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by

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THESIS: THE ONTOLOGICAL UNDERPINNINGS OF THE MODERN UTOPIA

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This work is dedicated to my husband, Thomas J. Lombardo, Ph. D.

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ABSTRACT

The modern utopian vision, from its first appearance with Thomas More's *Utopia* to its late modern manifestations in twentieth-century science fiction, has changed in response to the advances in human knowledge and evolving interpretations of being. The ontological shift—from the early modern age when the medieval Christian concept of divine order dictated interpretations of reality, through the Enlightenment with its focus on empirical science, reason, and progress, and up to the post-Darwinian, existential, and technological twentieth century—is reflected in corresponding changes in the utopian form. With examples of utopian thought from the early, mid, and late modern periods, this thesis demonstrates how utopia has been a mode of thought which mirrors the modern age ontological shifts and which continues to address the questions of what it is to be, what the nature of human beings is, and how humans should organize socially and politically.

CHAPTER 1

INTRODUCTION AND OVERVIEW

Utopias strive to imagine and describe an ideal reality, something qualitatively different from the existing order of the world. The shape they take, however, is determined by the ontology of the time and place which produces them. This connection between ontology and utopia clearly shows up in ancient models such as Plato's *Republic*, where the ideal reality is depicted as a unified, just, and harmonious city ruled by a philosopher king, the only person able to discern the Form of the Good, and thus absolute goodness and truth. And from the sixteenth century on, ontologies derived from science support the themes, values, and structure of modern utopian visions.

In the West, both theories of ontology and utopian visions—and the connection between them—have roots in ancient Greek thought. Ontology is the study of being and embraces such issues as the nature of existence and the categorical structure of reality. By extension, ontology raises questions about man's place in the universe, and the relation between man and being. From at least the time of Plato and Aristotle, ontology has been the foundation of political philosophy, inspiring often radically different visions for a good society. Following Plato's interpretation of being and reality, for example, a good society should be one ruled from above and patterned after an ideal, the correct interpretation of which can only be determined by a body of knowledgeable experts. It will be stable, unified, and hierarchical. Following Aristotle's conceptualization of being, a good society will be a pluralistic one where individual members are free to organize

themselves along lines of personal self determination in order to achieve their potential. This is a dynamic, developmental reality with a *telos* towards which it is striving: happiness for the individual and the state alike.

The term "utopia" comes from the title of Thomas More's modern literary work, *Utopia* (1516), and is a pun on the Greek words for "no place" (*ou* and *topos*) and "good place" (*eu* and *topos*) (Bruce xxi). Utopia has been defined as an "imaginative projection, positive or negative, of a society that is substantially different from the one in which the author lives" (Claeys and Sargent 1). But this simple definition ignores the connection between the creative projection and ontology, as well as the political elements. Plato's imaginary republic was much more than a projection of a different society; it was a prescription for how a just and perfect society could be formed, one that would reflect his ontology and his ethics. Modern utopians followed suit, going even further than Plato in detailing the institutions that would promote and preserve their states.

The connection between the ontological and the political has been a major feature of utopian thought, as much in the modern era as in the time of Plato. Indeed it is what gives utopian thought its value, for a utopia which reflects contemporary ontology is what Fredric Jameson, in *Archaeologies of the Future,* calls an "imaginary enclave within real social space," that is, "a pocket of stasis within the ferment and rushing forces of social change" within which Utopian fantasy can be applied to social problems and in which the whole social system can be imagined as radically different (15, 16). Over time, as ontology has changed to reflect advances in knowledge, different kinds of utopian enclaves have emerged—often, as Jameson asserts, at transitional points in history (15).

And like conceptualizations of reality, especially from the beginning of the modern era on, utopian visions have moved from the metaphysical, supernatural, and eternal to the temporal and physical world of nature; from the static to the dynamic; and from the hierarchical to the pluralistic.

