Doris Lessing's *Shikasta*:
The Integration of a Biblical and Scientific Imagination

by
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A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
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Master of Arts

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Katherine Isabel Szadkowski

A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of Manitoba in partial fulfillment of the requirements of the degree of

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Dedication

This thesis is dedicated to my mother, Margaret, and my daughter, Krystyna, who have taught me about love and forgiveness, commitment and persistence.
Acknowledgements

This thesis could not have been written without the love and support of family and friends. I want to thank especially my 'sister' Karen, Ken and Catherine.

I thank also Professor Peggy Day for inviting me to study biblical Hebrew; under her tutelage a wonderful new world opened up for me.

I am immeasurably grateful to my teacher and advisor, Professor Carl Ridd, whose vision has inspired so many of his students far beyond the halls of learning; his patience and guidance have been essential to my effort in this most difficult and rewarding project.
Abstract

Doris Lessing's five-novel *Canopus in Argos: Archives* series (1979-83) exposes the assumptions inherent in the distinctions we make between scientific and religious accounts of life in our universe. In the first novel of the *Canopus* series, *Shikasta*, the only one of the five to focus exclusively on planet Earth, a series of biblical references, within a larger context which is fundamentally evolutionary, deliberately calls attention to the dynamic relationship between the Bible and science, a relationship which is intrinsic to the story of western civilization. Lessing leads her readers to a point at which the Bible and science intersect and diverge, that is, in the telling of the story of the history of the world.

For millennia, human beings have told stories, and countless communities have identified themselves through the shared worldview which their stories foster. For contemporary western civilization, the value of the ancient mythologies which have survived through the centuries often lies in what they tell us about the communities for whom they were meaningful, perhaps even sacred, and what this tells us about how we also participate in community through a shared story. In this sense, our scientific account of life and the structure of the universe, as a 'shared story' can be seen as contemporary mythology *par excellence*.

Too often, however, we are uncritical of our scientific narratives, and many of us, including scientists, have taken the scientific account of the earth's place in the cosmos as *fact* rather than as 'story'. It is only when we recognize that a critical stance is not the sole property of 'science', but is instead a perspective which many non- or pre-scientific communities have adopted, that we can properly evaluate the story which science has begun to tell us about ourselves.

The historical relationship between the Bible and the emerging sciences during the past 400 years makes it impossible to speak of science in western culture without reference to the Bible. First of all, it was under the auspices of a biblical imagination that the study of the natural world was undertaken; secondly, a competing narrative of the history of the world began to emerge from that study and led, finally, to a reevaluation of the credibility of biblical narratives as reliable historical narratives. Through subsequent efforts to establish a scientific study of historical narratives the modern discipline of 'History' emerged.

Scientific narratives of the history of our planet, including especially evolution theory, are cast in the image of a non-fictional historical narrative. The scientific study of narrative, however, has disrupted the neat categories of fiction and non-fiction. Both linguistic theory and literary theory have proposed that language is not a value-free medium which can submit to the aspirations of those who wish to simply tell *what really happened*. Narrative is story. The dilemma for historians and scientists, for all non-fiction writers, and for our civilization as a whole, is that the word 'story' has come to mean 'not true'.

In *Shikasta* Lessing plays with the definition of biblical narrative as myth, that is as story rather than as history. She creates a historical vision out of the biblical narratives from Genesis 1 and 6-19, and out of scientific narratives from astronomy, physics and biology, a vision which integrates the two great informing matrixes of western civilization: the Bible and science. *Shikasta* is a novel that speaks out of a post-critical awareness of the story-form structure of all of our narratives.
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Throughout our history, humans have looked up to the sky. Whether the focus has been on the sun, clouds, storms, rainbows, the moon, stars, or planets, the sky above us has provided a context for our attempts to account for human existence and to determine the nature and purpose of our existence. For millennia, diverse cultures have cherished mythical and sacred stories of how and why life began, and of what place humanity holds within the cosmos. But over the last four hundred years, since the scientific revolution of the 17th century CE, another story has been composed, arising out of various fields of scientific enquiry – astronomy, geology, biology, zoology, anthropology, archaeology, etc. – to challenge tradition-based accounts of human origin and purpose, and of our place in the cosmos. Both types of account are acts of the imagination which have as their starting point the consensual reality of their respective communities.

To speak of ‘a scientific account’ is to simplify the vast amount of data accumulated by the various sciences, and to organize it all in such a way that a story emerges. But this seems to break the rules of the game, because science1 has come to be understood as the very opposite of ‘story’. However, when the methodology of science is applied to science itself, a critique emerges, which tells us that there is an imaginative act in every interpretation2. To disparage the imaginative act inherent in story-making is to deny access to the truth for science as well as story and myth. For millennia, human beings have told stories, and countless communities have identified themselves through the shared worldview which their stories foster. The most ancient stories are concerned with the “deep questions about origins, the
nature of life, and the cosmos" (Dawkins, 33); so too is science. For contemporary western civilization, the value of the ancient mythologies which have survived through the centuries often lies in what they tell us about the communities for whom they were meaningful, perhaps even sacred, and what this tells us about how we also participate in community through a shared story. In this sense, our scientific account of life and the structure of the universe, as a ‘shared story’ can be seen as contemporary mythology par excellence.

Too often, however, we are uncritical of our scientific narratives, and many of us, including scientists, have taken the scientific account of the earth’s place in the cosmos as fact rather than as ‘story’. It is only when we recognize that a critical stance is not the sole property of ‘science’, but is instead a perspective which many non- or pre-scientific communities have adopted, that we can properly evaluate the story which science has begun to tell us about ourselves.

The private act of reading has become, in our mass culture, a form of participation in community, and in our scientific age a form of literature has developed to reflect our identity as inhabitants of a planet whirling through space. This form of literature, called science fiction, is often uncritically enthralled with science, but it is also capable of providing an ideal mode for engaging the scientific imagination while at the same time leading readers to a critical evaluation of that imagination. One writer whose work is an example, I believe, of this second order of science fiction is Doris Lessing, whose five-novel Canopus in Argos: Archives series (1979-83) exposes the assumptions inherent in the distinctions we make between scientific and religious accounts of life in our universe. By making evolution a central theme in her Canopus series, Lessing engages the power of the only origin narrative which is authorized by
contemporary science, but throughout the series, the parameters of evolution theory are flaunted. In the first novel of the Canopus series, Shikasta, the only one of the five to focus exclusively on planet Earth, a series of biblical references, within a larger context which is fundamentally evolutionary, deliberately calls attention to the dynamic relationship between the Bible and science, a relationship which is intrinsic to the story of western civilization. Shikasta is a fictional narrative which incorporates elements from both biblical and scientific narratives in a history of our planet. Lessing leads her readers to a point at which the Bible and science intersect and diverge, that is, in the telling of the story of the history of the world.

How does the presence of biblical references in a science fiction novel lead to a critique of the scientific imagination? I propose that the historical relationship between the Bible and science is often understood to be one of opposition, and that, by mixing elements from biblical and scientific narratives, Lessing plays with this image of opposition and exposes an assumption inherent in the distinctions we make between these narratives.

The oppositional image of science and the Bible may be thought to be confined to the popular imagination, that is, in the minds of those who are neither scientists nor biblical scholars. Not all scientists are anti-religious nor anti-biblical, and not all religious scholars are anti-science. This does not deny, however, that science and religion are seen as opposing terms, and that many people believe that scientific narratives have nothing to do with faith positions and imaginative constructs. Indeed, as scientific narratives have acquired their authoritative status over the last four centuries, distinctions between different types of narrative have used science as a prime example of a type of prose narrative called non-fiction. This term, non-fiction, describes a particular use of language which aims for a direct
correspondence between language and the world of consensual reality. When we use the word ‘literal’ we mean something quite the opposite from literature: to read the Bible ‘literally’ means to not read it as literature at all, but instead to read it as non-fiction. Whereas historically the Bible was read as the ultimate non-fiction text, in a scientific age it becomes fiction, in the sense of not true.

We define scientific narratives as non-fiction, that is, we do not call them stories. Science is not about making up stories. Science is all about discovering the truth. We assume that language is a value-free medium which can submit to the aspirations of those who wish to simply tell the truth. When the distinctions between fiction and non-fiction are challenged, however, the story-form structure of all narrative threatens this truth-telling aim of science. If scientific narratives are stories, how are they different than the ancient stories of the Bible?

In order to explore the issues raised by the proposition that all our narratives are stories, I have chosen to focus first on evolution theory. This theory has taken hold of our cultural imagination, but it is not typically described as a ‘story’. In Chapter One, here, a review of the historical relationship between the Bible and science outlines how the historical vision of a biblical imagination led natural philosophers to begin a study of the earth which led to the fundamental challenge of the veracity of the biblical texts as legitimate history. I will propose that a scientific imagination incorporated the historical vision of the Bible into its narratives of the history of our planet, and that evolution theory can be seen as an extension of that historical vision.

My second focus will be the subject of genre. In Chapter Two, a discussion of the breakdown in distinctions made between different kinds of narrative will show how non-fiction
narratives cannot elude the story-form structure of all narrative. I will propose that the genre-straddling characteristics of science fiction reveal the conditions which guide the imaginative creation of all forms of narrative. Finally, I will discuss the novel Shikasta, offering an analysis of how the Canopean version of the history of our planet integrates the two informing narratives of western civilization.
Endnotes - Introduction

1. As biologist W.H. Thorpe notes, “there is no such thing as ‘science’; sciences are many and increasing in number” (Purpose in a World of Chance, 1978, 2). Nevertheless, this term as used here, will be understood to refer to the critical study of nature commonly called ‘science’. It is clear that what is called ‘the scientific method’ has been adopted by a number of disciplines which would not be considered as members of that field of study (e.g. history, literary theory, biblical scholarship) and this necessitates a careful consideration of the stereotypical notion of science and religion as terms of opposition.

2. An important example is historian T. Kuhn’s critique of the image of science as the result of an “incremental process” of discovery and of “the concept of development-by-accumulation”. By employing the critical stance of the scientific method, Kuhn proposed that the development of scientific knowledge was neither incremental nor accumulative, that, instead, scientists operated under the influence of a particular “paradigm”, a kind of worldview, which organized the sorts of questions they asked as well as the sorts of answers they would accept. A paradigm guides the interpretation of data, and interpretation entails the use of images, concepts and assumptions; it is, therefore, an act of the imagination. See Kuhn, The Structure of Scientific Revolutions, 1961.

3. ‘Evolution theory’ is based on Darwin’s theory of natural selection, and belongs to the science generally called ‘biology’; a number of sub-disciplines within biology have developed and each has its own specialized vocabulary and subject matter. As well, principles of biology have been adopted by other sciences to create new hybrid-sciences, e.g. molecular biology, biophysics, biostatistics, biomechanics, etc.

The term ‘evolution’ has become a commonplace in any discussion which addresses a process of development and is not necessarily confined to a specific context of biological life forms – e.g. In The Search for Personal Freedom the authors note that, in “the fullness of time Darwinian ideas spread into every corner of the intellectual domain. . . . Just about everything was investigated in terms of origin, development, and survival or disappearance” (Lamm et al, 1985, 429); and they do the same when they write about the “evolution of Jazz” (587-8). N.K. Hayles, in her book Chaos Bound (1990), subtitles her introductory chapter as “The Evolution of Chaos”, and in her concluding chapter she writes of cultural history as “a dialogue between critics [which] changes over time”, and then uses the word ‘evolution’ (294). This biological context is, however, the context in which the word ‘evolution’ is used here. Even when physicists speak of the ‘evolution’ of the universe, though they begin with inorganic matter, their narratives inevitably extend into discussion of the conditions necessary for the presence of organic and eventually biological matter.
4. The strictly anti-teleological parameters of evolution theory are flaunted in the Canopean enterprise of promoting "the evolution of Sons and Daughters of the Purpose". Throughout the Canopus series, evolution is presented as a process which goes beyond the merely physical development of 'higher' forms of life, and includes the acquisition of telepathic powers and the conservation of consciousness beyond physical death.
In this chapter I will discuss the historical situation in which evolution theory presented a specific challenge to a literal reading of the Genesis creation narrative and influenced the way the story of evolution has been told. The prevailing status of scientific narratives as non-fiction creates a false perception that certain narratives are not the product of the imagination. 'Bad' science assumes the truth of narratives which speak out of an ignorance of the story-form structure of all narrative. The critical stance characteristic of science is lost when a scientific theory engenders a polemical narrative, and this is what has happened with the theory of evolution. I propose that a fundamental mistake is made when evolution theory is used to argue that humanity has evolved beyond stories, as though evolutionary narratives, as non-fiction narratives, are not the products of the imagination.

The dominant religion of western civilization for almost two thousand years has been Christianity. It is a recognized source of influence in many aspects of our culture: any study of the historical development of our institutions and ideas must consider the role of Christian theology and practice. Universities, for example, began as seminaries devoted to the study of scripture; architecture grew in sophistication through the building of churches; craftsmanship in painting, glasswork and sculpture developed through the patronage of those churches and their congregations; the bell-ringing marking times of prayer led to the development of precise time-measurement devices. So too, the investigation into the workings of nature was undertaken within the terms of Christian theology: the world was the creation of the biblical God and was therefore a locus of value, worthy of study.
At the centre of Christianity is the sacred text of the Bible. The texts which make up what is collectively called 'the Bible' have been the focus of extensive study for centuries, and there are a number of sound reasons for seeing the Bible as a collection of 'documents'. However, as Northrop Frye asserts in the introduction to his literary critical study of the Bible, *The Great Code*, "What matters is that 'the Bible' has traditionally been read as a unity, and has influenced Western imagination as a unity" (xiii)\(^1\). Beginning with the letters of St. Paul, and developed through the writings of the early Church fathers, Christian theology was dependent on the portrayal of divine revelation depicted throughout the narratives of the Hebrew Bible. For most Christians, the two testaments were one; the first finding its fulfillment in the second, and the second finding the foundation of its authority in the first.

Christian theology was concerned with history in a way that differed significantly from the prevailing views held in the Mediterranean world before the Christian era. Christians read the Bible as a reliable historical narrative\(^2\), and Christian historiography was characterized by "a universalistic point of view" which saw history as a process in which a divine purpose was at work (Collingwood, 52-6)\(^3\). It is this intimate association of theology and history which lies at the foundation of the Christian worldview. The central mythology\(^4\) of the Hebrew Bible concerns events which occurred in the mundane realm of consensual reality\(^5\), which led to the covenant and the creation of a people. Christians inherited a two-fold understanding of history, as both the collective events which occur in the mundane realm and as the unfolding of a divinely ordained purpose.

If we can propose a model of the world which most characterizes the biblical imagination in the centuries before Copernicus, it would be one of a cosmos unified through
the creative activity of God, with the earth and humanity and history at the centre. This model assumed a relationship between human beings and the natural world, and it was an active model, because it incorporated change as a vital factor in the concept of time. Time as history, as the unfolding of events, was intimately bound up with the activity of the biblical God, whose proclivity to do something ‘new’ was proclaimed throughout the Hebrew Bible and the New Testament.

The idea of history as the unfolding of events according to God’s plan was particularly productive in the development of the scientific imagination. The natural philosophers of the 16th and 17th centuries, such as Galileo, Descartes and Newton, engaged in what we would now call science, saw no conflict between themselves as Christians (having faith in God and in the Bible) and their scientific enquiry into the workings of nature (Brooke, 19). In a biblical imagination, the world was the creation of God, so that the structure of the world was as much under the control of God as were the events which comprised its history. The discoveries of the laws which governed the operations of the natural world were at first understood within the terms of a biblical imagination, as, for example, “emphasizing God’s sovereignty over His creation” (Brooke, 56), but eventually the dominance of a mechanical model of the cosmos – “a universe that ran like clockwork” – would suggest the idea of a design without the need of a Designer. This mechanical model lies at the foundation of the modern scientific imagination, and is the cornerstone of the materialism which has come to characterize the worldview of modernity.

The scientific imagination would retain, however, an central feature of the biblical imagination: the importance of history. The idea that nature itself had a history, which could
be discovered through the methods of science, was not, initially, incompatible with a biblical imagination, but in the process of that discovery a growing body of evidence would seriously challenge the biblical version of the history of the world. The historical past is the subject matter of, for example, astrophysics and evolution theory. As much as these sciences have contested the biblical narratives of Genesis 1-3, there is a sense in which it is precisely the biblical notion of history as the stage for God's activities which informs the ‘history of nature’ narratives of science; the locus of value remains the same: the world of physical matter and the changes it has undergone through time.

