In the chaos in which we are living, even the prudential reasons for common decency are being forgotten. . . .Quite new, too, is the doubt cast by the various totalitarian systems on the very existence of objective truth, and the consequent large-scale falsification of history”

(*Collected Essays* 122). Common decency, truth and historical accuracy are wasting away under totalitarian control. Scanlan points out that: “garbage is also the broken knowledge that lies in the wake of (and in the way of) progress, the bits that no longer fit or that get in the way of a truth that always lies just ahead (somewhere down the line in some undiscovered truth)” (16). In *Nineteen Eighty-four* the truth has become the broken knowledge, and the bits and pieces of what truth remain only serves to confuse and frustrate those who desperately seek the truth at the end of the tunnel. The government of Oceania works towards consigning truth to waste first through the implementation of their ideological agenda in order to ensure conformity. This allows them to discard historical facts, distort the state of current events, and remove basic concepts from existence. They then go through one by one and remove all evidence of truth and history from existence.

What is truth? Winston writes in his journal that, “*Freedom is the freedom to say that two plus two make four. If that is granted, all else follows*” (69). That mathematical equation is a tautology; it is unconditionally true. Stephen Ingle suggests that Orwell, “held knowledge and hence truth to be the result of our comprehension of the world based on our capacity for experience, observation and reflection. . . . for Orwell man's very humanity and identity were rooted in this capacity to apply reason to sensory experience, and man's capacity for reason led him to grasp the nature of objective truth” (734). This is why Winston sees four fingers over and over again while O'Brien is questioning him; he has trouble denying what his sensory experience and his objective reasoning tell him is the truth. Yet, O'Brien persists and is eventually able to purge the truth from Winston's

perception of reality.

What motivations do ruling states have to purge the truth from existence? The government of Oceania is like any other ruling state which, according to Louis Althusser, works on two levels: the Repressive State Apparatus and the Ideological State Apparatus. The Repressive State Apparatus works through ensuring each citizen's discipline by means of violence and repression. This apparatus typically includes branches of the state which function as enforcers through repression, such as the government, the police and the military. This apparatus is seen clearly in Oceania's government through the several ministries which repress the information available to its citizens and through the police who violently enforce the ideologies of the State.

The state holds power, not only through repression and violence, but also through implementation of the State's ideologies. Althusser defines ideology through a Marxist view: "Here, ideology is the system of the ideas and representations which dominate the mind of a man or a social group" (158). These ideas and representations are instilled through various apparatuses such as religion, education, family, law, politics, communications, etc. While this list appears to include a large portion of private entities, they are nonetheless enforcing the ideologies of the State. Althusser points out that, "To my knowledge, *no class can hold State power over a long period without at the same time exercising its hegemony over and in the State Ideological Apparatuses*" (146). In Oceania we see that the ruling class has power over the various ideological apparatuses including the family, education and communications. Family is one apparatus which would appear

to be separate from the state, however the family in Oceania is instilled with the State's ideologies and demonstrates this by the beliefs and rules which govern family life.

Children are taught by their schools and youth organizations, but also reinforced through the family, to spy upon their family members in order to ensure that everyone is following the rules of the State. They do not do this out of malice for their parents, but because this is what they were brought up to believe is morally right. “Nearly all children nowadays were horrible. What was worst of all was that by means of such organizations as the Spies they were systematically turned into ungovernable little savages, and yet this produced in them no tendency whatever to rebel against the discipline of the party” (24). The control that the State has over each citizen's belief system and sense of reality ensures that the people will not question the information that the State holds as “truth.”

The motivation that the Party has for consigning the truth to waste is to maintain power and control. One of the ways in which they are able to accomplish this is through alterations in language. Language is the main way in which Oceania maintains control over its citizens' perception of reality, which suggests that Orwell sees language as an important tool. If there is a breakdown in communication it causes more problems than mere misunderstanding. Words influence people emotionally as well as intellectually, and if you restrict the possible interpretations of the words that you use, then you can control the possible reactions of those who hear them. Orwell wrote about propaganda and speech in 1944:

Above all, the vast English vocabulary contains thousands of words which

everyone uses when writing, but which have no real currency in speech: and it also contains thousands more which are really obsolete but which are dragged forth by anyone who wants to sound clever or uplifting. If one keeps this in mind, one can think of ways of ensuring that propaganda, spoken or written, shall reach the audience it is aimed at. (*Collected Essays* 165)

