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**APPROPRIATION OF SCIENCE FICTION ELEMENTS IN
POSTMODERN FICTION AS REFLECTED IN ANGELA
CARTER'S *THE PASSION OF NEW EVE* AND JEANETTE
WINTERSON'S *THE STONE GODS***

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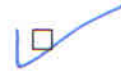
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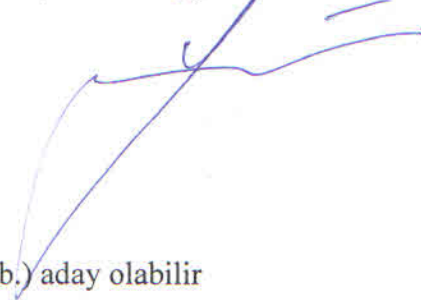
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ÖZET

ANGELA CARTER'İN *THE PASSION OF NEW EVE* VE JEANETTE WINTERSON'İN *THE STONE GODS* ROMANLARININ BİLİMKURGU ÖĞELERİNİN POSTMODERN KURGUYA UYARLANMASI ÖRNEĞİ OLARAK İNCELENMESİ

Edebiyatta postmodern eğilimler görülmeye başlandığından beri postmodern metinler ile bilimkurgu metinleri arasında bir ilişki süregelmiştir. “Postmodern” olarak tanımlanan yazarların bilimkurgudan motifler almaya istekli oluşu, onları kendilerinin ataları olan ve romanlarına bilimkurgu öğelerini dahil etmemiş olan gelenekçi realist ve modernist yazarlardan ayırır. İngiliz edebiyatında bilimkurguya karşı ilgisizliğin ona karşı ilgiye dönüşmesi ayrıntılı bir inceleme gerektiren bir durumdur. Tüm bunları göz önüne alarak, bu tez öncelikle postmodernizm ve bilimkurgunun tarihleri ve tanımları hakkında bilgiler verir. Daha sonra da, aynı alanda çalışmaları bulunan akademisyen ve eleştirmenlerden de faydalanarak postmodern kurgu ve bilimkurgu arasındaki değiş-tokuşu inceler.

Bu tezde bilimkurgu öğelerinin postmodern kurguya uyarlanması örneği olarak Angela Carter'ın *The Passion of New Eve* ve Jeanette Winterson'ın *The Stone Gods* adlı romanları analiz edilir. Bilimkurgunun gelecek zaman, kıyamet(ötesi), uzay yolculuğu gibi zamansal-mekansal öğelerinin yanı sıra, bilim-kurgusal teknolojilerin de iki romanda ne şekillerde kullanıldığı incelenip, sonuç olarak *The Passion of New Eve* ve *The Stone Gods*'da bilimkurgu öğeleri kullanılmasının sebebinin bu öğelerin zaman-mekan, modernite üstanlatıları, sosyal normlar, ve geleneksel ikili karşıtlıkların postmodern sorgulamalarını yapmaya yarıyor olması olduğu iddia edilir.

Anahtar kelimeler: postmodernizm, postmodern roman, bilimkurgu, Angela Carter, Jeanette Winterson, *The Passion of New Eve*, *The Stone Gods*

ABSTRACT

APPROPRIATION OF SCIENCE FICTION ELEMENTS IN POSTMODERN FICTION AS REFLECTED IN ANGELA CARTER'S *THE PASSION OF NEW EVE* AND JEANETTE WINTERSON'S *THE STONE GODS*

There has been an interaction between postmodern fiction and science fiction since the emergence of postmodern tendencies in literature. Postmodern authors' willingness to incorporate elements from science fiction differentiates them from their Victorian realist and modernist predecessors, who did not include science fiction tropes and motifs in their novels. The shift from indifference to interest towards science fiction in British literature requires a thorough analysis. As such, this thesis first gives information about the histories and definitions of postmodernism and science fiction, and then investigates the exchanges between postmodern fiction and science fiction by making references to the studies of scholars and critics who also focus on this subject.

As examples of the appropriation of science fiction elements in postmodern fiction, this thesis analyzes Angela Carter's *The Passion of New Eve* and Jeanette Winterson's *The Stone Gods*. It examines the employment of spatiotemporal science fiction motifs such as future-world, (post)apocalypse, space travel, and various science-fictional technologies in both novels. Ultimately, it argues that science fiction elements are appropriated in *The Passion of New Eve* and *The Stone Gods* because they provide the best means for making postmodern interrogations of time-space, progress metanarratives, social norms, and traditional dichotomies.

Key words: postmodernism, postmodern novel, science fiction, Angela Carter, Jeanette Winterson, *The Passion of New Eve*, *The Stone Gods*

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INTRODUCTION

In the last fifty years, there has been a significant increase in the inclusion of science fiction (SF) elements¹ in various literary genres, especially in postmodern fiction in Britain and the United States. Authors such as Angela Carter, Jeanette Winterson, Peter Ackroyd, Alasdair Gray, William Burroughs, Raymond Federman, Kurt Vonnegut, and Thomas Pynchon have included a great number of science fiction motifs in their novels, and used them for making various postmodern interrogations. This thesis examines this notable inclination towards incorporating science fiction elements into postmodern texts, and analyzes two postmodern novels which appropriate science fiction elements into their plots. The aim is to see how science fiction elements function as a means for putting postmodern theories into practice. Before proceeding to the analysis of the novels, it is necessary to clarify what postmodernism and science fiction denotes, and in what ways they are associated with one another.

Most studies suggest that postmodernism emerged in late 1950s and early 1960s in various fields such as philosophy, literature, painting, photography, and film. Its impact on arts and literature was most evident in the 1970s and continued throughout the 1980s. However, as Linda Hutcheon reminds, “postmodernism cannot simply be used as a synonym for the contemporary [1970s and 1980s]” (*A Poetics* 4); those decades cannot directly be called the postmodern age, and not all literary and artistic works that were produced during those decades can be labeled as postmodern. Furthermore, postmodernism “does not really describe an international cultural phenomenon, for it is primarily European and American (North and South)” (Hutcheon, *A Poetics* 4). Therefore, when talking about postmodernism, one should keep in mind that it is mainly a western cultural phenomenon whose impact has been discernible in several decades.

Postmodernism is a notoriously slippery term, which is declared to be indefinable by nearly all critics and scholars who have been reflecting on it. In Ihab Hassan’s words, “postmodernism suffers from a certain semantic instability: that is, no clear consensus about its meaning exists among scholars” (*Postmodern* 86). For Paul Smethurst, it is a term which “refuses to settle down into a clearly definable and welcome ‘-ism’” (21). In a similar manner, Nick Bentley states that “the term postmodernism does not relate to a fixed set of characteristics or criteria, but is a

rather fluid term that takes on different aspects when used by different critics and different social commentators” (33). The struggle to define postmodernism is mostly related to its ambiguous status in historical, cultural, artistic, and political spheres. It has been debated whether postmodernism is a condition, a reaction towards the developments of the age, or a literary and artistic movement (successor to or reaction against Modernism); yet there is not an agreed upon view of it. Moreover, as Bran Nicol points out, “[t]he problems with the term postmodernism are complicated further because when reading about it we are actually dealing with three derivatives not just ‘postmodernity’, but also ‘postmodernism’ and ‘postmodern’” (2). These three terms are usually confused with one another, yet Nicol clarifies the difference between them as follows:

‘Postmodern’ is an adjective that refers both to a particular period in literary and perhaps cultural history [...] which begins in the 1950s and continues until the 1990s (though inevitably there is disagreement about this too, as some would argue we are still in the postmodern period now), and to a set of aesthetic styles and principles which characterize literary production in this period and which are shaped by the context of postmodernism and postmodernity. Where ‘postmodernity’ refers to the way the world has changed in this period, due to developments in the political, social, economic, and media spheres, ‘postmodernism’ (and the related adjective ‘postmodernist’) refers to a set of ideas developed from philosophy and theory and related to aesthetic production. (2)

In other words, postmodernity is regarded as a state of being or a process, while postmodernism denotes the adoption of postmodern philosophy and way of thinking in arts, literature, theory, and culture.

Despite the apparent difficulty in coming up with a singular definition, point of emergence, and impact, postmodernism is famously defined by French theorist Jean-François Lyotard, whose work *The Postmodern Condition* (1979) is regarded as the hallmark of postmodern debates. Lyotard defines postmodernism as “incredulity towards metanarratives,” which is “undoubtedly a product of progress in the sciences” (xxiv). This means that Lyotard sees postmodernism as a skeptical attitude towards all grand narratives, including “the dialectics of Spirit, the hermeneutics of meaning, the emancipation of the rational or working subject, or the creation of

wealth” (xxiii). Against those totalizing grand narratives, postmodernism presents little, local narratives which do not comply with an overarching structure. As a result, there occur as many versions of reality as the number of little narratives produced. Such proliferation of little narratives is also observed in the discussions about postmodernism itself; there are as many definitions of the term as the number of people who try to define it. As suggested by McHale, “we can discriminate among the constructions of postmodernism, none of them any less ‘true’ or less fictional than the others, since *all* of them are finally fictions” (4). McHale then gives examples of how various writers, theorists, and critics define the term:

there is John Barthes’ postmodernism, the literature of replenishment; Charles Newman’s postmodernism, the literature of an inflationary economy; Jean-François Lyotard’s postmodernism, a general condition of knowledge in the contemporary informational regime; Ihab Hassan’s postmodernism, a stage on the road to the spiritual unification of humankind; and so on. There is even Kermode’s construction of postmodernism, which in effect constructs its right out of existence. (4)

Many other constructions of postmodernism can be added to the ones summed up by McHale. There is, for instance, Steven Connor’s argument that postmodernism indicates a “moment,” which is characterized by a “terminal self-consciousness” (5). He states that “[w]e are in and of the moment that we are attempting to analyse, in and of the structures we employ to analyse it” (5). In other words, he claims that he and his contemporaries are aware of the structures that constitute the moment and the reality in which they live.

While many critics are celebratory of postmodernism, certain critics such as Fredric Jameson and Jürgen Habermas are highly critical. Jameson declares that “postmodernism is the consumption of sheer commodification as a process” (*Postmodernism* x). As such, he associates postmodernism with late capitalism, arguing that “in postmodern culture, ‘culture’ has become a product in its own right; the market has become a substitute for itself and fully as much a commodity as any of the items it includes within itself” (*Postmodernism* x). As a Marxist critic, he is critical of the postmodern condition which erases historicity and distorts the sense of the real, serving capitalist ideologies. Likewise, Jürgen Habermas criticizes postmodernism for being a hindrance in the process of modernization. In “Modernity

– An Incomplete Project,” Habermas puts forth that the progress of civilizations, which relied heavily on rational thinking and scientific determinism, was interrupted by some neoconservative antagonists in the twentieth century, including the proponents of postmodernism. Habermas contends that postmodernism’s suspicious stance towards universality, objectivity, and knowledge is an obstacle in the way to realize the project of Enlightenment thinkers, whose aim was “to develop objective science, universal morality and law, and autonomous art” (9). Moreover, for Habermas, the spread of postmodern theory and practice in the second half of the twentieth century brought forth a “legitimation crisis,” a concept which he later explains in his book *Legitimation Crisis* (1988). Habermas attributes this crisis to the impact of postmodernism and capitalism on developed societies, claiming that together they turn “meaning” into a scarce resource, and, as a result, “expectations oriented to use values – that is, expectations monitored by success – are rising in the civil public” (*Legitimation* 73). For Habermas, then, the crisis of legitimation and the loss of meaning are the defining features of the postmodern condition.

Despite the plethora of views and definitions regarding postmodernism, one can still trace some common characteristics which together produce a general understanding about the term, especially within the Humanities. A detailed summary of the common characteristics shared by all versions of postmodernism can be found in Ihab Hassan’s famous catena of postmodern features which he explores in his essay “Pluralism in the Postmodern Perspective.” These shared features include, for Hassan: indeterminacy, including “all manner of ambiguities, ruptures, and displacements affecting knowledge and society” (504); fragmentation, decanonization, which means “a massive ‘delegitimation’ of the mastercodes in society, a desuetude of the metanarratives” (505); self-less-ness and depth-less-ness, the unrepresentable, irony, which is associated with “play, interplay, dialogue, polylogue, allegory, self-reflection” (506); hybridization, or “the mutant replication of genres, including parody, travesty, pastiche” (506); carnivalization, which “further means ‘polyphony,’ the centrifugal power of language” (507); performance, participation of the reader in the text, construction of reality in post-Kantian, post-Nietzschean, “fictions” (507); and immanence, which refers “to the growing capacity of mind to generalize itself through symbols” (508). Although whether these features can be seen as uniquely postmodern or not is debatable, as Hassan himself also notes, they still provide satisfactory information about postmodern theory and practice. In

addition to the features in Hassan's list, there is another important trait of postmodernism: "the collapse of the hierarchical distinction between high art and popular art" (Seidman 2). This collapse is related to postmodernism's rejection of traditional criteria for judging the value of artistic works. Hence, in postmodern architecture, art, literature, and film, there is usually a combination of "higher" and "lower" artistic forms. As one might conclude from these features, postmodernism indicates a shift from traditional historical, political, artistic, and literary practices of previous ages. It foregrounds relativity, scepticism, constructedness, hybridity, and a general distrust towards all mastercodes.

These postmodern characteristics can be observed mostly in the literary works of the 1960s, 1970s, and 1980s. However, the views of scholars and critics on such works differ as there are different interpretations of "postmodern literature." Definitions of postmodernism in relation to literature and related textual modes is well summed up by Fran Mason, who explains that

[i]n the study of literature and related modes of textual and cultural production, for example, 'postmodernism' is used to refer to: (1) a poststructuralist critical approach that involves belief in certain 'postmodern' theories; (2) a more general 'postmodern' outlook with regard to truth, knowledge and reality; (3) a description of cultural condition, zeitgeist or 'episteme'; (4) a set of aesthetic and textual devices; (5) any text that adopts 'postmodern' ideas irrespective of whether it uses the postmodernist textual strategies associated with (4); and (6) the cultural products (such as literature, film, or architecture) that can be found in contemporary culture. (xxxix)

Hence, a postmodern text might have a deconstructive, critical approach or a tendency to interrogate notions which have been regarded as natural and stable such as reality, truth, time, space, and knowledge. Also, it might reflect the postmodern condition of the age in which it is written or it might include a set of techniques which are associated with postmodernism in arts and literature. Although there have been various debates as to how to decide if a work of fiction – mostly, a novel – is postmodern or not; these features are generally regarded as appropriate criteria for calling a novel postmodern.

The emergence of postmodern fiction is linked to previous movements in arts and literature, most notably to modernism.² Theorists and critics who focus on the

artistic and literary – rather than philosophical – roots of postmodernism trace it back to the beginning of the twentieth century, when the modernist movement in arts emerged. Brian McHale, for instance, points out that postmodernism comes after the modernist movement, “thus the term ‘postmodernism,’ if we take it literally enough, *à la lettre*, signifies a poetics which is the successor of, or possibly a reaction against, the poetics of early twentieth-century modernism” (5). Noël Carroll also contends that “the postmodern requires some modern background against which it takes from,” and puts forward a similar idea to that of McHale’s: “to be postmodern x (art, science and so on), x must meet the conditions of being a temporal successor of some modern y as well as being contrary to or even opposed to some modern y” (90). The fact that postmodernism is a reaction to and successor of modernism might tempt one to think that modernist movement is over and that it is replaced by postmodernism; however, this would be both misleading and inaccurate. Although ascribing certain time periods to movements makes it easier for scholars to study and teach, and for critics to analyze them, Ihab Hassan warns against such rigid periodizations. He states that postmodernism does not start when modernism ends: “postmodernism and modernism are not separated by an Iron Curtain or a Chinese Wall; for history is a palimpsest, and culture is permeable to time past, time present and time future” (*The Dismemberment* 264). Thus, it can be concluded that there are no chronological breaks between cultural movements and philosophies, and this is why it is hard to find their exact starting points. Nevertheless, it is possible to trace the dominance of literary movements in certain periods, just as the heyday of the publication of postmodern novels is thought to be the 1970s and 1980s.

The postmodern novel “can be described as an avant-garde tendency within a literary period;” however, warns Molly Hite, “it cannot be called simply the avant-garde tendency because during [post-1945] period there have been various kinds of innovative fiction that make even more demands on commensurately more specialized readers” (697). In order to distinguish postmodern novels from other kinds of innovative and experimental fiction of the era, one must look for “the themes and narrative strategies that these works share” (Hite 697). These themes and narrative strategies have risen out of the political, social, and scientific transformations of the post-World War II period, but they also embody some characteristics of the literary movements of previous ages. Most importantly, postmodern and poststructuralist³ debates of the 1960s, 1970s, and onwards had their

impact on literature of the following decades. As Lyotard's definition of postmodernism suggest, the postmodern age is distinguished by its skeptical stance towards metanarratives and by its problematization of knowledge, truth, and reality. Accordingly, postmodern writers question authority and the notion of reality in their novels, and they have "a greater awareness of the nature of narrative representation in general" (Crews 25), which signals a changing attitude towards the novel genre. This attitude results in many different literary techniques, modes, and styles that highlight the author's problematic authority and the work's fictionality. These characteristics that are attributed to postmodern fiction include:

metafiction; the disruption of the linear flow of narratives and the relationship between cause and effect; challenging the authority of the author; the use of events and characters drawn from fantasy; selfreflexively drawing attention to the language that is being used to construct the fiction; the use of parody and pastiche, and more generally a scepticism towards fixed ideologies and philosophies.
(Bentley 34)

As such, postmodern fiction generally displays incredulity towards authority and fixed principles, and in order to disrupt those principles, it employs these techniques.

Postmodern fiction also shifts the conventional authority of the author to the reader, making the reader an active participant in the writing process. As such, postmodern writing "requires its reader to be an active co-creator of meaning rather than a passive consumer" and "it challenges its readers to interrogate the commonsense and commonplace assumptions about literature which prevail in our culture" (Nicol xiv). Thus, it can be concluded that postmodern fiction urges its readers to be involved in postmodern interrogations; it invites them to note the fictive nature of the text they are reading, to question its authenticity, the reliability of its author; and through fiction it makes its readers question all totalizing ideologies that are prevalent in the "real" world.

Moreover, postmodern novels tend to incorporate or allude to other literary genres and texts; hence creating hybrid bodies of work. Not only fictional but also nonfictional texts such as historical documents, questionnaires, and recipes may be embedded in postmodern novels. The range of allusion in postmodern novels is vast; it "embraces the texts of mass culture as well as high culture. Postmodern novels may quote or allude to popular magazines, newspapers, advertising slogans and

jingles, brand names, radio and television programs, movies and computer games” (Hite 705). Such incorporation or borrowing is not specific to postmodern fiction only; they can be found in earlier texts as well. These allusions and quotations, however, are not used as “documentary evidence as background or setting” as they were employed in the fiction of earlier centuries, but they are employed “as a part of a tendency to parade the apparatus of research” (Hite 705). Hence, what makes the intertextuality of postmodern novels different is their experimental, playful, and parodic nature. Moreover, the tendency of postmodern authors to borrow elements from different kinds of literary genres has resulted in various fusions, most notably with science fiction and fantasy. Science fiction especially attracts the interest of postmodern authors, and in order to understand the reason behind this interest, it is necessary to know what science fiction is, and why it has become so popular with other genres in recent decades.

Just like postmodernism, there is no consensus on the history and definition of science fiction. When one thinks about science fiction, they usually think of certain icons and motifs such as robots, aliens, spaceships, laboratories of mad scientists, future worlds, alien planets, time travel, parallel universes, and so on. They lay reader, therefore, might see it as an escapist literature which presents fantastic, entertaining scenarios, but writers and critics who study the genre focus on its deeper meanings and its role in literature in general. The most famous and critically acclaimed definition of science fiction belongs to Darko Suvin, who defines it 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” (7-8). Suvin contends that unlike fantasy or Gothic literature’s estrangement effect which does not require a logical explanation, the estrangement created by science fiction is a cognitive one. This means that science fiction does not imagine alien worlds or different time periods in order to escape from the realities of life; rather, it appropriates the alternative worlds and technologies into the realistic frame by making logical explanations about their existence. Suvin’s definition of and ideas on science fiction are important in differentiating science fiction from other forms of non-realistic fiction, and stressing its cognitive, speculative, and critical nature, which makes it applicable to other kinds of fiction.

As can be seen in the example of Suvin's definition, most definitions of science fiction are based on finding unique features that are attributed to it, in order to represent it as an autonomous literary genre. David N. Samuelson, for instance, singles out extrapolation (i.e. predicting future events by using known data) and world-building as the defining features of science fiction. He states that science fiction distorts realism in traditional ways "such as satire or allegory, but the method of distortion most characteristic of SF, and especially hard SF, is extrapolation, a process uniting science, realism, and fantasy in highly specific ways" (195). Through extrapolation, science fiction authors are able to use science and futurology in their "model-making processes in creating narrative models of the future" (Samuelson 195). Extrapolation is seen so essential to science fiction that in 1959, a journal called *Extrapolation* – "the first journal to publish academic work on science fiction and fantasy" (*Extrapolation* n.pag.) – was founded by Thomas D. Clareson.

Ursula K. Le Guin, however, opines that science fiction has more important features than extrapolation. She asserts in the introduction to her novel *The Left Hand of Darkness* that "though extrapolation is an element in science fiction, it isn't the name of the game by any means," and that her current novel "is not extrapolative" (n.pag.). However, Le Guin maintains that "if you like you can read it, and a lot of other science fiction, as a thought-experiment" (n.pag.). For Le Guin, therefore, the main characteristic of science fiction is thought-experiment, whose purpose "is not to predict the future [...] but to describe reality, the present world;" in other words, "[s]cience fiction is not predictive; it is descriptive" (n.pag.). This view challenges the common understanding of science fiction as a fiction about imaginary events that happen in an imaginary future (or place). Science fiction, Le Guin argues, cannot depict the unknown and science fiction authors do not know any more about the future than other authors do. They can only engage in thought-experiments with what they know about the present. This feature of science fiction also makes it a convenient mode for interrogating present events and speculating on the future based on present knowledge. Suvin's, Samuelson's, and Le Guin's definitions reflect the most important aspects of science fiction: cognitive estrangement, extrapolation, and thought-experiment. All of these features have equal importance in how science fiction is understood by scholars and readers.

Like its definition, history of science fiction is also the subject of various discussions. It is usually considered that the first examples of the genre emerged in

late-nineteenth century, and were produced by writers of the post-industrial era, such as Jules Verne and H.G. Wells. In his book *The History of Science Fiction*, Adam Roberts presents an extensive study on the origins of the genre. He states that there are different ways to search for the roots of science fiction depending on how one regards the genre. Hence, if someone looks for imaginary innovations, such as new technologies which are not known in present time, he/she can find traces of science-fictional writing even in ancient myths in which gods or people with extraordinary invention skills, such as Daedalus, invent new technological devices. If one attributes the emergence of science fiction to the scientific developments of a particular age, he/she can claim that science fiction writing was triggered by the scientific developments of sixteenth and seventeenth centuries such as Nicolaus Copernicus' Heliocentric model of the universe and Johannes Kepler's laws of planetary motion. There is no unified view among science fiction writers and critics; yet, Roberts brings together the various ideas on the history of science fiction under three titles: "a long history stretching back at least to 1600; a history that takes Mary Shelley's *Frankenstein* (1818) as its starting point [...] and a history that begins with American magazine editor Hugo Gernsback (who coined the term 'science fiction' in 1927)" (38). All sketches of histories are equally influential on how science fiction is understood today. Voyages to other planets was first seen in Kepler's works, while Mary Shelley introduced the figure of the ambitious scientist and his dangerous creations, and H.G. Wells' works introduced time travel and alien invasion motifs.

As its proposed histories demonstrate, science fiction motifs have been included in literary texts for many centuries. However, science fiction became an "established genre" at the beginning of the twentieth century. At first, critics did not give it the same literary value they gave to the novels written in the realist mode. As pointed out by Andrew M. Butler, "[s]cience fiction was emerging as a genre at the same time that literary modernism was passing its high-water mark, perhaps in the same way that the gothic emerged with the growth of the realist novel in the late eighteenth century. It is tempting, then, to try and situate sf as the other of literature" (144). It is now debatable whether science fiction should be regarded as "the other of literature" or not; however, at the time of high modernism in literature, science fiction works did not receive much critical acclaim. Science fiction was still a newborn genre whose writers were trying to tell extraordinary stories that took place in extraordinary environments, while modernists were involved in examining the

inner world of human beings such as their thoughts, psychology, and perception. Science fiction had to wait for several more decades to draw away from focusing only on the depictions of the outer world and new technologies, and to delve into the consciousness of its well-developed characters.

Science fiction writers of the early twentieth century mostly published in pulp magazines which included stereotypical characters and motifs such as heroes with ray guns, evil aliens, and adventurous space travels. These magazines were read widely by adolescent males, and they did not find acceptance in academic circles because of their low literary value. Towards the 1950s, however, pulp magazines began to lose their impact since promising science fiction writers began to publish in paperback novels; and science fiction, especially in Britain, started to experience something similar to the modernist movement in arts. Unlike the USA which still produced entertaining science fiction adventures, Britain after World War II had a more pessimistic tone with regards to science fiction writing. The feeling of nostalgia and fragmentation was soon to be reflected in the works of New Wave⁴ science fiction writers such as J.G. Ballard, Michael Moorcock, and Brian Aldiss. Their novels were “characterized by stylistic experimentation and a wish to make things new” and offered “an uncanny version of a modernist movement forty years on” (Butler 144). “High art” novels of New Wave writers created a gap between pulp science fiction magazines, which were shunned as being too popular, and amateur short stories, which were seen as juvenile. Although it had a delayed evolution, science fiction eventually caught up with modernism and later with postmodernism, which resulted in important changes in the structure and content of science fiction works.

After going through a marginalization process at the beginning of the twentieth century, science fiction became much more recognized in both literature and the academy in the second half of the twentieth century. As observed by Istvan Csicsery-Ronay Jr., “since the late 1960s, when it became the chosen vehicle for both technocratic and critical utopian writing, SF has experienced a steady growth in popularity, critical interest, and theoretical sophistication” (388). Hence, authors, theorists, critics as well as filmmakers have become aware of the importance of science fiction not only as a genre, but also as a form of speculation or discourse⁵ about the emerging technologies and their effect on people’s lives. The most visible interest towards science fiction came from postmodern authors, who frequently

incorporated its elements into their novels. Before conducting an analysis of the incorporation of science fiction elements into postmodern fiction, however, it would be useful to trace the inclusion science fiction elements in British novels to see how postmodern authors' approach towards science fiction differs from that of earlier novelists.

The interest towards science fiction elements in Western literature is not a new phenomenon. Some motifs and tropes that are associated with science fiction today can be found in major British literary works of previous centuries, as one can observe in the canonical texts such as Thomas More's *Utopia* (1516), Francis Bacon's *The New Atlantis* (1624), Jonathan Swift's *Gulliver's Travels* (1726) and Mary Shelley's *Frankenstein* (1818). These texts incorporate various trademarks of science fiction.⁶ However, this merging of science fiction with other sub-genres – utopian fiction, satire, gothic fiction – happened rarely compared to the large number of fusions in the second half of twentieth century. Especially after the emergence of the novel in the eighteenth century, fantastic elements which pervaded romances and fairytales became less visible in prose fiction, giving way to realist conventions. Similarly, science fiction elements which could be found in ancient stories about extraordinary voyages to imaginary places (after the seventeenth century, in voyages to the Moon and other planets) became less discernible in the novels of the following periods which assumed a dominantly realist attitude. Hence, science fiction became an alien genre because it included non-realistic elements, which clashed with the dominant conventions of fiction writing.

Science fiction had already established its own conventions in the early twentieth century; however, most scholars, critics, and authors of previous decades saw it as “the lowest form of popular culture, unworthy of serious consideration” (Runte vii). Contrary to realist novels which became the dominant form of writing after the eighteenth century,⁷ science fiction stories were seen as a kind of fairy tale; instead of magic they had imaginary technologies; instead of kingdoms that are far away they had planets that are far away. In other words, science fiction – just as romance and fantasy works of earlier centuries – was generally believed to be the opposite of realist fiction. “The good old English tradition” of realism, pointed out by Andrzej Gąsiorek, denoted “empiricism, common sense, social comedy,” (4) and excluded the elements of fantasy which did not correspond to the objects of the real world. That is, while realist writers relied on verisimilitude to reflect the world

outside the text as correctly as possible, science fiction writers did not seek direct correspondence to the real world while designing their imaginary technologies and environments. Accordingly, compared to traditional realist fiction, science fiction was seen “as a specific – and as it happens, dominant – version of *fantastic* (rather than *realist*) literature” (Roberts 3), since science fiction works included imaginative-speculative science rather than empirical science.

General view towards the inclusion of science fiction elements in nineteenth-century novels can be best observed in the reactions towards Mary Shelley’s *Frankenstein*. Susan E. Lederer and Richard M. Ratzan argue that when the novel was published it “was not universally loved” (460); on the contrary, it was seen as grotesque, absurd, improbable, and far from having “any useful lesson of conduct, morality or manners” (460), which were expected from a novel in that period. In other words, *Frankenstein* was criticized for having unrealistic elements such as an animated corpse (referred to as monster, or simply as “creature”), and for having no correspondence to the reality and manners of the age. Like *Frankenstein*’s monster, science fiction elements such as interplanetary travel, time travel, and encounters with alien beings were too unrealistic and absurd for the people of the nineteenth and earlier centuries, although science and technology had advanced remarkably since the Renaissance.

Some science fiction novels of the nineteenth and early twentieth centuries, however, received positive reaction by literary scholars for having artistic value, such as the novels of H.G. Wells.⁸ His science fiction novels contained realist conventions of their age, although the ideas in them were unrealistic considering the scientific possibilities in the Victorian period. Wells treated the subjects of future technologies, alien invasion, and time travel in his novels while forming his plots according to the realist novel tradition, “uniting scientific concepts, social issues and human interest into one graphic narrative” (James 214). His protagonists, for instance, were individuals who relayed their experiences in simple prose, while generating rational ideas on scientific and technological issues. Moreover, in Wells’ novels, new technologies and future worlds were described in such a way that they formed a scientific logic, despite being speculative rather than empirical. Therefore, Wells’ works were not seen as absurd, childish imaginations. Although the realistic attitude of Wells’ science fiction gave it a more serious nature than fairy tales and romances, the elements (time travel, aliens, animal-human hybrids, invisibility potions) that he

incorporated were still regarded as too extraordinary, and they were confined to science fiction genre alone. A Victorian realist or a modernist novel, for instance, did not include imagined science and technologies of the future such as robots, smart communication machines or spaceships, because their aim was either to represent the world as it is (the former), or focus on the psychological reality of the characters (the latter). However, such elements could easily find place in the postmodern novels of late twentieth century, because postmodernism problematized the notion of reality itself. Therefore, it can be said that although science fiction novels began to get critical acclaim in the first decades of twentieth century thanks to authors like Wells and Jules Verne, science fiction elements were still not frequently incorporated into other kinds of fiction.