The modern utopia starts with Thomas More's *Utopia* from 1516 and encompasses a broad range of works both fictional and philosophical from the sixteenth to the twentieth centuries. During this span of five hundred years a radical ontological shift took place as modern science gradually displaced theological explanations for all that exists, insisting on observation of the physical world rather than revelation about a supernatural world as the authority for truth about reality. The progression of this shift in thinking about reality is reflected in the five representative utopias explored in this thesis, one from each century of the period under review.

Sixteenth-century Christian England was a society poised in the kind of transitional period that Jameson sees as a breeding ground for the utopian endeavor. While intellectuals and scholars such as More were well versed in the moral writings of the ancient Greek philosophers whose works were being circulated more widely in Europe, few scholars questioned the wisdom and truth of Revelation. Plato and Aristotle may have provided a guide for how to act, but the ultimate message, the ultimate truth, was still in the Gospel (Manuel and Manuel 118, 119).

Yet a series of revolutions in thought and social organization was already under way, beginning with the Renaissance (ca. 1400–1500), a significant feature of which was the rise of Humanism with its shift of emphasis from the spiritual and the otherworldly to

individuality, human dignity, earthly existence and values, and the arts; followed by the Age of Exploration and Colonization (ca. 1500–1800), which further flooded Western Europe with new ideas. The most significant paradigm changer—the Scientific Revolution (ca. 1600–1700)—was just on the horizon (Lombardo 269, 283; Best and Kellner 18). What marks More's seminal utopia as modern is its highly humanistic value system and the influence of the recent discoveries in the Americas, even though ontologically it remains tied to the Christian interpretation of reality.

A century later, the scientific advances of the sixteenth and early seventeenth centuries began to undermine the certainties promised by Scripture. In *The Postmodern Turn*, Steven Best and Douglas Kellner describe the shift that took place in the early modern period, a shift only possible with "the dethronement of God as the locus of knowledge and value and the construction of a new epistemology in which mathematics and the experimental method of science are the keys to unlock the mysteries of the universe" (197). Science would also come to be seen as the key to unlocking the secret of happiness for human kind and, the Romantic reaction against technology notwithstanding, determine the tone of utopia in modern times.

It could be argued that science, at its core, is epistemological rather than ontological in that it is an approach or method to gaining knowledge about the world that involves the observation and gathering of evidence that is obtained through sense perception. This observational evidence needs to be inter-subjectively reliable and testable. But given this prescribed empirical method, science places constraints on the nature of reality. Ultimately, what science insists upon is that what exists is what can be observed in

nature, or inferred from observations of nature. The ontology arrived at through science, then, is that being or reality is nature, a world that can be discovered and known through empirical methods, rather than an empirically unobservable supernatural or transcendent reality.

While such an approach to knowing reality starts with Aristotle, as Best and Kellner point out, modern thinkers went further, shifting their investigation from a qualitative study of the essence of things to a quantitative analysis of their size, weight, and solidity; that is, "to the external, physical characteristics of matter that can be measured in fixed mathematical laws by a detached observer." As Best and Kellner also observe, Aristotle's teleological theory of causation was also rejected in favor of a mechanistic explanation of cause and effect (197).

On the utopian front, God was not to be dismissed so quickly however, as illustrated in the second notable utopian work from the early seventeenth century, Francis Bacon's *New Atlantis* (1627). Generally seen as heralding the coming dominance of science with his rejection of all "idols of knowledge" (Lombardo 293), Bacon illustrates the interpenetration of science and religion in this work, providing a vision for the future of humanity based on the idea that "knowledge is power" while yet adhering to the idea that in practicing science, man was uncovering the mysteries of God's Creation.

Bolstered by the steady advance of science, the Enlightenment philosophers of the eighteenth century dealt the first serious blow to religious interpretations of reality, and to the authority of Church and state that both upheld and were validated by such a view. They argued for the application of empirical science to human development and the

organization of society. Reason, science and the application of rational intelligence replaced faith, revelation and religious doctrine as the source of all authority and progress, laying open a view of reality that was not only dynamic rather than static but which also saw progress not as the result of God's plan for mankind but as a natural, cumulative process (Lombardo 304).