Orwell understands that the choice of words that a government makes have the power to directly influence, or fail to influence, the majority of people. If a government wishes to get a message across clearly, then they should avoid words which are not understood by the majority and whose meanings cannot be misinterpreted due to possible multiple meanings. In *Nineteen Eighty-four* Orwell takes the concept of State controlled propaganda to the extreme by creating a language whose goal is to “narrow the range of thought” that Party members are capable of comprehending (46). This narrowing of thought is supposed to result in Party members having no objections to the information they are given because they do not have the vocabulary to disagree. By creating a contracting language the government is consigning words which do not fit within their ideological agenda to waste. Words act as signs that people use to communicate ideas. Ferdinand de Saussure notes that:

Psychologically our thought – apart from its expression in words – is only a shapeless and indistinct mass. Philosophers and linguists have always agreed in recognizing that without the help of signs we would be unable to

make a clear-cut, consistent distinction between two ideas. Without language, thought is a vague, uncharted nebula. There are no pre-existing ideas, and nothing is distinct before the appearance of language. (111-2)

Newspeak removes words which act as signs for concepts that the government no longer wants its citizens to comprehend. In doing this they are guaranteeing conformity, discipline and adherence to the belief system that they have created. The intentional removal of specific words from the language is an act of discarding the concepts in which those words are associated. The appendix of *Nineteen Eighty-four* explains the process involved in the refinement of Oldspeak vocabulary into Newspeak: “All ambiguities and shades of meaning had been purged out of them. . . . It would have been quite impossible to use the A vocabulary for literary purposes or for political or philosophical discussion” (247). The use of the word “purge” implies that these words are viewed as useless and redundant to the government's agenda. The citizens of Oceania cannot argue for or fight for democracy if there is no longer a word associated with that concept, and that is exactly the goal of the ruling party. Orwell believed total control of citizens' lives to be the goal of totalitarian regimes: “The fallacy is to believe that under a dictatorial government you can be free *inside*” (*Collected Essays* 159). A government whose desire is total control will do what they can to control every aspect of their subject's lives, and in *Nineteen Eighty-four* this includes the restriction of language.

One of the slogans of Ingsoc is: FREEDOM IS SLAVERY. This appears to be contradictory in nature because the words “freedom” and “slavery” are opposites.

However, we learn that the word “free” has been stripped of its meaning in Newspeak and now no longer can be applied to political statements. “It could not be used in its old sense of 'politically free' or 'intellectually free,' since political and intellectual freedom no longer existed even as concepts, and were therefore of necessity nameless” (247).

According to William Lutz language “reflects our perception of reality, which in turn influences and shapes our reactions to people, events, and ideas. . . . In this sense, language becomes the means by which we shape reality and the means by which we communicate our perceptions of reality to others” (2). If we think about language as being the main way in which we create our sense of reality, and necessary to forming ideas, then no longer having words for ideas such as “freedom” deems these concepts waste. If freedom is now equated with garbage and, as Scanlan points out: “the creation of garbage is the result of separation – of the desirable from the unwanted; the valuable from the worthless, and indeed, the worthy or cultured from the cheap or meaningless,” then freedom is now obsolete and completely devoid of value in Oceania society.

Winston ruminates over that which has been consigned to waste, and much like those who are seen sifting through the garbage he begins to wonder about his own sanity.

Orwell uses language in this novel as a tool for the government to control their citizens' behavior and the ways in which they think. Lutz points out that, “If language can be used to control minds, then those who control language can control minds and ultimately control society. Language is power; those who control language control the world” (2). The government has created a new language that decides for the people what

ideas are of value and which are now obsolete. They have gotten rid of concepts such as “freedom” and created new words that benefit the Party such as “doublethink.” The idea is that over time the words found in Oldspeak which have been eliminated in Newspeak will not even be available to future generations. They will have no idea that they are not free because there is no such thing as freedom. Freedom has been sent to the landfill and over time it will be completely covered and will eventually disintegrate.