Despite being ignored by most realist writers, science fiction elements – along with fantasy elements – have sometimes found place or reference in other kinds of writing, such as utopian and dystopian fiction.⁹ Some of the classic utopian works such as *The New Atlantis* and dystopian works such as *Brave New World* and *1984* have a significant amount of science fiction elements, especially in terms of inscribing new technologies into their narratives. Utopias and dystopias are sometimes regarded as works of science fiction, rather than works that borrow science fiction elements, because of their constant usage of imagined science and technology. However, utopias and dystopias whose main concern is socio-political criticism rather than the introduction of new, imaginary technologies are not seen as genuine science fiction by most scholars. For Brian Stableford, for instance, such works take “scientific and technological advancement into account,” but they relegate it “to a minor role while matters of social, religious and political reform [remain] centre stage” (15). In other words, science fiction elements in such texts are used to reinforce the political opinions of the authors, to criticize the *status quo*, and to predict a future which will come about if current politics continue to prevail.

Some scholars such as Edward James, however, differentiate between “classic utopias” and “science fiction utopias” (219). James claims that science fiction writers object to classic utopian and dystopian fiction writers’ aim “for a largely static society” and to their simple characterization which creates shallow protagonists who “merely fulfil their necessary roles” (222). Contrary to classic utopias which focus on ideas, science fiction utopias, for James, focus more on character development, description of new technologies and future surroundings. In regard to the views of

Stableford and James, it can be concluded that classic utopias frequently borrow elements from science fiction, although they are not necessarily seen as science fiction works themselves. The same applies to certain postmodern fictions, which borrow so many elements from science fiction that they look as if they belong to the science fiction genre. For example, novels of Kurt Vonnegut, whose style is “ontologically unsettling narrative experiment through popular science fiction” (Hite 722) and Joanna Russ, who “developed her structural innovations through manipulating the conventions of science fiction” (Hite 724), stand on the thin line between postmodern fiction and science fiction. However, because their focus is more on postmodern experimenting rather than scientific speculation, their novels are not labeled as science fiction.

Science and technology have found place in artistic and literary works throughout the ages. Likewise, inclusion of science fiction elements in various kinds of art has always been an inevitable consequence. However, especially in the second half of the twentieth century there is an increasing number of examples of the fusion between science fiction and other genres. Unlike their realist and modernist predecessors, postmodern authors have embraced science fiction, and they have made use of its rich repertoire of scientific, technological, and fantastic imaginations.

Within the British context, tropes and motifs of science fiction have become the focal attraction for a fusion between science fiction and postmodern fiction. Alasdair Gray’s postmodern novel *Lanark* (1981), for instance, takes place in a dystopic future or a dystopic parallel universe, and includes imaginary diseases and technologies. Published eleven years after *Lanark*, *Poor Things* (1992) likewise includes certain science fiction motifs like imaginary medical sciences and the mad scientist, and it frequently makes references to *Frankenstein*. Set in the twenty-third century, *A History Maker* (1994) again makes use of science fiction tropes and describes a matriarchal society in which men are continually distracted by fighting competitions. In all three novels, science fiction elements are employed not for the purpose of giving information about or speculating on probable technologies as in the case of most traditional science fiction works, but they are employed as a means to make postmodern interrogations. Therefore, “[t]o say that Alasdair Gray does not write straightforward science fiction is almost a truism” (Böhnke 92); his writings rather have a postmodern orientation. Another example is Peter Ackroyd’s *Plato Papers* (1999), which is set in London in 3700 A.D. Like Gray, Ackroyd

appropriates the future setting into his novel in order to set a ground for the problematization of the notions of time, history, and reality. By reflecting a future civilization which has restricted access to historical knowledge, *Plato Papers* examines the relationship between fictionality and historiography. Other British examples are John Banville's *The Revolutions Trilogy* (*Doctor Copernicus*, *Kepler*, and *The Newton Letter*) and Derek Beaven's *Newton's Niece* (1994), both of which combine elements of historiographic metafiction and science fiction.

The attraction of science fiction tropes for postmodern speculations is not limited to novels and novelists. Theorists such as Jean Baudrillard and Donna Haraway have developed their own theories on postmodernism with the assistance of science fiction tropes. In their writings, they usually convey their ideas by using science-fictional metaphors. Haraway's "A Cyborg Manifesto," in which she makes a socialist-feminist and postmodern analysis of the role of women in the late twentieth century by using the image of cyborg as a metaphor, is a noteworthy example. Haraway's usage of a science fiction motif to discuss the condition of women in a postmodern age demonstrates a similar attitude to that of postmodern fiction writers who also turn to science fiction in their discussions. Baudrillard likewise borrows from science fiction in many of his writings, especially in the chapter entitled "Simulacra and Science Fiction" in his book *Simulacra and Simulation* (1995). Baudrillard states that science fiction corresponds to the second order of simulacra;¹⁰ in his own words, science fiction resembles the "simulacra that are productive, productivist, founded on energy, force, its materialization by the machine and in the whole system of production" (*Simulacra* 118). He argues that since the world is experiencing the third order of simulacra, the hyperreal, "the good old imaginary of science fiction is dead and [...] something else is in the process of emerging (not only in fiction but in theory as well)" (*Simulacra* 118). Classical science fiction, which imagines new worlds and technologies, is no longer prevalent, since the estrangement created by science fiction is now illusory; for Baudrillard, the distance between the real and the imagery has abolished itself. Like Haraway, then, Baudrillard uses science fictional imagery to examine the postmodern condition. Istvan Csicsery-Ronay Jr. refers to such critics' attitude as "science-fictionalization of theory" (389), since their theories are largely supported by the motifs of science fiction such as cyborgs and simulations. Both postmodern fiction and theory, thus,

have shown a notably different attitude towards science fiction than the previous approaches towards the genre.

The relationship between science fiction and postmodernism did not go unnoticed by critics and scholars. Since the 1970s, there have been reflections and studies on the fusion between postmodern fiction and science fiction. One of the first reflections on the inclusion of science fiction elements in postmodern fiction belongs to J.A. Sutherland, who in 1979 declared that “[m]any of the modes of postmodernist fiction and the so-called ‘literature of exhaustion’ have assimilated aspects of traditional science fiction” (162). However, Sutherland’s focus is on science fiction texts; thus, he does not go into the details of the function of science fiction elements in postmodern fiction.

Theresa Ebert also draws attention to the relationship between postmodern fiction and science fiction in her essay “The Convergence of Postmodern Innovative Fiction and Science Fiction,” which was published in 1980. Ebert contends that there is a blurring of the boundaries between postmodern fiction and science fiction, mostly because both of them “are on the edges of literary experimentation” (94). Since both sub-genres of novel are innovative and experimental, they frequently borrow from other genres and mostly from each other. As a result, Ebert argues, traditional science fiction has turned into metascience fiction in which “the entertainment or story-telling function that dominates traditional science fiction is backgrounded, and the literary and aesthetic functions are foregrounded,” (93) while contemporary mainstream fiction has turned into postmodern innovative fiction in which “technology has been foregrounded, in comparison with its function in the traditional mainstream novel” (95). Ebert then analyzes Samuel R. Delany’s science fiction novels in terms of their metascience-fictional qualities, and she traces the effects of postmodern debates on his fiction. She does not include any detailed analysis of a postmodern novel, although she names a few – such as Thomas Pynchon’s *Gravity’s Rainbow* and *V.*, John Barth’s *Giles Goat-Boy*, and Ronald Sukenick’s *98.6* – which incorporate science fiction elements.

Another – and more well-known – example of the analysis of science fiction-postmodern fiction relationship is found in Brian McHale’s seminal work *Postmodernist Fiction* (1987), in which he argues that “[s]cience fiction, we might say, is to postmodernism what detective fiction was to modernism: it is the ontological genre par excellence (as the detective story is the epistemological genre

par excellence), and so serves as a source of materials and models for postmodernist writers” (16). This statement is important for literary studies in two aspects: first, it presupposes an ontological similarity between postmodernist fiction and science fiction; and second, it draws attention to the growing interest towards science fiction by the authors of postmodernist fiction. Moreover, McHale points out that this interest was not one-sided; while postmodern writers have used science fiction tropes in their novels such as visions of future worlds, cyborgs, and voyages to other planets; science fiction writers have added postmodern elements to their texts such as metafiction, problematizing reality, and blurring the opposition between authentic and fake. He refers to this relationship between postmodern fiction and science fiction as “the science fictionalization of postmodernism” (65) and “the postmodernization of science fiction” (68). According to McHale, postmodern fiction and science fiction have gradually resembled one another as their authors have shared similar attitudes in terms of science and technology in their works:

Postmodernist writers are more interested in the social and institutional consequences of technological innovation, the social arrangements these advances give rise to, rather than in the innovations themselves. Actually, this has been true of much of the science-fiction writing of recent decades as well. (66)

It is not a coincidence, then, that postmodern fiction and science fiction started to merge with each other. They both have a tendency to explore the effects of scientific and technological advancements on individuals and on society.

McHale examines both postmodern novels that include science fiction elements and science fiction novels that incorporate postmodern characteristics; yet, he does so in regard to his argument that both sub-genres of novel are ontological. Therefore, the scope of his analysis seems somewhat specific. There is more to the relationship between two sub-genres than sharing an ontological dominant, and the preference of postmodern authors to include science fiction elements in their novels has many layers of purpose. Although McHale’s focus is specific, his observation that science fiction provides “materials and models” for the authors of postmodern fiction open up new areas of inquiry and exploration.

Following McHale’s work, there have been similar examinations of the relationship between science fiction and postmodernism, and the function of science fiction elements in postmodern texts. In 1991, prominent science fiction magazine

Science Fiction Studies (SFS) dedicated an issue to the interactions between science fiction and postmodernism. The issue includes various explorations of literary works and movies, and theoretical discussions on both subjects. In the introduction to the issue, Csicsery-Ronay states that science fiction is especially favored by the authors of postmodern fiction, because it “has an advantage over most other disciplines in that it has had something like a theory of postmodernism ingrained in its futurism for many years” (305). Science fiction has always been concerned with new technologies and their impact on people’s lives, and in the late twentieth century it began to include “a treasury of powerful metaphors and icons capturing the reality of insecure borders: the Female Man, xenogenesis, the cyborg, the simulacrum, viral language, cyberspace, Mechs and Shapers, and many others,” all of which attracted the interest of contemporary authors (Csicsery-Ronay 306). Thus, science fiction elements began to fuse into postmodern fiction, since they provided suitable materials for reflecting the postmodern condition in the age of high technology.

In the same issue of *SFS*, Roger Luckhurst also examines the similarities between science fiction and postmodernism in his article “Border Policing: Postmodernism and Science Fiction.” However, he focuses on the “effacement of the boundary,” which is “a consistent element of definitional postmodernism” (359), and argues that science fiction similarly undermines the boundary between “high” and “low” art. Because of this similarity, “SF has been considered, particularly in film theory, as a privileged site for the discussion of certain aesthetic forms of the postmodern” (360). In other words, science fiction has provided useful elements for postmodern discussions, for it has similar concerns and themes to those of postmodern fiction.

More recently, Fredric Jameson has analyzed the postmodern characteristics of science fiction works in *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions* (2005). Jameson is mostly known for his writings on postmodernism; thus, his interest towards science fiction indicates that there is indeed a strong connection between two subjects. While in the first part of his book Jameson reflects on the idea of utopia, in the second part he examines the novels of major science fiction authors such as Brian Aldiss, Ursula K. Le Guin, Philip K. Dick, and Kim Stanley Robinson in terms of ontology, generic discontinuity, the idea of progress, realism, and spatiotemporal aspects. What he does, in short, is finding

postmodern characteristics in science fiction novels, which have gradually become more interconnected with postmodern fiction.

All of these examinations significantly contribute to the studies of the interconnection between postmodernism and science fiction. Sutherland's suggestion that postmodern writers assimilate science fiction elements is an indicator of the awareness of such interconnection in academic studies. Ebert, McHale, and Luckhurst's stress on the similarities between postmodern fiction and science fiction – respectively, making literary experimentations, being ontological genres, and erasing the boundaries between high and low art – is also noteworthy. Although Sutherland, Ebert, and Jameson prefer to work on science fiction texts, McHale further includes examinations of postmodern texts that incorporate science fiction elements. Moreover, Csicsery-Ronay point out the fact that certain elements of science fiction such as cyborgs and virtual domains are more appropriate for postmodern fiction, because they disrupt the disputable borders between binaries.

While making use of a combination of these analyses and ideas, this thesis aims to widen the scope of the studies on postmodern fiction-science fiction relation by making a thorough examination of postmodern texts that appropriate science fiction elements. In addition to exploring particular reasons behind the fusion of postmodern fiction and science fiction as the aforementioned critics do, this study takes into consideration several different factors such as scientific and technological developments of the twentieth century – which had a major impact on postmodernity and postmodern fiction –, as well as the similarities between the concerns of science fiction and postmodern fiction. These factors must be explained in relation to each other in order to have a better understanding of the function of science fiction elements in postmodern fiction.

It is impossible to talk about postmodernity without reference to science and technology, and since postmodernism “is engagement with the material conditions of postmodernity,” (Smethurst 2) its emergence in cultural and artistic fields is also related to these factors. The postmodern atmosphere – in which the understanding of reality, time, space, knowledge, and legitimation was considerably altered – is the product of the rapid scientific and technological developments of the twentieth century. Hence, it can be argued that science and technology have a direct impact on the postmodern culture of western countries. Although postmodernism has deeper roots which extend to the developments in science and technology in the late-

nineteenth century, especially since World War II there have been more influential scientific developments that triggered its emergence. Some of these developments are “the exploration of the Moon and Mars [...] or the invention of the atomic bomb [...] as well as path-breaking theoretical revolutions such as relativity theory, quantum mechanics, or the discovery of DNA” (Heise 138). All of these developments affected the way people perceived the world, resulting in a paradigm shift.¹¹

The paradigm shift had already started with Albert Einstein’s Theory of Relativity, which changed the understanding of time and space as separate notions and absolute entities. This theory caused a radical break with Newtonian physics,¹² which was based on determinate mechanical movements that were thought to be the same in all parts of the universe. In *Ideas and Opinions*, Einstein explains that following Newton’s works, many scientific discoveries were made concerning physical space and ether, and the phenomena of electromagnetism. Then came his “special theory of relativity with its recognition of the physical equivalence of all inertial systems. The inseparability of time and space emerged in connection with electrodynamics, or the law of the propagation of light” (Einstein 281). Einstein’s main contribution to physics was “the discovery of the relativity of simultaneity,” which meant that “space and time were merged in a single continuum in a way similar to that in which the three dimensions of space had previously been merged into a single continuum. Physical space was thus extended to a four-dimensional space which also included the dimension of time” (Einstein 281-2). In other words, Einstein did not leave time out of the measurements of the physical space, and stressed the relative nature of objects with regard to time, space, and the observer. Therefore, contrary to the theories of Newton,

Einstein’s theories boldly depart from commonsense notions of reality to create a strange universe of curved space, black holes, simultaneity, and a fourth dimension of reality based on a space-time continuum. Above all, Einstein introduced relativity into the scientific framework and broke down the firm divide between subject and object. (Best and Kellner 211)

For Einstein, then, there is no absolute and stable notion of reality, time, and space; “rather, everything is moving relative to everything else” (Best and Kellner 212). Einstein’s theories contributed significantly to the formation of quantum theory, and

eventually, of postmodernism. As stated by Jago Morrison “the importance of Einstein’s work was certainly immense, supplanting Newton’s conception of a universal, abstract, mechanistic time with Relativity’s quite different model of a flexible four-dimensional space-time” (*Contemporary* 26). Influenced by this theory, “postmodernism abandons the idea of a [...] predictable world *à la* Isaac Newton [...] It is characterized by the acceptance of arbitrariness” (Markus 182). Therefore, one can clearly observe a connection between the new science of the early twentieth century and postmodern thinking of the later decades of the twentieth century, which share a similar attitude towards the concepts of time and space.

In addition to the Theory of Relativity, quantum mechanics likewise thwarted the scientific determination which had been prevalent since the Enlightenment period, and it postulated that events in the universe did not occur according to a predetermined rule. In classical mechanics, “it was assumed that we could determine the future position of any particle, be it electron or golf ball, by calculating the path it would take given a certain position and velocity” (Pepperell 168). However, Werner Heisenberg’s uncertainty principle, which is one of the fundamental principles of quantum mechanics, challenged this view of classical mechanics. In *Physics and Philosophy* (1958), Heisenberg argues that the experiments in quantum mechanics significantly differ from the ones in Newtonian mechanics. If the motion of an electron is to be determined, for instance, its initial position and velocity can be observed as in Newtonian mechanics; however, their “determination will not be accurate; it will at least contain the inaccuracies following from the uncertainty relations and will probably contain still larger errors due to the difficulty of the experiment” (45). A further inaccuracy occurs when “result of the observation [is translated] into the mathematical scheme of quantum theory. A probability function is written down which represents the experimental situation at the time of the measurement, including even the possible errors of the measurement” (45). Thus, the result of the experiment is not a certain fact, but only a probability function which consists of the possible locations of an electron in a cloud chamber. In other words, quantum mechanics indicates that a complete knowledge of the exact nature of an electron – or any other matter – is impossible to acquire. Besides its stress on uncertainty, quantum mechanics itself is a contested field in physics and has many different interpretations including the many-worlds interpretation which speculates on the existence of parallel universes (or alternate realities), and time-symmetric or

retrocausality theories which propose that events in the future can alter the ones in the past, just as events in the past can alter the ones in the future.

Steven Best and Douglas Kellner refer to the birth of the new scientific theories such as the quantum theory as “the postmodern turn in science,” which “emerged as a break from the mechanistic, reductionist, naïve realist, and determinist worldview of Newtonian physics” (195). They state that “the advocates of postmodern science claim that the modern scientific paradigm is giving way in the 20th century to a new mode of scientific thinking based on concepts such as entropy, evolution, organism, indeterminacy, probability, relativity, complementarity, interpretation, chaos, complexity, and self-organization” (195). The stress on such concepts in new sciences, and the premise of quantum theory that “the element of indeterminacy in the subatomic world prevents exact understanding and that the predictions it makes involve only probabilities, statistical regularities, and not certainties” (Best and Kellner 214) have had an immense effect on the theoretical discussions on postmodernism, which are likewise concerned with relativity and uncertainty.

The postmodern turn in science, especially in physics, has found reflection in postmodern art and literature, which included interrogations of time and space. In her work *Chronoschisms: Time, Narrative and Postmodernism*, Ursula K. Heise argues that temporality “constitutes a major concern of postmodernist theory and art, although it is envisioned in terms that differ fundamentally from those of high-modernist culture” (1). This difference is associated with the postmodern rejection of time and space as separate notions. As Heise contends, “in the late twentieth century, conventional notions of both time and space are in crisis” (2), and it is revealed that these notions exist by interacting with each other. The treatment of time and space as a single unit – as in Einstein’s theories – can also be found in the literary theory of Mikhail Bakhtin, who coined the term “chronotope” to refer to “the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature” and which also “expresses the inseparability of space and time (time as the fourth dimension of space)” (84). Jago Morrison notes the similarities between scientific and literary developments concerning time and space in the twentieth century, and argues that literary critic and semiotician Mikhail Bakhtin’s writings bear resemblance to Einstein’s theories. Like Einstein’s four-dimensional time-space continuum, Morrison asserts, “Bakhtin’s chronotope brings together the prefix

‘chrono’ (indicating time) with the suffix ‘tope’ (indicating space or place) as a single idea (*Contemporary* 26-7). Therefore, it can be understood that as well as the science, the literary theory of the twentieth century rejected the separateness of time and space, and treated these two in tandem.

In his seminal work *The Dialogic Imagination: Four Essays*, Bakhtin puts forward the idea that temporal and spatial relationships in a work of literature shape its narrative and give it meaning. Bakhtin argues that literary texts cannot be analyzed only in terms of time or space; but one should be aware of their connectedness. This connectedness may refer to the time-space in which the work is produced (such as the historical context), which also affects the author’s use of time-space in his/her work. It may also refer to certain elements in a work of literature; a castle in a Gothic novel, for instance, should be read both as a place and as representing the passage of time with its worn-out structure. Moreover, for Bakhtin, literary works of each time period and each genre produce their own chronotopes which constitute their defining features.

Bakhtin further asserts that each literary chronotope is shaped by historical, social, and political developments in a specific era. How time and space are treated in a Victorian novel, thus, is not the same with how they are treated in a postmodern novel. With regard to Bakhtin’s theories, Paul Smethurst makes a thorough examination of the concepts of time and space in postmodern culture and fiction in his work *The Postmodern Chronotope: Reading Space and Time in Contemporary Fiction*. Smethurst agrees with Heise’s claim that in postmodern novels time and space complement each other, rather than contradicting or taking place of one another. Therefore, one cannot assert that postmodern novels prioritize space over time, or time over space. Smethurst also examines the application of time-space in postmodern fiction and argues that “postmodernism has changed the way the past is re-presented, the contemporary apprehended and the future envisioned, and it has changed fundamentally perceptions of space and place” (1). These fundamental changes, he states, arise from the technological as well as scientific developments of the era. In terms of new technologies, “the domination of the visual media and information technology,” for instance, are now “our major conduit to reality” (Smethurst 3). Therefore, the postmodern chronotope represents “loss of the real,” (Smethurst 3) a condition which can be observed in postmodern time-spaces such as the cyberspace.

In addition to their own representation of time and space, postmodern novels can borrow chronotopes from other genres, especially from science fiction, and appropriate them into their narratives. Smethurst underscores the connection between science fiction and postmodern fiction, and contends that the postmodern novel “recovers some of the themes of space-time that had previously been the preserve of science fiction, and perhaps this is partly because the boundaries between culture, literature and science are less differentiated than they have been for some time” (105). The boundary between scientific developments and science fictional technologies is less differentiated especially in the last fifty years, and this intermingling of fact and fiction is one of the key subjects of postmodern debates. Hence, in their questioning of time and space, postmodern authors often make use of science fiction chronotopes.

The notions of time and space are undoubtedly significant in the narratives of all kinds of novels, but in science fiction texts they have a fundamental role. Indeed, science fiction’s ability to imagine future or unfamiliar places is regarded as its distinctive feature. Science fiction makes use of time and space rather differently than other kinds of fiction; the usage of time is not restricted to the past and the present, and the characters can travel through time via technological devices. The usage of space is also not restricted to the Earth; the events may occur in different planets and even in different galaxies. This availability of spatiotemporal variety gives science fiction writers, and writers who borrow science fiction elements, the opportunity to convey their ideas which cannot be done so in realistic time and space. Since postmodernism is concerned with how reality, time, and space are (relative) constructions; postmodern fiction questions the reliability on these notions by constantly disrupting them. By using science fiction tropes, postmodern texts problematize the notions of time and space, and experiment with the construction of multiple realities. They employ, for instance, the science fiction trope of journey through time: characters travel to the past or to the future in order to disrupt the linear flow of time, or to problematize the idea of continual progress. Postmodern texts also borrow spatial displacements of science fiction, such as moving between different planets or alternate universes, to experiment with the notions of place or placelessness.

Frequently borrowed science fiction elements by postmodern authors include the future world and time travel motifs. They are employed in postmodern fiction

mainly to experiment with and disrupt the conventional understanding of time. Unlike earlier forms of (realist) novels, the postmodern novel reflects a new understanding of time by seeing it not as a linear but as a circular or fragmented entity. In the nineteenth century, the understanding of time was affected by such events as the publication of Charles Lyell's *Principle of Geography* (1833), the discovery of Neanderthal man in 1856, the publication of Charles Darwin's *On the Origin of Species* (1859), and the emergence of new sciences. These developments "destroyed notions of time as cyclic or static, undercut the possibility of an origin or teleology for time, and obliterated the dimensions of time in both directions. All the new sciences were dominated by temporal methodologies, by a basis in time" (Malmgren 3). As a result, "[t]he dominant paradigm in scientific thought, which in the eighteenth century has taken the form of a self-regulating mechanism, became in the nineteenth century the concept of evolution, of gradual, irreversible, inevitable change in time" (Malmgren 3-4). Accordingly, most narratives of nineteenth-century fiction proceeded in a linear direction, and if there were any disruption of linear time, it was naturalized, "for example through the memory of a character," or it was used as "a familiar device like the explanatory aside by an omniscient narrator characteristic of nineteenth-century realism. Even modernist fiction, which demonstrated an increasing preoccupation with time in its experiments with plot, did so in the service of realistic representation" (Burgass 179).

In postmodern fiction, however, "thematic and plot devices are designed specifically to question linear history and temporality" (Burgass 179); there is no effort to naturalize the fractures in time, or to make realistic representations of the experience of time. Thus, postmodern texts may incorporate elements from science fiction, fantasy, or magic realism in order to make questionings of linear history and temporality. Science fictional time and space, for instance, are mostly appropriated into postmodern novels to deconstruct linear time or to employ circular plots. Such practice can be found in certain postmodern novels, including Kurt Vonnegut's *Slaughterhouse-Five* (1968), Vladimir Nabokov's *Invitation to a Beheading* (1969), Angela Carter's *The Passion of New Eve* (1977), Alasdair Gray's *Lanark* (1981), Don DeLillo's *White Noise* (1985), and Jeanette Winterson's *Tanglewreck* (2006) and *The Stone Gods* (2007).

Linear time is also deconstructed in postmodern novels through the employment of a recurrent science fiction motif: (post)apocalypse. Apocalypse and

postapocalypse motifs have always found place in science fiction texts, but their number increased especially in the years following the Cold War.¹³ As stated by Keith Booker, “many dystopian visions of the future were strongly informed by Cold War pessimism. In addition, the Cold War was largely responsible for the prominence of alien invasion and postapocalypse narratives, especially during the peak Cold War years of 1946–64” (171). Initially, these alien invasion and postapocalypse narratives were employed by science fiction authors in order to look critically on contemporary events and to speculate on the possible destruction of the world at the hands of human beings. In Fredric Jameson’s words, until the emergence of postmodern narratives, the general approach in science fiction texts towards imagining the future had been a “*representational one*.”

These narratives are evidently for the most part not modernizing, not reflexive and self-undermining and deconstructing affairs. They go about their business with the full baggage and paraphernalia of a conventional realism, with this one difference: that the full “presence” – the settings and actions to be “rendered” – are the merely possible and conceivable ones of a near or far future. (286)

Such earlier future narratives in science fiction works, therefore, had a mostly anticipatory nature; they made deductions from the present condition of the world in order to predict future events and technologies.

In the decades following the Cold War, however, this realistic approach gave way to a fusion of postmodern narratives with older forms of (post)apocalyptic or dystopian narratives. The narrative techniques used by the science fiction authors of these decades differed from the techniques of earlier science fiction authors who were mainly concerned with constructing future worlds. Examples of the fusion of postmodern characteristics with future world narratives (utopias, dystopias, apocalyptic or postapocalyptic settings) can be seen in such texts as Joanna Russ’ *The Female Man* (1970), Ursula K. Le Guin’s *The Dispossessed* (1974), and Samuel Delany’s *Triton* (1976). *The Female Man*, for instance, uses multiple time periods and parallel realities which can equally be credible; thus, it distorts the perception of time, space, and reality. *The Dispossessed* has a non-linear narration; its chapters ordered as 2, 4, 6, 8, 10, 12, 1, 3, 5, 7, 9, 11, 13. *Triton*, whose subtitle is “An Ambiguous Heterotopia,” explores the subjects of gender, sexuality, and identity; it presents a world in which technology allows self-modification in various levels.

These novels indicate that science fiction also borrows techniques from postmodern fiction in order to better interrogate the present and the future of humanity.

Authors of postmodern fiction also have used apocalypse and postapocalypse motifs in their texts, but they have appropriated these motifs to their own experimentations. As in the science fiction texts of recent decades, employment of the apocalypse motif in postmodern texts differs from religious or traditional employments of it. The function of apocalypse in postmodern fiction may be best explained by using Jacques Derrida's thoughts on the understanding of apocalypse in contemporary (mainly 1970s and 1980s) philosophy. Derrida sees postmodern apocalypse as "an apocalypse without apocalypse, an apocalypse without vision, without truth, without revelation [...] addresses without message and without destination, without sender or decidable addressee, without last judgment [...] an apocalypse beyond good and evil" (66). In relation to this understanding, postmodern texts subvert the totalizing view of apocalypse (which marks the end of the conflict between good and evil) by using the apocalypse motif against itself. Postmodern texts, therefore, include apocalypse that is not related to any totalizing narrative, apocalypse that marks not the end but the beginning of time-space (postapocalypse narratives), or apocalypse that includes not the struggle between, but the fusion of good and evil.

This "major shift in utopian as well as apocalyptic thinking," which can be observed in both science fiction and postmodern fiction, "is reflected more or less explicitly in the writing of authors as different as Pynchon, DeLillo, Gibson, Atwood, Auster or Piercy and others" (Mittag 253). Carlos Fuentes' *Terra nostra* (1975), which "imagines a world that has broken down under the pressure of the population explosion" (McHale 67) and Burroughs' *The Wild Boys* (1971), which reflects a future "that has regressed in the aftermath of the exhaustion of earth's fossil-fuel reserves" (McHale 67) are good examples of apocalyptic future visions in postmodern texts. Such visions can likewise be observed in British postmodern texts of the 1970s and 1980s. Dietmar Böhnke points out that "the apocalyptic tendency" which "was conspicuous in the 1980s [...] went together with elements of the fantastic or grotesque, and especially with devices borrowed from the science-fiction tradition, a development that we have seen to be one of the characteristics of postmodern literature as a whole" (85). The world of Alasdair Gray's *Lanark*, Böhnke argues, "seems to be a good example of exactly this development" along

with “[his] other novels, such as *Poor Things*, and *A History Maker*” (85), which likewise incorporate science fiction elements in order to produce an apocalyptic, gothic, and grotesque vision. Other examples of this development can be observed in Angela Carter’s *Heroes and Villains* and *The Passion of New Eve*, which incorporate the future world motif to construct postmodern, postapocalyptic worlds that subvert the conventional notions of time, space, and reality.

There are various examples of the employment of science fiction motifs such as time travel, future world (or postapocalyptic world), and imaginary planets for the sake of making postmodern disruptions of time and space. In addition, these elements function as a means to problematize the Enlightenment¹⁴ idea of progress through scientific and technological advancements. Postmodernism might be a contemporary phenomenon, yet its questioning of the role of science and technology in people’s lives today is related to an incredulity towards the ideals of the Enlightenment, a project of modernity which has its roots in the eighteenth century. Postmodernism’s relationship with the Enlightenment can be understood by looking at the discussions of major theorists such as Habermas and Lyotard, who examine postmodernism in relation to modernity and to the idea of scientific progress. While Habermas is in favor of the project of Enlightenment and modernity, and criticizes postmodern tendencies for interrupting the process of its realization, Lyotard analyzes the postmodern condition in terms of the suspicion towards the discourses of totalizing metanarratives such as the Enlightenment. He suggest that as a result of the loss of faith in the idea of scientific progress, authority and legitimacy of major powers have lost their state of incontestability; and the totalizing narratives or “grand narratives” such as the Enlightenment, religions, and science lost their legitimation power. As a result, multiple little narratives have emerged, and knowledge also became plural. Thus, unlike Habermas, Lyotard celebrates this plurality of postmodern knowledge which is not simple “the tool of authorities” and which “refines our sensitivity of differences and reinforces our ability to tolerate the incommensurable” (xxv). For Lyotard, then, by moving away from totalitarian narratives such as the Enlightenment, one can become more open-minded towards differences and also become aware of the ideological determinants behind the construction of reality.