Although the scientific imagination appears to have completely ousted the Bible as a source of knowledge about the world, the deeper legacy of the biblical imagination continues to be evident in the language and imagery of scientific narratives. There is a clear anti-biblical stance implicit in many of the scientific narratives describing the birth of the universe, the genesis and evolution of life on earth and the nature of matter; “anti-biblical” in the sense that the narratives are often set up in an opposing context to either the biblical text or the worldview deriving from it. For example, a narrative of the Big Bang theory of the birth of the universe will emphasize the great length of time and the many contingent events which preceded the formation of our galaxy and solar system, as a challenge to the Genesis account of a 6-day creation. Narratives of the sub-atomic life of photons will engage the question of where ‘God’ might fit in. Narratives of the evolution of life on earth will emphasize the role of chance in the operation of natural selection. It is the biblical image of God as actively involved with the creation, and the biblical narrative of creation as divinely planned, which are problematic, not some general definition of ‘God’.
It is a truism to declare that the contemporary state of ‘knowledge’ is a fragmented one: specialists chart out the parameters of their areas of expertise, and each discipline operates within the terms of its own paradigm. Under these conditions, it makes sense to distinguish between science and religion, but, historically, it is a problematic distinction. It is not a simple matter to understand the historical relationship between religion and science; however, it is clear that in the contemporary world, these words are understood to convey an image of opposition. This image has its source in the long history of ideological struggle within Christianity over the implications of the new knowledge which the scientific method began to achieve since the 17th century, but it often functions unarticulated in arguments which assume a theoretical opposition between scientific and religious accounts of reality. Our biblical heritage has delivered us a sense of science as a threat to the truth and authority of the Bible.

The strongest examples of this threat are the 16th century Copernican model of a solar system in which the earth lost its prime status as the centre of the universe, and the 19th century Darwinian model of the evolution of life on earth in which humanity lost its prime status as a unique form of life. These two models specifically challenged the biblical notion of the earth and human life as the unique creations of God, and seemed totally incompatible also with faith in the infallibility of the sacred biblical text. It is from radical models such as these that the sense of science and religion as fundamentally incompatible has its source.

Both the history of religions and the history of the sciences mark the Copernican and Darwinian models as transformative. Indeed, the events which these models initially precipitated occurred in the biblical-Christian worlds of Rome and England. The conflict
between Galileo and the Church of Rome continues to serve as a symbol of the beginning of the end of the Church’s cultural hegemony. By the time Darwin published his *Origin of Species* in 1859, and *Descent of Man* in 1871, there was no one authoritative body which could force him to retract his claims. A biblical imagination was so intrinsic to western culture, however, that, as a result, the challenge which evolution theory presented when it was introduced in the 19th century cannot be understood without reference to the biblically based “natural theology” which was still dominant at that time.

In the formative stages of natural philosophy, the natural world was seen as the source of evidence for the existence of a ‘Creator’ or ‘Designer’; natural theology was a way of promoting the study of the natural world in a biblical context, and one of its main tenets was that everything in the world had its ‘first cause’ in God’s creation of the world, and that, by seeking the ‘final cause’ or ‘purpose’ of all that made up the created world, science would lead humanity to a greater understanding of God. Darwin’s theory of natural selection proposed that the diversity of life forms was due to chance mutations within species. The idea of chance was antithetical to the ultimate sovereignty of God; any scheme that allowed for chance would automatically be seen as oppositional rather than complementary.

The aversion to talk of purpose has deep roots in the history of science, and is not confined to evolutionary biology, but it seems to be the source of the emphasis on chance in evolution theory. The idea of a cosmos, of a unified whole in which humanity is a significant participant, is an idea which is central to the Aristotelian science which dominated Christianity prior to the 17th century. In the Aristotelian view of reality, the concept of purpose is inseparable from the notion of a rational world; for Aristotle, “the quest for final
causes, for ends or purposes, [was] the highest aim of the student of nature” (Brooke, 54). Until the 17th century, the traditional Christian view held that everything in the created world had a purpose, that both the “essence” and the “operation” of things had some “positive end” (54). For the natural philosophers, such as Descartes, however, the idea of “final causes” was subordinated to the inquiry into “the immediate mechanical causes of natural phenomena” (54); eventually, the scientific study of nature was defined by a refusal to engage in any teleological explanations, that is, explanations that assumed a purpose toward which the natural world was designed.

The cultural epoch which we now call modernity began within the worldview of a biblically based Christianity, a worldview which affirmed the value of the created world and of historical time. The systematic study of phaenomena – that which appears in light – led from ‘natural philosophy’ to the ‘Scientific Revolution’. For Newton the laws of nature were “proof not of an absentee clockmaker, but of God’s continued presence in the world” (Brooke, 118). But for the deists of the 18th century, the mechanical image of a “universe that ran like clockwork” was both a challenge to the biblical image of a deity in an active relationship with his creatures, as well as an affirmation of “the existence of a Supreme Being whose laws had been implanted in nature” (Brooke, 118, 171). In the modernist worldview, inherited, traditional knowledge, such as the biblically based knowledge of Christianity, was, at best, of secondary value: it was limited by cultural and historical conditions. The central feature of modernity is the conviction that what is primary is the ‘out there’ stuff which we perceive through our senses. Science is the study of what is primary and becomes in modernity the only source of real knowledge.
For those who may say that science has provided the new 'religion' of western civilization in the 20th century, others may contend that there is nothing 'sacred' about what science tells us about the world around us. If we use Mircea Eliade's understanding of 'sacred', however, as "the intentional object of human experience which is apprehended as the real", and 'that which underlies all religious experience, possibly all human experience" (Rennie, 21, 22), then it is possible to see that what both religion and science aim for - an apprehension of the real - is the same. However, evolution theory continues to be articulated in anti-biblical rhetoric, and presented in a science vs. religion drama\textsuperscript{15}, as though religion is a matter of the imagination while science is concerned with reality.

At the same time that the Darwinian model of evolution began to take hold within the biological sciences, the mechanical model of the world began to lose its hold within the physical sciences (Thorpe, 103)\textsuperscript{16}. But the mechanical model proved to be very successful for biologists, and so, long after physicists had concluded that it was impossible to reasonably reduce all life to physics and chemistry, evolution theory continued to be explicated in terms of a reductionist materialism which was particularly hostile to the idea of purpose. Where the Bible is understood to support the view of human life as the product of a purposeful act of a creative deity, evolution theory proposes a material view of human life as the accidental product of a process of molecular replication, unencumbered by the limitations of a pre-ordained purpose.

Lessing’s use of biblical references in an evolutionary narrative calls attention to the anti-biblical rhetoric in which evolution theory has been articulated. In 1971, eight years before Lessing published Shikasta, a French molecular biologist, Jacques Monod\textsuperscript{17}, published
a small book which caused a great furor in England, inspiring a TV debate and at least a few books in response\(^\text{18}\). Whether or not Lessing actually read Monod's book, it seems quite possible that she was aware of it\(^\text{19}\). The subject of Monod's book, *Chance and Necessity*, was the application of biology to philosophy, and he argued that the evolution of life on earth was characterized by the operation of chance. For Monod, the implications of evolution theory lead inevitably to a rejection of any notion of a context for the subjective experience of human consciousness within the larger context of objective reality. He proposed that humanity must finally accept that chance rather than design is responsible for the evolution of life in this biosphere known as Earth; all past attempts to establish a significant role for humanity within the universe are considered symptomatic of a primitive projection of the purposeful nature of our own biological evolution (Monod, 30). It is not surprising to read of the biblical contexts in which Darwin's theory was first received, but it seems odd that a century later proponents of evolution theory should continue to use biblical language, for this is exactly what Monod does.

Although Monod does not specifically discuss the creation narratives of Genesis, he uses the biblical word “covenant” a number of times. He contrasts the “old covenant”, which he says was “established . . . between nature and man [by] animism” (31), and which is denounced by “the postulate of objectivity” (175), with a new covenant based on the radical distinction between ethics and knowledge (171-5). For Monod, all religions are the product of wishful thinking, but he singles out “Judeo-Christianity” as “probably the most ‘primitive’, since its strictly historicist structure is directly plotted upon the saga of a Bedouin tribe before being enriched by a divine prophet” (168). Monod’s obvious hostility towards
the biblical religions does not, however, preclude his use of biblical references to dramatize his argument. In this way, he utilizes the power of a biblical imagination to disparage the value of that imagination, and despite the many flaws in his argument, his position has been taken up by another biologist who also uses the Bible as a source of imagery in the exposition of evolution theory.

Richard Dawkins uses the Genesis narrative of Eden (Gen.2:4b-25) as a source of imagery in his book River Out of Eden: A Darwinian View of Life (1995), and he maintains, as did Monod, that the evolution of life on earth is not the product of a purposeful design.

[N]ature is not cruel, only pitilessly indifferent. This is one of the hardest lessons for humans to learn. We cannot admit that things might be neither good nor evil, neither cruel nor kind, but simply callous - indifferent to all suffering, lacking all purpose. We humans have purpose on the brain. We find it hard to look at anything without wondering what it is “for”, what the motive for it is, or the purpose behind it. When the obsession with purpose becomes pathological it is called paranoia – reading malevolent purpose into what is actually random bad luck ... Our pagan forebears would have asked the same [“What is it for”] question about thunder, eclipses, rocks and streams. Today we pride ourselves on having shaken off such primitive animism ... . The true process that has endowed wings and eyes, beaks, nesting instincts and everything else about life with the strong illusion of purposeful design is now well understood. It is Darwinian natural selection (Dawkins, 96-8).

Both Monod and Dawkins argue that science makes religion obsolete, and their arguments exemplify the oppositional relationship typically assumed between science and religion.

A fundamental feature of science is the claim that the systematic study of that which appears in light, the phenomena, will yield a true account of reality. The objectification of nature has indeed yielded a form of knowledge which seems to define truth itself. For Monod and Dawkins, science is the tool through which humanity evolves out of a primitive mode
of existence; it represents a new kind of knowledge which fundamentally changes our relationship to the past. There is an anti-historical stance inherent in this understanding of science: if our new knowledge distinguishes us as modern, defining us in opposition to our pre-scientific heritage, then there is no continuity between the past and the present. In this view, the biblical imagination, which has dominated our civilization for two thousand years, becomes an example of the kind of primitive thinking which we have surpassed. Without an historical context it is impossible to make sense of Monod's determination to equate the idea of purpose with primitive thinking. The 'hidden agenda' is the refutation of the design argument, which proclaims a purpose in nature, and which is historically associated with both Aristotelian science and biblical theology (including Judaism, Christianity and Islam). It is the biblical image of God the creator, acting purposefully in history, which stands in opposition to Monod's description of a cold, impersonal cosmos in which humanity evolved.

Lessing specifically challenges this bleak view of humanity. In Shikasta, the loss of a sense of relationship with the universe is a symptom of a debilitating disease, whereas in the non-fiction world of scientists such as Jacques Monod and Richard Dawkins it is a consequence of the progression from primitive mythological thinking to modern scientific thinking. For the Canopeans, there is no difference between the human beings at the time of the destruction of the cities and those who live during the third world war; the discoveries of science are not what distinguishes a primitive Shikastan from an evolved Shikastan: it is the knowledge of belonging to the universe which is the mark of advancement on the evolutionary continuum.
The story of the evolution of life on earth has been divorced from the cultural history which has formed our ideas and our institutions; if at one time the proponents of natural theology saw in Darwin's evolutionary model a threat to the truth and authority of the biblical version of our origins and place in the cosmos, it was in the context of a naivete concerning the historical origins of the Bible. Under the scrutiny of scientific methodologies, the biblical texts have been ‘redeemed’ as valuable historical documents, witnesses of the ‘evolution’ of a community’s understanding of itself and its relation to its own historical existence.

In the early centuries of Christianity, the text of the Bible was under the control of the Roman Church, but once vernacular translations began to appear, and to be made widely available through the printing press, the Bible eventually became accessible to anyone who could read. As Christianity became less and less unified through the proliferation of denominations and sects, the Bible continued to provide a centre of focus: it became a common cultural resource in an increasingly sectarian culture.

The English translation of the Bible commissioned by King James, published in 1611, has been recognized for its influence upon the development of English literature. The power of the biblical imagination is evident in the prevalence of biblical metaphors and models in the canon of plays, poetry and prose composed in the English language over the last 400 years. Shakespeare's plays and Blake's poetry, for example, contain significant biblical references which reveal a worldview informed by a biblical imagination.

There is, of course, no one way in which the Bible has functioned as a reference point for literature; but it is clear that it has provided the overarching worldview or ‘myth’ and has
been a source of metaphor and motif for writers who were not interested in simple proselytizing. As with the earliest scientific narratives of the 17th century, composed by men who were devout Christians, modern literature began within the worldview of Christianity. But as the worldview of modernism began to displace the worldview of Christianity, literature began to reflect a secularization in western culture, through which the Bible came to symbolize distinctions between people: those who believed in the old way and those who did not. Literature of the 19th and 20th centuries is all about liberation and discovery, testing limits and breaking barriers; the confines of a narrow, partisan, uncritical religiosity, generally Christian, have been a common foe against which literary heroes and heroines have been pitted.

When, in her introduction to the first novel of the Canopus series, Lessing states that "Shikasta has as its starting point . . . the Old Testament" (Lessing, Shikasta, 10), she is following an age-old tradition, one that has become anachronistic in the age of science. The historical perspective of the Hebrew Bible is recreated in the Canopean archival reports of the history of the planet Shikasta. Lessing’s biblical references begin with the myths and legends of Genesis; the “sons of God”, the divine messengers, even Yahweh/ Elohim, are all associated with the Canopean emissaries who are sent to teach the Shikastans the laws of Canopus and the ways of “the Necessity”. By presenting the historical narratives of Genesis 6-19 within a larger context which is fundamentally evolutionary, Lessing defuses the primary point of conflict assumed between the Bible and evolution theory, and leads her readers to enter into a non-confrontational view of science and religion.

Just as the stories of Genesis 1-11 in the Hebrew Bible account for the world known
to the ancient Hebrews (ca. 6th c. BCE) who told and heard them (Niditch, 69), our new stories attempt to explain what the accumulation of scientific knowledge has constructed: namely, that we are the inhabitants of a planet, spinning on a tilted axis and encircling a star (our days and nights, our seasons); that an unfathomably long time preceded the appearance of the earth as we know it; and that an unfathomably huge space extends beyond the limits of our blue horizon. The details of the understanding of the earth’s place in the cosmos may have changed, but the effort to account for the world as we know it is the connecting thread which unites the biblical and scientific accounts of the origin and context of human existence. There is an implicit connection between the creation stories of Genesis and the scientific imagination: both are concerned with a historical process of origin and a cosmic context for the earth and for human life.

Beginning with the study of biological life, evolution theory has grown to encompass the entire scientific enterprise of studying the universe. When 18th century geologists first proposed that the earth was a great deal older than Archbishop Ussher’s estimate, calculated from life spans of biblical genealogical lists, of 6,000 years, they did not speak of the evolution of the earth (Weiner, 10-15). But that is the way the history of the earth is understood now. A long process of chemical reactions and catastrophic events makes up the present scientific history of our planet. At some point life forms emerged. The process that led from then to now is called evolution. Evolution is the dominant theme in scientific narratives of the history of our planet, and extends into narratives concerning the stars and galaxies which make up the universe. These scientific narratives tell a new history of the earth, and a new history of humanity, to replace the biblical image of a 6-day creation which
has been a primary narrative in western civilization for two millennia. Scientists aim to get at ‘what really happened’, and they don’t intend their narratives to be taken as ‘stories’. When evolution theory is presented as fact, a certain kind of story is told nevertheless. Monod and Dawkins argue that evolution theory cannot support a principle of design/purpose in the evolution of life on earth; they each tell an anti-historical story and they use anti-biblical rhetoric to do so.

The genre of science fiction enables Lessing to engage the scientific imagination of her readers, and also to play with the ideas which have made the Bible incongruous with evolution theory. The accounts given of the earth’s history in the Canopean archives of Shikasta indeed attempt to integrate these disparate visions of humanity.
1. Through historical-critical and form-critical studies of the Bible, modern biblical scholarship has identified the various strata of biblical texts which preclude a naive reading of the Bible as a 'unity'. However, it is possible to discuss the Bible as a singular text in a critical way which acknowledges the analyses of modern biblical scholarship, but also recognizes the persistence of core metaphors and motifs through which the earliest biblical narratives articulate a worldview that is significantly distinct from the Mesopotamian and Egyptian narratives, with which they also have much in common. Successive generations built upon that core in such a way that the later narratives, including the New Testament narratives, create a unified 'history'.

2. Beginning in the 19th century, ideas about what properly constituted 'history,' as opposed to 'legend' or 'myth', led to a re-evaluation of the reliability of the Bible as history. Biblical scholars began to develop methods of studying the biblical material which could distinguish the various genres; the referents of historiography were distinguished from those of fictional narratives on the basis of the authors' intentions and assumptions about what was true and real (For a discussion of the development of the historical-critical approach to the Hebrew Bible, see, for example, T.L. Thompson, "Israelite Historiography", 206-12, in The Anchor Bible Dictionary, Volume 3, 1992; J.Barton, "Form Criticism: Old Testament", 838-41, The Anchor Bible Dictionary, Volume 2, 1992). In the 20th century, studies done by archaeologists, ethnologists, linguists, anthropologists, etc., have established that the Bible can be a valuable witness of the ancient world. When distinctions are made between what the texts claim to have witnessed and what they attest to for us as historically distant readers, the Bible is redeemed from relegation to some permanent place in the 'fantasy/myth' column. In the late 20th century, there remain uncritical Christians for whom the efforts made by biblical scholars to critically assess the historicity of biblical texts are meaningless. As well, there are non-religious people who are unaware of the development of critical methodologies in biblical scholarship; for these people the Bible remains simply an example of the primitive way we thought before we had science.