Newspeak does not only restrict words, but creates words as well. “Doublethink” is one of these new words which Winston has a difficult time wrapping his head around:

To know and not to know, to be conscious of complete truthfulness while telling carefully constructed lies, to hold simultaneously two opinions which cancelled out, knowing them to be contradictory and believing in both of them, to use logic against logic, to repudiate morality while laying claim to it, to believe that democracy was impossible and that the Party was necessary to forget, then to draw it back into memory again at the moment when it was needed, and then promptly to forget it again, and above all, to apply the same process to the process itself – that was the ultimate subtlety: consciously to induce unconsciousness, and then, once again to become unconscious of the act of hypnosis you had just performed. Even to understand the word “doublethink” involved the use of doublethink. (32-3)

Winston realizes that the concept of “doublethink” is contradictory to natural thinking

processes, and in order to understand “doublethink” you must already understand “doublethink.” The issue here is with the concept of truth and how one can verify that what one is told is the truth. The Party wants its members to take what they are told as absolute truth even if they have individual memories which contradict it. Doublethink is supposed alleviate this dilemma by forcing citizens to question the validity of their own memories and knowledge, and accept the possibility of the State's “truth.”

The trouble with using memory to verify truth is that you cannot be certain that your memories are accurate because there is nothing tangible to show for them. Anything that might have been available as tangible proof is tossed into a memory hole. Since Winston works in the Ministry of Truth he is momentarily made aware of the changes to the “truth” being constructed by the Party. However, any evidence of a previous past is placed in a tube, called a memory hole, which each employee has in his or her cubicle:

When one knew that any document was due for destruction, or even when one saw a scrap of waste paper lying about, it was an automatic action to lift the flap of the nearest memory hole and drop it in, whereupon it would be whirled away on a current of warm air to the enormous furnaces which were hidden somewhere in the recesses of the building. (35)

These memory holes are literally waste receptacles for any information that the Party wants to destroy. These previously believed facts are now not only obsolete, but as far as anyone can now prove they never even existed. O'Brien demonstrates this by destroying a photograph that had caused Winston to question the validity of the Party's truthfulness:

“He stepped across the room. There was a memory hole in the opposite wall. O'Brien lifted the grating. Unseen, the frail slip of paper was whirling away on the current of warm air; it was vanishing in a flash of flame” (204). The tangible proof that Winston needs to prove to himself that he is not crazy and that his memories can be relied upon are instantly destroyed by simply dropping them into the memory hole. O'Brien explains to him, “‘Ashes,’ he said. ‘Not even identifiable ashes. Dust. It does not exist. It never existed’” (204). What he is demonstrating is the power that tangible evidence holds over the truth. If one wants to disprove something exists, then to destroy all physical evidence consigns these truths to the waste bin and ultimately to non-existence. David Dwan points out that, “He seems to rule out the possibility of memory being self-validating: the correctness of one private image of the past cannot be established by simply insisting on the veracity of another” (388). If Winston and the other Party members are in a position where their memories are understood to be unreliable and impossible to verify, then that makes it easier for the Party to instill their own versions of reality into public perception.

Winston's obsession with memories and the past leads him to do some research in the city. He decides to find an elderly prole, buy him a beer, and ask him about the past: “If there was anyone alive who could give you a truthful account of conditions in the early part of the century, it could only be a prole” (74). The proles are the working class citizens which the Party simply ignores. They have consigned this group of people to waste by essentially ignoring the fact that they exist at all. Winston believes that he can find answers from a prole because they have not been indoctrinated with the Party's

ideologies and therefore their memories can still be relied upon. He is seeking evidence, through memory, that things were better before the Party took power. Siobhan Chapman points out that: “Truth is not just mental, but is also something that exists in shared knowledge” (77). Winston believes that if he finds people who were adults when the Party took over, then he will be able to find the truth through shared memories. Unfortunately, the old man that he chooses to talk to has nothing of value to add to Winston's research: “A sense of helplessness took hold of Winston. The old man's memory was nothing but a rubbish heap of details” (78). This moment is disappointing to Winston; he begins to give up on the idea that he can prove the Party's version of history to be false. If the truth exists in shared knowledge, as Chapman suggests, then whatever truth is believed by the masses must be the only truth that exists. Chapman says of shared knowledge, “in this context this idea has a particularly sinister aspect. The shared knowledge is not reached by consensus or discussion but is imposed and maintained by means of oppression and violence” (77). The memories that Winston believes that he has are of no value to the Party, and therefore are deemed waste. The Party understands that people must have a sense of the past to live comfortably in the present and they have a slogan that helps to explain this to the Party members: “Who controls the past controls the future; who controls the present controls the past” (204). The Party controls the past and therefore they control the “shared knowledge” of Oceania.