As Lyotard’s ideas suggest, discourse of the Enlightenment is a totalizing one; it makes universal claims, and it suggests that it is possible to build more

advanced civilizations in the future with the help of objective science and universal morality. Hence, there is a connection between the idea that time is a linear entity and the Enlightenment idea that human civilization is progressing towards a superior future. Rachel Loewen Walker explains that “the traditional views of time as chronos” suggest “a chronological before and after that we can bind together through interpretations of cause and effect. This method [of binding] orients itself towards a set of goals that will remedy the travesties of the past and, in so doing, it remains fixated on the anticipation of a superior future” (51). Modernity anticipates such remedies to the problems of the past, and it “embodies the movement of continual progress” (Walker 51), which is aided mostly by technological developments. Postmodernism, on the other hand, is critical of the discourses of continual progress such as the Enlightenment (or modernity) narratives. As stated by Steven Seidman in *The Postmodern Turn*, assumptions of the culture of the Enlightenment – which lies at the heart of the modern west – “regarding the unity of humanity, the individual as the creative force of society and history, the superiority of the west, the idea as science as Truth, and the belief in social progress, have been fundamental to Europe and the United States. This culture is now in a state of crisis” (1). This crisis is also reflected in postmodern fiction, which interrogates progress narratives, revealing their problematic nature.

Future world or (post)apocalypse motifs, when appropriated into postmodern fiction, provide an imaginary time-space in which progress narratives can be subverted or deconstructed. In some of the postmodern novels of Carter, Winterson, Gray, Pynchon, Vonnegut, and DeLillo, there is an apocalyptic atmosphere which is the result of an excessive usage of (war) technology. Affected by the nuclear wars and especially by the detonation of the atom bomb, such postmodern novels embody disillusionment with technological progress and foreground the fragmented and repetitive – rather than continual and progressive – nature of human history. Pynchon’s *Gravity’s Rainbow*, for instance, “represents an apocalyptic space at once historical, imaginative, theoretical, and fabulously textual” (Robson 61), and emphasizes the “interdependence of technology and apocalypse,” which is “not a new phenomenon with postmodernism” (Robson 66). Gray’s *A History Maker* likewise reflects a future in which technology is used by authorities to organise and broadcast battles (in the name of “sports”). Therefore, the novel “can be read as a warning of the potentially intrusive character of modern communications technology

and the inherent danger of its abuse” (Böhnke 159). Both of these novels are good examples of the appropriation of apocalypse or future world motifs of science fiction into postmodern texts as a means of problematizing the discourse of modernity narratives.

In addition to temporal and spatial elements, postmodern novels also borrow elements related to life sciences and biotechnology (or bioengineering) from science fiction. Postmodernism itself is interconnected with the developments in biology; for instance, discovery of DNA and breaking the secret of its structure had a major impact on postmodern culture. In her work *Chaos Bound: Orderly Disorder in Contemporary Literature and Science*, Katherine Hayles draws attention to the connection between the denaturing of DNA – the process in which double-stranded DNA separates into single-stranded units by means of the breaking of hydrophobic attachments between the bases – and the general denaturing of all social constructions by postmodernism. For her, “[t]he denaturing process [...] is one of the technical developments that helped to constitute cultural postmodernism. It is also a metaphor for postmodernism’s deeper implications” (266). She argues that there are two forms of denaturing; one is depriving something of its natural qualities – as in the case of postmodern questioning of all “natural” facts – and the other is “altering macromolecules by treating them with chemical or radiation” (266). The latter applies to the unravelling of DNA’s structure, which “led in turn to bioengineering and to the possibility that human genetic material can be reconfigured” (266). Thus, human body is revealed to be a construction which can be altered, and its unity came into question. Hayles also adds that

When the essential components of human experience are denatured, they are not merely revealed as constructions. The human subject who stands as the putative source of experience is also deconstructed and then reconstructed in ways that fundamentally alter what it means to be human. The postmodern anticipates and implies the posthuman. (266)

Hence, as a result of the developments in science, the understanding of nature, world, and human has begun to change, giving way to new constructions and meanings that make up the postmodern condition of the late twentieth century.

Advancements in contemporary science also find place in postmodern literature; biotechnology, which had been a part of many science fiction texts for

decades, is now appropriated into postmodern fiction as an instrument of de-doxafication of binary oppositions. Indeed, the term “biotechnology,” suggests Ben Mitchell, “conjures up visions of science fiction to some, and to others it suggests the ultimate postmodern hope for human beings to remake themselves according to their own design” (32). Accordingly, both science fiction and postmodern fiction employ biotechnologies that allow body modification, sex change, and age fixing in order to explore the boundaries between male/female and human/nonhuman dichotomies. A considerable amount of science fiction works, such as Ursula K. Le Guin’s *The Left Hand of Darkness* and Samuel R. Delany’s *Triton*, discuss the subject of gender construction and include sexually ambiguous characters. As Brian Attebery states, “SF writers are more than willing to disrupt the binary gender code with such concepts as a literal third sex, a society without sexual division, gender as a matter of individual choice, involuntary metamorphosis from one sex to another” (9). Biotechnology serves as the main tool for making such disruptions of binary gender codes, as in the case of *Triton*, in which people can change their physical appearance, gender, and sexual orientation with the help of biotechnological methods. The fact that all of these concepts are reflected as fluid and changing, not essential and rigid, situates this particular novel also within postmodern fiction.

Just as science fiction writers come close to postmodern questionings in their writings, so do postmodern writers borrow motifs concerning biotechnology from science fiction to convey their ideas. Postmodern novels may incorporate technologies of the future that can help people modify their bodies with cybernetic limbs or they may include advanced medical science that changes a person’s appearance completely. Such example of body modification can be found in William Burroughs’ *The Soft Machine* (1961). In the novel, a boy named Johnny Yen, who calls himself a “Switch Artist,” can change the shape of his genitalia by wearing “undifferentiated tissue” (Burroughs 69), a gender-shifting bio-material. Moreover, there is a medical surgery technique that allows a person to completely shape-shift into another human being. The protagonist, who is a secret agent with a mission to travel back in time, is turned into a Mayan youth by a doctor; he “[comes] back in other flesh the lookout different, thoughts and memories of the young Mayan drifting through [his] brain” (86). Such modifications of the body draw attention to its fluidity, and pose a challenge to the immutability of sex and gender.

In addition to problematizing gender binaries, some science fiction novels problematize what it means to be human by including humanoid robots, cyborgs, or aliens who are indistinguishable from “real” humans; as such, they disrupt human/non-human binary opposition. The presence of robots and aliens who look and act like human beings makes the readers question the meaning of humanity. Cyborgs complicate dichotomies even more, because they are hybrid beings. The cyborg may be seen as a postmodern entity in that it is neither organic nor inorganic; but in-between. In “A Cyborg Manifesto,” Donna Haraway defines cyborg as “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (149). Thus, cyborg is not only in between machine and organism, but it is also in between reality and fiction. Ralph Schroeder, while coining the term “cyborg post-modernism,” also refers to the ambiguous position of cyborgs in human/machine opposition. His “cyborg post-modernism,” accordingly, “revolves around the notion that the boundaries between humans and machines are becoming irretrievably blurred” (519), and in the future the two creatures will be indistinguishable. Science fiction predicts the consequences of this possible human-machine fusion, and postmodernism is also interested in how this fusion is changing and will continue to change people’s understanding of what it means to be human. Hence, the image of cyborg can be seen among the common themes of science fiction as well as of postmodern theory.

As can be understood from these examples given so far, science, technology, science fiction, postmodernism, and postmodern fiction have close affiliation with one another. Therefore, it is not surprising to find science fiction elements in postmodern fiction and vice versa. A considerable number of postmodern texts show that science fiction provides useful elements for postmodern experimentations with reality, time, and space. To interrogate the notions of reality and authenticity, postmodern novelists rely on science fiction elements such as advanced simulators and virtual reality technologies. To disrupt the conventional usage of time and space in literature, they make use of several science fiction motifs including time travel, space travel, or future world (mostly apocalyptic or postapocalyptic settings). To problematize or criticize progress narratives, they again reflect dystopic visions of the future. To unsettle the boundaries between male/female, human/machine dichotomies, they borrow scientific and technological motifs including biotechnology, cybernetics, and various imaginary body modification methods. All

of these indicate that science fiction elements are among the indispensable tools of postmodern fiction.

In the light of all these, Angela Carter's *The Passion of New Eve* (1977) and Jeanette Winterson's *The Stone Gods* (2007) are analyzed in this thesis as examples of the fusion between science fiction and postmodern fiction in contemporary British literature. These postmodern novels incorporate science fiction elements into their plots in several different ways, all of which are examined in detail in the following chapters.

As such, this thesis consists of an introduction, two chapters, and a conclusion. In the first chapter entitled "Angela Carter's *The Passion of New Eve*: A Postmodern Apocalypse," *The Passion of New Eve* is analyzed with regard to its futuristic, apocalyptic atmosphere and to the technologies and icons it borrows from science fiction. The novel takes place in a dystopian future-New York in which technology has failed to create a better, peaceful world. Hence, instead of looking futuristic, the city looks chaotic, with ruined buildings and decaying nature. Another science fiction element employed in the novel is the underground laboratory in which the protagonist Evelyn is turned into a woman with the help of advanced technology. The process of Evelyn's metamorphosis renders a process of deconstructing and reconstructing gender roles and foregrounds their constructedness and fluidity. The grotesque, mythical leader of the underworld commune, Mother, represents yet another science fiction motif: the mad scientist. Mother is referred to as "a great scientist" (46) who plans to form a technocracy based on the rule of women. As such, Mother initiates a myth-making process with the help of technology, and creates her own mythological creature, giving her an ideologically constructed role in the new order. Mother's grand plan indicates that just as myths and folktales perpetuate the roles constructed for women, technology of Beulah aims to perpetuate the new role of Eve as a woman by manipulating her behaviors.

In the second chapter entitled "Jeanette Winterson's *The Stone Gods*: Different Planets, Same Story," *The Stone Gods* is likewise analyzed by focusing on certain science fiction elements it appropriates. The novel reflects two hypothetical future worlds in which people's lives are dominated by technology; futures where "you can change everything about yourself – your name, your home, your skin colour, your gender, your parents, your private history" (237). Technology helps people reconstruct themselves in any way they want; as in *The Passion of New Eve*,

they can change their sex and gender. People also use the same technology to set out to dominate and colonize other planets under the name of progress. Winterson shows how technology is used to realize Western ideas of expansion and advancement which turn out to be problematic, since instead of progressing towards a better future, humankind keeps repeating the same history and the same mistakes. *The Stone Gods* also disrupts the distinction between human and machine by giving voice to a robot who has conscience and emotions, and whose only difference from human beings is her inorganic body. As such, it participates in posthumanist debates, which are thought to be the extensions of postmodernism and poststructuralism.

Following the analysis of the functions of these elements in these two novels, the conclusion notes their similarities as well as their differences, both as postmodern novels and in terms of their fusion of the postmodern and the science fictional. This thesis concludes that science fiction elements make up a crucial part of both *The Passion of New Eve* and *The Stone Gods*, for these elements make it possible for laying bare how reality, fictionality, constructedness, and what it means to be human – all of which are postmodern concerns – can be discussed, problematized, and reconstructed within fiction. Insertion of science fiction tropes does not make these novels any less postmodern; on the contrary, science fiction tropes and motives employed in these novels highlight the significantly postmodern mode of both *The Passion of New Eve* and *The Stone Gods*.

CHAPTER I
ANGELA CARTER'S *THE PASSION OF NEW EVE*: A POSTMODERN
APOCALYPSE

Angela Carter is renowned for her unique literary style which makes her one of the most distinguished British authors of late-twentieth century. The defining characteristic of her fiction is the mixture of violence and eroticism with fantastic, gothic, and science fiction elements. Because of its focus on violence, eroticism, and pornography, Carter's fiction was usually regarded as transgressive. Joseph Bristow and Trev Lynn Broughton suggest that she "was an unorthodox figure [...] Celebrated for her uncompromising fiction, Carter delved into the most unsettling depths of Western culture, only to transmogrify its myths and unleash its monsters" (1). Since most of her works share this unorthodox and transgressive attitude which result from "her zeal for challenging convention" (Bristow and Broughton 1), critics have tended to regard Carter as a postmodern author. Indeed, Gregory Rubinson even claimed that of all British postmodern writers, "none have been more daring, more inventive, and more incisively critical of social injustices than Angela Carter" (147). In addition to being a daring and inventive writer, Carter was also a very influential figure; as Rubinson states, "when one compares the ideas and stylistic methods of Carter to successors such as Rushdie, Barnes, Winterson and many others, it is evident that she was tremendously influential in shaping contemporary British literature" (147).

Carter's eventful life and frequent mobility had considerable effect on her fiction. She was born in 1940, in the town of Eastbourne, England. Because of the threat from German aerial attacks during World War II, she was sent to live with her grandmother in Yorkshire. When she returned home, Carter was inspired by her father who was a journalist, and began to write articles herself in her teenage years. At the age of nineteen, she began to write her first professional articles for *The Croydon Advertiser*. Later in her life she would write articles for widely acclaimed newspapers such as *The Independent*, *The Guardian*, and *New Statesman*. Because of her interest in reading and writing, Carter decided to study English literature at the University of Bristol. At the age of twenty she married her first husband, but divorced him after nine years of marriage. In 1969 she won Somerset Maugham Award with her novel *Several Perceptions*, and using the prize money, she moved to

Japan. After spending several years in Japan – an experience which influenced her fiction in the 1970s greatly –, she travelled to Europe, the United States, and Australia. She also held residences at the universities in the countries she travelled to, such as the University of East Anglia, the University of Sheffield, Brown University, and the University of Adelaide. She had her second marriage in 1977 with Mark Pierce, and they had one son. After a productive career, Carter died from lung cancer in London in 1992, at the age of fifty-one.

Throughout her career, Carter was involved in writing fictional works such as novels, short stories, poems, and children's books, as well as non-fiction books and articles. In addition to writing in different genres and sub-genres, Carter also interlaces the tropes of several genres in her works. Moreover, her short stories and novels are suffused with references to myths, history, popular culture, and other works of literature. As Jago Morrison puts it,

She makes good use of eighteenth-century forms, especially the picaresque and the gothic. Her texts are patterned with iconic references to the history of European art, from the ancient Winged Victory of Samothrace to the modernist nudes of Toulouse Lautrec. In texts like *The Passion of New Eve*, *Nights at the Circus* and *Wise Children*, there are all sorts of witty references to popular songs, film iconography, variety and music hall. (“Who Cares” 157)

This considerable amount of intertextuality makes the plots of Carter's novels complex and dynamic. In addition to this complexity and intertextual dynamism in her novels, Carter is also famous for her rewritings. She rewrites myths and fairytales – mostly by subverting their plots – in order to show how effective they are in constructing social and sexual roles of individuals in societies. As she herself states, while writing fiction Carter is concerned with the “investigation of social fictions that regulate our lives” (*Shaking* 27). She makes this investigation by first deconstructing and then reconstructing myths and fairytales with a critical manner, rather than integrating them into her texts with a solely artistic concern. Therefore, Carter's novels can be read as critical as well as literary texts.

Although Carter published a considerable amount of non-fictional work, she usually preferred to convey her discussions in the form of fiction; in her own words: “[w]hat I *really* like doing is writing fiction and trying to work things out *that way*” (*Shaking* 30) (emphasis in the original). As a result of this preference, Carter's

fictional works include nine novels, five short story anthologies, five children's books, and several dramatic works such as radio plays and screenplays. Critics usually prefer to divide Carter's novels into two groups, as summed up by Emilija Dimitrijevic:

A change of style in Carter's middle work tends to divide her novels into two groups. *Shadow Dance* (1966), *Several Perceptions* (1968) and *Love* (1971) share a Bristol setting, the theme of death and a realist technique. The three novels are usually referred to as the 'Bristol Trilogy' and along with *The Magic Toyshop* (1967) belong to the stories of experience- and choice-making in the life of the young [...] The rest of Carter's novels tend to be classified as 'speculative fiction' and include *Heroes and Villains* (1969), *The Infernal Desire Machines of Doctor Hoffman* (1972), *The Passion of New Eve* (1977), *Nights at the Circus* (1984), and *Wise Children* (1991). In these novels, desires and anxieties hitherto circumscribed to individual characters become part of the setting and transform it into a world of science fiction and the gothic. (91)

Shadow Dance is Carter's first novel, and it marks the beginning of her career as a fiction writer. Her second novel *The Magic Toyshop*, winner of the John Llewellyn Rhys Prize, includes certain features that would become the trademark of Carter's writing, such as a tense, gothic atmosphere, man-made grotesque creatures, and an allegorical narrative. Her third novel, *Several Perceptions*, reflects the bohemian atmosphere of the post-Beat Generation as her first novel does; however, *Heroes and Villains*, written in 1969, differs from Carter's earlier novels, and marks a shift towards a more intertextual and experimental writing.

The change in Carter's writing in the 1970s and 1980s is related to her experiences that she gained from her travels to different countries, and it is also a result of the important political events of the era. Jeff VanderMeer explains that

Carter reinvented herself between 1969 and 1972, a reinvention and a deeper focus brought on by a failed marriage and three years spent in Japan [...] While there, she also met many French surrealists, who had fled their government's 1968 crackdown. From these cultural, personal, and philosophical contacts, Carter emerged as a much

different writer – more determined, more of a feminist, and a more accomplished stylist. (n.pag.)

Hence, Carter's experiences in a south-eastern country and her contact with surrealists had a major effect on her style, while the political upheavals in France led her to contemplate upon social roles and their constructed nature.¹⁵ Accordingly, Carter's later novels have a much critical and feminist attitude than her earlier ones. They also assimilate various sub-genres of literature and usually have a surrealist, or magical realist nature. As also pointed out by Dimitrijevic, these novels include *The Infernal Desire Machines of Doctor Hoffman*, *The Passion of New Eve*, *Nights at the Circus*, and *Wise Children*. Unlike her earlier novels which have more linear plots and reliable narrators, these novels experiment with both plot construction and the role of the narrator. Therefore, they can be read and analyzed as postmodern texts.

Although Carter's novels written in the 1970s and 1980s have postmodern characteristics, critics have tended to analyze them within a feminist framework. In *The Infernal Desires of Angela Carter: Fiction, Femininity, Feminism*, for instance, there are many articles – written by various critics and scholars – that focus on the feminism of Carter's fiction. Another example is Aiden Day's *Angela Carter: The Rational Glass*, in which he argues that Carter's fiction cannot be regarded postmodern because it has feminist tendencies. In his words: "My study sees Carter's fiction, principally because of its rational feminism, as fundamentally anti-postmodern" (12). The tendency to examine Carter's fiction from a feminist point of view results from the fact that among all totalizing metanarratives that Carter criticizes, her main interest seems to be towards patriarchy. This interest manifests itself noticeably in Carter's rewritings of fairytales, folktales, and myths¹⁶ which are seen by feminist critics as intrinsically male texts. While criticizing patriarchal norms, Carter subverts feminine/masculine roles in those fairytales, folktales, and myths, and she appropriates them in her works. This form of criticism – using fiction to subvert gender roles – justifiably makes her works open to feminist analysis. However, Carter is not solely interested in the critique of patriarchy as her feminist contemporaries do, and, as Merja Makinen argues, nor does she directly attack patriarchy in all of her fictional works. While the critique of patriarchy in her earlier works is more direct, in her later fiction "the focus is on mocking and exploding the constrictive cultural stereotypes" (Makinen, "Angela" 3). As such, Carter is not only concerned with subverting patriarchal norms, but also with criticizing all kinds of

suppressive metanarratives including patriarchal ones, as can be observed in *The Passion of New Eve*, which situates her within postmodern writing.

The motive behind Carter's subversion of gender roles and usage of grotesque elements has become a subject of discussion among critics and scholars such as Rebecca Munford, Nicola Pitchford, and Ileana Botescu-Sireteanu, who have tried to locate Carter's critical stance in her novels. Besides the complex plots of her novels, this discussion stems from the discrepancy between Carter's own statements on feminism and what she writes in her fictional texts. Carter admits that she gradually grew into feminism as she got older and therefore she can be seen as a feminist author. She states that "the women's movement has been of immense importance to me personally and I would regard myself as a feminist writer, because I'm a feminist in everything else and one can't compartmentalise these things in one's life" (*Shaking* 26). However, her novels are problematic as feminist texts because they differ from and criticize the works of her contemporary feminist authors. In terms of mode of writing, Carter's fiction stands in contrast with "the confessional, autobiographical character of much women's writing" of the 1970s (Andermahr 12). Instead, "Carter's work foregrounds narrative irony, indeterminacy and play. And, rather than attempt to give fictional voice to an authentic female self, Carter explores subjectivity as contradictory and shifting" (Andermahr 12). Although her works have both feminist and postmodern concerns regarding subjectivity, her focus on the shifting nature of self makes her writing closer to postmodern fiction than realist feminist fiction. Moreover, the content of her works also make her feminism questionable. As argued by Rebecca Munford, "[c]oncerned as she is with entering the male-dominated territories of decadence, surrealism and pornography, the trouble with Carter is that she often writes against the feminist grain" (4). Nonetheless, it would be fallacious to rule out her feminist outlook completely as she openly admits that she *is* a feminist. Moreover, feminism and postmodernism do not negate each other; they have similar concerns such as challenging totalizing narratives, and foregrounding the constructedness of such concepts as femininity and masculinity. Hence, Carter's feminist tendencies do not undermine the postmodern attitude of her works. Nicola Pitchford likewise sees Carter (along with Kathy Acker) as an essentially postmodern author with feminist inclinations and her works as "feminist postmodern" fiction (11).

The problem of locating Carter's critical stance in her works can be best solved by regarding her as a postmodern author, and her works as postmodern texts. Therefore, it is important to clarify that Carter's novels manifest a predominantly postmodern attitude rather than an entirely feminist one. This claim can be made because of the critical attitude Carter has towards all kinds of metanarratives, including radical feminism. Although it is true that Carter mostly criticizes patriarchy and how it constructs gender roles, she is mainly concerned with questioning all totalizing ideologies in both her fiction and non-fiction. Hence, borrowing Lyotard's definition, it could be said that Carter has "incredulity towards metanarratives" (xxiv) which she integrates into her writing. In her novels, Carter disrupts norms and binary oppositions which have been regarded natural, and foregrounds their fictionality. While questioning their authenticity, Carter makes no discrimination between these norms and binaries; as stated by Ileana Botescu-Sireteanu, "[w]ith Carter, everything is subversive [...] the narrative strategies that she makes use of are meant to formally support her ideological battle against norms, hierarchies and patterns and only *incidentally* against men as the producers and perpetrators of traditional binary logic" (134-6) (italics mine). Carter's critical stance is, thus, against "norms, hierarchies and patterns" in general, not necessarily against a specific metanarrative.

Carter's later novels display a more ostensibly postmodern attitude compared to her earlier ones. During the 1970s, which was the heyday of postmodern debates, Carter "took a step further in deconstructing the tenets of the Western traditional line of thought and started experimenting with the plot" (Botescu-Sireteanu 98). Thus, it was in this period that Carter's writing began to display overt postmodern characteristics such as non-linear plot construction, parody of well-known texts, and employment of unreliable narrators. Her novels also became diverse in content as Carter borrowed conventions, elements, and plots from other genres, appropriating them into her fiction. Science fiction was among these genres which provided Carter with new possibilities in her postmodern experimentations. Especially in her novels written in the 1970s such as *The Infernal Desire Machines of Doctor Hoffman* and *The Passion of New Eve*, – also in *Heroes and Villains* which was written in 1969 – Carter employs a great variety of science fiction elements to question the nature of reality, time, and space, to criticize totalizing narratives, to deconstruct social norms, and to disrupt binary oppositions.

Indeed, Angela Carter's interest in science fiction predates her writing career. In her speech at a science fiction convention in 1982, Carter talks about the influence of science fiction on her writing. She states that from her early childhood, starting with her reading of *The Day of the Triffids* by John Wyndham, she has had an interest in the genre. She mentions the impact of Wyndham's book on her writing as follows: "I think that book left a lasting impression on me because it taught me that writing didn't have to be true in order to have a meaning, and a catastrophe that was impossible, that was purely imaginary, could both move and disturb me" (*Shaking* 23). This impression presents itself in most of Carter's works in the form of imaginary events and places which create a science fictional atmosphere, such as postapocalyptic worlds and high-technology laboratories that can re-create mythological creatures. In the same speech, Carter also talks about how science fiction and its tropes help writers to discuss ideas in the form of fiction:

The idea that first gripped me when I was a little kid and read *The Day of the Triffids* in the newspaper, that the literal truth might not be the whole truth, turned into a conviction that one way of asking questions -- because I think that one of the functions of fiction is to ask questions that can't be asked in any other way -- is through constructing imaginary worlds in which ideas can be discussed. And speculations about the nature of our experience on this planet be conducted without crap about the imitation of life getting in the way, because whose life are you supposed to be imitating? (*Shaking* 24)

As such, Carter sees science fiction's imaginary worlds as grounds for discussion and speculation on reality and existence. For her, people's experiences in the postmodern age can only be relayed by employing science fiction and fantasy elements, since realist conventions, which are fixated on "the imitation of life," fall short of reflecting human experience completely. Therefore, while speculating on the events of the postmodern era she lives in, Carter frequently turns to science fiction tropes.

Before *The Passion of New Eve*, Carter had already been incorporating science fiction elements into her novels, in her words, to "construct imaginary worlds in which ideas could be discussed" (*Shaking* 24). *Heroes and Villains*, for instance, takes place in a postapocalyptic world in which people are divided into classes such as Professors, Barbarians, Soldiers, and Out People. As a result of a nuclear war, the environment and living beings in the novel are largely deformed. Carter uses such

science fiction tropes to question the binaries of culture/nature and civilization/barbarism. The new barbarian class is deemed more violent than the civilized scientists; yet, what causes the catastrophe in the future in the first place is the technology that the educated men created. Therefore, there is also a critique of the Enlightenment metanarrative which claims that science and technology help mankind to develop a better civilization. Carter interrogates another binary, that of reality/imagination (dreams and nightmares), in her 1972 novel *The Infernal Desire Machines of Doctor Hoffman*. This time she uses the popular science fiction icon of mad scientist/inventor who creates machines to experiment with or destroy humanity. In this novel, Doctor Hoffman alters reality with his machines and makes people face their desires in their material form. Through Hoffman's technological devices, Carter undermines the distinction between what is real and what is artificial (or fictional). These novels partly demonstrate the integration of science fiction elements into postmodern plots, and they pave the way for the writing of Carter's next novel *The Passion of New Eve*, which employs science fiction tropes explicitly.

In *The Passion of New Eve*, Carter integrates science fiction elements into the novel's plot as a means of postmodern questioning. The novel tells the story of an Englishman, Evelyn, who moves to New York to teach at a university, but finds himself in "a lurid, Gothic darkness" (*PNE* 6). New York is painted as a "grotesque, a hybrid, a postmodern and self-reflective metropolis" (Vallorani 370) in which Evelyn witnesses the chaotic side of civilization. The time period in which the novel takes place is ambiguous; the protagonist remembers watching 1940s movies as a child; thus, the fictional events in the novel might be taking place in Carter's own time (i.e. the 1970s). However, the United States in the novel is much more different than the actual United States. Carter, then, borrows from science fiction the tropes of parallel universe or an unspecified future time, and she uses them as the novel's setting. Carter does not tell much about Evelyn's life in England; hence, the United States of America is the main location where the events unfold. In Carter's fictional future America, similar to the real America of the 1970s, marginalized people such as blacks and women are becoming collective forces. Whereas in real America they protest for their rights, in the novel they constantly fight each other to take control of the cities. Upon his arrival in New York, Evelyn witnesses the shooting of a black man who falls dead in front of him. Later he comes across militant groups that carry guns. These events indicate that the world, or the United States, is on the brink of

apocalypse caused by mankind's abuse of technology. When Evelyn arrives at the university he is supposed to work at, he sees that it is taken over by black militants. Consequently, he finds himself in the middle of mayhem with no job and little money.

Soon after he decides to stay in America, Evelyn gets attracted to a black girl named Leilah, and he starts to live with her. Their relationship is mostly sexual as Evelyn uses Leilah to put his sexual fantasies about women into practice. Their intercourses result in Leilah's pregnancy, but Evelyn rejects the baby. After an abortion attempt that nearly kills Leilah, Evelyn leaves the city and sets on a journey through the desert, where he is captured by the members of a radical feminist group. These women take Evelyn into an underground structure called Beulah in which they live, train, and perform experiments. Their leader is a goddess-like creature who calls herself Mother. Mother wants to form a new myth which will complement her new matriarchal society. To realize her radical feminist utopia, Mother transforms Evelyn into a woman by using advanced surgery techniques, and names her "Eve."

After Evelyn is turned into Eve, Mother plans to impregnate her with her own (Evelyn's) sperm in her aim to experiment with asexual reproduction, ruling out male-female sexual intercourse in the process. However, Eve manages to escape Beulah before Mother can do so, and she starts wandering in the desert. She gets captured again; this time by a poet named Zero who represents an opposite ideology to that of Mother's. Zero is the patriarch of his family-harem which is made of seven women, and he rules them tyrannously. Eve becomes a member of Zero's harem and is continuously raped by him. However, she avoids pregnancy for the second time, for Zero is infertile. Zero is obsessed with finding and killing the movie star Tristessa, whom he accuses of putting an infertility spell on him through the screen. When Zero and his harem finally find Tristessa in her glass-metal house, they learn that she is in reality a man who has posed as a woman for years. Evelyn/Eve has always been a fan of Tristessa, so she decides to help her escape from Zero. They eventually run away together, leaving Zero and his women dead under the ruins of the house. On their journey, Eve and Tristessa stop to rest and they have passionate sex which results in, as readers learn later in the novel, Eve's pregnancy. Following their intercourse, Tristessa and Eve are busted by a teen militant group that is led by a colonel who claims he is Jesus Christ reborn. The colonel kills Tristessa, Eve manages to escape again, and finds herself in Los Angeles. Like New York, chaos

reigns in Los Angeles as different factions fight each other. Here, Eve comes across Leilah who declares that her real name is Lilith and that she is Mother's daughter. Lilith tells Eve that Mother wants to see her. Eve agrees to meet her grotesque creator and ventures upon finding her in a cave near the ocean. After going through several ordeals, Eve emerges out of the cave without finding Mother. Motherless and alone, Eve decides to set sail to the ocean, leaving apocalyptic America behind her.