While the idea of progress is not an exclusively modern one, born of the Enlightenment, but one that goes back to the ancient Greeks and Romans and also figures significantly in the work of Saint Augustine, now it came to be seen as the new Providence (Nisbet xi). Thus could Anne Robert Turgot, the "founding philosopher of progress" proclaim in 1750, that "the total mass of human kind, through alternations of calm and upheaval...advances ever, though slowly, towards greater perfection" (qtd. in Nisbet 180). Such a philosophy of progress would provide the framework for the most important utopian vision of the Enlightenment, Condorcet's *Outlines of an Historical View of the Progress of the Human Mind* (1795).

As the scholars of utopian thought, Frank and Fritzie Manuel, observe in their comprehensive study, *Utopian Thought in the Western World,* eighteenth- and early nineteenth-century utopian thinking such as Turgot's and Condorcet's fit in neatly with the physical science of the Newtonian world machine, and inspired social utopians such as Comte, Fourier and Saint-Simone (733). But early twentieth-century utopian visions had to deal with another shift more radical even than that of the Scientific Revolution and that was Darwin's theory of biological evolution.

As Peter Watson asserts in *Ideas: A History of Thought and Invention from Fire to Freud*, Darwin's theory, in explaining a new mechanism of change in the biological world, "demanded the rejection of some of the most widely held and most cherished beliefs of western man." Citing Ernst Mayer, Watson lists the six major philosophical (and thus ontological) implications of Darwin's theories, among the most critical being: (1) the replacement of a static by an evolving world; (2) the demonstration of the implausibility of creationism; (3) the refutation of the idea that there was a purpose in the universe; and (4) the abolition of any justification for the absolute anthropocentrism; that is, that the purpose of the world is the production of man (640, 641).

The impact of Darwin's theory on contemporary ontology and on twentieth-century utopian visions for the future of mankind cannot be downplayed. As the Manuels note, the fundamental biological nature of humans as physical beings subject, like all physical matter, to the forces of growth and entropy, presented new challenges to the idea of their "utopianization." Moreover, as the Manuels observe, the dynamism inherent in Darwinian evolution brought with it not only the possibility of positive transformation but also of degeneration and spawned scores of dystopian visions from Wells to Huxley, Orwell, and Zamyatin (773). Yet, Darwin's theory also opened up the possibility for new visions of human society in which scientific knowledge and, in particular, technology, could be used not only to improve social conditions but to improve the human being himself.

Early existential ontology further complicated the idea of utopia. While Nietzsche's vision of an "overman"—a being who would not only transcend current

limitations on humanity but whose emergence equated to an expression of cosmic will—on one level nourished and gave positive direction to a heroic view of human evolution, it also ran counter to the Enlightenment utopian dream of a peaceful, orderly, progressive world from which violence and aggression could be banished. Indeed for Nietzsche, "progress" was not measured in terms of utility, of the greatest good for the greatest number, but rather "gauged by the greatness of the sacrifice that it requires: humanity as a mass sacrificed to the prosperity of one *stronger* species of Man" (*Genealogy* 48). How such a new species might be ushered in through the emergence of a Nietzschean evolved and superior human type is the topic British philosopher and novelist, Olaf Stapledon, explores with great pathos and insight in his novel, *Odd John* (1936), a work of fiction that encapsulates all the hope and despair of Nietzsche.

While existential thought coupled with the implications of Darwinian evolution would seem to have rung a death knell for the traditional utopia, they also ushered in an era which not only focused on the positive possibilities of science and technology but reframed man's relation to the physical universe and to Being itself. The scientific and technological utopia of J. D. Bernal, *The World, the Flesh, and the Devil: An Enquiry into the Three Enemies of the Rational Soul* (1929), depicts a positive evolutionary reality that sets the stage for the futurist techno-utopias of science fiction. It is a work that not only embodies a Nietzschean drive to transcend current human limitations but also invites a Heideggerian reassessment of man's relationship to technology in the modern age, an assessment that provokes at least a few caveats. Bernal's heirs, the science fiction writers and scientific visionaries of the late modern age, follow suit with their theories of

directed human evolution through scientific advances and their technologically savvy stories of space colonization, biotechnologically augmented humans, cybernetic constructs and uploaded consciousness—all ideas that are implicit if not explicit in the scientific Enlightenment vision, if not as far back as Bacon.