3. Collingwood credits the ancient Greeks with "the idea of history as a science", but the next stage in the development of an actual scientific history is the contribution to the idea of history made by the "revolutionary effect of Christian thought" (The Idea of History, 1946, 46). In early Christian historiography, history becomes the history of the world, not limited to a particular people such as the Hebrews or the Greeks. Collingwood suggests that while the Hebrew scriptures reveal that, like their Egyptian and Mesopotamian neighbours, the Hebrews saw their God as the divine head of their society in particular, there is also something else going on. He attributes this difference to the influence of the prophets who "came to conceive Him more and more as the divine head of all mankind" (17). In contemporary biblical scholarship the traditional tendency to distinguish between
the Hebrew Bible and other ANE literature on the basis of ‘particularistic’ vs. ‘universalistic’ has been challenged, but Collingwood’s attempt to account for what was innovative about Christian ideas of history was an attempt in the right direction. As Barbour notes, Collingwood argued that “only by imaginative identification with persons in the past can the historian enter into the meanings and intentions that governed their actions” (Barbour, Religion In An Age Of Science, 1990, 67). Collingwood took the motivations of the early Christian historiographers seriously: they were guided by their theology, and their theology was biblically based. To seek the source of their ideas about history in the Hebrew Bible makes sense; in early Christianity, the Bible was read as a reliable historical narrative. Whatever their “neighbours” may have thought about history, it is clear that the biblical writers saw history as a process in which a divine purpose was at work.

4. The identification of mythological material in the biblical narratives, which at first undermined the claim that the Bible was a reliable historical narrative, has allowed scholars to examine the ways in which the mythological cosmos of the Hebrew Bible led to the idea of history which characterizes western civilization. For example, Voegelin proposes that the Israelites used the cosmology of the ANE to accommodate their own experiences. “Israel alone constituted itself by recording its own genesis as a people as an event with a special meaning in history, while the other Near Eastern societies constituted themselves as analogues of cosmic order” (Voegelin, Order and History: Volume 1: Israel and Revelation, 1956, 124). Through the recognition of their God as wholly “other”, whom no symbols could represent, the Israelites underwent what Voegelin has called a “leap in being”, through which they became a people distinguished by their historical experiences (124-30). When Voegelin claims that the concept of history is developed through the “retrospective interpretation” of events, he sees the Hebrew Bible as evidence of the process of discovery as well as the product of that discovery. For Voegelin, there are a multiplicity of “histories”; he does not claim that the Hebrew Bible is the only valid history of the world, but rather that it is evidence of a way of thinking, of a “before and after” motif, through which humanity begins to construct a sense of the present as connected to but different from the past (129-132). The idea of history “as a form of existence” gives the term “history” a two-fold meaning: that is, it refers both to “the dimension of objective time in which civilizations run their course”, as well as “the inner form which constitutes a society”(126).

5. Voegelin sees the Mosaic covenant as the historical event upon which the Israelites built their central mythology (e.g.112-3,130-1), but others have seen the covenant with Abraham as the true beginning of the mythology. F.E.Peters, for example, states that it is with the promise to Abraham, recorded in the biblical book of Genesis, with which “the Jews - to use our word rather than theirs at this point - begin their own proper history” (Peters, Judaism, Christianity and Islam: Volume 1: From Covenant to Community, 1990, xxI). This position allows Peters to accommodate the traditional claims of Jews, Christians and Muslims that they are “the true progeny and heir to Abraham” (20), and accounts for the value which both the New Testament and the Quran invest in the
historical vision of the Israelites.

6. Brooke’s work portrays the many differing historical circumstances in which the relationship between science and religion was neither simple nor simply oppositional. He is one of the few scholars who discuss the relationship of science and religion to explicitly declare that, in reference to his book *Science and Religion: Some Historical Perspectives* (1991), “most of the contexts in which the word religion is used will be those in which some variant or some critique of the Christian faith is at stake” (6). A survey of texts addressing the subject of “Science and Religion”, from a number of disciplines (history, literary criticism, philosophy of science, theology), reveals a consistent use of the word ‘religion’ interchangeably as both a synonym for Christianity and as an inclusive term referring to ‘all’ religions. This confusion, I believe, ignores the specifically biblical context in which the scientific imagination of modernity was forged, and neglects, therefore, to consider the reasons why scientific narratives are so often cast in a specifically anti-biblical rhetoric.

7. In a discussion of history in science and religion, Barbour notes,

> If historical explanation were limited to accounts of the intentions of agents, it would exclude any history of nature. Some historians have in fact portrayed a strong contrast between history and science based on precisely this distinction. But the writings of historians include many pages with little or no reference to human intentions. They may portray social and economic forces of which the participants were unaware... If we can recognize that diverse factors are at work in human history, we can speak also of the history of nature (Barbour, *Religion in an Age of Science*, 1990, 68).

The Bible, as an historical narrative, implied that the earth and its diverse forms of life were the product of a one-time creative act in the distant past. As Brooke points out, the discoveries of an ancient fossil record did not necessarily contradict the biblical picture: an argument for a “progressive creation” was offered to challenge a “static, mechanical conception of nature” (Brooke, 194). It is important to recognize that the evidence gathered by the sciences did not necessarily lead to an immediate rejection of the historicity of Genesis and/or of the notion of a divine Creator; throughout the 19th century, scientists continued to debate the interpretation of the geological and fossil records (see Brooke, 192-274).

8. Astronomer J.Barrow writes that the “greatest discovery of twentieth-century science is that the Universe is expanding; that is, the distant clusters of galaxies are receding from each other at a velocity that increases linearly with their distance apart. As a result the Universe has a history”, 49, “Theories of Everything” in *Physics and Our View of the World*, 1994, 38-60.

learn from scientific methodology" in Science and Theology: Questions at the Interface, 1994, 101-26; W.Drees, "Problems in debates about physics and religion" in Physics and Our View of the World, 1994, 188-225; J.Polkinghorne, Science and Theology: An Introduction, 1998, 4-8. All of these authors focus on these two models as the prime examples of how culturally transformative scientific ideas have been.

10. It is a serious oversight to ignore the specifically Christian context in which "natural philosophy" was first undertaken. For example, Galileo’s crime in the eyes of the Catholic clergy had more to do with the association of Protestant heretics with the new astronomy than with the specifics of the Copernican model of an earth moving around the sun (Brooke, 98). The "design argument" of natural theology continued to find support in 19th century England, long after its critique by philosophers such as Hume and Kant, and it determined the context in which Darwin’s theory of natural selection was understood (212).

11. W.Paley’s book, Natural Theology (1802), argued that “every part of every organism had been meticulously designed for its function”. As evidence for the existence of a divine Creator, the natural world was used to support the “argument from design”, which was used to promote the idea that "science was the study of the divine laws governing nature" (quoted in Brooke, 192-3). Natural theology had an ambiguity about it which made it equally attractive to Christians and deists alike, which, Brooke claims, accounts for its resiliency throughout the 19th century, particularly in England (193ff).

12. Thomas Aquinas is credited with integrating Aristotelian philosophy and Christian theology in the 13th century, but Brooke cautions that it was not a “complete fusion”, as is often assumed. Aquinas was “guided by the demands of his faith” in selecting certain "illuminating" elements of Aristotle’s work, and “Aristotelian metaphysics remained subordinate to Christian theology” (Brooke, 60). By “applying the rigorous techniques of Greek geometry, with its axioms and theorems, to the study of theology . . . Aquinas conceived of a perfect and rational God who created the Universe as a manifestation of his supreme powers of logical reasoning . . . [and who] exists outside of time: his laws are therefore transcendent eternal truths after the fashion of Greek mathematics” (Davies, 232, “The Mind of God” in Physics and Our View of the World, 1994, 226-38). This “highly abstract and remote” image of God “dominated Christian, hence European thinking for centuries” (232).

13. It is Brooke’s contention that the mechanical model of the natural world, “which in the seventeenth century was used to affirm God’s sovereignty, was used by the deists of the eighteenth century in their attacks on established religion” (Brooke, 13). But he also notes that deists used the mechanical model to “affirm the existence of a Supreme Being whose laws had been implanted in nature” (171). In this sense, the deism of the 18th century can be described as a transitional position in the articulation of the modernist worldview.
14. This position is known as Cartesian rationalism, after its most famous proponent, Rene Descartes.

15. In her book, Evolution as a Religion (1985), philosopher M.Midgley argues that facts “are not gathered in a vacuum, but to fill gaps in a world-picture which already exists”, and that a good scientist will have a “very strong guiding imaginative system” and “a world-picture... with its own special drama.” She contends that evolution theory has been distorted by a drama, “dominated by competition and predation”, which is seldom acknowledged, because of the misconception that science is “so pure and impersonal that it ought to be thought of in complete abstraction from all the motives that might lead people to practise it” (1-4).

16. At the end of the 20th century, the idea of ‘postmodernism’ has been used to articulate the emergence of a profound challenge to the mechanical model of the universe which underlies the modernist worldview. D.Cupitt sees the term “postmodern” as a sign that we have “a name for what has gone, but not for what is coming”; that, although we recognize that we no longer believe in the assumptions of modernity, that we “have lost an old worldview”, we have not yet “successfully completed the transition to a new understanding of the human condition” (Cupitt, Mysticism After Modernity, 1998, 1). The possibility of an unmediated perception of reality through the senses has been under-mined, most notably in that science - physics - which studies what was in modernism the very stuff of which the world is made. In the effort to observe the basic elements of matter, physicists need light, and the light which makes it possible for them to see has been found to affect what they attempt to observe. As well, the simplicity of the mechanical model was challenged by the particle-wave theory of light, which states that light can behave both as particles and as waves but that observers must choose which behaviour they want to observe. The idea of organized complexity was introduced to account for multiple factors which could possibly but not necessarily come into play in a given system under study (see, for example, J.Jacobs’ application of this idea to her analysis of cities and city-planning in The Death and Life of Great American Cities, 1961, especially pp.428-48), and this formed the basis of the scientific study of chaos and the science of cybernetics. As well, literary theorists have challenged the assumptions about language which were based on a simple model of reality which “ordinary” language, including the language of scientific narratives, could directly represent (for example, see B.R.Straus’ discussion of language theory and literary theory, “Influencing Theory: Speech Acts”, in Tracing Literary Theory, 1987, 213-47).

17. Monod was part of a team awarded the Nobel Prize in 1965 for their work in genetics.

18. For example, in 1974, Beyond Chance and Necessity, presented essays by 11 prominent British scientists and philosophers of science who took serious issue with the “metaphysical speculations” and the reductionism in Monod’s work. In 1978, biologist W.H.Thorpe, one of the contributors to the above-mentioned book, published his own
critique of Monod’s work, *Purpose in a World of Chance*. With such powerful criticism against the idea of reducing biology to physics, it would seem a moot point to dispute Monod’s work. However, as Midgley points out, his ideas have continued to exert a powerful influence, even among those who have never heard of him or read his book. Midgley herself makes Monod a foil in two of her books, *Evolution as a Religion* (1985) and *Science as Salvation* (1994).

19. In her book, *Chaos Bound* (1990), N.K.Hayles devotes a chapter to Lessing’s 1962 novel *The Golden Notebook*. Hayles contends that Lessing’s novel deals with issues similar to those dealt with by physicists studying chaos theory, but that this is simply a matter of “interdisciplinary parallels” (Hayles, 4) because “Lessing did not have access to the same ideas of chaos theory” when she wrote *The Golden Notebook* (243). Perhaps the same could be said about Lessing’s use of evolution theory in *Shikasta*; that is, that she was coincidentally addressing the issues raised by Monod’s book. However, because she makes the word “necessity” a central feature of the Canopean worldview, and has her Canopeans declare themselves servants of “the Purpose”, it seems quite possible that she deliberately engaged the rhetoric of an evolution theorist who had declared any effort to “render nature decipherable and morally meaningful” as nothing more than “animist projection” (Monod, 39).

20. According to Monod, the “simple idea” of science as the “sole source of true knowledge” (Monod, 165) has created a distressing dilemma for contemporary humanity: our ancient past has endowed us with a “covenant” between ourselves and nature (31), while science demands that we forge a new one (171). Monod saw in religion the last vestiges of a primitive animism which he deplored. By accepting the fruits of scientific knowledge, that is technology, but “still trying to live by and to teach systems of values already blasted at the root by science itself”, contemporary societies live with an agonizing contradiction (170-1). Monod argued that we increase the “bitter distress of the soul” when we reject the implications of what science teaches us: “that nature is objective, that the systematic confronting of logic and experience is the sole source of true knowledge” (164-5).

Dawkins concedes that there is a sense in which science offers the equivalent to traditional accounts of the origin of the “universe, life and humanity”, but, for him, the crucial difference between them is that science is “supported by evidence, and [gets] results. Myths and faiths are not and do not” (Dawkins, 33). He proposes that the evolution theory of “African Eve” is a “truth more interesting, maybe even more poetically moving, than the [Garden of Eden] myth” (33).

21. This is, of course, a contestable point. B.van Fraassen, a philosopher of science, makes an important distinction between those who believe that science can tell us about reality, whom he calls “realists”, and those who believe that science is limited to that which can be measured, whom he calls “empiricists” (van Fraassen, “The World of Empiricism” in *Physics and Our View of the World*, 1994. 114-34).
22. For Midgley, Monod’s view of evolution is merely a replacement of a “theistic
drama” with one “in which Sartrian man appears as the lonely hero challenging an alien
and meaningless universe” (Evolution as a Religion, 4).

23. Following Frye, I limit my attention to English literature, without intending any
comment on the extent to which the Bible has influenced the literature of other European
languages.

But it is relatively recent that such a position could be said to reflect a growing consensus
among literary critics: biblical scholarship and literary criticism are two quite distinct
disciplines. In the introduction to their book, The Literary Guide to the Bible (1987),
R.Alter and F.Kermode note that “the historical-critical method characteristic of
specialized modern biblical scholarship . . . diverted attention from biblical narrative,
poetry and prophecy as literature, treating them instead as more or less distorted
historical records.” They credit Auerbach (Mimesis, 1946) with “showing the way toward
a reunion of the secular with the religious critical tradition” and suggesting “new
connections between the achievements of the biblical writers and the entire tradition of
Western literature” (3-4).

25. The development of realism in 19th century literature corresponds with the
determination among 19th century historians to describe what really happened in the past
(Ranke’s famous phrase, “Wie es eigentlich gewesen”). Collingwood suggests that as
early as the late 17th century, in response to Descartes’ dismissal of history as a source of
real knowledge, historians began to seek a methodology of history (Collingwood, 61-2),
but that it was not until Hegel’s work in the 19th century that “history for the first time
steps out full-grown on the stage of philosophical thought” (113). A.Divver links 19th
century “historicism” to an attempt to make historical study conform to positivist science,
thus setting up a specious opposition between objective and subjective (i.e. nonscientific)
approaches to historical study” (Divver, “Tracing Hermeneutics”, 61, in Tracing Literary
Theory, 1987).
The unprecedented success of the sciences over the last four centuries lies at the root of the association of 'reality' with the realm of physical matter and with what can be measured and predicted. This idea of reality has permeated every aspect of our culture, from the sciences to the arts, so that scientific narratives have become intrinsically more valuable than literary narratives because of the relationship we recognize between non-fictional narratives and reality. We may acknowledge a value in literary fiction, but the very fact that we distinguish between 'realism' and 'fantasy' within fiction belies the greater value which we place upon depictions of the actual as opposed to the fictional. Literature, as a product of the imagination, is deemed most valuable when it adheres to our common notion of reality. For this reason, literary realism has acquired a higher status than literary fantasy, not only among literary critics but also among the general reading public.

Doris Lessing made her reputation as a writer of realist fiction throughout the 1950's and 60's, and so when she began, in 1969, to write fiction which seemed to clearly break the rules of realism, her readers and critics were surprised and disappointed. The image of the novelist as a creator of serious and valuable literature is historically related to the genre of realism. During the 18th century prose narrative took on a new form, which has come to be known in the English language as the novel. Throughout the 19th century, as the new realism of fact and matter developed, the novel became identified with a genre of fiction called 'realism'. One of the chief characteristics of this new fiction was "its concern with the
everyday and its rejection of the supernatural” (Hawthorn, 23). Early critical theory of the novel identified it as “a distinctly anti-romantic genre”, in which the “basic premise was that romance writers distorted life and gave a false picture of reality; it was the job of the novelist to correct this picture, to show things as they really happened” (Stang, 139). This is not to suggest that novelists and their critics did not recognize the apparent contradiction in the idea of a fictional depiction of reality, but rather that the novel was envisioned as a form of fictional narrative in which a fidelity to the realm of the *phaenomena* was primary.