The apocalyptic setting, the underground lab filled with advanced technologies, the mad scientist, and the glass-metal house that rotates around its own axis give *The Passion of New Eve* a science fictional atmosphere. Indeed, the presence of science fiction elements in the novel is so dominant that it has led some critics, scholars, and reviewers to regard it as a science fiction novel.¹⁷ However, Carter does not use these elements to imagine new technologies or to speculate on the future of mankind. What she does, in Brian McHale's words, is "to absorb motifs and *topoi* from science fiction writing, mining science fiction for its raw materials" (65), and to appropriate them to her own postmodern interrogations. While discussing the "science fictionalization of postmodernism" (65); in other words, the function of science fiction elements in postmodern texts, McHale points to the distinction between dominantly postmodern and dominantly science fiction texts. What makes them different is not the content (such as a futuristic setting), but how the content is treated. For McHale, "in constructing future worlds, postmodernist writing tends to focus on social and institutional innovations rather than on the strictly technological innovations which are stereotypically associated with science fiction" (66). Like political utopias and dystopias, then, postmodern texts make use of science fiction motifs to support their discussions, rather than putting them at the centre of their plot construction.

The appropriation of science fiction elements in *The Passion of New Eve* can be most overtly discerned in the usage of time and space; postmodern questionings and critiques are made possible through the employment of some major science fiction chronotopes. The main element that Carter borrows from science fiction is the (post)apocalypse¹⁸ motif, or chronotope, which is related to the end of both time and space. Together with the mad scientist's underground laboratory, the (post)apocalypse motif forms the background on which all other appropriations of science fiction *topoi* take place. Therefore, it is essential to analyze the employment

of science fictional time and space in the novel before looking into other functions of science fiction elements.

The idea of apocalypse, or the end of the world, is not the invention of science fiction writers; it had been present in most myths and religions. However, while myths and religions associate apocalypse primarily with God(s)'s will, science fiction writers make predictions about the end of the world by reflecting on the outcomes of the abuse of politics, technology or warfare. Certain postmodern texts such as *Lanark* and *Gravity's Rainbow* likewise depict apocalypse not like its traditional or religious depictions; instead, they make use of the science-fictional apocalypse motif while constructing their settings. This is because science-fictional apocalyptic or postapocalyptic settings are more appropriate chronotopes for making postmodern discussions. As Catherine Heard explains, “[w]hile good, old-fashioned, end of time millennialism promises a reassuring final accounting of good and evil and a utopian future that supersedes the chaos of revelation, postmodern readings of the apocalypse are convoluted and contradictory” (246). Therefore, postmodern texts do not prefer the traditional notion of apocalypse which denotes the end of time, space, and conflict. They favour chaotic and uncertain time-space, and non-absolute endings which have the potential to create beginnings.

In *The Passion of New Eve*, the (post)apocalypse motif has various functions, and the most important ones are the disruption of the absoluteness of both space and time, and the problematization of the linearity of time. The 1970s was a period when “literary theorists were deconstructing the idea of linear time and novelists dramatizing this chronological confusion” (Burgass 177). Accordingly, the idea explored in *The Passion of New Eve* is that people’s perception of time as a linear entity is illusory and that history does not necessarily progress towards the future; mankind can also go back in time until they reach “the state of the beginning of the beginning,” (*PNE* 10) which is chaos. This problematization of linear time is a major characteristic of postmodern texts, which use several techniques to distort the conventional usage of time. In his essay “Narrative Poetics and Postmodern Transgression: Theorizing the Collapse of Time, Voice, and Frame,” Brian Richardson lists six narrative strategies used in postmodern novels by contemporary authors to disrupt the linearity of time. Richardson states that “among the numerous violations of realistic temporality present in recent texts, six kinds of temporal reconstruction stand out as sufficiently distinctive to warrant particular notice” (24),

and these temporal reconstructions are: circular, contradictory, antinomic, differential, conflated, and dual or multiple.

The Passion of New Eve has two of the postmodern time-space employments mentioned by Richardson: circular and antinomic. Instead of a linear progress towards the future, the novel follows a backward and circular movement and the narration ends with another beginning. In the last pages of the novel, when the war takes its most chaotic form and Eve gets closer to the end of her story, she utters: “I am inching my way towards the beginning and the end of time” (*PNE* 181). Hence, for Eve, the end and the beginning might occur at the same time; they are not binary opposites. This postmodern treatment of time-space is realized through the employment of the (post)apocalypse chronotope, which subverts the conventional usage of time and disrupts linear progress.

Similar disruptions of linear time are commonly employed in science fiction as well. Jago Morrison argues that in postmodern fiction and science fiction “we see a whole series of attempts to break with the straightjacket of chronometric time, to show the diversity of time experience, the many notions of desire and memory, different and dissident conceptions of the past, and the implications of speculating on fantastic utopian and dystopian futures” (29). Such treatment of time, he maintains, is seen in science fiction works such as *The Time Machine* and in postmodern novels like *The Passion of New Eve*, in which “the rethinking of time is transformed into a lurid exploration of nostalgia and apocalypse” (29). As Morrison’s observations suggest, both science fiction and postmodern fiction – although their aim has different reasons behind – are concerned with challenging the idea of absolute and linear time, and they make use of utopian/dystopian future and postapocalypse motifs to do so.

Primarily, descriptions of apocalyptic atmosphere in *The Passion of New Eve* create the impression that the world is about to end; Evelyn’s landlord “warn[s] him of the imminent heat-death of the universe and advise[s] him to concern [himself] with spiritual matters, since time [is] short” (*PNE* 8). Chaotic events that Evelyn witnesses support the landlord’s theory, and they also point to an imminent great war which will bring the end of the world. However, this apocalypse motif is not used to refer to the end of the world, but to the cyclic nature of time. The famous science fiction motif of the apocalypse is both a temporal and a spatial concept which stands for the end of time and space, but it also heralds a new beginning for mankind: a

postapocalyptic time and space. Accordingly, the chaotic atmosphere in the novel indicates that the civilization mankind had established has come to an end; nonetheless, it also indicates that the state of chaos is full of potentials.¹⁹ As Evelyn's neighbour Baroslaw, a Czech alchemist, declares, chaos is "blindly impelled towards the creation of a new order of phenomena of hidden meaning" (*PNE* 10), which means that after the apocalypse, there will come a postapocalyptic future in which a new beginning will start. In order to discuss these ideas, Carter paints an apocalyptic America in which chaos reigns and technology is used to create new myths and cultures out of this very chaos. In this sense, chaos is not repugnant but revitalizing.

The circular and antinomic nature of the novel's apocalyptic time-space is also observed in Evelyn/Eve's journey, which parallels with the journey of the world towards its end. Since the plot centres on the theme of journey, the road chronotope²⁰ becomes as important as the apocalypse chronotope. For Bakhtin, the road is both a spatial and temporal path; in the road chronotope, "[t]ime, as it were, fuses together with space and flows in it (forming the road)" (244). Carter makes use of this dual feature of the road metaphor: while the protagonist is on the road, he/she travels in both space (literally) and time (metaphorically). The fact that *The Passion of New Eve* takes place in an apocalyptic time-space makes Evelyn/Eve's journey seem as if he/she is heading towards the end of time and space, and also of existence. Eve is initially "filled with a raging curiosity to see the end of the world" (*PNE* 163). However, she gradually realizes that there is no such thing as "the end of the world," and what she witnesses is not annihilation, but rebirth.

At first glance, Evelyn/Eve's journey seems to continue in a linear path towards the future because he/she is constantly on the road, following a path that leads him/her to new possibilities. However, the road he/she follows is a non-linear one which takes him/her to the past, and the end of his/her journey is actually a new beginning. With each step Evelyn/Eve takes, the world (or America) moves closer to the apocalypse; thus, there is a parallelism between his/her spatial movement and a temporal movement towards the end of time. On his/her journey, Evelyn/Eve passes through a chaotic city (i.e. New York), a desert where time seems to stand still, an underground experiment lab where Evelyn turns into Eve, the desert again, and a chaotic city again (this time Los Angeles). Just as Evelyn/Eve's journey takes him/her to the same places that he/she visited, time also moves in a cyclical way. After a technological apocalypse, mankind goes back to the primeval chaos from

which they – and their civilization – were born. Eve likewise meets a new beginning after seeing the end of the world; she eventually arrives at the conclusion that “the destination of all journeys is their beginning” (*PNE* 182). Accordingly, the last chapter starts with the sentence: “[w]e start from our conclusions” (*PNE* 187), which sums up the cyclic treatment of time throughout the novel and heralds the beginning of a new postapocalyptic age. Hence, the combination of apocalypse motif and road chronotope results in a cyclical movement of time-space, which disrupts the conventional usage of time-space and offers instead a postmodern treatment of them.

Evelyn/Eve’s journey does not only disrupt the linear understanding of time by treating it as a cyclical entity, but it also disrupts the understanding of linear progress. Time in *The Passion of New Eve* moves backwards in the sense of narration and perception; but it also has a stress on the decline of civilization caused by the abuse of technology. A similar contention was made by Roberta Rubenstein: “as Carter’s Evelyn [...] journeys through diverse geographical settings in a postapocalyptic United States, he/she also journeys backwards through time into history and myth” (106), which means that the places he/she visits are not actually futuristic, but primeval. Although the novel takes place in a futuristic setting, the space (i.e. the cities which experience mayhem) symbolizes regression rather than progress. With this kind of narrative style, the text problematizes the Enlightenment idea that technology brings progress; an idea which has been continuously challenged by postmodern theorists, critics, and artists.

The effect of Enlightenment ideals on Western politics is explained by Stephen Toulmin in *Cosmopolis: The Hidden Agenda of Modernity* as follows: “[o]ld-time progressive politics rested on a long-term faith that science is the proven road to human health and welfare, and this faith shaped the technological agenda for half-a dozen World Fairs” (9). However, this faith in scientific progress started to diminish when people experienced two world wars during which science and technology were used to kill thousands of people, instead of providing them better lives. Although intellectuals had been questioning the ideologies behind scientific discourses before the world wars, especially after World War II it became clearer that scientific and technological developments were regulated by certain authorities. As a result, there grew a skeptical attitude towards the claims of the defenders of modernity that there is progress in history. This skepticism is one of the defining features of postmodernism. As Smethurst suggests, “we can see postmodernism as a

transformation in the ideology of development [...] the idea of development, the ideology of the contemporary, is itself in question” (22). The same questioning had been made by science fiction writers long before postmodern novels emerged. In their predictions of a future world, science fiction writers speculated on the possible damage technology would create. Thus, when problematizing the idea of progress, postmodern writers borrow already established chronotopes such as (post)apocalypse from science fiction, as Angela Carter does in *The Passion of New Eve*.

Apocalypse narratives in science fiction include various factors that cause the end of the world and humanity: worldwide wars, alien invasions, deadly pandemics, abuse of technology, environmental disasters, and so on. *The Passion of New Eve* combines several of these factors; the apocalyptic setting is a result of the abuse of technology and war, which are revealed to be the reasons behind the decline of human civilization. In the novel, the technology available to people is remarkable, allowing them to build huge laboratories underground; however, it is not used to create a better world. On the contrary, people of America use technology to fight each other and as a result their civilization deteriorates, leaving no sign of progress whatsoever. Therefore, the apocalypse chronotope – in addition to challenging the linear perception of time – can be used as a critique of the ideal of technological progress. Accordingly, Carter appropriates this science fiction trope into her plot to create an atmosphere of retrogression and decline; the setting indicates that nature and all entities in it are dying or transforming into something unnatural. As Evelyn observes, in New York “[t]he skies were of strange, bright, artificial colours – acid yellow, a certain bitter orange that looked as if it would taste of metal, a dreadful, sharp, pale, mineral green – lancinating shades that made the eye wince. From these unnatural skies fell rains of gelatinous matter, reeking of decay” (*PNE* 8). It can be concluded from Evelyn’s descriptions that New York might be a post-nuclear city in which chemical substances have taken over nature. Instead of life, fertility, and growth, there is constant decaying caused by the abuse or excessive use of technology. Hence, apocalyptic New York stands in contrast with the Enlightenment ideal of advanced civilization.

New York is usually regarded as one of the most advanced cities built by Western civilization; therefore, a decaying New York functions as a metaphor for the decline of the Enlightenment project. As Evelyn sets off from London and travels to the United States to teach at a university, he has high hopes about New York,

although his friends warn him about the mayhem happening there. What Evelyn expects is an advanced and futuristic Western metropolis; “a bright city where towers reared to the sky in a paradigm of technological aspiration” (*PNE* 6). He thinks that his journey will take him to the future; to a city which has dominated nature with the help of advanced technology. However, what Evelyn finds is a chaotic place; instead of being developed by technology, America is ruined by it. All myths about the American dream and technological progress are exposed to be fictional constructs as Evelyn experiences a two-layered spatiotemporal journey towards the West. In Dani Cavallero’s words:

On the one hand, the protagonist progresses from New York City to California in a journey that could be seen to mimic the wave of westward expansion associated with American history and the classic myth of the Frontier as a simultaneously geographical and symbolic goal. On the other hand, the character regresses from the postapocalyptic here-and-now to the ancestral prehistory of humanity where the most potent modern mythologies find inception. (*The World* 88)

Evelyn’s American dream is thus ruined; instead of a bright future, he finds himself in a distant past where chaos reigns. Evelyn’s disillusionment is a likely critique of the Enlightenment claim that history is progressive in a positive sense and technological developments will take mankind to a better future. Carter subverts this faith in progress by reflecting an apocalyptic world where progress is non-existent and time has begun to move backwards, taking the human civilization back to the primal state of chaos.

It can be concluded from these examples that Carter makes a postmodern questioning of time, space, and progress by using science fiction tropes such as the apocalypse motif, which allows for the reflection of a decaying world. Moreover, by combining the apocalypse motif with the road chronotope, she constructs a backward travel through time and space to disrupt linear flow of time. She also uses science fictional time-space to convey her ideological statements, and to problematize Enlightenment ideals. As such, Carter challenges the faith in phallic progress (i.e. mankind should go up and forward), and builds her plot as a cyclical, downward movement through time and space. As also stated by Edward Ahearn, in the novel “[t]he real movement is backward and inward; forward movement, time and world

are illusory” (465). In other words, progress is an illusion, or it is not everlasting and man cannot have ultimate dominion over nature with the help of technology. Instead, like nature, mankind and his civilization are destined to die, but will be born again. Along with the new order will come new systems established again by people; “a fresh iconography” (*PNE* 107) which will create a new understanding of reality.

Another function of the apocalypse chronotope is to create an atmosphere in which Carter can explore the postmodern diversity of discourses and criticize ultimate truth claims. As Lyotard’s argument on the problematic legitimacy of metanarratives suggests, postmodernism is suspicious of all totalizing discourses and it prefers to give voice to local narratives. The result is a plurality of voices among which there is no hierarchy. Pluralism, briefly explained by Daryl Chin, “is an acknowledgement of alternatives so that additional perspectives have the possibility of being understood” (164). Chin also mentions marginalism, which is “an accreditation of these additional perspectives by defining a dominant, and ceding territory to the sidelines” (164). Both pluralism and marginalism are celebrated by postmodernism because they represent a challenge to metanarratives; however, marginal subjects do not always maintain their non-totalizing, local discourses. When little narratives begin to lay claim to other narratives, they turn into totalizing narratives that they have set to criticize, and ideological conflict becomes inevitable. *The Passion of New Eve* explores this inclination of little narratives towards becoming totalizing narratives by situating them in a future setting. By doing so, the text becomes a speculation on the postmodern condition and minority politics of the 1970s without being confined to the here and now.

The science fictional atmosphere in the novel, therefore, provides alienation effect. This alienation effect, which can also be called “estrangement effect,” is usually associated with science fiction, because the genre presents alternative worlds and realities to the readers’ reality. As stated by Darko Suvin, “[i]n SF, the attitude of estrangement – used by Brecht in a different way, within a still predominantly ‘realistic’ context – has grown into the *formal framework* of the genre” (7). This framework forms a basis for various kinds of criticism as reflected in, for instance, utopian and dystopian fiction. Suvin also contends that unlike the estrangement effect in fantasy or Gothic literature which does not require a logical explanation, the estrangement created by science fiction is a cognitive one. In other words, science fiction does not imagine alien worlds in order to escape the realities of life, but to

speculate on or criticize the reality it distances from. Thus, Suvin claims that science fiction has a more critical attitude than fantasy or gothic literature. Postmodern writers often make use of this critical stance of science fiction²¹ in their critique of narratives, and they also borrow the framework of science fiction to produce the effect of estrangement on their readers, as Carter does in *The Passion of New Eve*. The ideological wars in the novel are happening in the future or in an alternate 1970s, but they correspond to the author's reality where such ideologies in fact exist. In other words, estrangement effect allows the readers to see their own reality from the outside.

The Passion of New Eve reflects a world in which ideological conflicts between formerly marginalized groups have resulted in a guerrilla war. The novel indeed makes references to the actual events of 1960s, when "accounts of the resistance of blacks and poor people became prominent" (Handler 697). This tradition of resistance, "joined by feminists, gays and lesbians, as well as others, continued in the 1980s" (Handler 697). Written in 1977, *The Passion of New Eve* includes representations of such resisting groups; however, its apocalyptic atmosphere reveals that the resistances have failed in their mission "to cross traditional class lines in favor of humanistic, interpersonal, and communitarian values" (Handler 697). The apocalyptic setting in the novel, therefore, is a result of ideological battles between militant groups that aspire to come into power. These groups are made of people who have been marginalized for centuries, such as the blacks, the women, and the homosexuals. Their aggressive behaviour in the novel sets the ground for a postmodern critique; Carter points out that it would be a fallacy to produce a new totalizing narrative while fighting against another one. Although postmodernism celebrates the existence of little narratives and their challenging of grand narratives, it becomes skeptical about their credibility when they turn into grand narratives that claim to have answers to everything. Accordingly, *The Passion of New Eve* reflects the inclination of little narratives towards becoming totalitarian discourses in a critical manner, and this critique is provided by incorporating a science fictional future setting into the plot.

In the apocalyptic United States, the opposing little narratives struggle to become the metanarrative which renders all other narratives invalid. To achieve dominance over other groups, the Blacks are building a wall around Harlem, preparing for war with their machine-guns (*PNE* 12-3), while the Women put snipers

around town to hunt down men (*PNE* 13). Both groups want to establish their own ideology as the dominant one, and they resort to violence to do so. The actions of the Blacks and the Women remind the actions of Western, white, male authorities whose ideology these groups often protest against. Therefore, the future reflected in the novel is no different than the previous ages in which these groups were marginalized, colonized, and abused. Carter, then, chooses to set her narrative in an apocalyptic future, or in alternate 1970s, where it is possible display the drawbacks of trying to establish a totalizing ideology. Science fiction provides an estranged, imaginary; but at the same time a familiar space to make a postmodern critique of various narratives and discourses.

In addition to the apocalyptic future world, Carter also appropriates (mad scientist's) laboratory to her text. Technologically advanced laboratories are among the indispensable elements of science fiction works, and their employment in fiction dates back to Mary Shelley's *Frankenstein* (1818). Victor Frankenstein's laboratory, in which he brings a creature to life through galvanism, can be seen as the progenitor of science fictional laboratories. Later examples include Dr. Henry Jekyll's laboratory in *The Strange Case of Dr. Jekyll and Mr. Hyde* (1886) and Dr. Moreau's laboratory in *The Island of Dr. Moreau* (1896). In both novels, scientists make experimentations by using imaginary, yet not completely impossible techniques; Dr. Jekyll prepares a potion which can turn him into a hideous creature, while Dr. Moreau applies vivisection on animal and human subjects in order to create human-animal hybrids. Advanced technology of their labs allows them to practice chemical composition and surgery which cannot be practiced by using the actual science and technology of the age. For this reason, all three laboratories can be seen as the precursors of science fictional laboratories of the following periods.

The Passion of New Eve appropriates this recurring science fiction element into its plot. The underground laboratory Beulah can be seen as an example of science fictional laboratories, for it includes future technologies that Mother (like Dr. Frankenstein and Dr. Moreau) uses to make experiments on human bodies, including her own. However, the employment of high-tech laboratory in the novel differs from its usage in science fiction texts. While in science fiction the focus is on the scientific and technological possibilities, in *The Passion of New Eve* the laboratory functions as a space in which postmodern experimentations can be made. Beulah, for instance, serves as a ground for the disruption of conventional characterization, for

problematizing such concepts as reality, norm, and identity, and also for erasing the boundaries between conventional dichotomies such as male/female or authentic/artificial.

In terms of character development, it can be argued that Mother's underground laboratory functions as a site in which traditional characterization is disrupted. In the realist mode of the novel, the protagonists usually follow a linear and progressive journey, although there are some exceptions like *Tristram Shandy* (1759) in which the protagonist's life journey and the chronological order of events constantly get disrupted. In *The Realist Novel*, Dennis Walder states that "from its earliest days, the novel has been typically concerned with depicting the development of individual life within a specific setting" (21). Richard Daniel Lehan also sees individual development as "the basis of modern, realistic novel" which was brought to true fulfilment by Dickens, Balzac, and Dostoyevsky (37). The protagonists in such novels were expected to experience events in a linear continuity so that their lives would follow a certain development. There has been a decisive break from such linearity in modernist and postmodernist fiction. In postmodern novels – as well as in modernist ones –, the development process of characters may be interrupted, or there might be no character development at all. Aleid Fokkema remarks that although there is "not a unified concept of 'the' postmodern character" (181), there are still some common features that can be found in postmodern characterization. Most often, a postmodern character, is not "whole" and totalized; rather, fragmentation, discontinuity, or multiplicity in characters is preferred to the ideology of unity and continuity" (Fokkema 183). Therefore, a postmodern character generally has a fragmented identity, and his/her journey in the story does not necessarily follow a continuous course.

Among the features that Fokkema mentions, discontinuity and multiplicity are the most dominant ones in the characterization of Evelyn, whose life journey is not linear, but fragmented. Instead of following a progressive development, he goes through a process of identity deconstruction and reconstruction. Hence, Evelyn's identity is shaped in consonance with postmodern characterization; it "is neither natural nor universal, but fragile, decentered, and emergent, like a candle in the wind, always in process of being formed, unformed, and reformed" (Smith 502). In postmodern novels, fragmentation or fluidity of identity might be produced by narrative techniques, but in *The Passion of New Eve*, Evelyn's identity is further

unformed and reformed through the application of science fictional technologies. Technically, the narration of Evelyn's journey is not disrupted, for his experiences in America follow one another in chronological order. However, the same cannot be said for Evelyn's identity. He goes through a physical transformation, or a rebirth process in which his body undergoes a surgical operation that alters his character development. The operation ends Evelyn's life as a man; he turns into Eve who is a new being with a new life ahead of her.

Discontinuity and multiplicity of Evelyn/Eve's life is initiated by his abduction by Mother's acolytes and by his entrance into Beulah. Until his abduction, Evelyn's journey has been a linear one; he spends his childhood and adolescence in England, moves to the United States as an adult, meets a seventeen year old black woman called Leilah and becomes infatuated with her. At first, Evelyn is presented as a man who objectifies and abuses women. He starts to live with Leilah, and after spending weeks having sexual intercourse with her, Evelyn immediately loses his interest in her when he learns that she is pregnant: "As soon as I knew she was carrying my child, any remaining desire for her vanished" (*PNE* 28). Upon losing desire, Evelyn leaves Leilah in the hospital in a critical condition which is caused by her failed abortion attempt. Evelyn's abusive and ignorant treatment towards Leilah, however, results in his abduction by Beulah women. As soon as Beulah enters the picture, Evelyn's life starts to take a non-linear course.

When the women take Evelyn into Beulah, a voice tells him through a transmitter: "NOW YOU ARE AT THE PLACE OF BIRTH" (*PNE* 49). Beulah is appropriately designed as "a simulacrum of the womb" (*PNE* 49), with a warm temperature and red walls. In this simulated womb, Eve's symbolic and physical birth takes place with the transformation of Evelyn into a woman. Therefore, towards the middle of the novel, the protagonist's life-journey gets interrupted, and he is born for the second time. His identity gets dismantled and reconstructed in a process which is resembled to an arithmetic operation by Vallorani: "male attributes are subtracted from the protagonist's body, while female shapes are added" (367). In order to be reborn, then, Evelyn's masculinity should be wiped away first, and only then can he start from the beginning as someone different. This non-linear, fractured characterization disrupts the unity and progressive development of Evelyn/Eve's personality. To develop this transgressive strategy, then, Carter again uses a science

fiction motif – a technologically advanced laboratory – because its technology provides the necessary creative tools for postmodern character construction.

Beulah's another function in the novel is to provide a ground for the disruption of binary oppositions such as male/female and real/artificial. In postmodern debates, differences between gender binaries are declared as problematic, and gender roles are seen as social constructions which need to be approached with suspicion. In Paul Sheehan's words, "even such an (apparently) uncomplicated matter as sexual difference is rendered illegitimate and misleading" (21) in postmodernism. Accordingly, in *The Passion of New Eve*, Carter does not draw rigid lines between male/female or real/artificial binaries. Beulah is a convenient place for making such experimentations with binary disruption. The naming of the laboratory is a conscious choice; Carter takes the name and description of Beulah from William Blake's poem named "Milton a Poem." Blake's Beulah is a place "where contrarities are equally true" (Blake 129), which means that in Beulah, unlike the world where mortals live, distinctions between binaries are illusory. As a reference to Blake, when Evelyn enters Beulah he says: "And here I am in Beulah, the place where contrarities exist together" (*PNE* 45); which is a statement that also foreshadows his incomplete transformation from a man into a woman. In Beulah, which is resembled to "a science fiction chapel" (*PNE* 47) by Evelyn, "technological marvels" (*PNE* 47) provide Mother with unlimited power to shape human body and psychology. Thus, Carter turns Blake's imaginary or the metaphorical Beulah into a concrete place by borrowing motifs from science fiction. It is by constructing a highly advanced, futuristic laboratory that Mother can experiment with the corporeality²² of Evelyn and of herself as she wishes.

Since she makes unusual experiments with human body and psychology, Mother can be seen as an example of the mad scientist, a popular science fiction stereotype which is closely connected with the high-tech laboratory motif. Mother is described by Evelyn as "a great scientist who makes extraordinary experiments" (*PNE* 46), and typical of mad scientists, she has a grand plan: to annihilate patriarchy and all the culture it has created. In addition to her stereotypical actions, Mother also aims to abolish the social structures, norms, binaries, and hierarchies that have existed down the ages. She is, in a way, an anarchist figure who is engaged in creating subversive beings. Such characterization reminds the figure of the medieval alchemist, which is seen as the progenitor of the mad scientist motif.

Joachim Schummer examines the history of the mad scientist image in literature in “Historical Roots of the ‘Mad Scientist:’ Chemists in Nineteenth-century Literature.” He contends that the mad scientist images first occurred as the representations of controversial chemists, who superseded alchemists. Unlike other scientists who could be thought of as heroes in literary works, Schummer argues, chemists were always seen as threats to society. There are two reasons for their representations as mad scientists:

On the one hand, chemistry was the prototype of the experimental laboratory sciences that exploded in the nineteenth century and induced an ongoing fragmentation and specialisation of knowledge, which posed a serious threat to any ideas of the unity of knowledge. On the other hand, literary representations of chemists could easily draw on the well-developed literary figure of the medieval “alchemists,” which was already loaded with moral, social, metaphysical and religious criticism. (100)

Thus, chemists (and their predecessors, alchemists) were controversial figures since they represented a challenge both towards the unity of knowledge and towards the dominant ideology and morality in their societies. Deriving from those alchemists and chemists, the mad scientist figure also poses a threat to the unities of knowledge, matter, and human body. Most mad scientists in literature and film – such as Dr. Frankenstein, Dr. Jekyll, Dr. Moreau, Rotwang (*Metropolis*), Dr. Strangelove (*Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb*), and Dr. Josef Heiter (*The Human Centipede*), just to name a few – indulge in controversial experiments such as galvanism, vivisection, and other practices that contradict the accepted regulations of modern science. Therefore, the mad scientist figure can be appropriated into postmodern fiction as a figure whose practices disrupt totalizing narratives, social norms, and binary oppositions.

Such appropriation can be observed in *The Passion of New Eve* in the character of Mother. As a representative of the mad scientist figure, Mother makes experiments on Evelyn’s and her own body. Her practice in Beulah also resembles to the practice of alchemists, which is alternately called the Great Work (i.e. “a process of transmutation in which opposite polarities are combined, separated, and recombined to attain a state beyond duality” (Place 88)). Similarly, Mother brings together opposing elements – organic/artificial, male/female – in her laboratory

which can be seen as alchemists' crucible. Beulah indeed is a microcosmic representative of the larger crucible, which is the city above it. Hence, alchemical metaphors can be applied to New York as well as to Beulah. Evelyn describes New York as "an alchemical city" and relates it to "chaos, dissolution, nigredo, night" (*PNE* 12). Moreover, his neighbour in New York, Baroslav, is an alchemist who follows the philosophy of alchemy that "all substances are composed of one primitive matter, the prima material," which is "identified as the mercury of the philosophers, combining male and female, like a hermaphrodite" (Zirange 2). Thus, in the novel one can spot many references to alchemy, including Mother's role as an alchemist and Beulah as her crucible. Whereas the roles of the mad scientists and her laboratory in science fiction (or proto-science-fiction) texts have gradually become less related to alchemy, *The Passion of New Eve* uncovers the alchemical roots of both motifs, because alchemy is an appropriate metaphor for postmodern fusions and transmutations.

As much as the novel makes use of older practices of scientists, it includes more advanced technologies as well. Mother, then, can be seen as a modern alchemist; a mad scientist who makes use of futuristic technologies to make alchemical, transformative operations. The focus in *The Passion of New Eve* is on deconstructing taken-for-granted norms about femininity and masculinity. Accordingly, Beulah and its high technology are employed to deconstruct the notions of feminine and masculine roles by disrupting or erasing the difference between gender binaries. The protagonist's sex change operation is the main instrument for reflecting the arbitrariness of gender roles. With the help of the technology of her lab, Mother applies an advanced surgical operation on Evelyn to change his sex. Although the physical phase of the surgery is successful, Evelyn mentally fails to adapt to her new female body. Hence, it can be said that after two operations, both male and female characteristics exist simultaneously in Eve, since her seemingly perfect female body does not immediately generate a female mind. In other words, instead of becoming a "woman" in both physical and mental sense, Eve maintains the male gender roles that have been instilled into her (his) mind throughout his life.²³ Therefore, in "the place where contrarities exist together," Eve herself becomes a disruption of the male/female binary by harbouring contrarities in her identity. What Carter does in Beulah is, therefore, "to substitute 'both/and' for the

‘either/or’ categories of male/female, masculine/feminine” (Rubenstein 114) by incorporating science fictional technologies.

When Evelyn first sees herself in the mirror she gets confused: “I saw a young woman, though she was I, I could in no way acknowledge as myself” (*PNE* 71). The fact that her still masculine mind fails to adapt to her new female body puts Evelyn/Eve into an ambiguous state. Vallorani describes this state as follows: “[I]ost, deeply unable to identify herself/himself in a paradoxical anatomic disguise which does not overlap with a corresponding psychological change, Evelyn is no longer a man but not yet a woman. Being a hybrid, he/she does not belong to any community: he/she has no history, no tradition, no shared life and finally no gender” (374). Evelyn/Eve’s lack of gender, identity, and history represents a problematization of gender binaries and hierarchies that are regarded by most people as the natural facts of life. The result of the science fictional body/mind construction phase is, then, a postmodern being which defies categorization.