Clearly utopia has changed in response to the advances in human knowledge and the evolving interpretations of being. The ontological shift—from the beginning of the modern age when the medieval Christian concept of divine order dictated interpretations of reality, through the Enlightenment with its focus on empirical science, reason, and progress, and up to the post-Darwinian, existential, and technological twentieth century—is reflected in corresponding changes in the utopian form. With examples from five modern utopias, from the early, mid, and late modern periods, this thesis will show how utopia has been a mode of thought which mirrors the modern age ontological shifts and which continues to address the questions of what it is to be, what the nature of human beings is, and how humans should organize into social and political structures.

CHAPTER 2

PRECURSORS TO THE MODERN UTOPIA

Plato's *Republic* is often cited as the first utopian model, but the roots of the idea of an ideal world predate the city or politically organized social order itself. While the *Republic* can be the considered the exemplary prototype of what Gregory Claeys and Lyman Tower Sargent, in *The Utopia Reader*, call a utopia of "human contrivance," the earliest utopias are rather myths of "sensual gratification" positing an ideal time or a favored race in the distant past (2). Hesiod's golden age of man in *Works and Days* from the eighth century BC typifies such idyllic myths, presenting a conceptualization of reality wherein man, nature, and gods are all a part of what Jean-Pierre Vernant in his introduction to *The Greeks* calls "the living, animate, dynamic web of *phusis*" (10). With their depiction of an abundant natural world where men "lived like gods" and "the fruitful earth unstintingly bore unforced her plenty" (qtd. in Claeys and Sargent 7), such golden age myths reflect an ontological scheme in which man, though subject to the whims of higher powers, is not separated into the modern subject–object relationship from the rest of nature but is a "being-in-the-world" as are the gods themselves (Vernant 12). And unlike the later dualistic separation of the temporal and physical from the eternal and divine, not only are the gods immanent in the world but there is a "kinship" and "conaturalness" between men and gods (Vernant 10) that will later disappear.

Another early influential myth of this sort is the earthly paradise based on the Biblical Eden. As in the golden age tales, Genesis presents us with an ideal land where

God, though supreme, exists in the same worldly sphere as Adam and Eve. He speaks to them; he can be heard walking in the garden; he provides for all their needs. There is no dualistic separation; there is yet no time. Claeys and Sargent include other early forms of utopia—Arcadias, isles of the blest, fortunate isles—that similarly emphasize simplicity, security, immortality, abundance, and unity and harmony with God and nature (2).

The emergence of the *polis* signals the idea of a human sphere parallel to a cosmic geometrical order, and creates a model for the city as the preferred locale for utopia. In *The Origins of Greek Thought*, Vernant illuminates the ties between cosmology, social order, and political structure. Following the scheme of the Pre-Socratic philosopher, Anaximander, who posited a central position for the earth in the physical cosmos, the new social space of the *agora* was patterned after a fixed point in the human cosmos on which the city was balanced (125). Now emerges the idea of a public space in which all who entered were defined as equals. Once established, this idea would form the basis for an ongoing conflict between two definitions of an ideal society, that is, as one located in nature and ruled from above as in the hierarchical theogonies and myths of the ancients—and the tyrannies and oligarchies they justified—or as one located in the city-state and governed by relations of reciprocity among equals, as Anaximander's new mathematical image of the world demanded.

While Plato accepted "the great power of geometrical equality amongst both gods and men" (From *Gorgias* qtd. in *Origins* 129), it was not earlier Greek cosmology or the idea of equality that marks his republic as the prototype utopia. Rather it is his particular vision of justice. In the *Republic* Plato lays out his analogy between the city and the

individual soul and identifies personal happiness with public justice. With reason as the highest value, and the philosopher king as the embodiment of reason in the city, Plato proposes a rigid, hierarchical political state that grounds justice in unity, harmony, and complete agreement among the parts, whether of the city or of the individual soul (IV. 441c–443e). Ontologically, this utopia is a static and controlled unity in which the interests of the parts are subsumed to those of the whole. And unlike historical ancient societies such as Sparta and Athens, or the Pythagorean communal settlements with their wise and mythical lawgivers, idealized images of which would provide models for utopias in later centuries (Manuel and Manuel 93), Plato's utopia could never exist in the earthly sphere. His extreme idealism—an idealism that places the ultimate truth of things outside of time in the realm of eternal Ideas and Forms and reduces the citizens of the republic to mere types or forms as well—stamps his utopia as a work of moral philosophy rather than a realizable blueprint for society.