In the 20th century, efforts to represent the elusive qualities of the psychological aspects of experience delivered a type of novelistic writing which defied the identification of the novel with a strictly *physical* realism. The stream-of-consciousness novels of, for example, Joyce and Woolf, seemed to stand this idea of realism on its head. Such work is now appreciated as an attempt to expand the concept of realism to include not just the outside, physical experience of the consensual world but also life as experienced by individual human beings *from the inside*. Even with the inclusion of the experience of consciousness, however, literary realism continues typically to adhere to the idea of what is possible in the physical realm of consensual experience.

Lessing achieved a reputation as a novelist of realist fiction in this sense. Lessing’s novels have received a great deal of critical attention, as a glance through D.Seligman’s annotated bibliography on Lessing will prove. The five-novel series *Canopus in Argos: Archives* (1979-83) is often grouped together with three novels which immediately preceded its publication. Generally, this is because Lessing appeared, with those three novels, to shift her focus away from and then, after *Canopus*, back to, the genre of realism. In the last novel
of her *Children of Violence* series (1952-69), *The Four-Gated City*, she began to incorporate elements which seemed to break the rules of realism. Two other novels, *Briefing For a Descent Into Hell* (1971) and *The Summer Before the Dark* (1973), continued this trend, which led a number of critics to describe her new work as ‘fantasy’ literature. But as some of her critics noted, the genre of realism seemed too restrictive for the kind of vision which she clearly wanted to articulate, a vision which seemed more appropriate to the genre of ‘science fiction’.

There is an unavoidable value judgement implicit in the label ‘fantasy’ which I think reveals a derogatory attitude towards such literature. If it can be assumed that Lessing’s *Canopus* series is distinct from her other novels, I believe that it is possible to distinguish its genre as a different kind of realism, rather than as fantasy. Lessing herself has called the genre ‘space fiction’ (Preface to *Sirian Experiments*, 10) and it is clear that her *Canopus* series displays many of the features characteristic of the genre known as ‘science fiction’ (SF). I propose that there is an important relationship between SF and realism: the correlation between the consensual reality of the empirical world and the genre of SF is a central issue because of the relationship between SF and science. Science fiction is a genre which challenges the normative distinctions we make between fiction and non-fiction, and between fantasy and realism, and is, therefore, an ideal genre to accommodate an imaginative challenge to the popular notion of science and religion as oppositional ways of knowing about the world.

In the early 20th century, the pioneers of language theory proposed a distinction between ‘ordinary’ language and ‘literary’ language. In this scheme, literature is
characterized by ‘pretense’ and by the ‘non-serious’ nature of its use of language. This distinction soon became untenable, however. It became clear that “ordinary language is in fact extraordinary because it contains the very values, intentions and purposes often assumed to belong exclusively to literature” (Straus, 222). Critics of language theory have challenged the distinctions made between different forms of language usage, maintaining that the so-called seriousness of scientific language, for example, is not intrinsically different from the seriousness of language found in Shakespeare’s dramas and Dostoevsky’s novels. But within literary criticism, the subject of genre has often replicated this scenario, by granting a higher status to some forms of fiction over others. When the distinctions made between different forms of language usage are challenged, when all forms of narrative are understood to share in the human propensity for ordering the chaotic nature of life, then the differences between fiction and non-fiction begin to blur. If we can accept that the standards by which we identify genre are “not brute or natural but institutional and made” (Straus, 222), then it is possible to acknowledge that there are different kinds of narrative and different kinds of fiction, and to challenge the value judgements implicit in the distinctions between different kinds of fiction.

We may recognize that there are correlations between art and life which give literature a power to transport us beyond the confines of our private lives and assuage our fears of a senseless existence, but we expect something different from our scientific narratives, and that expectation is addressed in the distinctions we make between fiction and non-fiction. As readers we have different expectations of works of fiction than we do of, for example, textbooks and newspapers. These expectations are based on assumptions we make
about the nature of reality and how language is related to that reality. These assumptions are also evident in the distinctions made between different types of fiction: realism is mature, whereas fantasy is juvenile; romance, gothic, western, detective, science fiction and horror are often identified with the juvenile aspects of fantasy.

When literature includes elements which defy the criteria of realism, it is considered by many to be ‘fantasy literature’. The most obvious of this type of literature includes any use of what might be called ‘magical’ elements, such as, for example, the presence of non-human characters endowed with the power of speech. In general, the label ‘fantasy’ came to be applied to any literature in which the laws of physics are flaunted, but ‘fantasy’ is also used to refer to literature which simply lays out circumstances and events which are considered to be implausible. There is a sense in which all fiction is ‘fantasy’, because all fiction begins with the premise ‘what if...?; however, the genre of literary realism identifies fiction that has a loyalty to ‘reality’, such that certain limitations are placed upon the imaginative faculties of writers. It is through such an understanding of what might be called ‘serious’ realism that literature which deals with the physically implausible earns its less-than-serious, juvenile status.

Literature is assumed to have some meaningful relationship to consensual reality, to how we make sense of life and our lives, and this assumption has led to the recognition of myth as the ultimate in storytelling. In his book Breaking the Fall: Religious Readings of Contemporary Fiction, Robert Detweiler proposes that modern literature has its source in the storytelling of the ancient world through which communities defined and sought their identities, and that the private activity of reading is a form of participation in communal
activity (Detweiler, 9-11, 30-3). The distinctions that we might see as self-evident between the sacred and profane, between myth and history, between religion and science, appear to be quite fluid in stories from the ancient world. The firm ground we seek for our distinctions between fantasy and realism, distinctions which seem essential to SF theorists, often leads us to define myth and religion in opposition to history and science. But if “the possibility of chaos as the fundamental reality” requires a resolution which “the ‘rational’, objectivizing mind” cannot offer, the myths and rituals of a culture’s religion can be seen as a means of providing “a more tolerable view of existence” (Detweiler, 37). In this sense, literature has co-opted the role of myth by assuring us that the world is interpretable, but the sciences, including history, have also taken on this role, providing narratives which “defend against the threat of chaos” (37).

Science fiction has not generally attracted the attention of literary theorists. There is a body of criticism devoted to SF, but this is clearly out of the mainstream. Science fiction is a genre which has not gained the status of a ‘true’ genre, that is, it is generally classified as a sub-genre of fantasy. Those who argue that it is distinctly not fantasy inevitably appeal to the sorts of arguments made to distinguish the genre of realism from the genre of fantasy, yet SF continues to be perceived as ‘non-realistic’. The identification of the genre with the application of science, that is, with technology, rather than, for example, scientific methodology or scientific imagination, is only one among many attempts to define science fiction as a genre. Because of its roots in popular culture, SF has been a tough sell as a legitimate vehicle of literary value in the academy. Once the embarrassing history is acknowledged – the bug-eyed-monsters (BEMs) and machines-gone-bad, etc. – there
remains the effort to establish standards which might reflect what seems to already exist as a proper genre, but which has continued to be identified as a less-than-serious form of storytelling. Most efforts at obtaining a legitimate status as a kind of realist fiction for science fiction have appealed to the realm of science as a unique source of reference for the genre.

If science fiction takes as its starting point the physical universe as science describes it\textsuperscript{13}, it also uses science as a limiting factor in the exercise of the imagination; the extrapolative\textsuperscript{14} exercise of SF writers is guided by the state of scientific knowledge, based on established facts, but the methodology of science includes a hypothetical element which allows for the proposal of theories which make leaps beyond the confines of the ‘already proven’ into the realm of the possible\textsuperscript{15}. This hypothetical element in science provides SF theorists with a way to legitimize the imaginative experimentation which may seem to contradict the correlation of SF and science. In this way, SF is not necessarily a slave to science, because science itself contains the seeds of revolutionary thought. Scientists, although loyal to a status quo, are obliged to maintain a willingness to abandon current theory when evidence warrants a new stance.

Lessing’s use of and subsequent distortion of evolution theory presents a challenge to the definitions of SF which align it with the consensus of the scientific community, but there is no consensus on a definition of SF, and so the question remains open as to the proper genre to which her Canopus series belongs. There are ‘hard-core’ SF theorists who would dismiss Lessing’s work as not proper SF, chiefly because of the obvious religious elements found throughout the series, and particularly in the first novel of the series, Shikasta. Betsy Draine, in her discussion of Shikasta, states that “Lessing uses many of the tropes of science
fiction . . . and generates her narrative according to the basic rules of the genre” but then adds that

in the same novel Lessing violates utterly some of the essential elements of the science fiction code. She downplays the scientific and technological aspects of her story, while emphasizing magical and supernatural elements; she overlays the more fantastic sections of the narrative with allegorical significance; she bases the whole of the fiction on a mystical vision of the cosmos . . . Each of these narrative maneuvers has been identified in the past as a cardinal sin against the integrity of science fiction. Lessing commits these “sins”, moreover, in order better to perform some of the functions of sacred literature, a genre that many writers of science fiction declare to be diametrically opposed to their own (Draine, 143-4).

Meanwhile, Darko Suvin, in his book, *Metamorphoses of Science Fiction* (1979), offers a definition of SF which extends its boundaries in such a way that Lessing’s series can indeed be properly identified as SF16. Suvin proposes that we understand “SF as the literature of cognitive estrangement” (Suvin, 4), and he defines “estrangement” as the attitude of “confronting a set normative system . . . with a point of view or look implying a new set of norms” (6). In an effort to identify the characteristics of SF which would qualify it as a genre, Suvin specifically wants to avoid any emphasis on “science” (viii, 65), because of the restrictive sense the word carries in English. For Suvin, “the German Wissenschaft, French *science*, or Russian *nauka*” are broader terms, which “include not only natural but also all the cultural or historical sciences and even scholarship (cf. Literaturwissenschaft, *sciences humaines*)” (13). Instead he proposes that the “science” in science fiction be understood to mean “cognitive”, so that the estrangement which SF creates is subject to the critical analysis of reason (10).

For Suvin, the primary defining characteristic of SF is “the narrative dominance or
hegemony of a fictional ‘novum’ (novelty, innovation) validated by cognitive logic” (63). This gives us our clue to how Lessing’s Canopus series should be approached. Throughout Lessing’s Canopus series, there is a consistent rationale provided by the narrative which creates a context of ‘credibility’, despite the equally consistent presentation of a completely new and unfamiliar context. The ‘cognitive’ aspect of the Canopus series lies in the correspondence between how sciences such as physics, geology and biology describe our empirical environment, and how the Canopeans describe it. Another ‘cognitive’ aspect is established through a narrative technique which has been used by fiction writers for centuries17, which may be termed ‘identified narrative voice’. Canopus in Argos: Archives, as the series title, reveals the central feature of each of the novels: they are cast as excerpts from the archives of the galactic empire, Canopus; whether as excerpts from Canopean historical texts, reports from Canopean envoys or letters exchanged between various characters, each narrative voice has a specific and limited point of view. This technique circumvents the distrust modern readers have with the concept of ‘omniscience’, and engenders the ‘suspension of disbelief’ which allows readers of fiction to enter the world of the narrative.

The ‘estrangement’ aspect of the series lies, first of all, in the outsider perspective which the Canopean archives offer. Despite many parallels with our own scientific knowledge, their view of our planet’s history does not correspond with our view18. But another sort of estrangement is created when the correspondences between the Canopean view and our own scientific view are disrupted by the introduction of ideas and perspectives which more properly belong to the subject of religion. For example, the Canopean emissary,
Johor, declares that Canopus serves "the prime object and aim of the galaxy", which is "the creation of ever-evolving Sons and Daughters of the Purpose" (Shikasta, 52). When Johor travels to Shikasta he encounters crowds of "souls" in Zone Six, one of the concentric shells which surrounds the planet. The scene is reminiscent of the Christian idea of Purgatory, where souls are caught between Heaven and Hell, and when Johor encourages individual souls to be reborn and take on the challenges of life on Shikasta there is a sense of the Hindu/Buddhist idea of reincarnation. Suvin's definition of SF allows for the inclusion of religious elements, in the sense that they provide a novelty ("novum") which makes sense ("cognitive") within the Canopean perspective, even though it contradicts the 'common sense' separation of scientific and religious concerns.

Suvin asserts that the critical task is to identify the type of interaction which a work is presenting in the use of "religious beliefs or mythic situations as historical material" (27). In Lessing's appropriation of the biblical stories contained in Genesis 6-19 they become "historical material" in the Canopean archival records of the Canopean agents' reports of their missions to Shikasta, and they provide Lessing with a means to 'play' with the incongruity of biblical and scientific narratives. This is significant because, in the age of science, biblical narrative has been stripped of its traditional status as history and therefore of its 'realistic' contribution since science has other narratives and a distinctly anti-biblical rhetoric.

The criteria which Suvin offers to define SF can be used to argue that Lessing's Canopus series cannot be dismissed as 'fantasy' simply because it breaks the rules of realism. If Suvin is right, and I think he is, SF is a genre which raises questions about reality and
realism. Lessing’s use of religious elements in a science fiction context challenges the extra-literary distinctions made between science and religion. The biblical references in Shikasta establish the Canopeans as historical, storytelling creatures, just like ourselves, despite their superiority in knowledge and technology. The genre of SF allows Lessing to address humanity as an entity, to present our history and the history of our planet as a sweeping epic from a distance which dismisses the details that typically occupy a writer of realist fiction.

The terms of ‘referentiality’ which make some fictional worlds more ‘realistic’ than others are based on assumptions we make about what constitutes ‘reality’. In a work of fiction it is necessary that some correlation be maintained between the created world of the work and the world which the writer shares with the reader. This is true even of what is known as ‘fantasy literature’¹²⁰. In a work of fiction the imaginative faculties of the writer attempt to correlate a “beautiful lie” with truth (Crossley, 910): the “lie” serves as an intermediary medium. Science fiction partakes of the “beautiful lie” of fiction, but SF also aligns itself with the point of view of science, and science has been on the non-fiction side of things for many centuries: the language of science is based on the naive assumption that its referents correlate directly with reality.

When a work of fiction makes references to the scientific narratives which characterize the age of science, it isn’t necessarily automatically assigned to the genre of SF. It is the implausible elements of certain works of fiction which raise the issue of genre, and it is the extent to which the imagination is allowed to roam which seems to distinguish realist fiction from fantasy. SF, like all fiction, creates its own cosmos, but in the attempt to correlate with the cosmos which science studies, SF becomes a genre straddling the
distinctions between fiction and non-fiction. It is in the imaginative act of relating the one
genre to the other that SF articulates a kind of 'realism'.

Distinctions between fiction and nonfiction are challenged by both linguistic theory,
which exposes the false assumption that there is an 'ordinary' language, and literary theory,
which proposes that "one never exists outside of some framework of interpretation that
constitutes our belief system, and that even when we think we are interpreting objectively,
merely explicating 'what is there' . . . we are actually engaging in persuasion, for we can
interpret only from a position of belief" (Dettweiler, 41). The assumed existence of an 'out
there' reality is central to science and to the idea of literary realism. If all linguistic
representation is recognized as a way of constructing rather than discovering reality, then it
is clear that there is no possibility of an unmediated depiction of reality, not through fiction
but also not through non-fiction.

In the late 20th century it has become clear that "the process of fusing events, whether
imaginary or real, into a comprehensible totality capable of serving as the object of
representation, is a poetic process" (White, 28). Evolution theory may be based on the
scientific gathering and analysis of evidence, but, in the process of making sense of that
evidence, one mode of explanation will be chosen over another. This choice determines the
choice and organization of the 'facts'. Non-fiction may serve as an appropriate genre for the
narratives of science; readers of non-fiction have expectations that non-fiction narrators will
not simply 'make up' the facts, and science has been guided by a commitment to report what
has been observed and measured. But non-fiction narratives are never just the mere reporting
of facts; a pre-existing ideology will always guide the choices made in the interpretation of
those facts. The difference between fiction and non-fiction is not that one kind of narrative is false and the other true; each is equally capable of deception, each capable of truth.

The expectations which we bring to non-fictional narratives have naively assumed that language is a value-free medium which can be used to represent ‘reality’. The story-form structure of all narrative is a threat to the believability, and therefore to the value, of our scientific narratives, because we have defined ‘story’ as ‘not true’. Perhaps, however, the solution to this dilemma can be found in the act of imaginative participation which the reader of fiction experiences. The bridge which fictional narrative builds between the consensual world of the reader and the imagined world of the text is valuable despite its artifice.

When quantum physics developed its either/or description of the phenomena of light (that is, either wave or particle), the notion of reality as a coherent singularity was threatened. At the same time, literature began to articulate the complexity of the inner life, to “slide, in varying degrees, toward the surreal, the magical, the implausible, the unthinkable” (Detweiler, xiv). Just as the early novelists of the 18th century exemplify how notions of what constituted reality were changing in the culture around them, Lessing’s adaptation of SF reflects the inadequacy of a narrowly-defined realism. With the integration of biblical and scientific narrative in Shikasta, Lessing unites the two great ‘informing matrixes’ which underlie the constructs of our identity as a civilization. She engages the scientific imagination of her readers by drawing upon the cosmological imagery of astrophysics and the language of evolution theory. She engages the biblical imagination, still vital within our cultural imagination, through her use of biblical stories and motifs, and the archives of the Canopeans provide a format for a critique of the story which evolution theory
has been forced to tell by those who cast it in anti-biblical rhetoric.