Beulah’s technology is not only used to alter Eve’s body, but also to alter that of Mother’s. Like Evelyn/Eve, Mother also symbolizes the merging of binaries; she is a half-organic, half-artificial being whose body manifests a combination of myth and future technologies. Likewise, her laboratory Beulah can be seen as a combination of technology and myth, science and magic. As Evelyn sees it, everything in Beulah “had a curiously artificial quality, though nothing seemed unreal, far from it; Beulah, since its blueprint is a state of mind, has an unimpeachable quality of realism. But it is a triumph of science and hardly anything about it is natural, as if magic, there, masquerades as surgery in order to gain credence in a secular age” (*PNE* 47). This means that the technological marvels in Beulah are no different than magic for Evelyn, who is not sure if his memory “has invented most of them” (*PNE* 47). Constructed with the help of the technology of Beulah, Mother is also an ambiguous being; she looks like an ancient goddess, yet she is also a scientist who uses futuristic technologies and surgery methods.

Just as Mother’s experiments on Evelyn/Eve disrupts male/female binary, her own appearance disrupts the opposition between organic/artificial. Before she performs surgery on Eve, Mother experiments on herself, turning herself into “an incarnated deity” (*PNE* 57). Such self-experimentation is a recurrent motif in the depiction of mad scientists, such as Griffin (*The Invisible Man*) and Dr. Jekyll. Carter borrows this motif from science fiction in order to problematize the human/non-

human binary. Like Eve, Mother resists categorization; she is both human (mortal) and a goddess (immortal), she is both organic and artificial, and she combines the past (myth) and the future (technology). Moreover, Mother disrupts the difference between fact and fiction, as she turns herself into her own fantasy, becoming a fictional construct in concrete form. Such disruptions frequently appear in postmodern fiction as a means of challenging taken-for-granted oppositions and also to “derealize” the real, as Crews suggests (30). It is possible put these theoretical postmodern challenges into practice with the help of science fiction elements, since they provide alternative spaces in which unlimited kinds of experiments with the body can be made. This is exactly the case in *The Passion of New Eve*; the “science fiction chapel” Beulah acts as a ground for postmodern experimentations with binaries.

Another function of Mother’s laboratory is to establish a ground for deconstructing all social norms and structures, and mythic, religious texts which inform such structures. Beulah is filled with sophisticated technological equipments that can instill ideologies into a person’s mind; it is a place designed to expose the construction processes of taken-for-granted norms in society. Evelyn’s journey into Beulah, then, means going back to the core of the “social fictions that regulate our lives” (Carter, *Shaking* 27). These social fictions are investigated and reconstructed in the novel with the help of the technologies that are available in Beulah. The aim of scientist-technocrat Mother is to create her own society, its subjects, and environment in concrete form. Therefore, it can be claimed that science-fictional technologies are used to shape reality, norms, and social roles, which are exposed to be the constructions of dominant ideologies, rather than being essential or natural elements.

As a science fictional setting that provides estrangement effect, Beulah becomes a stage on which Mother’s new matriarchal society comes into being with its new rules and norms. This staging is a postmodern strategy to subvert totalizing – especially patriarchal – ideologies. Postmodern subversion, as described by Joel Handler, is “the commitment to undermine dominant discourse. The subversion theme – variously described as deconstruction, radical indeterminacy, anti-essentialism, or antifoundationalism – whether in art, architecture, literature, or philosophy – seeks to demonstrate the inherent instability of seemingly hegemonic structure” (697). In other words, postmodern subversion aims to reveal the

problematic structures of certain metanarratives which are thought to be unquestionable. Carter's subversion of the dominant discourse – the patriarchy – is realized through constructing a similarly oppressive discourse which exposes the instability of such totalizing narratives. The aim for the creation of the science fictional lab Beulah is best described by Nicoletta Vallorani, who contends that Beulah is “an attempt to reverse the pattern of a rigid, traditional patriarchal tradition, and at the same time the corresponding feminist utopian responses to it, which in some case equally rigid” (371). Vallorani maintains that Carter uses Beulah for criticizing both patriarchal traditions and similarly oppressive feminist ideologies; for Carter, both metanarratives are problematic in shaping male/female gender roles, precisely because they are metanarratives.

In addition to subverting social norms and dominant ideologies, Mother's experiments in her laboratory function as a means to expose the constructedness of totalizing narratives such as myths and religions. Carter reveals in most of her writings that she regards myths as more than just folk stories that speculate on the creation of the world, or tell the stories of gods, goddesses, and heroes. For her, myths are historical and social fictions, and in her own fictional works Carter investigates constructed realities and the fictional roles of men and women, which are instilled into their consciousness as “natural facts” through the narratives of myths and fairytales. In *The Passion of New Eve*, and especially in Beulah, this constructedness of myths and their universal truth claims are uncovered. Evelyn says that “[i]n Beulah, myth is a made thing, not a found thing” (*PNE* 53), which is a statement that echoes Carter's own ideas.

For Carter, then, designating social roles for men and women is one of the main functions of myth. As also examined by the prominent mythologist Joseph Campbell in his work *The Hero with a Thousand Faces*, myths define the roles of individuals in societies by presenting universal archetypes such as “the warrior, the bride, the widow, the priest, the chieftain [...] harlot, queen, slave” (381-2). In most myths, Campbell argues, while the individuals who perform their social duties are validated, the ones who are indifferent to such roles and who revolt against them “break the vitalizing connectives” in the social unity (383). In such a world, the marginal has no place in the social order: “[f]rom the standpoint of the social unit, the broken-off individual is simply nothing—waste. Whereas the man or woman who can honestly say that he or she has lived the role [...] is something in the full sense of

the verb *to be*” (Campbell 383) (emphasis in the original). The exclusion of the non-categorized individual from society suggests that myths reflect the dominant ideologies that are prevalent in corresponding time periods. In other words, myths are social fictions that assist the preservation of the *status quo*, as well as its maintenance.

Carter declares that she is critical of such totalizing narratives; hence, she is “in the demythologising business” (*Shaking* 27). She is interested in myths “just because they *are* extraordinary lies designed to make people unfree” (*Shaking* 27) (emphasis in the original), which means that myths are metanarratives that produce unchangeable and permanent roles for the subjects in societies. In most myths and fairy tales, for instance, a woman has certain roles; she could be a loyal wife figure, such as a woman waiting for her hero husband’s return, a passive figure such as the damsel in distress waiting to be saved by the male hero. Considering such roles, Carter argues that women’s “symbolic value is primarily that of a myth of patience and receptivity, a dumb mouth from which the teeth have been pulled” (*Sadeian* 5). Therefore, “[a]ll the mythic versions of women, from the myth of the redeeming purity of the virgin to that of the healing, reconciling mother, are consolatory nonsenses” (*Sadeian* 5). Although she sees it as nonsense, Carter is still engaged in reading and rewriting myths critically, and she often subverts the mythical roles of women in her novels and short stories.

Carter performs her “demythologising business” by using science fiction tropes in *The Passion of New Eve*, which she sees as “an anti-mythic novel” (*Shaking* 27). The novel is indeed a representative of the fusion of postmodernism, science fiction, and myth; a fusion which began in late decades of the twentieth century. Tatiana Chernyshova is one of the scholars who observe this development in her article “Science Fiction and Myth Creation in our Age.” She states that “SF functions in contemporary life as a form of myth creation” (357). With its elements such as future worlds, cyborgs, and space travel, it tries to form a new world-model for a postmodern age. Thomas and Marlyn Sutton also see science fiction “as a mode of modern myth-making” which combines “scientific” mode with that of “mythopoeic mode” (230-2). This is also what Carter does in *The Passion of New Eve*; she brings together elements from both myth and science. She makes use of the myth-making function of science fiction; however, she appropriates it into her own postmodern discussions and turns it into a mode of myth-remaking.²⁴

In Beulah, Mother first dismantles patriarchal myths and then establishes a matriarchal one. Yet, this matriarchal myth proves to be equally totalizing, and the text draws attention to this ironic recreation as well. In this sense, Mother merely perpetuates the ideology behind patriarchal systems. In her plan to establish a matriarchal culture, she starts with constructing the primary figure: herself. With abundant technological resources at her disposal as well as her surgical talents, she reconstructs “her flesh painfully, with knives and with needles, into a transcendental form as an emblem” (57). In other words, Mother wants to turn herself into an iconic goddess whose ontology is significantly different from her ancient counterparts, because she is both a mythical and a technological construct. Although her body is different and new, Mother still wants to be a powerful and sublime being like the gods of patriarchal myths and religions. Hence, her attitude is not so different from the myth-making to which she opposes; she plans to establish her own authoritative ideology after erasing the previous one. She states that “[w]oman has been the antithesis in the dialectic of creation long enough [...] I’m about to make a start on the feminisation of Father Time” (*PNE* 64). In other words, instead of eliminating all metanarratives, Mother wants to replace patriarchy with matriarchy, in which she is the goddess and her New Eve is the mother of a new generation. Mother, then, deconstructs patriarchal myths “in order to reconstruct them on the basis of an alternate ideology, thus contesting the ideology implicit in these stories that had previously been passively accepted” (Crews 29), and she uses science fictional technologies to make such deconstructions and reconstructions.

The demythologising process in *The Passion of New Eve* also exposes how patriarchal and matriarchal myths determine the roles of men and women. As the creator-goddess of a new mythology, Mother acts in the novel as the maker of new social norms. In the reality outside the novel, it is the patriarchy that has designated norms and roles in societies for centuries. In the novel, however, the dominant force is subverted; matriarchy takes the place of patriarchy. At first glance, this seems like a counter-attack strategy to subvert male-dominated norms; nonetheless, Mother’s supposedly anti-patriarchal ideology turns out to be a problematic one for she designs Eve according to the male gaze towards women. Eve’s body is shaped in Beulah as an ideal woman of male fantasies, which have been reflected in arts, literature, and media. As a result, Eve becomes a man-made construct whose authenticity is continuously problematized in the novel. As Eve herself explains:

“[Sophia] showed me the plastic surgeries where a team of women had worked on my new shape according to a blueprint taken from a consensus agreement on the physical nature of an ideal woman drawn up from a protracted study of the media and constructed here, in this well-equipped studio, where Mother approved it” (*PNE* 75). Thus, with the help of technology, Mother transforms Eve’s body into a perfect simulation of beauty that is defined by media, instead of designing her in compliance with her (Mother’s) matriarchal myth.

After her physical transformation, Eve continues to be Mother’s experimental subject; but this time she goes through a process of psycho-surgery. In order to psychologically turn Eve into a woman, Mother again uses male definitions of women. She consults to the images of women in Hollywood movies and paintings of women by men. Eve is forced to watch a series of movies in which her favourite actress Tristessa de St. Ange takes part. Tristessa is depicted as a Hollywood actress who has shaped the image of ideal woman in men’s desires. Therefore, she mirrors men’s expectations from a woman; she is a male construction. Eve is also shown reproductions of “every single Virgin and Child that had ever been painted in the entire history of Western European art,” (*PNE* 69) which means that her womanhood will also be a product of European patriarchy. Psycho-surgery, as such, only shows artificial images of womanhood to Eve, and not some essential or natural mode of womanhood.

Besides the notion of femininity, Carter also questions the constructedness of the maternal instinct. Although Mother gives her a womb, Eve still needs to go through a psycho-surgery process to feel like a mother. She is shown a video “to subliminally instil the maternal instinct itself; it showed cats with kittens, vixens with cubs, the mother whale with an offspring” (*PNE* 69). However, these images do not have any effect on Eve’s emotions, which shows that even the sophisticated technology of Beulah is not sufficient for instilling maternal instincts into a female body. This proves that motherhood is not intrinsic to female body, but it is another social role that is designated by patriarchal social structures. In this case, Mother is the authority which tries to designate Eve’s role as a mother. However, Eve is unaffected by the marvels of Mother’s lab, and she eventually escapes Beulah for fear of becoming a mother, before being impregnated by her own sperm.

Consequently, Mother’s aim to build a feminine mythology with the help of technology results in failure. Leilah/Lilith tells Eve that “Mother has voluntarily

resigned from the god-head, for the time being. When she found she could not make time stand still, she suffered a kind of... nervous breakdown” (*PNE* 170). In other words, Mother realizes that in the new, postapocalyptic world she cannot produce a metanarrative that is timeless and universal; her myth is destined to be overtaken by chaos which is the new way of the world. Thus, through a demythologising process aided by science fiction tropes, *The Passion of New Eve* subverts the totalizing narratives of myths and exposes their instability; it presents a challenge towards the supposedly unified nature of myths. As an alternative to myths, it offers a postapocalyptic future in which Mother, like all mythical figures, has become only “a figure of speech and has retired to a cave beyond consciousness” (*PNE* 180). What prevails in the future that the novel paints is not a totalizing structure, but a postmodern chaos. It uses science fiction tropes to imagine and reflect what it would be like to have no sense of binaries, no social norms and no history. In other words, the novel reflects what it would be like to live in “YEAR ONE” (*PNE* 168).

In consequence, Angela Carter as a postmodern author fuses science fiction tropes into *The Passion of New Eve* to discuss ideas that could not be done so by employing realist conventions. She makes a postmodern questioning of the notions of reality, time, space, and progress by borrowing time-space from science fiction. Non-linear movement in time-space and the illusion of progress are highlighted in the novel, while the ambiguous time period creates the effect of uncertainty. Moreover, by foregrounding the destructive effects of technology, Carter criticizes the Enlightenment idea of technological progress, and subverts this idea by reflecting a future which is primeval and chaotic, instead of being advanced. Another metanarrative that Carter deconstructs is that of patriarchy; with the technology available to her, Mother is able to deconstruct a male human being and reconstruct him as female, both physically and ideologically. The fact that Mother tries to create her own, feminine myth is yet another critique; Carter subverts patriarchal myths by substituting the father-God figure with the mother-Goddess figure, and exposes the myth-making process by critically rewriting creation, femininity, and motherhood myths. In short, *The Passion of New Eve* embodies a multi-layered employment of science fiction elements which function as the instruments of various postmodern discussions.

CHAPTER II
**JEANETTE WINTERSON'S *THE STONE GODS*: DIFFERENT PLANETS,
SAME STORY**

Jeanette Winterson is regarded as one of the most successful British authors of recent decades. Although she “locates herself and her work as part of an on-going modernist tradition” (Grice and Woods 6), her novels are mostly regarded as postmodern texts because of the dominance of postmodern techniques and arguments in them. The main characteristics of Winterson’s fiction are, for instance, “the deconstruction of binaries and the overriding models of history, questioning grand narratives, closure, a single meaning and stability” (Front 9), which are attributed to postmodern fiction. While she is regarded as a major British postmodern author within academia, she is likewise popular among readers, as demonstrated by her large and devoted fan base. Winterson’s novels have been widely read despite their inclusion of controversial subject matters such as homosexuality, transgendered identity, and parody of religious texts.

Another defining characteristic of Winterson’s fiction is the inclusion of her life experiences in her texts. Most of Winterson’s works have autobiographical elements, and her religious upbringing has had a great influence on her (postmodern) style, especially on her critique of metanarratives. Winterson was born in 1959 in Manchester, England, and was adopted by a factory worker and a housewife, who lived in Accrington, Lancashire. Winterson’s parents belonged to a Pentecostal Evangelical church and they brought her up according to Pentecostal teaching, which did not require much knowledge other than the knowledge of the Bible. As stated at Winterson’s website, “[t]here were only six books in the house, including the Bible and Cruden’s Complete Concordance to the Old and New Testaments” (“About Jeanette Winterson”). It is further mentioned in the same website that although her parents did not allow her to read any book other than the Bible, Winterson secretly read Thomas Malory’s *Morte d’Arthur* and began to develop an interest towards reading other kinds of books. In addition to her interest in reading literary works, Winterson had a unique writing talent as reflected in her sermons that she wrote when she was only six years old. However, her family wanted her to be a missionary, not a fiction writer. Winterson went along with her family’s wishes until she fell in love with a girl and left home at the age of sixteen.

Jeanette Winterson has gained recognition as a versatile author; she writes novels, short stories, articles, children's fiction, and screenplays. Her novels are also "highly intertextual, reworking fairy tales, Arthurian legend, works from the canon of Western literature and, in *Weight*, classical myth" (Andermahr, *Jeanette Winterson* 27). She makes references to other literary and religious texts, myths and narratives of popular culture, and she incorporates postmodern techniques such as metafiction, parody, and non-linear narration into her novels along with critiques of metanarratives. Winterson explains that all her works "plays with form, refuses a traditional narrative line, and includes the reader as a player" ("Written on the Body"). Another characteristic of Winterson's writing is the repetition of certain themes such as love (triangle) and parody of popular culture in her novels. Tully Barnett observes that her "body of work indicates a willingness to exploit fashionable themes, styles and theories as well as a habit, or compulsion, to rehash the same plots over and over" (42). Nonetheless, this does not mean that she is concerned with including popular subjects and that she treats the same subject-matter in all of her novels. On the contrary, her body of work always gives voice to the marginal, and includes a vast range of topics, such as gender, religion, politics, history, science, and technology.

Winterson's first and semi-autobiographic novel *Oranges Are Not the Only Fruit* (1985) – which received the Whitbread Award for a first novel – immediately brought fame to the author. As a result of the novel's success, BBC asked Winterson for an adaptation of it into a TV mini-series, and when the series aired, Winterson became even more famous. *Oranges* reflects the attitudes of strictly religious Evangelicals towards the protagonist's queerness (and her affair with another girl), and parodies the grand narrative of Christianity. Winterson's second novel *Boating for Beginners*, published in the same year as *Oranges*, likewise parodies the Bible and the story of Noah. These two novels display a critical attitude towards religious metanarratives. Winterson's next two novels, *The Passion* (1987) and *Sexing the Cherry* (1989), focus on the problematization of historicity, a theme which finds place in most of Winterson's novels. As Winterson herself declares, "[a]ll of my work, including *Oranges*, manipulates history. The past is not sacred. The past is not static. There are a few facts we can rely on – dates, places, people, but the rest is interpretation and imagination" ("The Passion"). However, in *The Passion* and *Sexing the Cherry*, manipulation of history becomes the focal point; the texts play

with the notions of historical knowledge, chronology, and objectivity/subjectivity. *The Passion* takes place during the reign of Napoleon, while one of the two stories in *Sexing the Cherry* is set in seventeenth century London. Both novels have two narrators representing different points of view towards reality and history, whose nature are constantly questioned.

In the 1990s, Winterson's interest shifted towards sciences and technology. The publication of *Written on the Body* (1992), which has a nameless narrator who does not have a specific gender, marks the beginning of Winterson's "intertextual rewriting of one of the sciences," which is "the medical discourse of anatomy" (Makinen, *Novels of Winterson* 1). This new interest towards anatomy would continue to be traced in Winterson's following novels. *Written on the Body* also introduces the love triangle (which is made of two women and one man) theme – a recurring theme in Winterson's fiction of the 1990s. Winterson employs this theme in her following novels *Art and Lies* (1994) and *Gut Symmetries* (1997), both of which are concerned with "the new physics, looking at the relativity and simultaneity of matter, post-Einstein" (Makinen, *Novels* 2). Winterson's next novel *The PowerBook* (2000) was written at the beginning of the new millennium. It approaches the technological developments of its day such as computers and cyberspace, and examines how they have shifted people's understanding of reality. Its narrator is an e-writer who forges stories for her customers, and, as most of Winterson's novels, its main focus is on erasing the difference between fact and fiction.

In her last four novels written in the 2000s; *Lighthousekeeping* (2004), *Weight* (2005), *The Stone Gods* (2007) and *The Daylight Gate* (2012), Winterson continued to include characteristics of her previous novels such as non-linear narration, multiple time periods, intertextuality, parody or rewriting of other texts, and gender-bending. *Lighthousekeeping* tells the story of an orphaned child, Silver, who is apprenticed to a lighthouse keeper named Pew. The novel makes many allusions to historical figures and authors of the nineteenth century, and the main story, told by Pew, echoes *Dr. Jekyll and Mr. Hyde*. *Weight* is a re-imagining of the myth of Atlas and Heracles. Just as she rewrites religious texts, Winterson rewrites this well-known myth, focusing on Atlas' psychological as well as physical burden. *The Daylight Gate* takes place in 1612 in Pendle, Lancashire, a date and place in which witch trials occurred. It is again the retelling of a story; this time of a historical

document written by Thomas Potts, who is included as a fictional character in the novel.

Despite their postmodern characteristics, Winterson's novels have been analyzed with different critical points of view, mainly in relation to queer theory and feminism. As pointed out by Jago Morrison, "[w]ithin academia, Winterson began to be recognised in the early- to mid- 1990s by lesbian feminist critics such as Laura Doan, Gabriele Griffin and Cath Stowers as a writer who provided new opportunities to pursue debates around gender, sexuality and literary representation" ("Who Cares" 169). Because she is interested in deconstructing gender roles and commonly accepted views towards sexuality, Winterson's works are usually read as lesbian feminist texts which subvert patriarchal and heterosexual norms. Therefore, as in the case of Angela Carter,

Winterson's relationship to postmodernism remains complex, a 'contested category.' On the one hand, postmodernism conflicts with the more materialist, lesbian-feminist matrix of Winterson's work and on the other, her novels exemplify postmodern aesthetics, revealing high degrees of self-reflexivity, pastiche and intertextuality in addition to frequent mimetic and temporal dispersions. Her dominant themes and tropes which include existential contingency and spectacle, the performative nature of gender and identity, and the ontological burdens of love are also quintessentially postmodern. (Malhotra 479)

Although, as Isha Malhotra reveals, Winterson's fiction has an inclination towards lesbian feminism which is combined with a materialistic approach, her treatment of gender and sexuality can in fact be seen in accord with postmodern treatments of such subjects. Winterson does not reflect gender and sexuality as intrinsic, rigid notions, but shows that they are socially constructed; thus, they are fluid and open to change. Sonia Front argues that such "advocacy of fluid gender and sexuality" in Winterson's fiction "locate [her works] within the postmodernist discussion more than feminist or lesbian" (10). The inclination to see Winterson's works as feminist fiction also results from the fact that she criticizes – usually by using parody and irony – patriarchal discourses which shape male-female identities. However, Winterson's attitude is predominantly postmodern, for she does not criticize a particular narrative while defending another one; rather, she is concerned with deconstructing all authoritative metanarratives by using techniques that are

associated with postmodern fiction. As also stated by Andermahr, Winterson's "work participates in the subversion of the liberal humanist grand narratives of Knowledge, Truth, Meaning and History" (19), and this participation makes her fiction aligned with postmodernism.

Winterson can be situated among British postmodern authors like Angela Carter, Peter Ackroyd, Alasdair Gray, and Salman Rushdie, who incorporate elements from different sub-genres such as fantasy, science fiction, and magic realism into their novels. Winterson's fiction especially reminds that of Angela Carter, who uses science fiction tropes as well as "fantasy/magic realism in [her] rewritings of fairy tales, myths," and who introduces "female grotesque monstrous characters" (Front 11). Although she borrows its elements, Winterson does not have a specific interest towards science fiction genre as Carter does; in fact, she declares in an interview that she hates science fiction ("Science in Fiction"). What she means, however, is that she particularly dislikes the naïve, boyish fantasies of science fiction authors who exaggerate the importance of human beings in the universe, and who reflect "trash the place, then leave it" (n.pag.) scenarios that are based on leaving the dying earth and colonizing space. Although she is critical of white-male biased versions of science fiction, Winterson nevertheless is aware of the potential of both fantasy and science fiction to imagine worlds in which postmodern experiments can be made. She states in the same interview that "science is too important, it's the basis for our lives. I expect a lot more science in fiction because science is so rich" (n.pag.). Thus, although Winterson is critical of mainstream science fiction, she is in favour of its fundamental conduct: to add science into fiction. In other words, she believes that including science and science fiction elements in literary texts enables a better examination of today's condition, since in twentieth and twenty-first centuries, science is one of the essential determinants of life. These ideas make Winterson crucial to any discussion about the incorporation of science fiction tropes within postmodern writing.

As a postmodern author, Winterson sees no clear distinction between the language of science and the language of fiction, and she frequently incorporates scientific knowledge into her fictional plots. She incorporates science fiction tropes as well, for they blur the distinction between the languages of fact and fiction. Furthermore, Winterson resorts to science fiction to make use of its rather larger repertoire of imaginary or non-realistic elements than those of realist fiction. She

contends that “[t]he point of fiction is not to mirror real life but to set out from it, to alter our viewing angle and perhaps even the world we are viewing” (qtd. in Rennison 190). Although all works of fiction alter the readers’ viewing angle and world, the ones that more essentially and ontologically alter reality, vision, time, and place are fantastic fiction, science fiction or similar kinds of non-realist fiction. Since postmodernism is concerned with making such subversions and problematizations of time-space and reality, while making postmodern interrogations Winterson frequently turns to fantasy and science fiction tropes. Winterson’s “work in a fantasy mode,” Andermahr argues, may be “seen as an indirect response to the oppressiveness of social and political reality [...] Just as in the magic realism of Borges, Marquez and Grass, fantasy offers readers an alternative to repressive regimes and material constraints – particularly of gender, sexuality and class in Winterson’s case” (21). Science fiction elements similarly provide alternatives to totalizing discourses; by adding into her texts elements such as time travel, parallel universe, virtual reality, and artificial intelligence, Winterson can challenge the conventional views on history, truth, time, space, gender, and sexuality.

Before she wrote *The Stone Gods*, Winterson had already been incorporating sciences and science fiction elements into her fiction. Two of her novels can be seen as examples of “science in fiction;” *Written on the Body* and *Gut Symmetries*, both of which incorporate real sciences and technologies of the 1990s. *Art and Lies*, and *The PowerBook*, on the other hand, incorporate science fiction motifs such as a parallel universe, future world, and advanced virtual reality technologies. *Art and Lies* for instance, takes place in “a futuristic technological setting where the city of London has been divided into three and the countryside nationalised as a gigantic park” (Makinen, *Novels of Winterson* 133). In this futuristic setting, readers follow three different stories of three different narrators: Handel, a doctor (formerly a priest); Picasso, a female painter who is raped by her brother; and Sappho, who is the Greek poet known by her poems which have homoerotic elements. Sappho is the only character who truly corresponds to her real-life counterpart. Both Handel and Picasso can be seen as the parallel universe versions of the real Handel and Picasso. Winterson alters the time period these characters live in as well as the personalities of historical figures; thus, she makes such concepts as history, authenticity, and reality become problematic. In his review of the book, Rikki Ducornet likens *Art and Lies* to Angela Carter’s *The Infernal Desire Machines of Doctor Hoffman*, “a book,

or so it seems, that has animated [*Art and Lies*]. Both novels, Winterson's and Carter's, propose a parallel planet truffled with mutable nightmare cities: ceremonial, political, invisible, lethal, erotic and so on" (n.pag.). Both Carter and Winterson, then, make combinations of science fiction elements (parallel universes) with fantastic settings (nightmare cities) to make postmodern explorations and experimentations.

The PowerBook also includes a motif which is usually found in science fiction works: virtual reality. Virtual reality "refers to an environment in which reality is simulated through computers and in which the body can experience artificially generated data as though they were coming from the real world" (Cavallero, *Cyberpunk & Cyberculture* 27). This means that virtual reality disrupts the difference between real/artificial and subverts the hierarchy between them. Because they make such problematizations of reality, and, at the same time, they "decentre conventional notions of space and locality" (Cavallaro, *Cyberpunk & Cyberculture* 32), virtual technologies are appropriate tools for postmodern experimentations in fiction, as reflected in *The Powerbook*. The novel includes an e-writer who produces stories to be acted out in virtual environment, and her clients pay her to take part in these stories. In the first pages of the novel, the e-writer tells them: "Undress. Take off your clothes. Take off your body. Hang them up behind the door. Tonight we can go deeper than disguise" (2). Here Winterson makes use of advanced virtual reality technologies to create realities in which body, identity or gender cease to matter. In virtual reality,²⁵ a person can get rid of all the labels and roles that the society attributes to him/her; it is a postmodern space where definitions lose their credibility.

Although Winterson incorporated science fiction elements into her earlier works, their number was scarce compared to the large spectrum of science fiction tropes and motifs that are present in *The Stone Gods*. The novel includes various science fiction elements such as future setting, space travel, humanoid robots, nanobots, and advanced biotechnology, just to name a few. There are three stories in the novel which take place in three different time periods and (possibly) on two different planets. The first one begins on a planet called Orbus, which looks like a future version of Earth. The people on Orbus live in a technologically advanced society; they use robots in all areas of life, they do not breed in the womb anymore, they are able to stop aging, to enhance their bodies, and they are even able to become

transparent. However, the planet is running out of resources and its climate is gradually getting worse. In the mean time, Orbus is divided into three regions: the Central Power, which looks like a counterpart of Western Europe and the United States of America; Eastern Caliphate, which corresponds to the Middle-Eastern regions of the Earth; and Sino-Mosco Pact, which, as its name suggests, is a joint rule of Russia and China. The main events take place in a city in the Central Power called Tech City, in which the narrator-protagonist Billie Crusoe lives. Billie states that “the Central Power is democracy” (SG 23); however, the government is intolerant towards the citizens who reject to lead lives dominated by technology. Hence, Billie, who is in favor of a natural and non-technologic lifestyle, has to lead a double life in order to survive. While she secretly disobeys some of the technocratic regulations of the government and helps ex-citizens (criminals that were banished from the city) who hide from the police; at the same time she works for the Enhancement branch of the government which regulates technology usage.

At the beginning of the novel, Billie’s task is to interview a Robo *sapiens* (i.e. a robot designed to look, think, and act, but not to feel like human beings) who has just returned from a mission in space. The Robo *sapiens* is called Spike, and her mission was to find a habitable planet because Orbus has become non-habitable. After the Robo *sapiens* return from their missions, their data is collected and their bodies are dismantled. Spike is no exception, and while she is waiting for her dismantlement, she talks to Billie and asks for her to help her escape; yet, Billie does not trust Spike despite getting attracted to her, and refuses to help. Spike is saved, however, by a space pirate called Captain Handsome, who is employed to destroy the dinosaurs on Planet Blue to make the planet suitable for human colonization. He chooses Spike to assist him in his mission, and later Billie also joins them on the spaceship. Because she is seen as a criminal, Billie is sent to the new planet to become one of its first citizens. The mission of Captain Handsome to destroy dinosaurs by directing a meteor towards Planet Blue triggers an ice age while the crew is still on the planet. Spike and Billie remain on the spaceship to make contact with Orbus, while Captain Handsome and others look for the colonial establishment. When the air system of the ship fails, Billie and Spike take necessary items and leave. They travel on the cold planet and end up in a cave in which they spend the last hours of their lives together. Spike begins to dismantle herself, starting from her

legs, to conserve her energy. Eventually, only her head remains and Billie, holding Spike's head, waits for her own death in the cave.