Winston works in the Ministry of Truth where his job is to take the news that the Party no longer wants to be known and replace it with a new story. He does not write

anything in which to rationalize these changes; he merely replaces the old article with the new article as if it were there all along. He begins to have problems with his job once he begins to fixate upon memories and the past: “The Party said that Oceania had never been in alliance with Eurasia. He, Winston Smith, knew that Oceania had been in alliance with Eurasia as short a time as four years ago. But where did that knowledge exist?” (32). He remembers this so-called-fact from four years ago, but there is no way that this memory can be proved. So, if what he remembers cannot be proven does the knowledge that his memory suggests no longer exist? This is an issue that concerned Orwell when he was fighting in the Spanish Civil War:

During the Spanish Civil War I found myself feeling very strongly that a true history of this war never would or could be written. . . . Even if Franco is overthrown, what kind of records will the future historian have to go upon? And if Franco or anyone at all resembling him remains in power, the history of the war will consist quite largely of 'facts' which millions of people now living know to be lies. (*Collected Essays* 109-10)

The truth is important to the people who have been directly affected by it. Orwell was there during the war and he has memories that form his perception of the truth of that war. Yet, he is afraid that future generations will be given false information ensuring that his truth, his perception of reality, will be consigned to waste.

Spain was not the only country that was at risk of losing its history. Jonathan Bone points out that, “It was apparent long ago that an unknown but presumably large

percentage of Stalin-era documents were classified” (67). This means that tangible evidence of the events of this era were kept from the citizens of the USSR. Bone notes that the classification of documents, “was used to hide anything capable of undermining the official version(s) of history” (67). Orwell's fear of the aftermath of the Spanish Civil War on truth and history, along with the intentions of the Soviet government to deny its history, is too similar to his depiction of the government of Oceania to be a mere coincidence. Winston writes news articles on a daily basis and so he has first hand knowledge through his memories and experiences that at one point Oceania was at war with Eurasia. However, now the government has decided that all news articles will now reflect the position that Oceania has always had an alliance with Eurasia. What does this mean for the information that Winston once knew to be the truth? Scanlan points out that:

And, much like the work that is undertaken to clear away our rubbish on a day-to-day level, the intellectual cleansing goes largely unnoticed: indeed, it vanishes to some extent under the presentation of an edifice of Reason as the perfectible, if not incorruptible, way of knowing, as something that stands apart from the mess and garbage of unclear thinking and broken beliefs. (61-2)

The Party erases the past with the same casualness as our trash gets removed from our driveway every week. The majority of the Party members hardly notice that there has been a change and if they do question it there is no residue left behind which might

indicate that something has been removed. They have only their memories to rely upon, and the Party has made sure that nobody's memories can be validated with hard evidence.

When Winston is arrested he is taken by O'Brien to be reconditioned or cured of his insanity. He is apparently insane because he cannot accept the concept of "doublethink," and therefore cannot accept the Party's lies as truth. In the beginning he refuses to let go of his belief in human memory: "But how can you stop people from remembering things?" cried Winston, again momentarily forgetting the dial. "It is involuntary. It is outside oneself. How can you control memory? You have not controlled mine!" (205). Every time that he says something out of line with party beliefs he is flooded with unbearable pain by the machine that O'Brien is controlling. This is an example of the Repressive State Apparatus which enables the ruling party to control citizens through violence and repression. He is made to go through this intolerable pain until he actually believes the "truths" that the Party puts forth and no longer believes that he can trust things such as individual memory and objective logic. The Party does win the battle and Winston is let back into society to live out the rest of his miserable life. He no longer trusts his memories and instead allows the State to choose which pieces of knowledge have value and which are merely rubbish: "He pushed the picture out of his mind. It was a false memory. He was troubled by false memories occasionally. They did not matter so long as one knew them for what they were. Some things had happened, others had not happened" (243). The power that the Party has over the minds of its members is proven by the reconditioning having worked on Winston. He now rejects his

own memories, brushing them aside as if they are merely a nuisance.