In his essay “On Science Fiction”, C.S. Lewis argues that criticism “of kinds, as distinct from works [is] the most subjective and least reliable of criticism” (60). Perhaps those who have dismissed Lessing’s SF have only revealed their “dislike of the kind to which it belongs” (60). After declaring his distaste for those works which have a “veneer of science fiction” on what would otherwise be “an ordinary love-story, spy-story, wreck-story, or crime-story” (61), Lewis then defines his own favourite sort of science fiction as that “which represents simply an imaginative impulse as old as the human race working under the special conditions of our own time” (67). He gives many examples, but, for him, the best is that in which

the marvellous is in the grain of the whole work. We are, throughout, in another world. What makes that world valuable is not, of course, mere multiplication of the marvellous for comic effect . . . or for mere astonishment . . . but its quality, its flavour . . . good stories of this sort . . . are actual additions to life; they give, like certain rare dreams, sensations we never had before, and enlarge our conception of the range of possible experience (70).

Lessing’s Canopus series is in the tradition of such literature, leading us into a marvellous vision through the ‘eyes’ of Canopus. If we follow Lewis’ lead, we can proceed from this discussion of kind to a discussion of the work, the novel Shikasta.
Endnotes- Chapter Two

1. What properly constitutes ‘reality’ (Latin root: res) has been the subject of philosophical discussion for centuries; the idea which the word conveys, and which other languages attempt to convey in their own fashion, concerns the fundamentals of any world view or belief system, and cannot be simply defined. It has been noted that “the idea of reality that is held at any time determines the nature of civilization” (Lamm, Cross, Turk, The Search for Personal Freedom. 1985. 208).

2. Although there is no consensus among literary theorists as to who is to be identified as the first novelist (e.g. R. Alter & J.B. Wiggins identify Cervantes; L.A. Fiedler identifies Richardson), it is clear that literary history recognizes that a new form of prose narrative was identified by both writers and critics from the end of the 18th century onward.

   The development of a critical theory of the novel followed a period of critical attacks upon the new genre, which was considered inferior to poetry on aesthetic and moral grounds. Quoting from periodical and newspaper reviews of the 19th century, R. Stang illustrates the vehemence with which the novel was dismissed as, at best, popular entertainment; but, he argues, in the years 1850-70 efforts were made to defend the novel as a legitimate vehicle of literary artistry. “Questions such as the use of fiction, the role of the imagination in the writing of fiction, and the correspondence of fiction to life outside the novel were . . . central to the mid-Victorian novelist, critic and educated reader (Stang, The Theory of the Novel in England: 1850-1870, 1959, xi).

3. In many European languages, the novel is called ‘roman’, which preserves the connection with the genre of romance, which was the primary form of prose narrative before the 18th century (Hawthorn, Studying the Novel: An Introduction, 1997, 20). As F. Kermode has suggested, we “can save ourselves much trouble by agreeing that a novel is a fictional prose narrative of a certain length, which allows for a great deal of variation between novels” (Kermode, “Novel and Narrative”, 155, in The Theory of the Novel: New Essays, 1974).

4. The literary genre of realism, or “realistic fiction”, began in the wake of scientific empiricism, through which ‘reality’ came to be defined as that which could be observed and measured, i.e. the realm of the phaenomena, as opposed to the realm of the ideas. In 1750, Samuel Johnson wrote that the “task of our present writers . . . requires . . . that experience which can never be obtained by solitary diligence, but must arise from general converse, and accurate observation of the living world” (quoted in Hawthorn, 24).

5. G. Levine notes that the word realism “has a relatively short history in English, appearing for the first time somewhere in the middle of the nineteenth century, for the purposes of English fiction” and that “the very fiction it was used to describe . . . is
regarded by modern artists as profoundly unrealistic.” Despite the “rejection of Victorian conceptions of reality”, Levine argues that “the idea that literature should be describing reality or truth is implicitly present still” (Levine, “Realism Reconsidered”, 234, in The Theory of the Novel: New Essays, 1974).


7. For example, in The Four-Gated City, Martha comes to believe that “mad” people like Lynda Coldridge are people with certain “capacities” which have been erroneously regarded as mental illness. These “capacities”, if properly understood, could empower humans with extraordinary powers: “Martha was certainly a radio: so was Lynda. Martha was a television set, only, unlike a television set, not bound by time. She was a camera: you could take pictures of any object or person with your eyes, and bring it out afterwards to examine it . . . If we didn’t have machines and someone told us, You don’t need machines, it’s in your minds, you don’t need computers, there are human computers . . . our brains could be rockets and space probes, if they can be radios and television sets” (516-7).

8. For example, in Briefing for a Descent into Hell the main character is a man whose dream state is reality and his ‘real’ state as a patient in a hospital is a dream; in Summer Before the Dark the main character sees through her apartment wall into another world which she eventually enters.

9. For example, M. Monteith writes that

the realist form Lessing began with proved too insecure for her extraordinary cognitive scope. She chose to move away from presenting women’s marginality in the world of power and politics, from images of enclosure and a concentration on domesticity and sexual relationships. SF offered a viable way of dealing with wide-ranging issues such as violence, group minds and mass communication not possible in her previous approach and allowed her the perspective of people moving across time ( Monteith, “Doris Lessing and the politics of violence”, 80, in Where No Man Has Gone Before: Women and Science Fiction, Lucie Armitt (ed.) 1991. 67-82).

R. Rubensteiin poses the question, “Just what is Doris Lessing’s purpose in making a shift to ‘science fiction’ after the sustaining realism in all but the final section of the five volumes of Children of Violence?”, and suggests that

outer space [is] a metaphor through which [Lessing] portrays her imagined – but utterly realistic – extension of the present, to show us the human and emotional contexts through which the future might be met and redirected. The solution is not, as it frequently is in space fiction, the intelligent use of science or machines, or even of their defeat, but the intelligent use of our own psychic and emotional resources (Rubenstein, “Outer Space, Inner Space: Doris Lessing’s Metaphor of Science Fiction”, 189-90, in World Literature Written in English. 1975. 187-97).
M. Knapp also identifies a departure from realism in the last volume of the Children of Violence series, The Four-Gated City, which

transcends the previous realist boundaries of Lessing's narrative scope; by abandoning an empirical time framework it ends around the year 2000... probably the most crucial step in the development of her vision away from individual-bound realism and toward holistic fantasies" (Knapp, Doris Lessing. 1984. 17).

Knapp describes Lessing's Canopus series as an abandonment of realism (16), and uses the terms "science fiction" and "utopian fiction" (131) in her discussion of the shift in Lessing's work.

10. "The assumption behind the distinction is that ordinary language, also called 'propositional', 'literal', 'denotative', or 'serious', is more objective and closer to reality or the objective world than literary language" (B.R. Straus, "Influencing Theory: Speech Acts", 217, in Tracing Literary Theory, 1987). Two prominent theorists of language, Austin and Searle, distinguished between "ordinary language", spoken by people who intend to communicate with each other (that is, participants who endeavour to speak accurately and meaningfully with each other) and literary language which was considered as "non-serious and parasitie" (Straus, 213, 217).

11. Straus focuses on literary theorist Stanley Fish, whose work in the 1970's drew "attention to the problematic nature of the traditional distinction between 'ordinary', or 'serious', and 'literary', or 'nonserious', language" (Straus, 221). She associates his work with the "'new semanticists' Charles Fillmore, James MacCauley, and George Lakoff [who] demonstrated that philosophical, psychological and moral concepts are built into language" (222).

In a 1993 article, “Fiction and the Future”, Robert Crossley credits C.S. Lewis with “the first systematic anatomy of science fiction”, delivered in a 1955 lecture to the Cambridge English Club. Twenty years later, “there was a comparable American event when Robert Scholes gave a set of lectures at Notre Dame.” But, as Crossley points out, although since then “science fiction scholarship has become a small industry”, it remains “a not entirely respectable one” (Crossley, 909).

13. As philosopher Paul Feyerabend reminds us, “there is no ‘scientific world-view’ just as there is no uniform enterprise ‘science’” but he concedes that “a uniform ‘scientific view of the world’ may be useful for people doing science - it gives them motivation without tying them down” (Feyerabend, “Has the scientific view of the world a special status?”, 146-7, in Physics and Our View of the World. 1994). For our purposes here, we can use the term ‘science’ and refer to its ‘view’, because it is useful to do so, all the time ready to acknowledge that neither the sciences nor the world can be accurately represented as a coherent singularity.

14. SF theorists use the word ‘extrapolate’ often in their descriptions of what it is that SF writers are doing; it is a word with ‘scientific’ connotations, describing the act of calculating from known data to predict what is not yet verified.

15. Feyerabend acknowledges these two “trends” in science, one which avoids speculation, which he calls the “Aristotelian trend”, and one which “encourages speculation and is ready to accept theories that are related to the facts in an indirect and highly complex way . . . the Platonic trend” (Feyerabend, 138-9). These two trends in science are exploited by SF in its extrapolative enterprise, and they correspond to what philosopher Bas van Fraassen identifies as two philosophical traditions related to science, which he calls “empiricism” and “realist metaphysics.” While “realists are satisfied with answers-by-postulate”, empiricists are best characterized by a philosophical reaction against the realist position, “calling us back to experience” (van Fraassen, “The world of empiricism”, 114-5, in Physics and Our View of the World. 1994).

The realist position that science can get at a reality beyond the phenomena resembles the Platonic notion of the realm of the ideos as the true reality of which the phenomenal world is merely a shadow. The empiricist position in this case is linked with Aristotle, and it limits science to the reality of the phenomenal world. Science fiction is narrative that builds its speculations out of so-called ‘empirical facts’.

16. Suvin does not address Lessing’s work. In addition to specific analyses of individual works, he offers a general definition of what he calls science fiction (SF), and it is from these general remarks that I have quoted him. See Suvin, Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre. New Haven: Yale University Press. 1979.
17. Many of the historical narratives written during the middle ages were presented as the records of eyewitnesses; after the Renaissance, a growing suspicion of the authenticity of these narratives inspired the beginnings of a new kind of historiography: one that was guided by a desire to distinguish between fact and fiction. At the same time, the enterprise of fiction-writing was considered frivolous: a number of fiction writers presented their work as eyewitness accounts (see William Nelson, *Fact or Fiction: The Dilemma of the Renaissance Storyteller*. Cambridge: Harvard University Press. 1973). The most famous of these early works is Thomas More's *Utopia* (1516). The narrative of Melville’s 19th century novel *Moby-Dick* (1851) also makes use of this technique; what distinguishes Melville’s work, however, is that instead of merely claiming that the narrator is a real person who sailed on a real ship captained by a real man named Ahab who was hunting for a real white whale, the narrative creates a sense of authenticity with empirically sound information, concerning ships, geography and whales.

18. For example, in *Shikasta* the Canopeans are responsible for an acceleration in evolution on our planet, and in *Sirian Experiments* a number of our animal species have alien origins. Both of these ideas contradict our own scientific knowledge. Another obvious discrepancy is the presentation in the Canopean archives of elements of the Genesis narratives as legitimate history, a perspective not shared by our historical and natural sciences.

19. The depiction of Zone Six is also reminiscent of the myth of Er told at the end of Plato’s *Republic*. There are a number of significant parallels between Socrates’ tale and *Shikasta*, which cannot be properly dealt with here. Lessing’s weaving skills are evident to those readers who are sensitive to the various references which she incorporates into her tale. The biblical references are perhaps more significant because they occur in a discrete section, reflecting the sequential order of the Genesis texts and employing motifs (i.e. a flood, the Tower of Babel, evil cities - all destructions at the hand of God) which are well-known in popular culture.

20. As Hutcheon notes, “the most extreme autonomous universes of fantasy are still referential; if they were not the reader could not imagine their existence” (*Hutcheon, Narcissistic Narrative*, 1984, 77).
Lessing's novel *Shikasta* plays with the definition of biblical narrative as myth, that is as story rather than history, presenting a version of biblical stories that takes advantage of a motif which accommodates a science fiction storyline, namely, the presence of 'alien' visitors. She creates a vision out of the biblical narratives from Genesis 1 and 6-19, and out of scientific narratives from astronomy, physics and biology, a vision which integrates the two great informing matrixes of western civilization: the Bible and science. *Shikasta* is a novel that speaks out of a post-critical awareness of the story-form structure of all of our narratives.

For the title of her science fiction series, *Canopus in Argos: Archives*, Lessing has chosen the name of an existing star, Canopus, the second brightest star in the night sky, “not visible from midnorthern latitudes”, and “so bright and so isolated from other bright stars . . . [that it] is often used for navigation by spacecraft going to the outer planets” (Pasachoff, 38, 308). She has placed it within a constellation known in traditional astronomy as *Argo Navis*, the Ship; modern astronomers have divided the constellation into 4 smaller ones, “Vela (the sails), Puppis (the stern), Pyxis (the compass) and Carina (the keel)” (Pasachoff, 38). Canopus is the “alpha” star in the constellation Carina, perhaps 30 times larger than our sun and approximately 100 light years from earth (*Burnham’s Celestial Handbook Vol.1*, 465-6)1.

*Shikasta* is the first of the five novels in the series, and the one that deals exclusively with our own planet Earth, disguised by the alien names Rohanda and Shikasta. As readers
discover that Shikasta is the Canopean name for our planet Earth, they will translate the Canopean description of Shikasta’s geography and history into terms which correspond with our version of Earth’s geography and history. Lessing plays with the popular image of a science-Bible “tension” when the Canopean history of our planet begins to parallel the events of both scientific and biblical history. Shikasta features the reports and experiences of the Canopean envoy, Johor, whose first two missions to Shikasta take him to the land “south of the great inland seas”, the promised land of the Hebrew Bible.

When the extent of the correspondences between the events described in the Canopean reports and the ‘stories’ of Genesis 6-19 are properly recognized, it is clear that a critical reading of Shikasta must unpack the significance of these biblical references. It is not enough to merely note them, nor is it reasonable to posit a strictly “Christian eschatology” for interpreting these references. When it is clear which specific ‘stories’ from Genesis are used, it is also clear that 1) they are from a sequential body of material; 2) they all involve events in which divine beings, including Yahweh, make contact with humans; 3) the biblical characters and/or events are important to all three biblical religions – Judaism, Christianity and Islam; and that 4) there are significant parallels between the “Laws of Canopus” and the prohibitions and guidelines given in the biblical narratives.

These ‘stories’ become historical events in the Canopean version of what really happened; the archival format and the use of ‘identified narrative voice’ mimic the format of non-fiction narrative and specifically of historical narrative. According to the criteria of contemporary historiography the biblical narratives of Genesis 6-19 are fictional not historical, but they are, nevertheless, a kind of historiographical narrative. The historical
vision of a biblical imagination differs extensively from the historical vision of a scientific imagination, but the two are linked in the historical relationship between the Bible and science. Lessing is able, in a literary narrative, to draw together these seemingly disparate views of history.

Shikasta is the only novel in the Canopus series which fully exploits the “archives” aspect of the series title. At the beginning of Shikasta, a statement identifies the “documents” that will follow as “selected . . . for the use of first-year students of Canopean Colonial Rule” (Shikasta, 12). The “documents” format of Shikasta is reminiscent of the way in which modern biblical scholarship views the Bible: the collection of texts acquires a sense of unity at the editorial level. The selection, organization and identification of the documents which make up the novel Shikasta must be attributed to the controlling role of the “Archivists”: their ‘voice’ begins and ends the novel, identifies the source of each document, occasionally enters the text in square-bracketed asides that direct readers to appropriate sources for further reading, and supplements the envoy reports with excerpts from Canopean historical texts. Commentary from the “Archivists” and excerpts from Canopean historical texts appear in the novel in italicized and bold-print typeface. Reports from the Canopean emissaries and envoys appear in a ‘normal’ typeface.

Each ‘document’ in Shikasta is identified. The novel is divided into two sections: during the first section the documents are predominantly reports from Canopean envoys, and in the second section they are journal entries and letters of various Shikastans. The first section of Shikasta centres on the missions of the Canopean envoy/emissary, Johor; the novel begins with his narration of his third visit to the planet, Shikasta. It takes some careful
reading to keep a separate time line for each of the three visits which Johor narrates. His first visit to the planet occurs after a disaster threatens Canopean plans for the planet, although he presents the reader with the sweeping vista of the early stages of its colonization by Canopus, during which it becomes apparent to the reader that the planet he is describing is our own Earth. Johor’s narration is often supplemented with editorial commentary by the Canopean Archivists, as well as large sections of material excerpted from the Canopean archives - titles and numbers duly noted. The second visit is “thirty thousand years later”, and again the reader is given a view supplemented by archival excerpts and reports by other envoys. The third visit is at the end of the “Century of Destruction”, which the reader learns to recognize as the 20th century.