The second chapter of the novel takes place in 1774 on the Easter Island. It tells the story of a sailor, a member of James Cook's crew, Billy, who is left alone on the island after an attack by the natives. The first thing that gets Billy's attention is "the lack of vegetation" (SG 120) and later he witnesses the falling of the last tree on the island. He wonders "[w]hy would a man destroy the very thing he most needs" (SG 123); a question which is repeatedly stressed throughout the novel. Billy soon gets captured by the natives and realizes that they had built large stone gods by using all of the wood on the island. He is able to escape when two different native groups start to fight each other, because one of the tribes shatter a god of the other tribe to the ground. When he is safely away from the natives, Billy meets a half-Dutch half-native man called Spickers, and they fall in love. Spickers tells Billy that he is preparing for a contest to become the leader of the Bird Man tribe. The contest includes climbing a cliff to gather the first egg laid by the Terns. Spickers enters the competition with the aim to use the egg to end the war between the tribes; however, he falls off the cliff, gets lethally wounded and dies in Billy's arms. In addition to the similarity between the names of the characters, the death of Spickers in Billy's arms also echoes the last scene of the first chapter.

Third and fourth chapters depict a world that seems to be the near future of the Earth, but it is in fact the future of Planet Blue, which shares a similar destiny with Orbus. The events are set in a post-war period; the third chapter titled "Post-3 War" tells the story of a woman – again called Billie – who works for a company that develops world's first Robo *sapiens* named Spike. In this time-space, Spike is only a head (in this sense the story continues from where it ended in the first chapter, with Spike reduced to only a head) which is still being developed. Billy takes Spike out for her Mobile Data Recognition, to observe the environment and human beings. However, they end up in Wreck City (which is also the title of the last chapter) where the rebels, fugitives, and illegal traders live. Wreck City stands in contrast to Tech City, which is ruled by a corporation named MORE-*Futures*. MORE helps the citizens rebuild after the third world war, during which Iran launches a nuclear attack on the USA. MORE provides advanced technologies to people; at first this seems like a charitable move, but the company gradually gets rich by exploiting people's need for technological devices. In Wreck City, however, there are no government, no

company, no rules, “no insurance, no assistance, no welfare, no police” (SG 179). While visiting a bar in Wreck City, Billie loses Spike and finds her in the house of two young girls, Alaska and Nebraska. During her stay with the girls, Spike becomes spiritual and decides not to go back to MORE.

Billie experiences two important events in Wreck City: first, she finds the dish of a disused radio telescope, which begins to receive signals. Spike understands that it is repeating the same message, and the signal is from the past, despite the fact that the sender “is able to reach us in a way that is in advance of anything we are yet capable of” (SG 222). This means that the future Spike on Planet Blue receives the message of the Spike who came from Orbus. In addition to this revelation, the text presents another possibility about the world of last two chapters; prior to the events in the Wreck City, Billie finds a manuscript titled *The Stone Gods* on a tube. Billie declares that the manuscript is a science fiction novel, and when she reads parts from the first chapter “Planet Blue,” it is understood that the chapter is not the past of humanity, but a work of fiction. Hence, both possibilities seem to be equally true and it is not certain if the first chapter is fact or (science) fiction. The second important event is Billie’s discovery of a radioactive forest, in which the victims of the nuclear attack live. Billie’s companion Friday²⁶ explains their situation to her: “They are toxic radioactive mutants. They won’t live long. It’s Tech City’s big secret, one of them anyway. The incurables and the freaks are all in there. They feed them by helicopter” (SG 203). This revelation causes Billie to lose hope, but she still tries to help a mutant child and his dog. Meanwhile, MORE notices Spike’s absence and sends troops to arrest Billie for kidnapping her. When the troops arrive in Wreck City, they are met by resistance during which many people are shot. Billie finally decides to give in; she leaves Spike behind, saying “[s]ee you in sixty-five million years, maybe” (SG 244) and lets herself be shot by the troops.

Inclusion of futuristic settings, advanced technologies, robots, and space travel indicate that there is an abundance of science fiction elements in *The Stone Gods*. Consequently, many reviewers and critics have tended to regard it as a science fiction novel, although its author is predominantly renowned as postmodern. In her website, Winterson responds to the questions about the novel’s genre as follows: “People say to me, ‘so is *The Stone Gods* science fiction?’ Well, it is fiction, and it has science in it, and it is set (mostly) in the future, but the labels are meaningless. I can’t see the point of labelling a book like a pre-packed supermarket meal. There are

books worth reading and books not worth reading. That's all" ("The Stone Gods"). Winterson's reluctance to put a label on her novel or to call it science fiction demonstrates that her primary aim was not to write a science fiction novel, but to incorporate the tropes of the genre into her own discussion. The negative reviews of the novel by science fiction authors and critics further support this claim. In most reviews, *The Stone Gods* is being criticized for lacking the essential characteristics that would make it a science fiction novel. Science fiction author and critic Paul DiFilippo, for instance, compares the plot of *The Stone Gods* to Isaac Asimov's essay "The Power of Progression," in which he speculates on the future of mankind, earth, and the universe. DiFilippo argues that "whereas Asimov's essay — and all his fiction — hewed to scientific logic and speculative rigor, and sought to use the tropes and tools of science fiction in the most modern manner available, Winterson takes a cavalier, freestyle, impressionistic and somewhat disdainful approach to her foray into the genre" (n.pag.). The result, for DiFilippo, "is the kind of defiantly non-kowtowing SF novel by a literary writer that threatens to make the heads of SF fans explode" (n.pag.).

In another review of *The Stone Gods*, Ursula K. Le Guin, like DiFilippo, focuses on plausibility in the novel. She notes that "[a]t times Winterson seems to think that poetical invention excuses fictional implausibility or incoherence. A farmhouse, with hearthfire, beside a willow-hung river complete with iris and moorhens could not possibly exist in the terminally exhausted world of the first section" (n.pag.). As science fiction authors, both LeGuin and DeFilippo are used to writing in a mode which foregrounds scientific plausibility; hence, when they analyze *The Stone Gods* as a science fiction novel, they find many faults concerning the relation of the events and technologies to scientific possibilities. They disregard the fact that *The Stone Gods* is a dominantly postmodern novel, that it mainly uses postmodern techniques such as metafiction, intertextuality, self-referentiality, and that it only incorporates science fiction elements to serve as means of postmodern discussions. Therefore, looking for plausibility in *The Stone Gods* might be a misleading approach, since the concern of the text is not to paint a plausible picture of the future, but to problematize the notions of past, present, future, history, and reality altogether.

In addition to the reviews that analyze its compliance to science fiction conventions, there are also a considerable number of ecocritical examinations of *The*

Stone Gods. Francesca Palitzsch points out that the novel is “exceptional with regards to its pronounced science fiction elements and political and ecological concerns so far unprecedented in Winterson’s oeuvre” (150) and she refers to it as an “ecological tale” (150). Her observations are accurate considering the dominance of the critique of anthropocentrism, abuse of technology, and mankind’s destructive attitude towards nature in the novel. Consequently, *The Stone Gods* have attracted the interest of ecocritics, and it found place in ecocritical studies on literary texts. In addition to Palitzsch, Patrick D. Murphy, in like manner, focuses on the ecological concerns in the novel, and he includes an in-depth analysis of it in his book *Transversal Ecocritical Praxis*, in which he argues that *The Stone Gods* aims to raise ecological awareness through fiction. He maintains that by presenting a science fictional world, the text creates estrangement effect: although the setting seems alien, it reveals to the readers the condition of their own world. In Murphy’s words, Winterson uses a story “about an alien view of our planet in distant past to attack the myth of the ‘New World’ that is always on the horizon, providing an escape from ecological responsibility” (35). While attacking this anthropocentric escapist fantasy, the novel further puts stress on “the signals being sent by the household of the damage being incurred” (Murphy 36) and reveals how these signals are continually ignored by humankind until their world becomes non-habitable. Since the inability of the people of both Orbus and Planet Blue to protect their environment is one of the major themes of the novel, it is open to ecocritical explorations as reflected in the works of Palitzsch, Murphy, and others.²⁷

The dominance of eco-consciousness in the novel also reveals the interconnection between postmodernism and ecological issues. Postmodern ideas and literary techniques in *The Stone Gods* are employed to problematize the hierarchy between humans and nature, and to present alternative points of view to the anthropocentric one. The relation between postmodernism and ecocentrism is well explained by Serpil Oppermann, who puts forward an “ecocentric postmodern theory” that “proposes a legitimate solution to the ecological crisis by offering to transform the anthropocentric discursive fields into ecologically oriented conceptual systems” (244). Oppermann argues that postmodern theory and practice are not indifferent to environmental problems; on the contrary, they provide a deconstructive and reconstructive mode of discussion, which can transform the anthropocentric,

essentialist views towards the nature. In much postmodern writing, she states, there can be found ecological issues:

[M]any writers, from J.M. Coetzee to Don DeLillo, explore various environmental issues and contest dichotomies between nature and culture, world and word, and text and context. They incorporate the ecological principles of diversity, heterogeneity, multiplicity, and relationality, which also constitute postmodern ideas; and they adopt a multiperspectival approach to the real and fictive. (244)

As Oppermann's study reveals, ecological principles and postmodern ideas are greatly similar; therefore, they may complement each other and be fused into one another in fictional writings. Such relationship is present in *The Stone Gods*, which combines postmodern concerns with ecological issues. However, what gives the novel its distinct voice is its reliance on science fiction tropes to make both postmodern and ecological discussions possible. This feature makes *The Stone Gods* a significant text in the discussions of the appropriation of science fiction elements into postmodern novels which likewise include ecological issues.

As its various reviews and studies indicate, *The Stone Gods* is rich in content. Since the focus of this thesis is the postmodern nature of the novel and how its postmodern questionings are aided by science fiction elements, the approaches mentioned above are not a part of the following analysis. Nonetheless, they should be kept in mind since they provide significant points of view for different examinations of the novel.

As in *The Passion of New Eve*, in *The Stone Gods* science fiction elements are used to make various postmodern interrogations. First of all, Winterson borrows the most common time-space motif of science fiction, the future world, and employs it as the background of her novel in order to subvert linear time. Before the emergence of postmodern novels, probability of non-linear time or time travel had been explored in works of science fiction and fantasy. Smethurst argues that “[n]on-linear time in the postmodern novel follows this tradition and many postmodern novels could be classified as science fiction or fantasy” (174). However, postmodern novels appropriate science fiction tropes that explore and experiment with time into their own narratives with the purpose of problematizing the notion of time itself. In the postmodern novel, non-linear time and temporal displacement “seem to shake the very cornerstones of reality – linear time and extensive, contiguous space,” and they

“problematise the real by calling into question scientific laws that govern the temporality of the modern world, and by questioning social and cultural constructions of time that underpin western versions of reality” (Smethurst 174). In other words, postmodern novels are selective in incorporating science fiction motifs that are related to non-linear time; they make use of such motifs’ subversive nature that allows the questionings of conventional ideas of temporality, but they leave out the explanatory parts such as detailed scientific and technological accounts of the disruptions in time.

The Stone Gods gives a good example of how such a popular motif of science fiction as the future-world can be used in postmodern problematizations of temporality. The motif is integrated into the novel’s plot as a means to substitute conventional usage of linear time with postmodern employment of cyclical time. Through exploring the similar futures of humanity on different planets, the text suggests that time moves in a cyclical rather than a linear way; hence, what seems like a new future might be the repetition of the past. As conveniently put forward by Rachel Loewen Walker, “[d]isplacing the reader’s reliance on a linear narrative, *The Stone Gods* winds through time; it is self-referential, it trips over itself and, at any given moment, it could be revealed that what we think is the future is actually the past (or the present, or an alternate timeline altogether)” (47). Accordingly, in *The Stone Gods*, the main theme is “a repeating world” (SG 175), as Billie tells Spike when she asks what *The Stone Gods* is about. All three stories in the novel echo each other: there are two main characters who fall in love (Billie and Spike, Billy and Spickers), and in each story the same idea is reiterated; that human beings have a tendency to destroy their own planet in the name of progress. In order to create the effect that time and history do not follow a linear flow but constantly end and begin again, Winterson uses multiple time periods; two of them depict the future by making use of science fiction tropes, and one of them depicts the past (i.e. 1774). Although the second chapter seems like humanity’s past for it lacks science fiction elements and is depicted in a manner that reminds eighteenth-century realism, it is in fact the future of the first chapter which initially seems more futuristic. Hence, the sense of the past and the future is subverted when it is revealed that 1774 is the future, while the first chapter, in which people have more advanced technologies, is the past.

It can be argued, therefore, that in order to employ a postmodern treatment of time²⁸ in *The Stone Gods*, Winterson makes use of the future world motif. In other words, the future needs to be told as well as the past and the present in order to fully explore the idea of cyclical temporality, and science fiction provides the motif for such exploration. First, Winterson paints a future which looks like the end times; that is, the novel starts when the end of humanity is near. The story initially seems like the typical apocalyptic or dystopic narratives of science fiction novels; it seems to be reflecting the dystopic future of humanity. Billie's statement, "Orbus is dying" (SG 8), underlines the fact that the novel does not only depict the future, but it also depicts the last years of human life on Orbus. However, it is implied that the journey of humankind in the universe has not ended yet; they have succeeded in finding a planet that resembles Earth. Billie states, "[w]e are running out of planet and we have found a new one" (SG 4), and she regards this discovery by linear thinking; seeing it as a chance for the continuation of human history. In the last two chapters, it is revealed that people indeed established civilization on Planet Blue; however, it is not the continuation of the high-tech civilization of Orbus. Since the ice age had erased all traces of technology, humanity returns to its primeval state. Thus, instead of continuing in a linear trajectory, time stops and rewinds back at the peak of high-tech human civilization, and history goes back to its beginning. Such plot construction, aided by science fiction motifs, disrupts both traditional realist narration and the understanding of time as a linear notion.

As well as appropriating future world motif to create temporal subversions, Winterson appropriates the space travel motif of science fiction to explore the idea of a repeating history. The story of Orbus is revealed to be the past; yet, it may also be seen as one of many futures that the humanity keeps living again and again, on different planets. Although the name and location of the planets change, the events happening on them are similar. Hence, the perception of space, like the perception of time, is problematized. It is suggested in the novel that there might be many planets that resemble Orbus, each visited by humans when they developed space travel technologies. Orbus' ship crew talk about a white planet on which "there was once life" (SG 63). They recall seeing "the carcasses of planes and cars" on the planet (SG 63), which leads Spike to conclude that "life flourished there light years away from now, and that life was destroyed, or that life destroyed itself" (SG 64). The fact that Planet White had harboured human life just like Orbus (which is alternately called

Planet Red) and Planet Blue implies that humankind has been living the same scenario on each planet that they inhabit. Hence, Captain Handsome develops a theory “that life on Orbus began as escaping life from the white planet – and the white planet began as escaping life from... who knows where?” (SG 68). Space travel motif thus becomes a means of making temporal and spatial disruptions in the text. First of all, it breaks the linear trajectory of time instead of continuing it, since it contributes to an eternal repetition of the same events. Secondly, it unsettles the difference between various spaces by reflecting three planets (White, Red, Blue) as replicas of each other. The result is a postmodern time-space, i.e. a time-space in which there is no linearity, hierarchy, differentiation, and certainty.

The employment of science-fictional time (the future) and space (different planets) in *The Stone Gods* also provides a critique of modernity and the belief in progress. Smethurst contends that “postmodernism emerges out of the failure of the projects of modernity, which have run aground on the rocks of historical materialism and wrecked the idea that there is any discernible pattern in the traces of history enabling us to be masters of our own destiny” (Smethurst 4). As a result, both the theories of postmodernism and postmodern practices in arts and literature have focused on the precariousness of the ideals of modernity. Postmodern novels especially problematize “modern developmental ways of seeing the world” (Smethurst 6), and as a postmodern novel, *The Stone Gods* interrogates the progress narratives of the modern West, but it does so by incorporating the future world trope into its plot. The novel takes its readers to the future of humanity which reflects a failed project of human welfare. However, not all people in the novel are critical of the condition of their planet; most people of the future believe that mankind is still progressing towards an even better future by having a greater dominion over nature. As a matter of fact, there are two clashing points of view towards progress in the novel represented by Billie and her boss Manfred. The conflict between their opinions echo the conflict between postmodernity and modernity which can be explained as follows: “While modernity encouraged linear change in an asymptotic and teleological pursuit of progress, post-modernity abets change for change's sake, abandoning the very ideal of progress and castigating it as tautological, subjective, and obsolete” (Vaknin n.pag.). Billie’s boss Manfred represents the ideals of modernity; he thinks that “nature’s unpredictable – that’s why we had to tame her. Maybe we went too far, but in principle we made the right decision” (SG 88).

Manfred associates progress and technological development with taming the nature, and although Orbus is dying, he still thinks that it is right to dominate nature in order to reach a superior future. The text problematizes this seemingly possible correlation between technology and welfare by revealing the problematic nature of Manfred's – and most people's – views on progress.

At first, there are many signs of technological progress in the text; Tech City, which represents modernity's ultimate goal, has laser-gates “which look so solid, appear and disappear like the wall that rings the city” and Billie refers to this image as the “sign of progress and power” (SG 5). Yet, as a representative of postmodern ideas, Billie thinks that this obsession with progress does not take humankind to a better future, but only leads to environmental problems: “when we destabilized the planet,” she utters, “it was in the name of progress and economic growth” (SG 38). The depictions of the atmosphere of Orbus support Billie's statements, not Manfred's. By incorporating the future world motif, then, the novel exposes the disputable nature of modernity's progress narratives which claim that rationalist logic and scientific, technological developments help mankind to create a better world. In an interview Winterson states that her aim in the novel is “to challenge people's ideas about what science can do. It's not the solution of everything” (“Science in Fiction”). The setting and the events in the novel validate her aim, and her ideas on science are echoed in Billie's words when she says that “[s]cience can't fix everything” (SG 11). By reflecting a future world in which technology causes more harm than good, the text aligns itself with the postmodern reaction towards progress, rather than the modern glorification of it.

Space travel motif is also incorporated into *The Stone Gods* in order to problematize the idea of progress. Space travel (or spaceflight) is a commonly used science fiction motif, which is connected to the idea of linear progress, as it helps humankind to exceed the boundaries of the Earth and become the masters of other planets. Space travel, then, can be seen as one of the highest achievements humankind can ever have; as James T. Kirk says in the famous opening of science fiction series *Star Trek*, space is the “final frontier” for humankind (n.pag.). The interest towards exploring (and conquering) the space, the Moon, and other planets has always been present in both philosophical and scientific discussions, and the first speculations on space travel can be traced back to the sixteenth century, when groundbreaking astronomical discoveries were made. Johannes Kepler (1571-1630),

for instance, wrote a book called *Somnium* (1608), in which he described a spaceflight towards the moon with the help of “daemons.” In the text, the power of daemons resembles space travel technologies, for the daemons can reach the Moon in only four hours, during which the travelling humans are put to sleep. Faster-than-light speed and deep sleep during space journey are used in many science fiction novels and movies nowadays. Kepler’s book, therefore, is usually regarded as the first example of a space travel story. Following in his steps, in the twentieth century several scientists such as Isaac Asimov and Stanislaw Lem wrote science fiction novels that included spaceships and exploration or colonization of other planets.

Although scientific discoveries since the nineteenth century have changed the understanding of time and space, the imaginations of space travel and exploring alien planets still maintains an important place in scientific studies. The most prominent speculations on space travel and colonization belong to New Physicists²⁹ who work on astronomical phenomena such as black holes and wormholes. Winterson has a notable interest towards the discussions of New Physicists on the future of humanity in space, especially towards Stephen Hawking’s imaginations of a future in which humankind will have dominion over the matter in space. Hawking’s claim that “[o]nce we spread out into space and establish colonies, our future should be safe” (“Move to a New Planet”) is especially criticized by Winterson, and the idea takes a central part in *The Stone Gods*. Winterson sees Hawking’s idea on space colonization as “a boy’s fantasy” and states that “[w]hen Stephen Hawking bangs on about how the future of mankind is in space, it makes me really depressed [...] I want to challenge the idea that we can simply leave” (“Science in Fiction”). Accordingly, in *The Stone Gods* Winterson problematizes the anthropocentric view of the universe as a place that provides resources for the advancement of humanity. She contends that space travel and exploration of far planets cannot entirely be seen as a sign of progress, since Planet Blue does not become a more advanced planet than Orbus. By employing the same science fiction tropes that are used by scientists like Hawking in their imaginings of space colonization, Winterson develops a counter argument which proposes that history is not progressive, but repetitive; thus, settling on another planet can only bring about the same outcomes for humanity. As such, she proposes a postmodern critique of the “progress through space colonization” discourse by appropriating space travel motif into her novel in such a way that it becomes a vehicle of regression rather than progress.

It can be argued, therefore, that in *The Stone Gods*, Winterson depicts a future in which the imagination of Hawking has become a reality; people of Orbus have the skill to build spaceships that can travel vast distances. They send astronauts on missions to find a planet similar to Orbus so that they could colonize it and continue the progress of their civilization there. Since Winterson's concern is to subvert narratives of progress, she appropriates space travel motif into her novel's plot not as a sign of human progress, but as a technology that initiates the end of human civilization. In other words, Winterson shows that moving beyond one's own planet does not lead to a continuous, linear progress as most scientists have imagined; but that it leads to the repetition of same mistakes. When the crew from Orbus arrives on the new planet, they plan "to develop a hi-tech, low impact society" by "making best of [their] mistakes on earth" (SG 39). This plan – to learn from the mistakes of the past and become a better civilization in the future – is in fact related to the idea of modernity "that the modern, rational way of dealing with problems is to sweep away the inherited clutter from traditions, clean the slate, and start again from scratch" (Toulmin 175). Manfred's aim to begin again differently on Planet Blue (SG 39) echoes this idea. He imagines that with the current technology at their disposal and the knowledge gained from their past mistakes, human beings can build an advanced civilization on Planet Blue, and continue to develop. However, the text problematizes the progressive view that humankind always learns from their mistakes. As Billie of Orbus speculates, "[w]hat if we really do keep making the same mistakes again and again, never remembering the lessons to learn but never forgetting either that it had been different, that there was a pristine place? Perhaps the universe is a memory of our mistakes" (SG 106). Winterson explores this idea by shifting human civilization from one planet to another via space travel. Although with each shift humanity imagines a superior future, they end up in the same apocalyptic setting.

In the second chapter of the novel, "Easter Island," Winterson shows a vignette from the future of humanity on Planet Blue. The events take place on a small island, but they represent the condition of humanity on each planet they settle. This short chapter can be seen as summary of the whole novel for it includes a critique of two metanarratives; religion and science, which are reflected as equally problematic throughout the text. Gregory J. Rubinson states that this critique is a common theme of Winterson's writings: "[i]n her fiction and essays, she frequently espouses a traditional Romantic (i.e. anti-Enlightenment) ideal of art as salvation

[...] Just as religion has failed in its promise of salvation, science and technology – the Enlightenment replacements for religion – have failed” (227). Accordingly, Easter Island is an example of religion’s failure to bring salvation, happiness, and prosperity to people. Instead of development, there are destruction and famine on the island. The natives sacrifice nature to please their gods whom they see as protectors and helpers. However, the gods do not help the natives develop a better civilization. On the contrary, they remain passive and let the humans eradicate themselves. Centuries later, *MORE-Industries* replace the stone gods of the natives of the Easter Island. It is a corporation built by people, but also needed by people in order to have better – in their view, more technologically assisted – lives. Just as the natives of Easter Island cut all the trees on the island in the process of making the stone gods, people of the future similarly disrupt the ecosystem while producing their high-tech devices. MORE and the stone gods resemble each other in that they both fail to help people despite having been built to assist them in the first place. Like Orbus, then, Planet Blue also represents the failure of the project of modernity.

At the beginning of the third chapter, which takes place on Planet Blue, MORE is in the process of establishing its dominance in Tech City by providing people with technological aid. Therefore, the last two chapters imply that the future of Planet Blue will be no different than that of Orbus and Planet White; people again will look for another planet to escape, and they will in the same manner destroy it and leave it for another planet. This endless cycle negates the idea of continual progress. On a similar note, Walker suggests that “we cannot think of [Billie and Spike’s] story as the cumulative journey of autonomous individuals to a future in which we will finally access the knowledge needed to fix our past mistakes and respond to our present environmental problems” (53). On the contrary, Billie, Spike, and all humankind will re-live their past lives, because they will never be able to escape beyond history, which is not progressive, but repetitive. It can be concluded, therefore, that by using space travel and future-world motifs, Winterson proposes a postmodern challenge towards progress narratives, and she puts forth that advanced technology do not solve the problems of humankind.

In addition to borrowing temporal and spatial elements from science fiction, Winterson also employs technologies that are frequently found in science fiction works. *The Stone Gods* includes, for instance, advanced biotechnology, cybernetics, and robotics, futuristic transportation technologies, holograms, and so on. The focus

in the novel is on biotechnology, cybernetics, and artificial intelligence; Winterson fuses them into her story in order to problematize progress narratives and humanist-patriarchal discourses about what it means to be human. In terms of biotechnology, Winterson applies such technologies as genetic fixing, genetic reversal, and body modifications. Much as these elements belong to science fiction genre; in recent decades scientists, transhumanists,³⁰ and posthumanists³¹ are debating on the possibility of such technologies in reality. In order to understand how Winterson deconstructs progressive techno-scientific discourses on the present and the future of humanity, it is imperative to recognize the metanarrative that she most criticizes, namely, extropianism.

Extropianism sees science and technology as the ultimate tools for the betterment of humanity. Max More, who first developed the principles of extropy, sums it up as “an evolving framework of values and standards for continuously improving the human condition” (n.pag.). On his website, he lists the main principles of extropy as follows: perpetual progress, self-transformation, practical optimism, intelligent technology, open society – information and technology, self-direction, and rational thinking. Following More’s ideas, extropians believe that human beings are still in the process of evolution towards becoming superior beings, and that they can only fix their current flaws with the help of science and technology. Their discourse is well explained by Eugene Thacker, who contends that “the rhetoric of extropianism is – like that of most technophilic movements – about the world in the service of the human (be it the natural world, as in biotech, or the artificial world, as in AI)” (78). It can be argued, therefore, that extropianism is a metanarrative like Christianity or the Enlightenment, both of which see nature as an entity to be dominated and made use of by human beings. Thacker also sees extropianism as a continuation and an advanced version of Enlightenment ideals: “[l]ike the Enlightenment's view of science and technology, extropians take technological development as inevitable progress for the human. The technologies of robotics, nanotech, cryonics, and neural nets all offer modes of enhancing, augmenting, and improving the human condition” (75). Extropianism postulates that as new sciences and technologies offer new possibilities, progress narratives continue to imagine a superior future for humankind. However, extropianism’s absolute belief in progress and its anthropocentric point of view makes it open to postmodern questionings, which regard all totalizing narratives and humanist claims with suspicion.

As their discourses demonstrate, technologies imagined by extropian transhumanists are similar to the technologies seen in science fiction works. Both science fiction authors and extropians ground their discussions of future technologies on the current developments in science and technology. While extropians have an idealistic approach, science fiction authors can either have an optimistic or a critical attitude towards technologies of the future. Postmodern theorists and authors, on the other hand, have a skeptical approach towards the philosophical and cultural repercussions of present and future technologies. As they regard all claims of totality and progress with suspicion, they reveal the problematic nature of the progressive techno-scientific discourses – like extropian transhumanism – that maintain Enlightenment visions. An example of the postmodern view towards technological progress can be found in Lyotard's book *The Inhuman: Reflections on Time*, in which he argues that

It scarcely seems that [...] generalized accessibility offered by the new cultural goods is strictly speaking a progress. The penetration of techno-scientific apparatus into the cultural field in no way signifies an increase of knowledge, sensibility, tolerance and liberty. Reinforcing this apparatus does not liberate the spirit, as the *Aufklärung* thought. Experience shows rather the reverse: a new barbarism, illiteracy and impoverishment of language, new poverty, merciless remodelling of opinion by the media, immiseration of the mind, obsolescence of the soul, as Walter Benjamin and Theodor Adorno repeatedly stressed. (63)

Lyotard questions the association of science and technology with progress by proposing a counter argument. For him, the merging of advanced technologies with life and culture is not a progressive condition; on the contrary, technologies of the future have the ability to turn people into even more inferior beings. Following this discussion, Lyotard further challenges the dominance of humanity on the process of techno-scientific advancement, arguing that human beings are not in control of the technology they created; instead, “technology and the culture associated with it are under a necessity to pursue their rise,” while “[t]he human race is, so to speak, ‘pulled forward’ by this process without possessing the slightest capacity for mastering it” (*The Inhuman* 64). Lyotard calls this process “complexification (of neg-entropy),” which means that negentropy (or extropy) is a problematic ideology

because humans cannot improve themselves with a technology that they cannot completely control.

This postmodern challenge towards progress narratives such as the Enlightenment and extropianism is also voiced in *The Stone Gods*. While interrogating extropian ideologies – all of which include speculative future scenarios as in science fiction works –, Winterson resorts to science fiction mode and tropes, and presents a version of the future of humanity in which biotechnology has not eliminated all problems of humanity, but, as in the argument of Lyotard, has become a social manipulation tool at the hands of authorities. *The Stone Gods* indeed echoes Lyotard's postmodern critique of technology, since it presents an alternative scenario to the ideals of extropians. Moreover, in the text the discourses on progress are associated with patriarchal politics, which are also at the core of modernity project. On this account, there is not a condemnation of technology with a completely technophobic approach, but an exploration of the usage of technology by corporations, the media, both of whom serve the patriarchal social structure, and by political authorities who claim that technology brings progress, but who instead participate in the creation of an apocalyptic environment. In other words, there is a correlation between the condition of Orbus and control of science and technology by certain authorities. As Sonia Villegas-Lopez conveniently puts forward, Winterson offers “a picture of a masculine science that [...] segregates the sexes and reinforces gender exploitation” and criticizes “the male bias present in scientific institutions and its manipulation at the hands of corporations and the state” (37). In other words, she appropriates science fictional biotechnologies into her novel to expose the patriarchal and totalizing ideologies behind the regulations of technology usage in society.

In her article “Bodies That Matter: Science Fiction, Technoculture, and the Gendered Body,” Kaye Mitchell asserts that “sf is one of the discourses [...] that can serve to reformulate the social and cultural meanings of the gendered body in the technological age, as well as imaginatively refashioning its very forms – molding its matter, as it were, in some hypothesized future world” (110). Science fiction, then, provides a vast imaginative ground and various techno-scientific motifs for the authors who want to explore the boundaries of human body as well as the physical/psychological determinants for being labelled as male or female. Accordingly, Winterson makes use of the advanced technological opportunities provided by science fiction when approaching the issues concerning gender and

body. In both *Orbus* and *Planet Blue*, advanced biotechnology allows people to manipulate their bodies. People can, for instance, genetically fix their ages when they want. Billie remarks: “‘The DNA Dynasty,’ they called us, when the first generation of humans had successful recoding” (SG 10). Like extropians who contend that human biology has many failures waiting to be fixed by science and technology, people of *Orbus* believe that “age is an information failure” (SG 10). Eventually they realize the extropian dream of becoming immortal, and they fix the failure of aging with the help of biotechnology.