Nonetheless, and despite Aristotle's critique, in the *Politics,* of Plato's emphasis on unity and his promotion of a communistic sharing of wives and children,[1] Plato established several themes that would heavily influence the Christian theology that underlies the earliest modern utopias: the idea of an eternal realm of perfect forms among the highest of which is the Good and the impossibility of finding truth in the sensible world (*Republic* VII.514d–517d); the dualistic division between the physical and the spiritual and the corruptibility of the physical world (*Phaedo* 66c–80b); and even the idea of a "demiurge" of supreme wisdom and intelligence as the creator of the cosmos

[1] Aristotle argues that Plato relies too much on uniformity to produce the unity he sees as crucial to justice in the city. Moreover, the communism of wives and children he promotes is not only unnatural but will create rather than diminish dissension (II. 1261a 10–1262b 35).

(*Timaeus* 1234–235). Not only do these ideas inform the Christian notion of a transcendental sphere—-heaven—as distinct and superior to the temporal world of the senses, but they combine with earlier imagery from golden age and earthly paradise tales which, under Christianity, began to undergo a temporal distinction: utopia past (Eden), utopia future (the Millennium), and, in a Platonic vein, utopia above or out of time (Heaven) (Claeys and Sargent 6).

Christian ontology with its Platonic overtones would continue to influence Millennial and Monastic visions as well as the Cockaigne Tales of the Middle Ages, such as the tale of Prester John with its central theme of the rediscovery of an Eden, an idea that would replay in later tales of utopias discovered on distant isles (Claeys and Sargent 6–15). Its most powerful stamp before the modern age, though, would appear in Augustine's *City of God*, a work that ties together two temporal states for utopia, that realized in the future on earth at the millennium and that ultimately realized outside of time in heaven. Whereas Plato's *Republic*, despite its idealism, elaborates a system of social and political arrangements that will provide for a good life in this world, Augustine shifts the focus to the next world, conceiving of the ideal city as a means to aligning human life with the laws of God. Thematically and structurally, the influence of this work on the first modern utopia is arguably as significant as Plato's *Republic.*

It is not simply Platonic idealism that informs Augustine's Christian utopian vision and, by extension, the modern utopias to follow. The idea of what would come to be called progress is also reworked here. In *History of the Idea of Progress*, historian Robert Nisbet sees a "fusion of Greek and Jewish concepts" in Christianity, both of

which appear in *City of God.* From the Jewish, Christianity took the conception of history as divinely guided and therefore necessary, and the millenarian belief in a golden age on earth. From the Greeks, (in particular Aristotle), came the idea of natural growth by which change was conceived of as the unfolding of potentiality into actuality, and which both explained and predicted fixed stages of the advancement of knowledge and mankind (48). Although the metaphysical side of Christianity is usually emphasized—the Platonic belief in an eternal heaven following the end of the temporal world—concern for worldly reform and human progress were equally important in Christian thought (50, 51). Thus, as Nisbet points out, even in the Platonic theology of Augustine whose Creator God "brought the world and mankind into existence fullgrown," there are passages which "place God in a developmental light": It is God, Augustine teaches, "'who causes the seed to develop, and to evolve...into the visible forms of beauty we see'" (qtd. in Nisbet 54). The idea of progress that is seen in Augustine, then, is a divinely ordained and teleological progress, one that will leave its stamp on the earliest utopias of the modern age.