Johor’s narrative of his third visit provides an outside framework for the first section of Shikasta, which begins and ends in the late 20th century. The third visit ends when Johor “obliterates” himself to incarnate as George Sherban in the late 20th century (264). Johor’s narratives of his three visits to Shikasta take up roughly the first two-thirds of the novel. The second section of the novel is set in the contemporary world, beginning just before the third “World War”.

It is not immediately nor obviously clear that “Shikasta” is actually Earth. Shikasta is described as being surrounded by “various levels of being which lie in concentric shells around the planet, six of them in all” (Shikasta, 16). Johor describes his crossing of Zone Six. On his way he passes through Zones One to Five, “for the most part agreeable places, since their inhabitants are those who have worked their way out of and well past the Shikastan drag and pull, and are out of the reach of the miasmas of Zone Six” (18). Certainly there is nothing
in these details to create an immediate identification with Earth. When Johor enters Zone Six, however, he finds “throngs of poor souls assembled” who begin a “keening chant or hymn” (19). One of the souls he recognizes is “my old friend Ben, descendant of David”. This phrase will strike a chord with most readers even slightly familiar with the great king of Israel. Four pages later, Johor declares that he is looking for the “abode of the Giants” (23). He intends to use the Giants to help him enter Shikasta, but before he continues that storyline, he begins to tell the story of his visit to the planet in the “First Time”, when it was known as “Rohanda” (26), “which means fruitful, thriving” (27). The description of his first visit is extensive and supplemented by a number of other documents.

As Johor describes the early history of the planet Rohanda, readers will recognize the sort of hypothetical descriptions of the early life of our own planet offered by geology, biology, palaeontology, and botany.

It was fertile, but mostly swamp. There was vegetation, but it was uniform and stable. There were varieties of lizard in the swamps, and small rodents and marsupials and monkeys on the limited areas of dry land (26).

It was a planet, like hundreds of others, kept under observation by Canopus for millions of years. A planet that had always been subject to “sudden changes, rapid developments, as rapid degradations, periods of stagnation”, until “prolonged radiation from an exploding star” caused “a period of stagnation” to last thousands of years. The results were surprising.

Almost at once our envoys reported startling changes in the species. The whole steamy swampy fertile place was sizzling with change. The monkeys in particular were breeding all sorts of variations, some freaks and monsters, but also dramatic variations that showed the greatest promise. And so with all life: vegetation, insects, fish. We saw that the planet was on its way to becoming one of the most fruitful of its class, and it was at this time that it
was named Rohanda, which means fruitful, thriving. . . . More dry land appeared . . . . There was another, completely unexpected blast of radiation, and the poles froze, holding masses of ice. Rohanda was on its way to becoming the most desirable kind of planet, one with large landmasses and water held in defined areas, or running in channels and streams (27).

It is clearly a planet we, as inhabitants of Earth, will find familiar, from various scientific narratives. Beside the correlation with the story of our planet as told by science, there is also a sense of familiarity with the description of earth's beginnings found in the book of Genesis.

And God said, ‘Let the waters under the sky be gathered together into one place, and let the dry land appear’. And it was so. God called the dry land Earth, and the waters that were gathered together he called Seas. And God saw that it was good. Then God said, ‘Let the earth put forth vegetation: plants yielding seed, and fruit trees of every kind on earth that bear fruit with the seed in it’. . . . And God said, ‘Let the waters bring forth swarms of living creatures, and let birds fly above the earth across the dome of the sky’. . . . And God said, ‘Let the earth bring forth living creatures of every kind: cattle and creeping things and wild animals of the earth of every kind’ (Gen.1:9-25).

The next section of the narrative describes how Canopus attempts to take advantage of the abundant life on Rohanda, by accelerating evolution. Part of their plan is to provide a home for the inhabitants of another of their colonies, whose planet will die (28), and part is to further “the prime object and aim of the galaxy”, which is “the creation of ever-evolving Sons and Daughters of the Purpose” (52). Canopus had plans for “a subgroup of the former ‘monkeys’” who were “showing tendencies to walk upright” and “rapid increases in intelligence”. They were expected to “continue a fast evolution” and to “become a Grade A species” (28). Lessing extrapolates from a typical evolution narrative of the emergence of *homo sapiens* to the proposition that evolution is a process which the Canopeans have learned to manipulate; this is an obvious extrapolation, typical of science fiction. The
association of evolution and purpose in the Canopean view, however, is a less obvious extrapolation, and is an example of how Lessing plays with the anti-teleological parameters of evolution theory.

The Canopeans plan to hasten evolution on the planet Rohanda through a transmission system called a “Lock”. The system involves the set-up of stone patterns which are organized “according to the necessities of the plan, along the lines of force in the earth at that time” (39). Lessing has for the first time used the word “earth”, and with most readers thinking of the pyramids of ancient Egypt and central America, and places like Stonehenge, the connection is complete - Rohanda is Earth. Even though the narrative will continue to offer a ‘de-familiarized’ version of our history, there will be enough correlations to confirm this connection. The novel becomes a story of our own planet, within a context informed by the ‘eyes’ of Canopus, a context that the reader is only just beginning to learn.

The narrative of Johor’s first visit begins with his appearance as a Native in the Round City (43) and ends when he leaves David and Sais as keepers of the Canopean Law (98). The narrative of Johor’s second visit occurs in the centre of the novel’s first section, and is preceded by a number of reports by other envoys, including Taufiq. It is in this section of the narrative (122-140) that a number of overt biblical references are made. Unlike the other visits made by Johor to Shikasta, the narrative of the second visit is brief. It is referred to, rather obliquely, by Johor earlier on - “when I was sent again, on my second visit, at the Time of the Destruction of the Cities”(14). Its place in the narrative seems to greatly distort the time-line; it seems redundant to tell the reader about the destruction of cities in a desert plain thousands of years before the events narrated in the archival section preceding it.
However, the sequence of events described warrants special attention.

When Johor describes the geography we are able to supply our own terminology for where he is. He goes first “to the east of the area of the great inland seas” (43). He decides to walk to the “Round City”, located on “the high plateaux to the south of the great inland seas” (44); according to our terminology, he travels from the Black Sea towards the Syrian Desert. On his second visit to Shikasta, he returns to the “Areas of the Cities” and walks “where the Round City once stood” (138). In other words, Johor’s first two missions to Shikasta take him to the area of ‘the middle east’, the holy land, sacred to Jews, Christians and Muslims.

The first ‘story’ from Genesis which is paralleled in the Canopean envoy reports is the mating of the “sons of God and the daughters of humans” described in Gen.6:1-4. The Genesis narrative includes a detail which continues to confound biblical scholars, and that is the phrase which tells that “the Nephilim were on the earth” at the time of the mating. The term “Nephilim” has been understood to mean “Giants”7. The extended narrative of Johor’s first visit describes his encounter with “Giants” who have been sent to Rohanda to build the transmission system of the “Lock”. Because of a disaster, caused primarily by “what that word dis-aster implies: a fault in the stars” (35), the “Lock” between Canopus and Rohanda is severely disrupted. Rohanda becomes “Shikasta, the broken, the hurt one”. Johor is sent to tell the Giants that the “garden” could not be maintained as planned (62) and that they must leave, but, because of the disruption, many of them rebel. By the time the Canopean spacecraft arrive to transport them, almost a third of the sixty thousand Giants have disappeared (68).
Johor, accompanied by David, a "storyteller and song-maker"\(^8\) (69), and his daughter, Sais, finds "the rebel Giants", for whom the name of Canopus arouses only a vague memory of their former selves. Johor reminds them that the first "Law" of Canopus is that they "may not make slaves and servants of others", and that "travellers must be fed and given shelter" (81). He is finally forced to articulate the Laws of Canopus to those beings who had once shared the mind of Canopus (50). He gives them seven prohibitions:

Canopus forbade them to go near the Stones. . . . Canopus forbade them to use each other or the other creatures of the planet as servants, unless these servants were treated as well as they would treat themselves, as equals at all times. . . . Canopus forbade them to kill animals unless it was for food, and then only with care and without cruelty. . . . they might not waste the fruits of the earth. . . . take only what was needed. . . . They must not use violence with each other. . . . and above all . . . never, never must they go into the old cities. . . . and they must not intoxicate themselves [with the Stones] (83-4).

This giving of the laws sets up a clear parallel with the laws of the Torah, given to Israel in Exodus 20-24 and 34, and throughout Leviticus, Numbers and Deuteronomy. This biblical parallel is established briefly at this point in the narrative, and then extended when the Canopeans return to Shikasta thousands of years later.

Johor returns to the area of the Round City and begins a ritual of evening sessions of reiterating the history before "the Catastrophe". He tells of "the Time of the Giants", of "the easy, pleasant world" that Shikasta had once been, of the "substance-of-we-feeling"\(^9\) which had been reduced to a "trickle", and which he promised would one day "become a flood", if they would set aside "a part of their lives . . . for the remembrance of Canopus". He tells them about "enemies of Canopus" who would enslave Shikastans "by encouraging those qualities that Canopus hated" unless they made the effort to "love each other, help each
other, always be equals with each other, and never take each others goods or substance” (96-8).

The narrative of Johor's first visit ends with his description of swimming out into the current of the river, so that “no one would find [his] body” (98). Millennia pass before Canopus returns its attention to Shikasta. Three “emissaries” are sent to the planet, and they find that a hybrid, Giant/ Native cross has established itself. The influence of Johor's lawgiving is noted:

enough of the substance of Johor's 'Rules' remains to make all species uneasy when they fall into bellicosity, even briefly; and antagonisms remain local and short-term affairs. . . . The 'Laws of Canopus', as described by Johor, have to a certain extent stabilized themselves not only in the various ethical structures, but even genetically. Transgressions cause discomfort (125).

The agents of a competing empire, Puttiora, from the planet Shammat, have taken advantage of the “psychological malaise caused by ‘transgressions’” by encouraging “animalism” and “human sacrifice” to please “‘the Gods’” (125). The emissaries recommend “a boost of Canopean genes” and “frequent visits from our representatives”, to counteract the influence of Shammat (125-6).

The narrative then offers eight individual reports by the Canopean envoy, Taufiq. In his third report, Taufiq describes the “mating” of Canopeans with Shikastans. Fifteen Canopean males go to five areas of Shikasta: “north of the Great Mountains” (Tibet, China), “south of the same” (Nepal, India), “the extreme north of Southern Continent I” (Africa; Egypt?), and “two groups south of the Great Seas” (Asia Minor, Ancient Near East, Middle East). Taufiq accompanies one of the latter two groups to a mountain near a “flat area” which “has sacred connotations in the area”. There he finds “descendants of the Davidic strain”
This implies that Taufiq is in the vicinity of the Round City, where Johor left David and Sais at the end of the narrative of his first visit (92-98). Taufiq contacts about fifty women, telling “each ‘in secret’ that ‘sacred beings’ were present, drawn down from ‘higher regions’ because of their beauty” (128). This is a clear and straightforward re-telling of a story found in Genesis 6:1-4:

When people began to multiply on the face of the ground, and daughters were born to them, the sons of God saw that they were fair; and they took wives for themselves of all that they chose... The Nephilim were on the earth in those days — and also afterward — when the sons of God went in to the daughters of humans, who bore children to them.

This reference to the continued presence of “the Nephilim” on earth is paralleled by the Canopean emissaries’ report that the Giants were still living on Shikasta, although their “life-spans and their stature” were diminished (124).

The next four reports by Taufiq continue to parallel the events narrated in Genesis. After the reference to the “Nephilim”, the biblical text begins the flood narrative, which tells the story of Noah. This is a story which occupies the next three chapters of Genesis. The corollary event in Shikasta is quite brief, but there are number of important parallels.

In Taufiq’s fourth report, he describes a catastrophic melting of the polar ice caps and his rescue of “the head of the new-strain (Davidic-improved)” along with “his family, and animals for breeding stock” (129-30). This “Davidic tribe” was led to safe, higher ground. Following his own advice (127), Taufiq works within “the existing mental sets and tendencies... making use of existing ‘religions’” to deal with “the rescued strain”. He reports that he made a “pact” with them that “this visitation of the Gods would not occur
again” (130), and he instructs them to do “their part” by understanding that “the deluge was because of their falling away into wickedness and evil practices” (130). At the end of the biblical flood narrative, in Gen.9:21, the Lord promises that he “will never again curse the ground because of humankind”. “Wickedness” and “evil” are identified as the source of the Lord's judgement in the Lord / J narrative (Gen.6:5). The “pact” made between Taufiq and the rescued “Davidic tribe”, however, parallels the “covenant” made at the end of the God / P flood narrative in Genesis (Gen.9:9 ff).

The “Davidic tribe” is sent back to “their previous territories” by Taufiq, and they are then given instructions:

They must live soberly, moderately, without oppressing each other, and as custodians of the animals, whom they must not harm and oppress. They might make animal sacrifices to the Gods, but not human sacrifices, and this must be done without cruelty to the animals. . . . I left them with various artefacts. I told them that these were to strengthen the bond between them and ‘somewhere else’ (130-1).

In Genesis 9, at the conclusion of the God / P flood narrative, there are a number of instructions given to Noah and his sons. All moving things are given to them as food, as long as flesh is not eaten “with its life, that is, its blood” (Gen. 9:3-4). There is also an extensive prohibition against the taking of human life, for which a reckoning will be required (Gen.9:5-6). Then the “covenant” is established (the term berith does not occur in the J narrative), and the “bow” (an “artefact”) is placed in the sky to symbolize the promise that “the waters shall never again become a flood to destroy all flesh” (Gen.9:15).

Taufiq's actions are related to Johor's first visit to Shikasta, when he and the Giants planned that the Natives “would administer and guard the animals after the Giants left” (59),
and when he instructs David and Sais how to live under the laws of Canopus (83-4, 96-7). Taufiq must consider the thousands of years of Shammatan influence, and so he allows animal sacrifice, but he reiterates the same principles of respect for all forms of life.

Lessing has managed, in two pages, to refer to both the Lord / J and God / P flood narratives contained in Gen.6:5-9:17, recalling specific details from each. One departure is in the detail of how long the inundation lasted. Referring neither to the “forty days and forty nights” (Gen.7:4) nor the “one hundred and fifty days” (Gen.7:24), Taufiq reports that “the rain continued for nearly two months”. Moreover, he includes an important geographical limitation: “In the area that is the subject of this report” (130), a limit that clearly contrasts with the biblical version of a flood which destroys all the life on all the earth (Gen.7:21-23).

The story of the planet Shikasta reveals the biblical pattern of garden, loss of garden, divine-human inter-mating, and flood. The next envoy report continues this pattern by including a story which is a parallel to the tale of the Tower of Babel. After the flood, the Genesis narrative contains a story of Noah’s drunkenness and the curse of Ham/ Canaan, which ends Genesis 9. Genesis 10 consists entirely of genealogies. The first nine verses of Genesis 11 tells the story of the building of a great city and tower; the first verse tells us that the whole world had “one language and the same words” (Gen.11:1) and the last verse tells us that the Lord “confused the language of all the earth” and “scattered” the people “over the face of all the earth” (Gen.11:9).

When Taufiq begins to tell, in his fifth report, of the “twenty-one cities . . . established in the old flood areas” (131), we know he has returned to the territory of the “Davidic tribe”. He reports that Shammatan influence has led the Shikastans to believe that
“the Gods” have defrauded and exploited them, denying them “their rightful heritage” (131), and that, if they follow “certain practices” they “will become ‘as Gods’” (131). Taufiq’s report goes on to tell of how the Shikastans attempt to “transcend themselves” and to “practise spurious versions of the Art of the Stones” (132). This recalls the story in Gen.11:1-9.

And they said to one another, ‘come let us make bricks and burn them thoroughly’ . . . Then they said, ‘Come, let us build ourselves a city, and a tower with its top in the heavens’ (Gen.11:3-4).

Taufiq supports other Canopean envoys’ recommendation to “disrupt their speech centres”, and ends his report by noting that Shikastans from all known regions will soon “gather in the Areas of the Cities to confer about ways to ‘become Gods’” (132). The biblical story continues:

And the Lord said, ‘Look they are one people, and they have all one language; and this is only the beginning of what they will do; nothing that they propose to do will now be impossible for them. Come, let us go down, and confuse their language there, so that they will not understand one another’s speech’ (Gen.11:6-7).

Taufiq’s brief sixth report confirms that six Canopean envoys attended the conference, caused the Shikastans’ “communications systems” to malfunction, and established “eight main languages” which would eventually lead to “thousands of languages and dialects” (132).