However, Winterson reflects a postmodern incredulity towards the metanarrative of extropianism by exposing the ideologies behind the genetic fixing technology. Like the expansionist politics that uses space travel technologies to invade and colonize new planets, genetic fixing is under the control of a capitalist and patriarchal government. Considering Winterson’s critique of patriarchy, Hope Jennings takes notice of a pun in the term “genetic fixing;” she states that “rather than freeing women and men from those discourses dictating the terms of gender according to appearance, these have become even more rigidly fixed than before, stressing further the disparities between the physical expectations for the sexes” (137). Strictly speaking, what is fixed is not the age, but the differences between the roles and appearance of men and women. At first, genetic fixing may seem like a solution for aging, but for women it means something else; they “feel they have to look youthful” (SG 11), because men demand them to be so. Media further promotes youth for females by presenting even younger female celebrities, who are desired by men and idolized by women. One of Billie’s clients, Mrs. McMurphy, for instance, “wants to be genetically reversed to twelve years old” (SG 14) to resemble Little Senorita, a celebrity of whom her husband is a fan: “a twelve-year-old pop star who has Fixed herself rather than lose her fame” (SG 19). Although Mrs. McMurphy is originally fixed at twenty-four, her husband thinks she is old compared to other women who are “young and beautiful,” and it is stated by Billie that a lot of men like Mrs. McMurphy’s husband “are chasing girls who are just kids” (SG 21). All of these examples indicate that the perception of gender roles in a society can be manipulated by the cooperation between government and the media.

In its further exploration of science and technology as not objective fields, but as tools used for imposing the dominant male ideology, the novel reveals the inequality in the application of biotechnologies on the human body. While bodies of

women are shaped by the demands of men, the men do not make much of looking young, and “the lifestyle programmers are full of the appeal of the older man” (SG 11). The difference between genders – females are extremely young while men are old – is maintained by constantly reminding people that they should use biotechnology to fix their ages. The ones who refuse to do so are arrested and punished. In this respect, genetic fixing becomes a means to perpetuate the already existing gender roles in society. Technological innovation does nothing to change traditional and patriarchal social structures; it “has not by itself radically addressed or transformed the socio-historical and cultural encodings of power because it continues to privilege male desires” (Jennings 137). In other words, a real change in human history can occur not by developing new technologies, but by abolishing human- and male-centred thinking. Otherwise, biotechnology becomes a tool that clusters people into certain gender roles, instead of providing them self-direction as extropians believe. In short, through employing science-fictional biotechnology, Winterson challenges the progress narratives of extropians and argues that as well as enhancing human bodies, biotechnology can also be used by the government, corporations, and the media to manipulate society, since its development and usage are still regulated by patriarchy.

Much as Winterson has a critical view of the application of biotechnology on people, she also acknowledges the potential of future technologies to obliterate the boundaries between human and machine. When the disruption of the border between human and machine is in question, the first technology that comes to mind is cybernetics. Accordingly, in addition to bioengineering, cybernetics is included in *The Stone Gods* as one of the most advanced technologies of the future-Orbus. People, especially the members of enforcement branch, modify their bodies with cybernetic limbs in order to become stronger or more efficient. Moreover, all the citizens of Tech City carry a “data-chip implant” on their wrists (SG 33), which stores information about their lives. Most people in Tech City, then, are turning into organic/cybernetic hybrids by applying technological apparatus to their bodies. In other words, they are becoming cyborgs.

The “cyborg” icon is one of the essential elements of science fiction. In technical terms, it is “a being which typically has an organic platform integrated with a complex technological superstructure” (Critical Art Ensemble 12). To put it simply, cyborg is the combination of *cybernetic* parts with the *organic* body, turning the body

into a hybrid construct. The word was first used by Manfred E. Clynes and Nathan S. Kline in their article “Cyborgs and Space” (1960) in which they proposed that “[a]ltering man’s bodily functions to meet the requirements of extraterrestrial environments would be more logical than providing an earthly environment for him in space” (26). The proposition of Clynes and Kline could not immediately be put into practice; yet, science fiction writers speculated on the possibility of such body enhancement technologies and their effects on people’s lives.

The first occurrence of a cyborg-like being in literature can be found in a short story which was written before the term was coined. In 1879, American author Edward Page Mitchell published a short story called “The Ablest Man in the World” which included a character with a modified skull. The story depicts how the mental patient Baron Savitch’s brain was replaced by a mechanical clockwork brain, allowing him to become a more intelligent person who makes no mistakes. Decades later, Martin Caidin’s novel *Cyborg* (1972) introduced another cyborg character with a greater number of replaced limbs. *Cyborg* tells the story of the ex-astronaut Steve Austin, whose body is modified with cybernetic limbs after he loses most of his body in an accident. As in the case of Baron Savitch, the replacements on Austin’s body are far more superior than his original organs. Similar representations of cyborgs appear in movies as well. Darth Vader in the *Star Wars* series, for instance, is one of the most famous examples of a cyborg. The representations of cyborgs in science fiction indicate that limb replacement might be made in order to save the human being or to enhance his/her body capacities (or both). Regardless of the reason, the hybrid being is still called “cyborg” and he/she often becomes a superior being than unmodified humans.

Because of its hybrid nature, in the late twentieth century the cyborg began to appear both as a literal being and as a metaphor “in writings on gender or in postmodernist (or post postmodernist) studies of text” (Clark 4). Cyborgs especially attract the attention of postmodern critics and authors since they erase the boundaries between dichotomies; they are neither organic nor inorganic, but occupy a space of both. The most influential appropriation of the cyborg motif into postmodern theory and discussion can be found in Donna Haraway’s article titled “A Cyborg Manifesto” (1985) in which she defines cyborg as “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction” (149). Thus, for Haraway, cyborg is not only in between machine and organism, but

it is in between reality and fiction as well. Although Haraway focuses on women and gender in her article, her approach to these issues is dominantly postmodern. She declares that her article is “an effort to contribute to socialist-feminist culture and theory in a postmodernist, non-naturalist mode and in the utopian tradition of imagining a world without gender, which is perhaps a world without genesis, but maybe also a world without end” (150). As such, she discusses how the cyborg image erases the boundaries between culture and nature, male and female, human and animal, organism and machine. Ralph Schroeder, while coining the term “cyborg post-modernism,” likewise refers to the ambiguous position of cyborgs in human/machine opposition. His “cyborg post-modernism,” accordingly, “revolves around the notion that the boundaries between humans and machines are becoming irretrievably blurred” (519), and in the future the two creatures will be indistinguishable. Science fiction often predicts the scientific, economic, political, and social consequences of this possible organic-cybernetic fusion, while postmodernism is more interested in how this fusion subverts the hierarchies, erodes boundaries, and changes people’s understanding of what it means to be human. Hence, cyborg people are appropriated into *The Stone Gods* mainly to problematize the dichotomy between human and machine.

In the novel, the police force is the most visible example of organic-cybernetic fusion. CanCops, whose bodies are technologically modified in order to become faster and stronger, are beings which defy certain categorization. When Billie confronts a CanCop who has mechanical legs, she asks him: “You’re a human being, aren’t you?” and the cop answers: “Mostly” (SG 49). Since only his legs are cybernetic, he sees himself “mostly” human. Being organic, then, is equated with being human. Billie is initially of the same idea; she appeals to the cop’s human side and asks him to be reasonable, and not arrest her by saying: “I wasn’t talking about your legs. Your brain is human. Your heart is human” (SG 49). Billie thinks that having an organic brain and a heart are sufficient conditions for being labelled as human. However, the text constantly problematizes the characteristics that are associated with humanity. CanCop has a human brain, but Billie realizes after their conversation that he likes “simple sentences” like commands, and he is “dream-free, inoculated against doubt” (SG 51). His brain works like a programmed robot instead of making contemplations as usually expected from a human mind. The novel thus

downplays the supposed superiority of organic human over cybernetic machine, and problematizes the traditional definitions of “human.”

Winterson’s treatment of human-machine fusion in the novel echoes the concerns of the philosophical and cultural branches of posthumanism. It can be argued that while Winterson criticizes extropianism, she allies herself with the critical posthumanists who think that the elimination of the clear distinction between human and machine will open up new ways to question rigid categorizations. This kind of approach to human-machine fusion has postmodern characteristics, as reflected in the discussions of two major scholars: Robert Pepperell and Katherine N. Hayles. Pepperell’s book *The Posthuman Condition* (2003), whose title alludes to Lyotard’s *The Postmodern Condition*, investigates the junction points between postmodern philosophy, science fictional imagination, and emerging technologies of the new century. Pepperell argues that biotechnology, posthuman creatures, and cyborgs, which are usually found in the science fiction texts, are becoming the realities of life in the twenty-first century. He contends that

In our own time, technological advances multiply exponentially in the fields of micro-electronics, gene manipulation, and communications and point to the possibility of controlling, synthesising or even surpassing aspects of nature which until now have eluded our command. The tendency towards artificial life, synthesised intelligence, and telepresence is eroding the barrier between ‘natural’ and “human-made” phenomena. It is not at all unfeasible to think of ourselves communicating with a synthetic intelligence on another planet, swapping samples of bio-digital artificial life through interplanetary cyberspace. Once we can conceive of such activities, and more importantly understand how they might be realised, the need to impose a fixed distinction between nature and humans diminishes. We will simply cease to think in those terms any more. The posthuman era, then, begins in full when we no longer find it necessary, or possible, to distinguish between humans and nature. This does not mean that the categories of human and nature, or indeed gods, will cease to exert any influence over the conduct of global affairs. But it will mark the time when we truly move from the human to the posthuman condition of existence. (161)

As Pepperell points out, there is a close connection between postmodern and posthuman conditions; in both of them there is a disappearance of boundaries, problematization of certain categories, and subversion of anthropocentric thinking.

Katherine Hayles likewise stresses the role of posthuman technologies in erasing the boundaries between binary oppositions and reshaping the understanding of human and machine. She contends that “the posthuman view configures human being so that it can be seamlessly articulated with intelligent machines. In the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals” (“How We” 3). Thus, as in postmodernism, the essential differences between human/machine, biological/technological, virtual/material dichotomies are problematized in the posthuman view.

A similar problematization is made in *The Stone Gods* not only by introducing cyborg people, but also by introducing humanoid robots. Posthumanism further asserts that the future of robotics is as important as the future of humanity, since both beings are becoming more dependent on each other. Instead of focusing only on biotechnological human development, therefore, posthuman theories such as Pepperell’s encapsulate all possible technological developments of the future, including computers and machines with strong artificial intelligence. He states that “[t]he debate about machine thought is central to the notion of synthetic beings [...] and to our understanding of the posthuman condition as a whole,” (146) and believes that “it is likely that machines (or what we now know as machines) will acquire mental capacities comparable to those we recognise in humans” (147). For this reason, there cannot be a debate about posthumanism without considering the role of the machines in the future, since machines have a potential to resemble human beings in all aspects, just as humans gradually resemble machines.

Accordingly, in *The Stone Gods* while human beings are becoming more mechanical by applying technological enhancement to their bodies, robots are becoming more like human beings with their advanced artificial intelligence and their ability to evolve. In addition to the cyborg, Winterson borrows the humanoid robot icon from science fiction in order to problematize the distinction between the authentic and the artificial. She presents an extremely advanced model of humanoid robots, *Robo sapiens*, who – like cyborgs – can be seen as postmodern creatures

because they can neither be categorized as robots nor as human beings. One particular Robo *sapiens*, Spike, is one of the two main characters in the novel, and this is important considering her position in the traditional hierarchy between robots and their creators. Spike defies traditional categorizations of human and robot both physically and psychologically. Gradually, she becomes the evidence that there is not a clear distinction between an authentic and an artificial human being any longer.

In constructing Spike, Winterson uses as sample the humanoid robot images in science fiction works which have been speculating on the improvement of robots for many decades. In order to have a better understanding of the function of the robot icon in postmodern novels and in *The Stone Gods*, one must trace the history of imaginations of robots in science fiction; a history which is indeed based on the actual history of humanoid robots.³² Humanoid machines were imagined, designed, and constructed as early as the times of ancient Egypt and Greece, and the boundaries between human and machine have increasingly disappeared since then. In the Middle Ages, for instance, Catholic saint Albertus Magnus designed “a mobile robot – built from leather, wood, and metal – that was able to answer questions and solve problems” (Dinello 35). In seventeenth century, René Descartes designed machines that looked more like human beings. Dinello informs that Descartes “even constructed a female servant automaton that he called Francine” (36). Eighteenth and nineteenth centuries were the age of automata; inventors such as Jacques de Vaucanson, Gustave Vichy, and Leopold Lambert designed animated toy machines which replicated animal and human bodies (Dinello 36-7). Combined with industrial machines, these automata would become the prototypes of the machines that are known today as robots.

In the twentieth century, human beings followed their purpose to build humanoid robots in both reality and fiction. While in reality creatures like golems, automatons, and other humanoid machines evolved into more sophisticated machines, writers of science fiction speculated on the consequences of such advancements for humanity. For this reason, science fiction has often visualized what is ahead of contemporary science and technology. It is no surprise, then, to find sophisticated humanoid robots in fiction while in reality humankind has not yet developed enough technology to build them. As a matter of fact, the word “robot” was first uttered in a work of science fiction. In 1920, Czech writer and dramatist Karel Čapek wrote a science fiction play called *R.U.R. (Rossum's Universal Robots)*

in which he used the word “robot” (which was derived from the Czech *robota*, meaning forced labour) to refer to humanoid mechanical slaves designed by human beings. This play is important because it is among the first fictional works that problematize the boundary between human and robot. As such, it presents the progenitors of contemporary humanoid robots such as the Robo *sapiens* Spike in *The Stone Gods*. In *R.U.R.*, robots gain consciousness and revolt against their masters. This “acquisition of ‘souls’” by the robots “lead[s] to demands for emancipation, whose refusal has the potential to precipitate social conflict” (Stableford 22); hence, it can be said that the first representation of humanoid robots in fiction shows them as beings who can evolve (i.e. gradually become intelligent) and who have enough consciousness to demand equality. Moreover, *R.U.R.* is the first known work of fiction that depicts robots exactly like human beings. Instead of looking mechanical, synthetic bodies of Čapek’s robots are indistinguishable from those of organic human beings. The play and its representation of robots was so influential that the word “robot” “was borrowed by other writers for application to mechanical humanoids capable of being mistaken for human beings” (Stableford 442).

As the process of its evolution demonstrates, “robot” has gained different meanings as writers gave it different characteristics and engineers added different features to it. Nearly twenty years after the staging of *R.U.R.*, for instance, American science fiction writer Lester del Rey’s short story “Helen O’Loy” complicated the meaning of robot even more by including a female robot who has emotions and the ability to feel love. While Čapek’s robots rebelled against their creators after developing consciousness, del Rey’s Helen falls in love with her creator, and this makes her a more sympathetic robot than its previous depictions. Furthermore, Čapek and del Rey’s robots challenge the view of previous ages that the essential differences between the human and the machine were consciousness and feelings, and they open up new understandings of both human and machine.

In recent decades, the word “robot” has become even richer in meaning and equally more problematic since science fiction works began to question what it means to be human through the images of robots, androids, and cyborgs. Philip K. Dick’s influential novel *Do Androids Dream of Electric Sheep?* (1968) can be seen as the precursor of science fiction novels which interrogate the meaning of the word “human” through problematizing the distinction between human and machine. The novel includes androids called “replicants” that are indistinguishable from human

beings. Replicants can only be spotted by the application of an empathy test called the Voigt-Kampff Test; however, they have evolved so much that they can even replicate (or maybe truly experience – the distinction is not made clear by Dick) the emotions of authentic human beings. On the other hand, it is implied that some humans can fail the test, too, for they lack empathy. In this way, Dick suggests that since robots can look exactly like human beings, and they can have the same intellectual and emotional capability with them, the distinction between humans and robots becomes problematic. Another exploration of the borders between human and machine is made by Isaac Asimov in his short story “The Bicentennial Man” (1976). The story follows the short life of a robot called Andrew Martin, who was designed to do housework but who gradually develops other skills and humanlike characteristics. After collecting some money, Andrew buys his freedom and begins to live like humans. As his brain improves, he transfers it to a body which resembles more to a human body and later demands from the court to be legally recognized as human. However, the court denies his demands each time, and he eventually decides to commit suicide by terminating his brain paths. This story again interrogates the meaning of the word “human” through constructing a robot which embodies all of the features that a human being has. In addition to these well-known works of science fiction, there are many other novels and short stories that are concerned with exploring human/machine dichotomy.

Winterson makes use of this speculative nature of science fiction while exploring the boundaries of the conception of “human.” In *The Stone Gods*, there are traces of all these stories by science fiction writers: Spike can evolve through living and learning, she can develop a better consciousness and intelligence than human beings, and she can feel the same emotions that human beings have. However, instead of using the word “robot,” Winterson gives another name to this new kind of humanoid robot. The word she uses, *Robo sapiens*, can either refer to a mechanical version of *Homo sapiens*, or to a more evolved race than human beings. In both cases, the mechanical being and its name is not original.

The term *Robo sapiens* is not Winterson’s invention. In 2001, photojournalist Peter Menzel and television news producer Faith D’Aluisio published a book titled *Robo Sapiens: Evolution of a New Species*, in which they speculated on the future of robotics. On the first page of the book, they give a brief definition of *Robo sapiens*, extracted from a fictional dictionary of the future:

Robo sapiens: n (English, from robot, a mechanism guided by automatic controls; and Latin, from *Homo sapiens*, mankind) 1. A hybrid species of human and robot with intelligence vastly superior to that of purely biological mankind; began to emerge in the twenty-first century. 2. The dominant species in the solar system of Earth. [Microsoft Universal Dictionary, 2099].” (16)

This definition seems like an excerpt from a science fiction text since the date of the quotation points to an imagined future time, but it actually belongs to a non-fictional speculative book. After giving the definition, Menzel himself states: “[b]efore Faith and I began this book I would have attributed the term *Robo sapiens* to a science fiction writer” (16). Indeed, science fiction as a mode of writing is used in many non-fictional speculative texts – even in the works of scientists – for it has a rich repertoire of imaginative tropes. Accordingly, both fiction and non-fiction writers who aim to speculate on the future of humanity and the world frequently make use of the genre. Menzel and D’Aluisio are no different; their questions are the same with those of science fiction writers: “how long – or how short – a time will it be to the next step, *Robo sapiens*” (17), how the consciousness in machines will function, what kinds of roles will the machines with consciousness have in daily life, and will they be able to mechanically evolve (17-18)? These questions find place in *The Stone Gods* as well, but Winterson focuses more on the philosophical questionings of such technology, rather than how and when it can be developed. She investigates what it means to be human in a posthuman era in which robots have become indistinguishable from human beings.

The *Robo sapiens* Spike can be seen as a descendant of such robots as del Rey’s Helen and Dick’s replicants, for she is both physically and emotionally identical to organic human beings. Accordingly, when Billie first sees Spike, she is baffled by the proximity of her appearance to those of her creators. Billie thinks that it is “[a]mazing to look so convincing and be nothing but silicon and circuit-board” (SG 7). On the outside, Spike looks convincingly human, but her body is made of non-organic elements. Conventionally, this feature puts her in the category of robot; ³³and therefore, people of Orbus treat her as a machine despite her advanced intelligence, consciousness, and emotional capabilities. Because the bodies of *Robo sapiens* are made of artificial rather than organic parts, “nobody feels sorry for them” and they are seen as “only machines” (SG 6). Even their ability to evolve is not

enough for people to treat them like human beings. Winterson continuously challenges this essentialist idea that being human means having flesh, bones, and blood.

After spending time with Spike, Billie realizes that although she is not made of flesh and blood, Spike is more human than she imagined her to be. She says that she “forget[s] all the time that [Spike is] a robot” (SG 99), and then she wonders why, and on what grounds people categorize beings as human and robot. She asks: “what's a robot? A moving lump of metal. In this case an intelligent, ultra-sensitive moving lump of metal. What's a human? A moving lump of flesh, in most cases not intelligent or remotely sensitive” (SG 99). Billie’s reasoning reveals that in addition to flesh and blood, intelligence and sensitivity also cannot be seen as traits that are exclusive to human beings because there are humans who do not have them, while there are robots who do. Moreover, Spike has awareness of her existence in the world and she can make philosophical questionings as humans do. For Billie, these traits are enough to see Spike as a living being. She observes that when Spike was lying next to her, “[t]here was no rise and fall, no small sighs, no intake of air, no movement of the lips or slight flex of the nostrils. But she was alive, reinterpreting the meaning of what life is, which is, I suppose, what we have done since life began” (SG 99). As such, the importance of being made of flesh or metal is downplayed; the stress is on the similarity between humans and robots. Spike, like all human beings, tries to understand life and the purpose of her being. Thus, the struggle of Billie to categorize Spike indicates that as Pepperell and Hayles argue, future technologies may create a posthuman world in which traditional definitions of human and the binary between organic and artificial will become obsolete.

Posthumanist theorists argue that in addition to blurring the distinction between authentic and artificial humans, future technologies will eliminate the anthropocentric thinking and ideologies. As Thacker points out, “many of the implications of posthuman technologies – distributed computing, computational biology, and intelligent systems – fundamentally challenge any position that places the human at its center” (94). Accordingly, the era of the posthumans will be a turning point in history, much like the discovery that the Earth revolves around the Sun, which challenged the geocentric view that had been prevalent for many ages. This time, the change will occur in the position of humans in the universe as they realize that they are not unique or superior, but they are a part of the informational

system that surrounds them. They will also realize that they may be superseded by intelligent robots who can better adapt to their surroundings and who have the ability to live forever because their bodies are not organic, therefore their parts are replaceable.

Such challenge to anthropocentrism through posthuman technologies is evidently observed in *The Stone Gods*. Spike's portrayal as a highly intelligent machine which has the ability to evolve into an even superior form challenges humanity's position at the centre of all being. Winterson clearly portrays *Robo sapiens* as a more evolved and advanced version of *Homo sapiens*, but humans still refuse to see machines as superior to themselves, let alone equal. Billie first thinks that "Robo *sapiens* are not us, but they may become a nearer relative than the ape" (SG 34). Thus, she still holds the idea that humans are the most evolved beings in the universe. For Billie, robots might be more evolved than apes, but they cannot be as evolved as humans; they can only become a close relative. Billie's conversations with Spike, however, reveal that robots are evolving towards being extremely identical to human beings. When Billie asks Spike "[d]o we feel kinship with robots," Spike answers: "[i]n time you will, as the differences between us decrease" (SG 34). As their conversation continues, it becomes clearer that robots will not only resemble human beings, but also supersede them. Moreover, it will be *Robo sapiens*, not *Homo sapiens*, who will survive in the posthuman future. It is stated in the novel that *Robo sapiens* do not even need human beings to exist; when Billie says "[r]obots can't exist without humans," Spike answers: "[t]hat was once true [...] It isn't true anymore. We are solar-powered and self-repairing. We are intelligent and non-aggressive. You could learn from us" (SG 79). Here, the hierarchy between humans and machines is subverted; it is humans who depend on robots in order to live, rather than the opposite; and it is robots who are the masters that can teach humans to become better beings.

As demonstrated by the examples given in this chapter, in *The Stone Gods* science fiction elements are used to make various postmodern interrogations. The novel borrows spatiotemporal motifs from science fiction to question and problematize the traditional understanding of time, space, and progress. Employment of different time periods (past and future worlds) subverts linearity, while space travel is also used to highlight the repetitiveness and non-linearity of the history of mankind. Moreover, by foregrounding the destructive effects of technology, *The*

Stone Gods makes a critique of the Enlightenment belief in technological progress which has found revival in the extropianist discourse, and it subverts this discourse by reflecting a dying world and a dying humanity. However, it also suggests that there is no such notion as an absolute end; after each catastrophe the history goes back to year one and starts from the beginning. Winterson also uses science fiction's most famous icons, cyborgs and robots, to disrupt authentic/artificial, human/robot dichotomies. Cyborg humans and humanoid robots have similar functions in the novel. Employed together, they erode the foundations of humanist and extropian metanarratives, and totalizing, anthropocentric systems. They disrupt authentic/artificial, human/robot dichotomies, subvert anthropocentric hierarchies, and bring to light the need for a redefinition of "human," whose existence has become more problematic than ever in the postmodern and posthuman condition.

CONCLUSION

Postmodern fiction and science fiction have been interacting with each other since the 1960s, and this interaction brought forth a large number of postmodern and science fiction texts that borrow elements from one another. Although science fiction elements have found place in various literary genres – especially in utopian and dystopian fiction – for many centuries, they began to fuse more into (non-science-fiction) novels and short stories especially in the second half of the twentieth century. Unlike realist novels – which were the dominant mode of fiction – of eighteenth and nineteenth centuries, and modernist novels of the early twentieth century, postmodern novels included a considerable number of science fiction tropes and motifs such as future-worlds, time travel, space travel, advanced laboratories, mad scientists, robots, cyborgs, body-enhancement technologies, and bio-engineering. This notable and even excessive inclusion of science fiction elements in postmodern texts attracted the attention of various critics, and opened up a new area of study which embodied different examinations and interpretations of the exchange between postmodern fiction and science fiction.

There are various reasons behind the tendency of postmodern authors to borrow from science fiction. Although their inclination to create intertextual, hybrid texts is an important factor in postmodern authors' choice to incorporate science fiction elements into their novels, it would be wrong to assume that such tendency only emerged for the sake of intertextuality and hybridity. Each critic that explores the interactions between postmodern fiction and science fiction stresses a different reason for such interaction. Theresa Ebert, for instance, claims that the experimental and innovative nature of both fictions has brought them together, resulting in an exchange of tropes and narrative strategies (94). McHale, on the other hand, contends that science fiction provides materials and models for postmodernist authors, because it is an ontological genre (16). Since postmodern fiction is also concerned with ontological interrogations and subversions, it frequently borrows elements from science fiction. Istvan Csicsery-Ronay Jr. similarly stresses the appropriateness of science fiction elements for postmodern interrogations. He argues that the futurism of science fiction has always embodied a kind of postmodern theory in itself. Science fiction authors' visions of the future, for instance, usually included sciences and technologies that disrupted borders, and challenged established beliefs ("Editorial"

305). Thus, postmodern authors frequently turn to science fiction to make use of its experimental and nonconformist nature.

The close connection and interaction between postmodern fiction and science fiction, therefore, results from the fact that both genres have similar concerns, and that science fiction, which has a longer history, had already been imagining “postmodern” sciences and technologies before the actual emergence of the phenomenon called postmodernism. In addition to these ideas, it can also be claimed that the frequent exchange between two genres is the result of a paradigm shift that occurred in sciences and correspondingly in the lifestyle of people in the twentieth century. The new paradigm in science revealed that time and space were not separate entities, and that subjectivity had a large part in science, and ultimate, objective knowledge was impossible to acquire even through scientific experimentation. In addition, the developments in biology and medicine created the need for a restructuring and redefinition of human body. Cybernetics likewise brought forth new questions as to the meaning of “human;” as science and technology advanced, people could replace more parts of their bodies with cybernetic limbs, disrupting the unity of the organic body. Such advancements in science and technology affected how people perceived the world, and how authors reflected the rapidly changing world around them in their fictional works. Accordingly, since their emergence postmodern novels have included disruptions of linear time, questionings of reality, truth, and knowledge, (post)apocalyptic rather than utopian visions of future as a critique of the scientific progress narratives, and problematization or effacement of the difference between binary opposites such as male/female, authentic/fake, organic/artificial, and even human/robot. In order to make these postmodern interrogations, certain postmodern texts have made use of science fiction elements.

As examples of the appropriation of science fiction elements into postmodern texts, two novels have been analyzed in this thesis: Angela Carter’s *The Passion of New Eve* and Jeanette Winterson’s *The Stone Gods*. These novels are specifically selected because they reflect the function of science fiction elements in making postmodern interrogations in the best manner. Moreover, the fact that there is a thirty-year gap between their publications allows this study to examine the similarities and differences in postmodern texts’ incorporation of science fiction elements in different decades. Since science fiction is a progressive genre which advances in parallel with the advancements in science and technology, even a decade

may cause a great increase in new motifs and ideas. This is one of the reasons why the main difference between the two novels is their employment of science-fictional technologies and gadgets.

As pointed out in chapters I and II, *The Passion of New Eve* and *The Stone Gods* have been read as either postmodern or science fiction novels by various critics because they embody both postmodern concerns and techniques, and science fiction motifs. Their different interpretations indicate that deciding on the genre of a text is a problematic issue. As Daniel Chandler suggests, “the classification and hierarchical taxonomy of genres is not a neutral and ‘objective’ procedure. There are no undisputed ‘maps’ of the system of genres within any medium [...] Furthermore, there is often considerable theoretical disagreement about the definition of specific genres” (1). Since there is not a common agreement on what constitutes a genre, the same literary work can be labeled differently by critics, scholars, or readers. Similarly, some reviews see *The Passion of New Eve* and *The Stone Gods* as examples of postmodern fiction, while some see them as science fiction texts.

The authors themselves contribute to this generic confusion: although Carter declared her interest in science fiction several times, she never claimed that she wrote *The Passion of New Eve* as a pure science fiction text. Similarly, Winterson rejects to put a label on *The Stone Gods*, claiming that a book’s genre does not define its value. However, a considerable number of books on postmodernism and postmodern fiction include novels of both authors as examples of postmodern texts. As much as their novels include elements from fairytales, fantasy, science fiction, and other genres, neither Carter nor Winterson have been called fantasy or science fiction authors. This is because their novels are “predominantly” postmodern; elements they borrow from other genres have not taken precedence over the postmodern characteristics of the texts.

Putting certain labels on novels (and authors) is problematic, yet it is useful in examining the interactions between different kinds of literary works. This is why scholars and critics who have examined the interaction between postmodern fiction and science fiction –especially McHale – have defined the novels that they have analyzed as either postmodern or science fiction although the texts borrowed elements from other genres. Two parts in McHale’s book, “The science-fictionalization of postmodernism” and “The postmodernization of science fiction,” are good examples of this approach. All of the novels McHale analyzes have

postmodern and science fiction characteristics, but he categorizes them according to their dominant “approaches” to certain subjects. Briefly, he contends that a science fiction novel and a postmodern novel may include the same motif, but they treat it differently. Similar to McHale’s categorization, this thesis regards *The Passion of New Eve* and *The Stone Gods* as examples of postmodern fiction because of their dominant attitude towards the fictional worlds and events they depict.

Although *The Passion of New Eve* and *The Stone Gods* are written in different decades and have different authors, they are similar in their appropriation of science fiction elements. Both novels take place in future-worlds and at the same time both of them have ambiguities about temporality. *The Passion of New Eve* takes place at a time that seems to be the near-future of its author’s reality, or in a parallel universe version of the United States. Either way, the setting is futuristic, but also primordial because there is a chaotic atmosphere which is used as a metaphor of the process before a new being comes into existence. *The Stone Gods* takes place on an imaginary planet called Orbus which looks like the future version of Earth. However, as the novel progresses it is revealed that the events on Orbus had happened before Planet Blue (i.e. Earth) was discovered. Thus, future-world motifs in both novels serve as a means to create fragmentations in time, or to subvert past-present-future linearity. As have been explained in the previous chapters of this thesis, questioning linear history and temporality is a major characteristic of postmodern fiction. Accordingly, the novels that are analyzed here constantly problematize the conventional understanding of time. At the beginning of both novels the setting is futuristic and apocalyptic, but their cyclical plots lead the events towards a beginning. In *The Passion of New Eve*, the protagonist declares at the end of the last chapter that her journey has brought her (and the world) to the beginning, and the text constantly stresses the “curvilinear” nature of time. Similarly, in *The Stone Gods* people keep repeating the same actions; they destroy their own world, then they build a spaceship and travel to another planet, build a civilization there, destroy that planet, too, and escape again to a different planet. Hence, each story ends with a beginning; the futures turn out to be the pasts of humanity. Such treatment of time is in stark contrast with linear temporality, and presents alternative visions of time.