Thus, by the time of Thomas More's *Utopia* in 1516, a historical and thematic line can be traced from the religious paradise of Judeo-Christianity and the earliest Hellenic myths of ideal cities on earth, to the modern utopia (Manuel and Manuel 112). An ontological progression can also be seen from the mythological or religious explanations of reality on which the golden age tales and paradises were founded; to Pre-Socratic cosmology and the emergence of mathematics and the *polis*; to Plato's dualism and Aristotle's developmental and categorical ontology based on the observation of the

natural world. As the first modern utopia, More's work reflects the continuing interplay between the Platonism of early medieval Christianity and the progressivism and humanism of Christianity in the late Middle Ages. While structurally More's utopian vision resembles more the ideal, hierarchical, static realm of existence posited by and given form in Plato's *Republic,* and later claimed by theology, it stands nonetheless on the brink of the great secular shift of the modern era.

CHAPTER 3

THE MODERN TURN AND THOMAS MORE'S CHRISTIAN *UTOPIA*

If the ancient religious paradises were created with the world and destined to endure beyond it, the ideal beautiful city of the modern utopia was built by and for men without the help of the gods (Manuel and Manuel 17). And rather than being patterned solely after a presumed ideal form of a city as in Plato's *Republic*, the early modern utopia, as exemplified in its Christian form, is a practical thought experiment aimed at ameliorating very particular ills associated with the human condition.

Written in 1516, More's *Utopia* not only reflects the Christian ontology which its author embraced but moves, in humanistic fashion, towards addressing the institutions which lead to or hinder the achievement of the ideal way of being in the world. If his tale of an ideal society reflects the solidity of the sixteenth-century faith in the Christian heavenly paradise, the roots of which go back to Plato's eternal realm of the Ideal, it is also not afraid of challenging contemporary assumptions about authority and power. And though he may have directly compared his utopian scheme 'like to Plato's city," indeed "Plato's plat to excel and pass" (127), More prefaces the account of his imaginary ideal state in Book I of *Utopia* by first describing the existing order of sixteenth-century England (his "City of Men") much as Augustine had done in *City of God.*

Augustine had already provided an early model with which to contrast the existing worldly reality with the future ideal society of men at the end of time by using the device of the two cities, that of God and that of men. It is a model that harks back to

the ancient golden age and religious paradises while at the same time introducing the element of the future. When Augustine describes his heavenly utopia in Book XII Chapter 30 of *City of God*, a place of perfect felicity, grace, and beauty; of everlasting life and joy; a place where there is no evil, no weariness or toil, not only are there echoes of Hesiod's Golden Race of Men who "lived like gods with no "sorrow of heart," "undarkened by sufferings" of "toil or pitiless age" (qtd. in Claeys and Sargent 7), he is also anticipating the modern utopian concerns with the alleviation of human suffering in the existing order of the world. Rather than place utopia outside or at the end of time, however, More sets the stage for modern utopias to come which are, as Frederic Jameson observes in *Archaeologies of the Future*, a by-product of the historical moment and a "clarion call to eliminate particular evils" (12, 13).

The eradication of private property has been said to be the single most important aspect of More's *Utopia* (Bruce xxi), (as it would be in nineteenth-century socialist utopias such as William Morris's *News From Nowhere),* and it is the unequal distribution of wealth, with its consequent idleness and sloth among the powerful and disenfranchisement and persecution of the poor, that More focuses on in this section. A major theme in this first part is the unjust increase of executions of petty criminals, former farmers whose lands had been confiscated during the Enclosure Movement and who were thus led into thievery and beggary as their only means of support.

But it is in Book II, which More wrote first, where the utopian describes his ideal state—a land located somewhere in the New World and very much resembling England—and the utopian institutions that would eliminate the pride and avarice that

accompany the accumulation of wealth. His solution to the problem of wealth is a kind of Christian equality that reflects the egalitarian status of souls in heaven while recognizing a supreme authority within a strict paternal hierarchy. And, as in the Christian hierarchical sphere of heaven, with its ranks of angels and saints and its supreme male authority, to be in Utopia is to have a determined place in the order of things. As Heidegger would later observe of Christian ontology, "that which is...is the *ens creatum*, that which is created by the personal Creator-God of Christianity." And for those who inhabit such a sphere, "to be means to belong within a specific rank of the order of what has been created ("The Age of the World Picture" 130). The fictional land of Utopia is, indeed, a microcosm of such an *ens creatum*.