Although this is a clear parallel to the story of Gen.11:1-9, there is also a reference to the earlier Genesis story in which the serpent tells the woman that by eating the fruit she will become “like God” (Gen.3:5). Johor had predicted that everything he told the Natives
would be deformed and reprocessed (68). When he explained that Rohanda was “like a rich garden” which could not be maintained as it once was (62), he stressed that this was caused by circumstances “for which they bore no responsibility at all” (67-8). When we read Genesis as a corrupt record of contact with Canopus, we see that the lack of blame for the loss of the garden becomes a story of rebellion and disobedience. The presence of the serpent, and its claim that the woman will become “like God”, parallels the Canopean claim that Shammat has perverted the bond between Canopus and Shikasta.

The final verses of Genesis 11 contain a genealogy that leads from Noah’s son Shem to Terah, the father of Abram. The genealogy begins to develop a storyline when Terah takes his son Abram, his grandson Lot, and his son’s wife Sarai away from their homeland “to go into the land of Canaan” (Gen. 11:31). Terah dies (vs. 32) before they enter Canaan. The story of Abram/Abraham begins in Genesis 12, when he is already seventy-five years old (12:4), and ends with his death in Genesis 25 (vss.7-10). The Canopean reports that follow the “confusion of language” episode refer to a subsequent time in the same geographical area, and those readers who expect a reference to Abram/Abraham are not disappointed.

A “Joint Mission” to Shikasta is undertaken by Taufiq and Johor. Taufiq’s final report concerns other areas of the planet (133-5), but Johor’s is concerned with “the Areas of the Cities” (135-40). After thirty thousand years, Johor returns to Shikasta. This is the second visit he referred to in his narrative of his third visit (14). He reports that he has been to “the Areas of the Cities”, and makes explicit the connection between these cities and the old “Mathematical Cities”. He walks in a city “where the Round City once stood” and sits exactly where he had once sat with the Giants (138). As much as he is dismayed by the
degradation of what was formerly great and beautiful, Johor notes that each Shikastan still “has all the potentiality . . . to leap from his low half-animal state to true humanity” (137). Even so, he sees that the inhabitants of the city “live as if each were alone in enemy territory and with no hope of reprieve” (138). How greatly this contrasts with his joyous experience of the Round City on his first visit, when “it was full of the strong quiet purpose . . . evidence, anywhere . . . of the Necessity” (49). This now “terrible city” is the same as all the other great cities, according to other Canopean envoys. Johor lists the offenses which transgress the Laws of Canopus:

  warring, cheating, making treaties which are dissolved in treachery, stealing each other’s goods, . . . each other’s flocks, capturing each other’s people to make slaves (138).

In Genesis 13:8-13, the narrative describes the separation of Abram and Lot. Lot takes his place “among the cities of the Plain” and Abram settles “in the land of Canaan” (Gen.13:12). The narrative explains that this time is “before the Lord had destroyed Sodom and Gomorrah” (vs.10) and that “the people of Sodom were wicked, great sinners against the Lord” (vs.13). Genesis 14:1-24 tells of a war among the kings of various cities, including Sodom and Gomorrah, in which Abram becomes involved because of the capture of his nephew Lot, “who lived in Sodom” (Gen.14:12). There is no mention of these cities again until Genesis 18-19, which tells of their destruction. In Genesis 18, Abraham (name change in Gen.17:5) is visited by “three men” (selosah ‘anasim) and, after echoing the Lord’s promise (Gen.17:19) that his wife Sarah would bear a son, “the men” set out for Sodom (Gen.18:16). The Lord tells Abraham that there is a great outcry about the sinfulness of
Sodom and Gomorrah (vs.20), and Abraham convinces the Lord to spare the city if ten righteous people can be found there (Gen.18:32). In Genesis 19, the “two messengers/angels” (senem’ hamal’kim) are met at the city gate by Abraham’s nephew Lot (vs.1), who takes them to his house (vs. 3). The house is surrounded by “the men of Sodom, both young and old” (vs.4), who demand to be given the “men” (ha’anasim) so that we might know them” (vs.5). The men “strike with blindness the men who were at the door” (vs.11), and tell Lot to gather his people and take them from the city because they intend to destroy it (vs.12-13). Lot pleads with the men to allow him to flee to another “little” city rather than to the hills (vs.18-20), and they agree to spare that city for his sake (vs.21). The cities of the Plain are destroyed when “the Lord rained . . . fire and sulphur . . . out of heaven” (vs.24). Abraham himself sees “the smoke of the land going up like the smoke of a furnace” (vs.28). The narrative reiterates that “when God destroyed the cities of the Plain, God remembered Abraham, and sent Lot out of the midst of the overthrow, when he overthrew the cities where Lot had settled” (Gen.19:29).

Johor and a “permanent agent”, Jussel, leave the cities and go “among the herdsmen on the plains” (139). They find “descendants of Davidic stock”12, and, with a tribe which exhibits best its people’s qualities of “honesty, hospitality, and above all a hunger for something different”, the Canopeans reveal themselves as on a mission from somewhere else (139). The Canopeans are then addressed as “Lords, Gods, and Masters”, and they instruct the tribe to “maintain certain practices” in order to be “saved from the degeneration of the cities”.13 They also give what Johor calls “instructions for safe and wise existence on Shikasta”, and these “instructions” reiterate what Taufiq had told the rescued “Davidic tribe”
after the inundation (130), and what Johor himself had told the rebel Giants (81) and David and Sais (94-5).

[M]oderation, abstention from luxury, plain living, care for others whom they must never exploit or oppress, the care for animals, and for the earth, and above all, a quiet attention to what is needed most from them, obedience (139).

Johor and Jussel then tell an old man, “the most respected of the tribe”, that, if they “kept up the right ways”, his descendants would always be close to “the Gods”, and they “caused him to have two sons, both irradiated by Canopean vibrancies” (140).

Then they return to the cities, “to see if we could find any with enough individuals in them to make it possible to redeem them”, which parallels Abraham’s request of the Lord to spare the cities if enough righteous people could be found in them. The Canopean envoys could only warn those “who could hear us” to leave (140), which parallels the chance to escape which is offered to Lot. When the Canopeans return to the old man and tell him that the cities would be destroyed, he “pleaded” with them, just as Abraham pleaded with the Lord. But the Canopean space fleet blasts the cities, all at once, “into oblivion” (140).

The sequence of the events narrated in *Shikasta* corresponds consistently with the biblical text, beginning with the mating of “the sons of God and the daughters of humans” (Gen.6) and ending with the destruction of the cities of the Plain (Gen.19)14. A number of the events include descriptions of contact between humans and Canopean emissaries, and these episodes correspond with descriptions in the biblical text of contact between humans and divine beings. In Genesis 6:1-4, the divine beings are “sons of God” (*bene elohim*) and in Gen.18-19, they are called “men” (one of the men is apparently the LORD) and “messengers/
angels”. In the corresponding narratives in Shikasta, the “divine beings” are Canopean emissaries.

Many of the actions attributed in the biblical text to God are attributed in Shikasta to the Canopeans and to accidents of nature. The loss of the garden is caused by “a fault in the stars”, the cause of the flood (Shikasta, 129-30) is attributed to melting ice caps and an ensuing cloud mass, and the saving of the “Davidic strain” is undertaken by the Canopean agent, Taufiq. The “confusion” of language is also attributed to the Canopean emissaries (131-2). The destruction of the cities of the plain, attributed to God/ the LORD in Genesis, is attributed to the Canopeans in Shikasta.

The next section of narrative in the novel extends the biblical references, but in a more covert fashion. By this extension, the nature of the Canopeans becomes even more intimately related to biblical history; a correspondence between the “Laws of Canopus” and the laws of the biblical God/ Yahweh is established throughout the reports which Johor and Taufiq provide concerning their interactions with the inhabitants of Shikasta. The efforts made by later emissaries, the “public cautioners”, to remind the Shikastans of their relationship to those Laws, extends that correspondence to Moses, the prophets, Jesus, and Muhammad.

Immediately following the narrative section describing Johor's second visit, the archivists present excerpts from “History of Shikasta, VOL.997 ” concerning “public cautioners” on Shikasta. These are emissaries (alternately called “technicians”, 142; “envoys” and “representatives”, 143) sent to Shikasta during the centuries following the destruction of the cities of the Plain. Most of the “technicians” were sent to “strengthen the link, the
bond" between Canopus and Shikasta "by restoring selected individuals to suitable ways of life"; and most would work "quietly, unknown to the populace" (142). Some, however, would "incarnate", through Zone Six, as Shikastans, "in order that what was said . . . could take effect" (142). These envoys would draw individuals to them who "formed a core or nucleus which could be used to strengthen and maintain the link, the bond" (143). Because of the degenerated conditions on Shikasta, barely compensated for by the always-deficient SOWF, the few individuals who could respond were unable to "maintain this response as a living and constantly renewed contact with . . . Canopus" (143). Inevitably, the efforts of the Canopean envoys would result in "religions", which "took their shape from the lives or verbal formulations of our envoys" (144). These religions become a "main difficulty in the way of maintaining Shikasta" in the Canopean system, because "priesthoods distorted what was left of our envoys' instruction" (144).

This archival section of narrative must be read in the context of the biblical references made in the preceding section. When Johor returns thirty thousand years later to the "Areas of the Cities" (136), he walks "through the streets of the city that stands where the Round City once stood" (138). The Giants, David and Sais, and afterwards their descendants, saved first from the flood and then from the destruction of the cities, are all to be located in the middle east, "the peculiarly well-favoured and advantaged area around and south of the Great Seas" (141). Both Taufiq and Johor are associated with the "public cautioners" in the archival section. If "warning" and "reminding" are the criteria, then, the text asks, "do we class Taufiq and Johor as public warners?" (141). If the overt biblical references and the geographical correspondences direct attention to the 'promised land' of the Hebrew Bible,
then it is clear that the “public cautioners” of the archival section are the prophets. But the text implies something more than just the idea that the Hebrew Bible prophets can be seen as emissaries of an alien civilization; the “public cautioners” who are seen as the founders of religions are also included, namely Moses, Jesus and Mohammad16.

The archival section which describes “the period of the public cautioners” (140-7) conflates the historical duration of the period, setting a specific date of the last public cautioner as “1,500 years before the end”. Because of the archival excerpt preceding the narrative of Johor's second visit, which describes “the end” with information that corresponds to the late 20th century (Shikasta, 109-22), the end of “the period of the public cautioners” corresponds to the 6th century CE: the date of the life of Mohammad, though he is not mentioned by name. The text conflates the time period by its general description of the era. If the “period of the public cautioners” begins after the destruction of the cities, ca. 2000 BCE, then the time frame is 2,500 years. The 1,500 years between the last of the public cautioners and the time of Johor's third visit is also conflated by the text, as though the time which our cultural traditions value so highly, from Moses through Jesus and Mohammad to the present, is of no concern to the Canopeans. It is merely a detail in the larger story of Shikasta's degeneration under the influence of Shammat and in the absence of an adequate supply of SOWF. The conflation of time seems instead to purposefully challenge our view of ourselves: the progress of human civilization during the last few thousand years warrants little attention from Canopus; Shikastans of the late 20th century are the same degenerated offspring of the Native inhabitants who caused Johor such grief over thirty thousand years earlier.
The Canopeans serve "the Necessity", and are committed to "the prime object and aim of the galaxy" which is "the creation of ever-evolving Sons and Daughters of the Purpose" (Shikasta, 52). The language of "purpose" is found throughout the series, and is associated with the Necessity (e.g. Shikasta, 49) and "the Laws." It is in the description of the Art of the Stones (Shikasta, 40) that we first read of the enigmatic term "the Necessity." This term becomes the cornerstone of the Canopean worldview, the foundation of which is laid in Shikasta, but which is developed throughout the series. It is not until the final novel, The Sentimental Agents in the Volyen Empire, that a definitive statement is made about the relationship of "the Necessity" to the Canopeans:

"In the very earliest days of Canopus, we too took what we wanted, and blundered, and wondered why it was everything we touched went wrong and at length failed and collapsed, until we discovered the Necessity and were able to do what we should (Sentimental Agents, 94-5)."

What exactly "the Necessity" is remains mysterious throughout the series, however, just as "the Purpose" is never explicitly defined. The term 'necessity' implies 'what must be' and offers an alternative view to the emphasis on chance and accident in evolution theory. The universe which the Canopeans know extends beyond the boundaries of physical incarnation, yet they are intensely preoccupied with the mundane realm of physical existence, as a necessary phase of the process of evolution. The "prize" for enduring life on Shikasta is "to be free of it forever" (Shikasta, 20). Johor urges the "souls" lingering on the edge of Zone Six to return to Shikasta "the hard way" and win their way through and out (Shikasta, 25, 261-2).

The "Natives" of Shikasta are taught "the science of maintaining contact with
Canopus" in accordance with "the laws of the Necessity" (40). Canopeans speak of "the Laws of Canopus" to the inhabitants of Shikasta, but in The Sirian Experiments, the third novel in the series, Klorathy explains to Ambien II that

'Canopus did not invent the Laws. Have you not observed for yourself that if one disengages oneself from a process arbitrarily, then all kinds of connections and links and growths are broken - and that you yourself suffer for it . . . . Laws are not made - they are inherent in the nature of the Galaxy, of the Universe.'

'You are saying that we have to learn how to observe these laws in operation?'

'Yes, Sirius, yes, yes' (278).

The three biblical religions are equated with the efforts made by Canopean emissaries to "remind" Shikastans/earthlings of the Laws of Canopus. Lessing offers an alternative to how Jews, Christians and Muslims have understood their religions. She emphasizes what they have in common rather than what distinguishes them. The fact that Johor's missions are all in the "Area of the Cities" makes the biblical lands of primary importance, but other reports included by the archivists indicate that other emissaries in other geographical areas have also left behind "religions"; the inference is that all religions are related. But Shikasta is written by a westerner for westerners, and our biblical heritage is central to Lessing's story. Readers of Shikasta are led to imagine that the laws of the biblical tradition are like the laws of physics; they are not arbitrary remnants of a distant past, from a phase of human evolution which we have surpassed. They are reminders of a right way to live, of a necessity which is as real as the stars and gravity and the speed of light.

In Shikasta Lessing integrates the biblical narratives of human history with the
scientific narrative of evolution. The biblical tradition of ‘law’ is transformed into a ‘science’ of maintaining contact with the process of evolving consciousness in the universe. The secular story of the evolution of stars, planets and life forms is also transformed; the distinction between who we were before we ‘discovered’ evolution and who we are after is dissolved. Lessing’s readers are led to re-imagine the story of evolution without the anti-teleological rhetoric of ‘evolution theory’. *Shikasta* offers an image of hope and grace for those who can maintain a vigilant memory of the value of ourselves as “creatures of the stars and their forces, they make us, we make them, we are a part of a dance from which we by no means and not ever may consider ourselves separate” (*Shikasta*, 58).
1. Canopus has also been identified as the helmsman of Menelaus’ ship, part of the Achaean fleet which sailed to Troy; the Achaeans are associated with the ancient Greek kingdom of Argos (Bonnefoy, *Mythologies*, 1991, 136-8; Fagles, *The Iliad*, 1990, 645). As well, Canopus is the name of an island in the Nile River, and some Egyptian temples were oriented towards the star (Parada, *Studies in Mediterranean Archaeology* Vol.CVII, 1993, 190; Gettings, *Dictionary of Astrology*, 1985, 52).

2. Betsy Draine, in her book *Substance Under Pressure*, argues that the “tension in the narrative” of *Shikasta* lies “most notably between the science fiction and spiritual strands of the work” (Draine, 160). Draine notes the play between the theme of evolution and the creation stories of Genesis:

   In the tradition of science fiction, [Lessing] re-imagines human history from a cosmic, rather than an earth-centred, perspective. In so doing, [she] rewrites both the secular Darwinian history of evolution and the sacred history of the Fall (148).

   In Draine’s reading of *Shikasta*, however, the biblical references are part of a more general mixing of religious and scientific themes, and she doesn’t give the parallels between the texts of Genesis 6-19 and the Canopean envoy reports the attention which I believe they warrant. In my own reading, the biblical references provide Lessing with a means of aligning the Canopeans, as “servants of the Laws of the Necessity”, with the prophetic tradition shared by the Hebrew Bible, New Testament and Quran.

3. For example, Draine notes the references to biblical material in *Shikasta*, but she merely lists the stories which are from the Hebrew Bible in one sentence (Draine, 149-50), while devoting more than two pages to citing parallels between the Canopean envoy, Johor, and Jesus. Building on what she sees as “allusions to messianic literature”, a parallel to “many a Christian hymn” and “a whole string of passages that equate George Sherban [the Canopean agent, Johor,] with the redeemer-god of the New Testament, Gnostic legend and ancient myth” (154), Draine claims that

   the interest in the messianic parallel comes from contrasting the story of Johor’s redemptive mission with the version of Christian scripture and tradition. . . . Unlike the coming of the Messiah in Judeo-Christian tradition, Johor’s incarnation is not the unique and all-important event in salvation history. Indeed, Earth is by no means the centre of the Canopean “Master Plan”. . . . Humanity may no longer see itself as the only child of an alternately doting and punitive Father; now human beings must democratically share their position with myriad brothers and sisters. . . . This attitude involves a radical departure from Judeo-Christian cosmology, and in turn a major alteration in the role of the messiah” (155).