Nineteen Eighty-four is a dystopian nightmare where the government has taken total control of its citizens' daily lives and perception of reality. Carl Freedman notes that: “science fiction provides, in effect, estrangements of an authentically cognitive, critical nature that are therefore capable, at least in principle, of suggesting a rational means of transition from the mundane actuality of the author's environment to something radically different” (85). Orwell has done just that by taking the country that he lives in and twisting it in such a way that it is almost unrecognizable. Yet, it is recognizable because the history of totalitarianism in countries like Spain and the Soviet Union are available to us.

CONCLUSION

Waste is the dirty, the unwanted, the misused, and the forgotten. It is what we ignore because what we get rid of is typically what we no longer wish to see. Yet, it is clear that whether or not waste is actively thought about, it is nonetheless an important part of every culture. Hawkins explains that: “Waste becomes a social text that discloses the logic or illogic of a culture. It becomes subordinated to human action, a slave to desire and manipulation. . . . Waste is reduced to a product of culturally and historically variable human practices; what we want to get rid of tells us who we are” (2). The connection between humans and waste is vast and varies greatly depending on the society in question, yet it is always present.

Humans often consign each other to the category of waste due to fear and misunderstanding. This situation happens in every society, but for different reasons and at different levels. Eugenicists in Germany during World War II did experiments on human subjects in order to make racial diagnosis in their research. Sheila Faith Weiss notes that, “Given that Auschwitz was one of the few places in Europe capable of providing valuable organs or blood serum from 'racially diverse' twins in the large quantities necessary for developing new racial diagnoses, it is hardly surprising that there was an interest in exploiting this notorious death and slave labor camp for Nazi racial policy aims” (117). The Nazi scientists were literally wasting human lives in order to use

their bodies for research. They were able to rationalize this because they believed that these different races were inferior to their own. The Labradoreans also feel superior to their mutant counter-parts because they have convinced themselves that they are in the true image that God created. If as Hawkins says, “what we get rid of makes us who we are,” then what does that say about societies like the Nazis and the Labradoreans?

Creating boundaries around a society means that its citizens do not have to confront the truth or try to understand the differences between people and cultures. Consigning a group of people to waste is not solution to a problem, but the perpetuation of the problem itself.

Humans do not only fear and misunderstand each other, but often that which they themselves create. Technology is always changing and progressing in ways that can be difficult to keep up with. The fear that technology might replace humanity's purpose in life or become indiscernible from a human being is not a completely farfetched issue. Yet, technology is not responsible for replacing human jobs or looking and thinking like human beings. Man is the creator of technology and that is something that must be understood if a healthy relationship is to be formed. Heidegger reminds us that, “What is dangerous is not technology. There is no demonry of technology, but rather there is the mystery of its essence” (28). Rick Deckard starts out blaming the androids for his frustration regarding their behavior and human likenesses. He sets out to retire them without trying to understand the truth of their essence. Yet, Dick does allow Rick to begin to understand through the juxtaposition of the emotions or lack of emotions and

behaviors displayed by both the androids and the humans that he encounters.

Nonetheless, the androids are ultimately deemed disposable and retired by Deckard.

Hawkins reminds us that, "To throw things away is to subordinate objects to human action, it is to construct a world in which we think we have dominion. This doesn't just deny the persistent force of objects as material presence, it also denies the ways in which we stay enmeshed with rubbishy things whether we like it or not" (80). Humans use the power they have to dispose of objects in order to distinguish themselves from other humans, but also to separate the self from the "other." In doing so, they deny Heidegger's point that, "Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it," and the act of wasting is a denial of this relationship (4). Denial is often a reaction to fear, but it is not a solution.

Perhaps we have trouble understanding other humans and technology because we are often too busy consuming and wasting the resources that surround us. Over-consumption and excessive behavior are traits which result in the waste of resources and often the destruction of both minds and bodies. A real concern is when one culture wastes what another culture deems to be sacred and of high value. Scanlan notes that, "it is when those things of a moral personal significance are rendered worthless that the reality of human moral and social degradation becomes apparent" (17). This is the case in *Dune* where the Harkonnens not only over-consume and misuse the melange spice, which is of religious significance to the native Fremmen, but they over-consume and waste the limited water. Wasting water on a desert planet where such a resource is scarce and

survival is difficult is truly cruel and irresponsible. Yet, this is not an uncommon occurrence. Humans throughout history have invaded societies without any knowledge of their culture, environment, nor means of survival and instead of attempting to understand these factors force their own ways of living upon them. This can result in depletion of these resources, death and destruction for the environment and sometimes the end of a tribe or a society altogether.