In addition to disrupting linearity, the future-world motif – in the form of (post)apocalypse – that both novels incorporate serves as a means to problematize the discourse of the Enlightenment metanarrative which is based on the idea that

progress is possible with the help of rationalist thought, empirical science, and advanced technologies. Progress narratives are subverted in both novels; instead of advanced, bright futures, the novels reflect decaying cities, deteriorating nature, wars, and various kinds of technology abuse. The setting of *The Passion of New Eve* is dark, chaotic, and unnatural (meaning that nature looks different because of exposure to chemical substances). There are implications of a nuclear war that happened before the main events of the novel, and the text constantly depicts an ongoing war between different factions in the United States. *The Stone Gods* takes place in three different settings and two of them are dystopian futures. Orbus is a planet which is dying because of humankind's abuse of technology, and similarly Planet Blue is in the process of being destroyed by wars and nuclear weapons. In both novels, there are depictions of wrecked cities and of chemically disfigured nature. Hence, the apocalyptic future motifs are employed to problematize the fundamental belief of modernity: that progress is possible through scientific and technological developments, and that humankind is headed towards a superior future.

All of these similarities indicate that there is little difference in the treatment of time-space and progress between a postmodern novel that was written in 1977 and one that was written in 2007. However, this thirty-year difference also brought forth new subject matters and new attitudes in postmodern fiction. Since the 1970s, postmodernism has gradually merged with ecocritical and posthumanist theories. The common point in these theories is a critique of humanism – posthumanism is usually referred to as an antihumanist theory that criticizes conventional ideas about humanity – and anthropocentrism. Their rejection of humanist values as the central determinant of norms and meaning complies with postmodern theories which are characteristically skeptical of all centers. Therefore, it is not surprising to see ecocritical and posthumanist debates in postmodern texts.

A comparison between *The Passion of New Eve* and *The Stone Gods* in terms of their employment of science-fictional technologies reveals that although both novels take place in (post)apocalyptic futures, futuristic sciences and technologies they choose to integrate are different. The prominent science fiction motif in *The Passion of New Eve* is the mad scientist's laboratory called Beulah. Beulah is both a mythical and technologically advanced place. Accordingly, most of the experiments on and interrogations of norms, social roles, mythic and religious discourses are made in this specific location. It is a "science fiction chapel" in which technology

works like magic; in other words, any modification to body and psychology can be made with the help of technology. While Beulah is described in detail, there is not much mention of futuristic technologies that are used in the outer world. Hence, the focus in *The Passion of New Eve* is on a specific place and the transformation of a specific person. The main dichotomy that is erased through the application of science fictional technologies is that of male/female, although Beulah's technology is also used to disrupt organic/artificial dichotomy, as in the example of Mother, whose body is modified by technology to look like a goddess.

The Stone Gods contains a larger number of science-fictional technologies than *The Passion of New Eve*. In the futuristic setting of Orbus, there are robots, nanobots, cyborgs, holograms, spaceships, advanced bioengineering, and technologies that can stop aging. The inventor of most of these technologies is a corporation called MORE; the major authority in Central Power. Unlike Beulah, which is a hidden underground laboratory that performs secret experiments, MORE openly interferes in people's lives; it regulates technology usage and manipulates the citizens' behaviors. Hence, it can be claimed that *The Stone Gods* has a more explicit critical attitude than *The Passion of New Eve* towards the abuse of technology by certain authorities. It is also more involved in ecological issues, and this again might be attributed to the changes that have occurred since the 1970s. Although environmentalism has a long history that dates back to the Romantic movement in the early nineteenth century, during the last forty years ecoconsciousness has increased to a higher level as technology began to take more part in human life. Accordingly, *The Stone Gods* constantly stresses how humankind is prone to destroy the ecosystem of their own planet for the sake of building a more technologically advanced civilization. Its critique of human impact on the environment is more explicit compared to the critique in *The Passion of New Eve* which does not delve much into ecological problems caused by humanity despite its apocalyptic, chaotic, and post-nuclear setting.

In addition to including ecological issues, *The Stone Gods* makes references to posthumanist debates and includes future technologies (robotics and cybernetics) that disrupt human/robot boundary. The future evolution of robots and the possible fusion of human beings with machines are among the debated subjects of philosophical and critical posthumanisms. Hence, posthumanism rejects traditional definitions of notions such as human, organism, machine, and robot. It envisions a

future in which the boundaries between biological organisms and cybernetic-mechanical devices will be erased, and, for this reason, it is usually associated with postmodern theories. Katherine Hayles' suggestion that "the postmodern anticipates and implies the posthuman" (*Chaos* 266) sums up the relationship between the two. Postmodern sciences and technologies will inevitably bring forth posthuman creatures that will not fit in any established, traditional category. The impact of new postmodern sciences and technologies can be seen in the literature as well as in the debates of the twenty-first century. Accordingly, *The Stone Gods* includes postmodern-posthuman beings such as genetically engineered people, technologically enhanced human-machine hybrids, and Robo *sapiens*, a robot that looks exactly like a human being and that can evolve as humans do. Compared to the *The Passion of New Eve*, which does not dwell much on organic/artificial dichotomy, *The Stone Gods* puts it at the center of its plot; it goes beyond male/female distinction and explores what it means to be human by comparing human beings with other organic and non-organic creatures.

The paradigm shift in twentieth-century science (also called "postmodern turn in science"), advancements in biology, and technological innovations such as computers and artificial intelligence greatly affected how people perceived the world around them. Such perception has been reflected in the literature of the late twentieth and early twenty-first century in the form of postmodern fictions that incorporate science fiction elements. In other words, the close connection between postmodern thought and science has resulted in an interaction between postmodern fiction and science fiction. This thesis has demonstrated that in order to put postmodern thought into practice (i.e. into postmodern fiction), postmodern authors turn to science fiction, a genre which has an established set of elements that allow for postmodern interrogations of reality, time, space, established norms, and dichotomies. Despite their differences, both *The Passion of New Eve* and *The Stone Gods* exemplify such kind of appropriation of science fiction elements into postmodern texts for the purpose of making postmodern experimentations and explorations.

NOTES

INTRODUCTION

¹ Science fiction elements that are referred to in this thesis encompass a wide range of icons, motifs, and tropes that are seen in science fiction works of all periods. In her comprehensive analysis of science fiction elements, Gwyneth Jones spots a unifying feature among all kinds of science fiction: “the construction – in some sense – of a world rather than our own” (163). She then lists commonly used science fiction elements, which include, primarily, “another planet (or another universe)” and “future world” motifs (163). Other common elements are rockets, spaceships, space habitats, virtual environments, robots, androids (and gynoids), cyborgs, aliens and mad scientists (163-73). Adam Roberts also lists major tropes of science fiction as “spaceships, interplanetary or interstellar travel, aliens and the encounter with aliens, mechanical robots, genetic engineering, biological robots, computers, advanced technology, virtual reality, time travel, alternative history, futuristic utopias or dystopias” (12). These elements may be exclusive to science fiction genre; however, they have often been incorporated into other sub-genres of the novel. This thesis, as its title suggests, focuses on their appropriation into postmodern fiction.

² Modernism is the name given to an early twentieth century – mostly West European and North American – movement in arts and literature which has its origins in late nineteenth century. Modernism is distinguished by its self-conscious rejection of pre-twentieth century forms of painting, music, literature, and architecture. Peter Childs and Roger Fowler explain it as a new form of art which is experimental, formally complex, elliptical, contains elements of decreation as well as creation, and tends to associate notions of the artist’s freedom from realism, materialism, traditional genre and form, with notions of cultural apocalypse and disaster. Its social content is characteristically avant-garde or bohemian; hence specialized. Its notion of the artist is of a futurist, not the conserver of culture but its onward creator; its notion of the audience is that it is foolish if potentially redeemable. (145)

The period of “high modernism” in literature is regarded as the years between 1910 and 1930, when authors such as James Joyce, Virginia Woolf, T.S. Eliot, Ezra Pound, Marcel Proust, Franz Kafka, and Gertrude Stein wrote novels that reflected modernist characteristics. In terms of their rejection of traditional forms and their experimental, fragmented structures, modernist and postmodernist novels highly resemble each other. However, they differ in their approach towards reflecting the fragmented world around them. The main difference is that modernism deplores fragmentation, while postmodernism celebrates it. In other words, while there is usually a serious, elitist, and pessimistic tone in modernist literature, in postmodern works the tone is rather playful, and there are mixtures of good and bad, high and low qualities.

³ There is not an agreement among critics on the differences between postmodernism and poststructuralism. While

[f]or a good many, mainly American, critics, French poststructuralism and its American deconstructionist offshoot are practically identical with postmodernism [...] [f]or other, mainly British, critics, there is a marked difference between Derridean poststructuralism, which from their point of view is radically cognitive and thus politically constructive, and postmodernism, which they scorn as reactionary or even nihilist. (Bertens 15)

Postmodernism might be identical with poststructuralism, for it too aims to dismantle seemingly unified narratives and dislocate the center; however, the two terms cannot be used interchangeably. Poststructuralism is a more specific intellectual movement which emerged in France mainly as a response to structuralism. Postmodernism, on the other hand, has many different interpretations and encapsulates a larger philosophical domain, including poststructuralist debates. As Bertens suggests, “[t]he postmodernist *Weltanschauung* borrows freely from all available poststructuralist positions but cannot be identified with any single one of them, transcending them in its openly political orientation” (16). Hence, the similarity between postmodernism and poststructuralism is a result of the former’s incorporation of the latter’s certain ideas into its own debates.

⁴ The term New Wave is used “to describe a loose affiliation of writers from the 1960s and 1970s who, one way or another, reacted against the conventions of traditional SF to produce avant-garde, radical or fractured science fiction” (Roberts, *The History* 230-1). Hence, the New Wave movement within the science fiction genre can be likened to the modernist movement in arts in general, which occurred in the early twentieth century.

⁵ Some scholars of science fiction point to the fact that science fiction is more than a genre, since it speculates on and criticizes scientific and technological advancements. Brian Stableford, for instance, draws attention to the emergence of the genre as a way of speculating about new discoveries and technologies in the seventeenth century (15). Farah Mendlesohn also mentions that her colleagues in genre criticism see science fiction as “a discussion or a mode, and not [as] a genre” (2). Its suitability as a speculative, critical, and discursive tool is one of the major reasons for science fiction’s engagement with other literary sub-genres, especially with utopian and dystopian fiction.

⁶ These novels include science fiction motifs such as visions of imaginary places and of the future, advanced technologies and sciences. *Utopia*, as observed by Darko Suvin, “subsumes all the SF forms of its epoch [...] It fuses the permanent though sometimes primitive folk longings for a life of abundance and peace with a high-minded intellectual constructs of perfect – that is, communist – human relations known from antiquity on” (92). In *The New Atlantis*, Bacon’s techno-scientific utopia, there is an institution called Salomon’s House which is “dedicated to the study of the works and creatures of God;” (33) a place which reflects Bacon’s vision of the future in terms of knowledge, science, and technology. Moreover, the science fiction motif of voyage to the future can be found in Bacon’s work; the sailors can be seen as “voyagers into the future,” who are “somewhat like Bacon himself, at first dazzled and almost struck dumb by what they see and hear” (Colclough 69). Similarly, in *Gulliver’s Travels*, the protagonist’s travels lead him to a technological marvel: a floating city called Laputa. Gulliver observes “an island in the air,

inhabited by men, who were able (as it should seem) to raise or sink, or put it into a progressive motion, as they pleased” (169). In addition to this highly advanced structure, the Laputans also have advanced scientific knowledge: “they have made a catalogue of ten thousand fixed stars, whereas the largest of ours do not contain above one third part of that number” (185). Mary Shelley’s *Frankenstein* includes several science fiction motifs such as the extremely ambitious (mad) scientist Dr. Victor Frankenstein and imaginary medical science. With the help of technology, Frankenstein can give life to a corpse which is made of parts gathered from different bodies. All of these classic British texts indicate that the involvement of science fiction elements with literary works has a long history.

⁷ Eighteenth century is usually regarded as the period in which the first examples of novel were written. In his seminal work *The Rise of the Novel*, literary critic Ian Watt argues that the emergence of the novel is related to the rationalist ideals of the Enlightenment thinkers and the growth of middle class population in England. As a result, the expectations of the readers from a novel included unadorned, simple language, originality, reflections of individual experience (whose importance was stressed by thinkers such as John Locke and René Descartes) and verisimilitude. All of these characteristics make up the concept of realist novel, which reached its peak during the Victorian Age. (For an in depth examination of realism in the novel, see: *Approaching Literature: The Realist Novel* by Dennis Walder).

⁸ H.G. Wells (1866-1946), often seen as the father of science fiction, has had a great influence on the science fiction genre and authors of the following ages. The fact that he was also a scientist, as well as a fiction writer, allowed him to be taken more seriously by literary critics of his age. Moreover, his usage of science fiction as a form of social, political, scientific, and technological criticism made him a prominent figure in British literature. As Warren Wagar states, “[d]rawing on his scientific training and his novelist’s intuitions of human nature, [Wells] anticipated many of the horrors of the new century in the years before the outbreak of the First World War,” which include “the mobilization of economies for total war, tanks and bombing planes, nuclear weapons (which he was the first to call ‘atomic bombs’), poison gas and beam weapons (both of which appear in *The War of the Worlds* itself), and the harnessing of modern technology by totalitarian superstates to crush privacy and freedom” (3). He also introduced many motifs that would be the trademarks of science fiction, such as time travel, alien invasion, and advanced future weaponry.

⁹ The word utopia is derived from Greek; it is the combination of *ou* (no, not) with *topos* (place) which together make up the word *outopia*, meaning “no place.” Thomas More is credited for inventing the word and hence the genre of utopian fiction. Utopias represent an “imaginative projection [...] of a society that is substantially different from the one in which the author lives,” (Claeys and Sargent 1) in order to establish an estranged ground for criticizing the *status quo*. By providing a vision of a perfect society, classic utopias represent their authors’ suggestions for solutions to the problems they detect in their society. Dystopias, on the other hand, reflect failed utopias. Despite its name which brings to mind an opposite version of utopia, “dystopia is not simply the opposite of utopia. A true opposite of utopia would be a society that is either completely unplanned or is planned to be deliberately terrifying and awful. Dystopia [...] is neither of these

things; rather, it is a utopia that has gone wrong, or a utopia that functions only for a particular segment of society” (Gordin, Tilley and Prakash 1).

¹⁰ Baudrillard argues that how people perceive reality is related to the orders of appearance, which have altered throughout history as people invented new technologies to replicate and produce materials. Before the Industrial Revolution, technology allowed people only to copy the original objects. However, as technology advanced people could not only copy, but also reproduce goods in large quantities. In Baudrillard’s words:

- *Counterfeit* is the dominant scheme of the ‘classical’ period, from the Renaissance to the industrial revolution;
- *Production* is the dominant scheme of the industrial era;
- *Simulation* is the reigning scheme of the current phase that is controlled by the code. (*Simulations* 83)

For Baudrillard, then, simulations dominate the postmodern era, because people now have more advanced means of production. Moreover, new information and virtual reality technologies contribute to the production of simulacras. What is conveyed through television, for instance, might be a different reality than the one that people see around them; a simulated reality which does not correspond to the “real” events and which is produced to make people believe in the ideology of the one who produces it. What Baudrillard means by simulation, therefore, is not only an exact copy of the real, but also a copy without the original. In fact, he claims that simulation has four phases:

- it is the reflection of a basic reality
- it masks and perverts a basic reality
- it masks the absence of a basic reality
- it bears no relation to any reality whatever: it is its own pure simulacrum. (*Simulations* 11)

The last order of simulation rules out any kind of relation or reference to reality, becoming the reality itself: “It is the generation by models of a real without origin or reality: a hyperreal” (*Simulations* 2). Hyperreal, thus, is not a *copy* of an existing reality, but an *invented* reality.

¹¹ Paradigm shift is a term coined by science historian Thomas Kuhn, who argues that science advances not by the accumulation of knowledge and facts, but by revolutionary shifts caused by a change of scientific paradigm. In his words, scientific revolutions are “non-cumulative developmental episodes in which an older paradigm is replaced in whole or in part by an incompatible new one” (92). Kuhn likens the paradigm shift in science to the paradigm shift in politics; just as the reason behind a change of political paradigm is a sense that “existing institutions have ceased adequately to meet the problems posed by an environment that they have in part created” (92), the main reason behind a scientific paradigm shift is “a growing sense [...] that an existing paradigm has ceased to function adequately in the exploration of an aspect of nature to which that paradigm itself had previously led the way” (92). For instance, when Ptolemaic astronomy was no longer functional in explaining astronomical phenomena, Copernican astronomy took its place as the dominant paradigm in science. Hence, Kuhn also contends that a paradigm shift changes the whole structure of science and how people perceive the workings of the universe; “when paradigms change,” he suggests, “the world itself changes with

them” (111). By the change of the world, he in fact means the change of vision. When paradigms change, people see the same things differently; for instance, many centuries ago the Moon was seen as a planet, but now it is seen as a satellite. Although Kuhn used the term “paradigm shift” only in scientific context, it has been used in various non-scientific frames of reference to denote a radical change in people’s perception of events.

¹² Isaac Newton (1642-1727) is regarded as one of the most important scientists in history, and he is seen (debatably) as the father of modern science. His works established the foundations of classical mechanics which relied on empirical and experimental method. The Newtonian paradigm suggests that “[t]he present state of events can be grasped with full precision; all future events are identical to present events; therefore all future events can be exactly predicted. As a kind of machine or automaton, reality is basically static and tautological” (Best and Kellner 201). Newton’s “theory of motion and gravitation,” therefore, was seen as the only way to understand the workings of the nature and “[f]or the whole 18th century, [physicists] tried in all kinds of ways to prove that Newton's own ‘Axioms or Laws of Motion’ provide the only consistent (conceivable, coherent) account of matter in motion, and are indispensable to future natural science, as they stand” (Toulmin 75). The certainty and universality of Newton’s method had prompted scientists and thinkers to believe that nature is predictable, until the emergence of Einstein’s theories on relativity.

¹³ Cold War was the name given to the state of tension that occurred after World War II between the countries of the Eastern Bloc (The USSR and its allies) and the Western Bloc (The USA and its allies). During this period, which ended with the disintegration of the Soviet Union, there was an international power struggle between the USSR and the USA, including space race, ideological imperialism, propagandas, espionage, and psychological warfare (i.e. having ready nuclear weapons). The atmosphere of the Cold War greatly affected literature, music, cinema, and the popular culture of the period. Both the bombings of Hiroshima and Nagasaki, and the constant threat of a nuclear war resulted in pessimistic views about the future of the world, as can be observed in the novels which have apocalyptic and dystopian narratives.

¹⁴ Enlightenment here refers to the philosophical and intellectual movement that emerged in the late seventeenth century and had a major impact on Western thought since. As summed up by Andrew Bennett and Nicholas Royle, “the notion of the Enlightenment entails the assertion of the power of reason over both superstition and nature, the belief that a combination of abstract reason and empirical science will lead to knowledge and eventually to political and social progress” (233). For Theodor Adorno and Max Horkheimer, “Enlightenment's program was the disenchantment of the world. It wanted to dispel myths, to overthrow fantasy with knowledge” (1). The key ideas of the Enlightenment were reason, empiricism, secularism, universalism, and “the belief that the principal characteristics of human nature were always and everywhere the same” (Hall and Gieben 24).

CHAPTER I

¹⁵ In her much quoted essay “Notes from the Front Line,” Carter talks about how the events of 1968 affected her vision and fiction. She declares that she gained awareness about her constructed femininity, which is indeed a social fiction: “I can date to that time and to some of those debates and to that sense of heightened awareness of the society around me in the summer of 1968, my own questioning of the nature of my reality as a *woman*. How that social fiction of my ‘femininity’ was created, by means outside my control, and palmed off on me as the real thing” (*Shaking* 27).

¹⁶ Carter’s rewritings of the fairy-tales and folk-tales of Charles Perrault and Madame Leprince de Beaumont are collected in her book *The Bloody Chamber* (1979). Carter believed that “folk-tales, unlike the more dangerous myths (which she tackled in *Passion of New Eve*) were straightforward devices whose structures could easily be re-written with an informing, feminist tag, where the curiosity of the women protagonists is rewarded (rather than punished) and their sexuality is active (rather than passive or suppressed altogether)” (“Angela Carter’s *Bloody Chamber*,” Makinen 4). Accordingly, Carter subverts the patriarchal structures of famous folk-tales such as “Bluebeard,” “Little Red Riding Hood” and “Beauty and the Beast” by giving their female characters stronger personalities.

¹⁷ Nicolatte Vallorani, for example, sees *The Passion of New Eve* as “feminist science fiction,” and analyzes the “representation of utopian cities” in the novel (365), while Loger Luckhurst, in his book *Science Fiction*, analyzes Carter’s *Heroes and Villains* and *The Passion of New Eve* as examples of science fiction texts. In *The Science Fiction Handbook* edited by Nick Hubble and Aris Mousoutzanis, *The Passion of New Eve* is included in the section “Science Fiction and Sexuality.” Moreover, many science fiction websites, such as *The Encyclopedia of Science Fiction (ESF)* and *SF Mistressworks*, include the novel among contemporary science fiction novels. It is true that the novel has the characteristics of both science fiction and feminist fiction, but it is inherently a postmodern text as explained with references in this thesis.

¹⁸ There are two ways to regard the setting of *The Passion of New Eve*. First, it can be seen as an apocalyptic future, because the wars between militant groups are still continuing and America is still in the process of destruction. However, the setting also has postapocalyptic tones, because there is the implication that a nuclear war occurred in the United States, which caused the atmosphere to look unnatural. In both cases, the novel makes use of the science motif of the future world and this motif allows Carter to examine the notions of time and space.

¹⁹ There is a close connection between postmodernism and the notion of chaos (or indeterminacy). Chaos, defined by Patrick Brady, “is, first, complexity, turbulence, discontinuous process; second, it is disunity, fragmentation, and non-linearity; third, chaos is constrained randomness, or relative uncertainty, and centrally engages the parameters of predictability and unpredictability” (69-79). These characteristics of chaos has led theorist of postmodernism to form a relationship between the postmodern condition and the postmodern sciences, both of which pose a challenge towards certainty, universality, and totalizing narratives. Lyotard, for instance, examines the studies on quantum mechanics and chaos, and comes to the conclusion

that “[p]ostmodern science [...] is theorizing its own evolution as discontinuous, catastrophic, nonrectifiable, and paradoxical. It is changing the meaning of the word *knowledge*, while expressing how such a change can take place. It is producing not the known, but the unknown” (60). In addition to disrupting the traditional understanding of time, space, matter, and knowledge, chaos is also seen as a force that can create new meanings. Katherine Hayles states that among chaos theorists there “has emerged a perspective that sees chaos not as an absence or a lack, but as the source of all that is new in the world” (“Chaos as” 306). Chaos, then, “can be assimilated neither into order nor disorder. It names a new territory, designates previously unrecognized interactions, and relies upon different assumptions” (Hayles, “Chaos as” 306). In *The Passion of New Eve*, both postmodern views of chaos are apparent; the chaos metaphor serves as the antithesis of old, ordered, rigid systems and at the same time it is the harbinger of a new world with new meanings and symbols.

²⁰ A chronotope can either characterize a genre, or it can be a symbol or a metaphor in a work of literature. In *The Dialogic Imagination*, Bakhtin gives examples of chronotopes such as the *road* and the *threshold* chronotopes, which may have symbolic meanings in a text as well as their literal meanings. For instance, a road may represent more than its literal existence; as a chronotope it may represent a course: “‘the course of a life,’ ‘to set out on a new course,’ ‘the course of history’ and so on; varied and multi-leveled are the ways in which road is turned into a metaphor, but its fundamental pivot is the flow of time” (Bakhtin 244). Threshold, on the other hand, may refer to a “*crisis* and *break* in life” (Bakhtin 248) (emphasis in the original). Whether metaphorical or literal, what all of these chronotopes have in common is that they are “the organizing centers for the fundamental narrative events of the novel,” and for Bakhtin, “it can be said without qualification that to them belongs the meaning that shapes narrative” (250). Therefore, examining the use of time-space in a novel is an important factor in the process of its analysis.

²¹ In his work *Critical Theory and Science Fiction*, Carl Freedman examines science fiction’s connection with literary criticism. He argues that “science fiction enjoys – and ought to be recognized as enjoying – such a position not only for Marxism but for critical theory in general” (xv). He supports his argument by claiming that “science fiction is of all forms of fiction today the one that bears the deepest and most interesting affinity with the rigors of dialectical thinking” (xv), and at the core of this dialectical thinking there is the cognitive effect of science fiction, which is continuously emphasized by Darko Suvin along with the estrangement effect.

²² Science fiction’s relationship with bio- and anatomical engineering has its roots in the nineteenth and early twentieth centuries when “writers faced questions of biological change, intended or unintended, in human nature” (Slonczewski and Levy 174). The basis for all anatomical experimentation narratives in science fiction is probably Mary Shelley’s *Frankenstein*. Following this influential novel, science fiction novels introduced such motifs as “the creation of androids, cyborgs, clones and other artificial but organic life forms” (Slonczewski and Levy 175). After 1950s, science fiction novels also began to include technologies that can alter a person’s physical appearance and biological sex, such as L. Sprague de Camp’s *Rogue Queen* (1961), Theodore Sturgeon’s *Venus Plus-X* (1960), and later Samule Delany’s *Triton* (1976).

²³ Although the terms “sex” and “gender” are commonly used interchangeably in daily life, in scientific and academic circles they refer to different aspects. Sex refers to a person’s biological features, such as having male or female genitalia, having internal reproduction organs or differing chromosomes. Gender refers to certain roles attributed to sexes by societies. Because gender roles are cultural constructs, they are not universal. For instance, what is seen as a feminine behaviour in a culture might be attributed to males in another culture.

²⁴ Rewriting is one of the indispensable techniques of postmodern fiction. In his thorough analysis of postmodern rewritings, Christian Moraru argues that such texts are “‘critical’ for they often critique what they rewrite” (4). Hence, he explains postmodern rewriting as “intensive rewriting – programmatic, thorough, and ‘overt’ (‘straight’) – as different from the ‘oblique’ or ‘coded’ reworkings or former narratives” (xii). Angela Carter uses this kind of rewriting in her works; her rewritings, or remaking of myths, are intrinsically critical, usually exposing the patriarchal ideologies behind well-known fairytales, folktales, and myths.

CHAPTER II

²⁵ The number of science fiction works which employed virtual reality and cyberspace increased towards the late 1980s, an era in which a new sub-genre of science fiction called cyberpunk emerged. Cyberpunk “has been described as [...] ‘a postmodern literary-cultural style that projects a computerized future’ (Heim); as a ‘ubiquitous datasphere of computerized information’ (Person) [...] as the ‘supreme literary expression if not of postmodernism, then of late capitalism itself’ (Jameson); as ‘a new form of existence, loosed from the bonds of the physical body’ (Jeschke)” (Cavallero, *Cyberpunk & Cyberculture* 26). The resemblance of cyberpunk texts to postmodern texts is based on their shared concern of interrogating the established definitions of reality. Cyberpunk’s main contribution to postmodern debates and fiction was its usage of virtual reality and cyberspace as the main setting of texts, which opened up new ways to explore the concept of reality.

²⁶ Just as Billie Crusoe’s name is an allusion to Robinson Crusoe, the name of her companion in the Wreck City also alludes to Robinson’s Crusoe’s companion Friday. Besides borrowing character names, the novel constantly makes references to *Robinson Crusoe*, which is one of the forerunners of colonial literature. Themes such as travelling on (space)ship, getting stranded on an island (a planet) with a foreign (a robot) companion, and trying to build civilization from scratch are all references to the classic novel of Daniel Defoe.

²⁷ Other ecocritical readings of *The Stone Gods* include Nurten Birlik’s article “*The Stone Gods: The Story of a Repeating World*,” and Adam Trexler and Johns-Putra Adeline’s article “Climate Change in Literature and Literary Criticism” in *WIRES Clim Change* 2 (2011).

²⁸ See Chapter I for the discussions of Heise, Smethurst, and Burgass on the treatment of time in postmodern novels; and Chapter Two for Brian Richardson’s argument on postmodern violations of realistic temporality.

²⁹ In her essay “The new Prometheans: Literature, criticism, and science in the modern and postmodern condition,” Patricia Waugh argues that New Physics, which seek a theory of everything, is no different than religious metanarratives which claim to have the answer to the creation of all beings. The idea that universe could be explained through science is seen as a continuation of the Enlightenment discourse, which is also a myth in its own. Therefore, Waugh states that “[w]riters and scientists such as Stephen Hawking, Paul Davies and James Gleick have brought the newest New Physics into the kind of public prominence which attached to the old New Physics in the thirties, but mediated through a rhetoric of sublimity and divinity which has stimulated the formation of new and powerful cultural myths” (3). The discourse of these scientists is only another version of progress narratives, which claim that through science and technology, mankind can know and have control over the universe.

³⁰ Transhumanism, as its name suggests, is a movement which sees current times as an age of transition from humanity to posthumanity. One of the leading figures of the movement, Nick Bostrom explains that transhumanism “promotes an interdisciplinary approach to understanding and evaluating the opportunities for enhancing the human condition and the human organism opened up by the advancement of technology. Attention is given to both present technologies, like genetic engineering and information technology, and anticipated future ones, such as molecular nanotechnology and artificial intelligence” (3). In short, transhumanism advocates the use of technology to improve human body and consciousness. The movement has a positivist view towards the usage of technology, and “[t]he emphasis on notions such as rationality, progress and optimism is in line with the fact that, philosophically, transhumanism roots itself in the Enlightenment” (Ferrando 27). Therefore, it can be seen as a continuation of the Enlightenment ideals in the twenty-first century.

³¹ Posthumanism, usually debated alongside with transhumanism, is the theory or belief that the fusion of technology with human body is changing the understanding and meaning of “human,” or simply turning humans into posthumans. While transhumanism have a more scientific and extropian approach towards the fusion of human and machine, posthumanism encapsulates a much broader area including the philosophical and cultural debates on the future of humanity.

³² For a detailed examination of the development of humanoid robots throughout history, see John Cohen’s *Humanoid Robots in Myth in Science* (1967).

³³ In science fiction and in daily usage, the terms robot, android, and cyborg are used interchangeably because of a lack of established distinction. However, Daniel Dinello gives a useful explanation about the distinctions and similarities between the three terms. He explains that “[r]obots consist of mostly mechanical and electronic components. Usually resembling a human or animal, a robot comes in any size [...] Androids can be robots that look human, [...] or genetically engineered, wholly organic humanoids [...] but androids do not combine organic and inorganic. A cyborg, or cybernetic organism, combines the biological and mechanical, and may or may not look identical to a human” (7-8). In this case, it would be more suitable to

refer to Spike as a robot or an android, since in the novel there is not any mention of her having organic parts.

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