I believe that Draine’s emphasis is misplaced; there are no overt references to Jesus, whereas the references to the texts of Genesis 6-19 are extensive. Her use of the term “Judeo-Christian” is misleading, since her reading focuses exclusively on a *Christian*
reading. In the following discussion, I will suggest that what is implied in Shikasta is that the Hebrew Bible prophets, as well as Moses, Jesus and Mohammed, were Canopean envoys, who, like Johor, were sent to teach the inhabitants of Shikasta about the “Laws of the Necessity”.

4. Another feature of Shikasta which extends the biblical parallels concerns the editorial insertions made by the “Archivists”, directing readers to other texts for further reading. Throughout the books of Kings and Chronicles, there are a number of admonitions to those seeking more information:

Now the rest of the acts of Solomon, all that he did as well as his wisdom, are they not written in the Book of the Acts of Solomon? (1 Kings 11:41)

Now the rest of the acts of Rehoboam, and all that he did, are they not written in the Book of the Annals of the Kings of Judah? (1 Kings 14:29)

Now the rest of the acts of Nadab, and all that he did, are they not written in the Book of the Annals of the Kings of Israel? (1 Kings 15:31)

Now the rest of the acts of Solomon, from first to last, are they not written in the history of the prophet Nathan, and in the prophecy of Ahijah the Shilonite, and in the visions of the seer Iddo concerning Jeroboam son of Nebat? (2 Chron. 9:29)

Now the rest of the deeds of Amaziah, from first to last, are they not written in the Book of the Kings of Judah and Israel? (2 Chron. 25:26)

Readers of the Hebrew Bible are in the same position as readers of Shikasta, because we don't have access to the texts mentioned either by the biblical writers or by the Canopean Archivists. When they suggest further reading, for example “[SEE History of Shikasta, VOLS. 2955-3015, The Century of Destruction.]” (Shikasta, 100), although we don't have access to these texts, there is a sense in which our ‘suspension of disbelief’ is encouraged to the point where we begin to confuse fiction with history. It is this aspect of intense record-keeping which serves to characterize the Canopeans as participants in the same view of history as the biblical writers, and by extension ourselves as inheritors of the biblical imagination.

5. The identification of the narrative voice is another feature of Shikasta which has biblical parallels. The importance of an identified author can be seen in the attempts to associate an important figure with a particular text in order to establish its authority: for example, the Pentateuch is traditionally attributed to Moses, the prophetic books are traditionally attributed to the prophets whose names identify them, many of the Psalms are credited to David, the Song of Songs is identified as written by Solomon; in the New Testament there are a number of Pauline letters which biblical scholars believe were not written by Paul; the extra-biblical book of Jubilees is attributed to Judah.
6. After Johor has found Taufiq (third visit, late 20th century), reminding him through his dreams of his Canopean identity (108), an editorial insertion by the Archivists (109-22) describes the wars which dominated Shikasta's century of destruction, leading to the decimation of all but “1 percent” of the population. The amount of the “substance-of-we-feeling” is sufficient to restore the inhabitants to themselves. Happy ending. End of story. But the novel is far from over. The archival excerpt ends on page 122 of a 448-page novel. There’s a lot of ‘story’ left to be told.

7. This term “Nephilim” has remained somewhat mysterious to biblical translators who, for some reason, have not translated this word from the Hebrew. Although the literal translation is “the fallen ones” (masc. pl. participle), the term “Nephilim” has led biblical readers to consider it as a reference to “giants” based on Numbers 13:33, where the “Nephilim” are described as people “of great size”. Genesis 6:1-4 is often understood to mean that the “Nephilim” are the products of the mating between the sons of God and the daughters of humans (for a full discussion of this biblical passage, see R.S.Hendel, “Of Demigods and the Deluge: Toward an Interpretation of Genesis 6:1-4” in JBL vol.106/1, 1987, 13-26), but it is possible to read it as merely a note that at the time of the mating the “Nephilim” were in existence. This is certainly the way that it is to be read according to the storyline of Shikasta.

8. Johor befriends the Shikastan native, David, a singer and storyteller, who becomes the eponymous ancestor of the people saved from the flood by Taufiq, and from the destruction of the cities by Johor and Jussel.

9. The “emanation” which Canopus sends to Shikasta is called “substance-of-we-feeling” or “SOWF”, “the silvery cord of our love” (Shikasta, 90).

10. In the Hebrew Bible, David is not the eponymous ancestor of the Israelites - he does not appear in the text until 1 Samuel 16:13 - but he is the man who reigns as king over Israel and Judah for forty years (2 Sam.5:3-5) and for whom the Lord/Yahweh establishes “the throne of his kingdom forever” (2 Sam.7:13). He does serve as a bridge between the Hebrew Bible and the Christian New Testament, through the genealogical connection made between David and Jesus (Matt.1), and through the theology which casts Jesus as a ‘king’. In Shikasta, David provides a link between Johor’s three missions to Shikasta: on his third visit, while travelling through Zone Six, Johor meets Ben, a “descendant of David and his daughter Sais” (19), and Ben figures prominently during the second half of the novel when he becomes the brother of George Sherban (Johor).

   The connection which David provides between the Hebrew Bible and the Christian New Testament is extended in the Quran (references to David are found in e.g. Sura 2, Sura 21, Sura 27, and Sura 34). The Quran consistently sets itself in the context of the scriptures of Judaism and Christianity; throughout the suras, there are references to Adam, Noah, Abraham, Jacob, David and Jesus, and most of all to Moses.
11. The Hebrew text alternates between “the men” and “the messengers”; English translations generally use “angel” and “angels” for Hebrew “malak” and “malakim”, following tradition based on the Greek Septuagint (LXX).

12. The “everlasting covenant” which Yahweh establishes with David, conditioned on the mandate to follow the “law of Moses” (kekathub betorath moseh – 1 Kings 2:3), is a biblical model which is paralleled in Shikasta. The Canopean emissaries offer the “descendants of Davidic stock” a similar arrangement:

And we told the most respected of the tribe, a male already old – in their terms – that in his veins ran the ‘blood of the Gods', and in his progeny would always remain close to the Gods, if they kept up the right ways (140) (italics mine).

13. Cf. the “certain practices” with the “circumcision” covenant of Gen.17:9-14; 23-27 - just before the beginning of the story of the destruction of the cities.

14. The episode in Shikasta which corresponds to the Genesis 18-19 narrative of the destruction of Sodom and Gomorrah also includes some ‘out-of-sequence’ references to other parts of the ancestral narrative concerning Abraham. There is a promise made to the old man that resembles the promise made to Abraham in Gen.12:2-3,17:1-7 and 22:15-18; and there is a simple one-sentence description of two sons born to the old man, who are “irradiated with Canopean vibrancies”, which refers to the stories of Abraham’s sons, Ishmael and Isaac, found in Gen.16:11-16, 17:17-27, and 21:1-20.

15. Lessing uses this term, ‘incarnate’, once, early in Johor’s narrative of his third visit to Shikasta: “there would not be time for me to incarnate and grow to adulthood before attending to the various urgencies that had developed because of Taufiq’s misfortune” (Shikasta, 17). This term refers to one of the ways in which the Canopean envoys fulfill their missions to Canopean colonies. Other terms and phrases are used to describe the process, for example, in reference to Taufiq, Johor writes that it “was necessary that Taufiq should cause himself to be born into the minority race of the planet” (98; italics mine), and other envoys are described as having “manifested as ‘female’” (142; italics mine). The term ‘incarnate’ is an important one in Christian theology, i.e. the Incarnation of Christ, but, because it is used only once in Shikasta, I don’t think it supports, for example, Draine’s suggestion that Johor is a type of Jesus (Draine, 155). The important point is that Canopeans are able to take on the form of a Shikastan (43) or to be born as Shikastans (142) according to what is necessary for their mission.

16. The identification made in Shikasta between Judaism, Christianity and Islam, is a point of view which has its source in the Quran:

To Moses We gave the Scriptures and after him We sent other apostles. We gave Jesus the son of Mary veritable signs and strengthened him with the Holy Spirit (Sura 2).
Allah has purchased of the faithful their lives and worldly goods and in return has promised them the Garden. They will fight for His cause, slay, and be slain. Such is the true pledge which He has made them in the Torah, the Gospel and the Koran (Sura 9).

We made a covenant with you as We did with the other prophets; with Noah and Abraham, with Moses and Jesus, the son of Mary (Sura 33).

17. Other related words are also used to articulate the theme of “purpose”; e.g. the “function” of the Giants, “their use, was the development of the Natives” (55). The theme of purpose is found throughout the Canopus series. When Al*Ith struggles to understand why “the Providers” have sent her to Zone Four she declares, “There is something we should have been doing. . . We must find out what we are for” (Marriages, 149). When technological development in the Sirian Empire leaves “billions upon billions of individuals” with nothing to do, an existential crisis results because, as Ambien II reports, they “had not understood that there is inherent in every creature of this Galaxy a need, an imperative, towards a continual striving, or self-transcendence, or purpose” (The Sirian Experiments, 27). Witnessing the death of their planet and their own feeble efforts to save only a few of themselves, the “Representatives” of Planet 8 question the purpose of their actions - “there was not one of us who did not ask silently and secretly: Why? What for?” (Planet 8, 61, 135). In Sentimental Agents, the Sirians propose that “no further expansion of any kind takes place until we have learned from the Canopeans how to align ourselves with the Purpose; until we know what we are for” (186).
Conclusion

At the end of the 20th century, we know a lot about ourselves as human beings living on a planet in a solar system in the Milky Way Galaxy. We are a technologically adept species, and in the last few hundred years we have applied our knowledge of the laws of the natural world to further our search for mastery in the realm of the *phaenomena*. For this reason, our successful applications, which signal our technological prowess, have become the primary symbol of what we call 'science'. However, when we are critical of our dependence on, or misuse of, technology, it is easy to see that there is something else to 'science' than just mastery over nature. Science is also a way of knowing the world, a way of understanding how things are the way they are.

One outcome of the influence of the sciences is that historical narratives became the object of critical scrutiny. Attempts to make historical narrative meet the demands of the scientific method entailed the use of evidence to substantiate any claims to understand past events *as they really happened*. Because the Bible occupied a central authoritative place in western culture, it is understandable that efforts were made to search for extra-textual evidence to corroborate the view that biblical narratives were true accounts of past events. Although evaluations of the biblical texts as legitimate history lead to a critique of traditional literal readings, subsequent investigations over the last century have led scholars to propose that some biblical narratives include reliable historical information. The task of determining what might be legitimate historical data is complicated by the fact that the biblical writers operated within a very different worldview than that of contemporary historians. As
Detweiler notes, ancient texts mix the categories of genre (Detweiler, 9) which we use to
distinguish fictional from non-fictional narratives, and so it is not a simple matter to
determine which ancient narratives depict actual events and which narratives are fictional.

The historical relationship between the Bible and the emerging sciences during the
past 400 years makes it impossible to speak of science in western culture without reference
to the Bible. First of all, it was under the auspices of a biblical imagination that the study of
the natural world was undertaken; secondly, a competing narrative of the history of the world
began to emerge from that study and led, finally, to a reevaluation of the credibility of
biblical narratives as reliable historical narratives. Under the auspices of a scientific study
of historical narratives, the modern discipline of ‘History’ emerged. Historians, like Ranke
and Collingwood, adopted the central criterion of the scientific method, namely evidence,
in their efforts to compose non-fictional historical narratives. Scientific narratives of the
history of our planet, including especially evolution theory, are cast in this image of a non-
fictional historical narrative.

The scientific study of narrative, however, has disrupted the neat categories of fiction
and non-fiction. Both linguistic theory and literary theory have proposed that language is not
a value-free medium which can submit to the aspirations of those who wish to simply tell
what really happened. Narrative is story. The dilemma for historians and scientists, for all
non-fiction writers, and for our civilization as a whole, is that the word ‘story’ has come to
mean ‘not true’. But a kind of solution is available, one that readers of literature have found
quite satisfactory. The solution is to accept that narrative is ‘story’, that ‘story’ is all we’ll
ever get and that some stories are better than others. An approximate truth, limited and

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relative, may seem a poor substitute for the all-encompassing absolute truth which was once associated with the Bible, and is often naively attributed to the narratives of science. Literary fiction doesn’t have the same problem with this notion of ‘approximate truth’, and so a literary narrative is an ideal format for a critique of the scientific imagination and the absolute stance granted to its narratives. It is not the kind of coherent vision we may want, not one that will fully solve our dilemma and give us back our certainty about the believability of our narratives. It is, however, a position we can take and still honour the invaluable insights which sceptical readers bequeathed to us long ago when they sought to get beyond the facade of pseudo-histories and inspired the attempts of those who sought to compose a true history of the world.

For those of us who don’t have an investment of faith in the theological aspects of the biblical narratives, the value of the Bible lies in its role as the source of the primary narratives which have informed our civilization for two millennia. In the paradigm shift which characterizes our historical passage from pre-critical thought to critical thought, the preeminent casualty was the loss of the coherent vision which I have called a biblical imagination. Scientific theories concerning the origin and nature of the physical world are subject to new interpretations as new data is introduced, but science has also begun to project a coherent vision which I have called a scientific imagination. At the core of that imagination is the scientific method which provides the criteria through which all of our scholarly disciplines judge the coherency of their own narratives.

I have proposed that there is a ‘biblical imagination’ and a ‘scientific imagination’, and that these have often been characterized as competing worldviews. Lessing weaves them
together in Shikasta using two common elements: one is history and the other is ‘Law’. The biblical version of creation and human history is integrated with the evolution theories of astrophysics and biology. Lessing’s readers are led to yet a third version of earth’s history - the Canopean. The “Laws of Canopus” are an integration of biblical law and the laws of physics. For the Canopeans, culture and nature are one; the stories that we tell and the physical world that we inhabit are not two unconnected spheres, as they are in the evolution narratives of Monod and Dawkins. If all narrative is story, as I have proposed, we must read our scientific narratives with the same critical eye that we read our literary narratives.

Carl Sagan, an astronomer, speaks of evolution as “a fact, not a theory” (Sagan, 27) and stresses the accidental aspect of adaptive mutations in the long process of natural selection (30). For Sagan, humanity is at home in the cosmos (e.g. xii), so his version of the evolution story is not as bleak as Monod’s, but he shares with Monod and Dawkins a confidence in the accuracy of the evolutionary model.

To define what the word ‘fact’ means, and then to determine what qualifies as a fact, is to go from the relatively simple to the overwhelmingly complex. If a fact is something that is supported by evidence, then it seems simple to say that gravity is a fact not a theory, and the Earth’s rotation is a fact and mortality is a fact. We may agree that, indeed, there is enough evidence to make it a fact that evolution is the process by which the diversity of lifeforms developed on our planet. The evolutionary narratives of Monod and Dawkins, however, go much further than the mere recitation of the evidence for evolution; in their narratives the emphasis on chance and accident as the dominant features of the process makes evolution a process without a plan.
Contrary to what both Monod and Dawkins will acknowledge, however, their narratives are stories, and they are anti-historical, anti-teleological and anti-religious stories. That they both use biblical images (covenant, Garden of Eden), however, is evidence for the continuing power of biblical narrative in our culture. Evolution theory can be used to tell a very different story, and this is what Lessing has done. She, too, has used biblical images (garden, flood, evil cities, laws, ‘alien’ visitors), but not as a cheap rip-off. Instead, Lessing has invoked the power of biblical narrative to enrich her story of the history of our planet.

By setting up a parallel between our history as recorded in the Canopean archives and the ancestral narratives of Genesis, Lessing has aligned her aliens with something very familiar to us. But, contrary to the method typical of both science and science fiction, Lessing has not ‘de-mythologised’ the Bible; she has, instead, made the ethical motives of her Canopeans resemble the ultimate concern of our religious heritage, namely, a life in accord with a universal context of ‘the good’. The criteria which informed the storytellers of ancient Israel were different than our own and we should avoid reducing their literature to the unimaginative level of the literal, which is what we do when we cast the Bible in a religion vs. science drama, with the creation stories of Genesis as an example of ‘bad’ science. Instead of a relationship of opposition, we can align our stories according to the questions that they pose and recognize a relationship of similitude in the biblical and scientific narratives which inform our cultural imagination.

Lessing’s novel *Shikasta* is a fictional narrative in the guise of a historical narrative; by incorporating elements from both biblical and scientific narratives in a history of our planet, Lessing engages the primary point at which the Bible and science began their
divergence, that is, in the telling of the story of the history of the world. In my reading of Lessing’s novel *Shikasta*, two apparently incompatible ways of imagining the world and our place in it, that is the scientific and the biblical, are integrated in an elegant, satisfying and compelling manner.
Works Cited


Lamm, Robert C., Neal M.Cross and Rudy H.Turk. The Search for Personal Freedom.


Additional Bibliography

Literature and Culture


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Doris Lessing