A well-known example of this is the Californian Gold Rush of 1849 which involved a large mass of white men moving westward into Native American territory. This invasion of land for gold made no sense to the Native Americans according to Howard Hughes: “The Indians had a great deal of trouble understanding the white man's ideas. They never fathomed the value of money and were uncomprehending of the white man's lust for the 'yellow metal' found in abundance in the hills” (9-10). This desire for the 'yellow metal' which seemed worthless to the natives, nonetheless resulted in violence and displacement of those who had called the land home for centuries. The gold seekers had no respect for the Native Americans, nor for the land itself. They were greedy much like the Harkonnens are in *Dune*. If the Harkonnens were to respect or attempt to understand the Fremmen culture, like Paul and Jessica do, they might have been able to work together instead of ultimately engaging in war.

Truth is an important concept because it allows a person to know where he stands in the world. The truth of history helps those in the present to learn from past mistakes. In modern societies information comes in from all directions in a constant flow. It is up

to each individual to discern which of that information is worth keeping or which is destined for the trash, so to speak. Yet, in *Nineteen Eighty-four* history is falsified and language is manipulated in order to hide the truth from the citizens. Orwell creates a terrifying situation where a person cannot trust their own memories of the past because the tangible evidence has literally been thrown away into a memory hole. Situations occur within reality where a ruling party removes the truth from public availability in order to consign the truth to waste. The USSR is an example of a country whose ruling party denied information to its citizens. Jonathan Bone notes that, “Historians have long recognized that Stalin and his supporters used control over information to help them gain, exercise, and maintain power in the USSR of the 1920s and 1930s” (65). Orwell and many other writers of early twentieth-century dystopian fiction were influenced by totalitarian regimes such as Hitler's Germany, Stalin's USSR, Mussolini's Italy, and Franco's Spain. In fact, Orwell fought against fascism in the Spanish Civil War, writing about it in his book, *Homage to Catalonia*: “Whichever way you took it it was a depressing outlook. But it did not follow that the Government was not worth fighting for as against a more naked and developed Fascism of Franco and Hitler. Whatever faults the post-war Government might have, Franco's régime would certainly be worse” (*Homage* 181). Orwell's outlook on the chance of having a non-fascist Spain is bleak, but the fight against totalitarianism is still worth the fight. Erika Gottlieb writes about the dystopian writers of this era: “All these writers works are political satires, projections of the fear that their writer's own society in the West – a term confined here somewhat arbitrarily to

Great Britain and North America – could be moving towards a type of totalitarian dictatorship already experienced as historical reality in the USSR and in Eastern and Central Europe (7). Totalitarian dictatorships use their ability to control citizens' access to the truth in order to remain in power. Information is a powerful tool, and therefore when important information is tossed into the waste bin it creates feelings of fear and a sense of losing control for those who are denied access.

The ways and reasons that humans waste and decide what is to be considered waste vary among individuals and cultures. What may be considered of high value to one group of people might be disregarded and thrown out by another. Morrison points out that, “We can learn from literature that deals with waste what models might best contribute to ethical relationships with the world around us” (152). I believe that this is true of all literature, yet I find that SF allows us to not only look at what history can teach us, but also allows us to envision the possible waste issues that might arise in the future thus forcing us to consider whether or not we are heading in the right direction. Istvan Csicsery-Ronay Jr. suggests that, “whatever the scientific content and historical extrapolation of an sf tale, it is constructed in the form of literary parable. The science and technology are vehicles for moral tales; the morals may have a lot to do with science and technology, but they do not come out of science and technology” (386). This is why novels like *Androids* forces us to take a look at humanity's relationship with technology. It is not about the creation of androids, but the ethical implications which might arise out of the creation of technology so close to human form. If we look at SF in the form of

literary parable, then the use of the Waste Studies lens creates a unique angle in which to explore the ethical dilemmas provided by the parable.

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