Perhaps the most salient feature of More's utopia, and one that would not only perpetuate the hierarchical order but stamp the utopian vision as overly rigid, indeed tyrannical, in the centuries to come, is its stasis.[2] The island of Utopia, like Plato's republic, is a stable, static, highly controlled state where one city is largely indistinguishable from another; "whoso knoweth one of them knoweth all," More writes (52) as he goes on to describe the controls that keep the population at a stable number. Such control works both at a municipal and at a familial level, cities being limited to six thousand souls and families required to have no fewer than ten children under the age of fourteen and no more than sixteen (62). And as with population, so with occupation: just as in Plato's *Republic*, where each person "would do good work if he confined himself to

[2] In his preface to *The Story of Utopias*, Lewis Mumford comments on the rigid and dictatorial schemes of most utopias and disdains the "rigid virtues," "frozen institutions," and "static and self-limiting ideals" that traditional utopias presented (1922; second edition, New York: Viking Press, 1962, pp. 4–5). See also Russell Jacoby's analysis of such criticism in Chapters 1 and 2 of *Picture Imperfect: Utopian Thought for an Anti-Utopian* Age (Columbia University Press, 2005).

that all his life" (II.374c), each person or thing in Utopia occupies a rightful place in the hierarchy. Though there is more latitude in Utopia than in Plato's republic for movement between the classes, "for the most part every man is brought up in his father's craft" (57). As for women, their roles are, not surprisingly, circumscribed by a strict patriarchal social structure which, mirroring the absolute rule of God in heaven, has as its head the oldest and wisest priest, Barzanes. And though women are due respect from children, their lot is one dictated by the example of the Virgin Mary, honor through subservience, obedience and motherhood.

That the first modern utopia should be structured after a patriarchal system is hardly remarkable and indeed it reflects the conventional order of sixteenth-century Christian English society, itself justified by the Divine Right of Kings that made of each king a god and each father a king. Here in cities which are composed of families and families of male lineage, women who come of age are married out while all male children and their offspring "continue still in their same family" which is "governed of the eldest and ancientist father" (62) whose authority only ends upon his death or dotage. Despite being allowed certain liberties, such as accompanying their husbands to war and serving as priests when old and widowed, they are for the most part obedient and virginal daughters and submissive and modest wives.

As in the families, which are the fundamental units of the cities which make up Utopia, the patriarchs rule in the overarching organization of things. At the head is

Barzanes, the wise priest also referred to as Adamus[3], followed by the higher officials known as Tranibores, the priests, ambassadors, and lower officials, or Syphogrants (60). Reflecting the paternalism of the Christian Church, these higher magistrates are addressed as "Father" and according to the narrator, "neither haughty or fearful" (93). Under such rule, the entire island of Utopia seems a system of medieval monasteries and indeed no denizen is allowed to leave his city without the express permission of the local Tranibors, a practice of medieval monasteries that More must have been aware of.

Utopia is not a perfect world: there is war (always just), slavery (mitigated by humanitarian principles), disease and death, but protected from any want or danger from within, the majority of its denizens go about as untroubled as those of an Eden. Discouraged from all vice and wickedness by a complete lack of privacy—"they be in the present sight and under the eyes of every man at all times" (68), More tells us—and depicted as "gentle, merry...delighting in quietness" (85), they evoke the calm felicity and demeanor of souls in a heavenly sphere. The description of their dress and daily activity adds to this picture of a kind of heaven crowded with saints.

Because for More wealth is the root of evil, Utopia is an ideal sphere not of majesty but of simplicity and natural beauty. Gold and other precious metals, gems and other riches and finery are eschewed in favor of modest, well-made clothes and furnishings. And, as if in imitation of depictions of modestly garbed saints, the anonymous Utopians all wear garments "which throughout all the island be of one

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[3] This name, from the Greek, signifies (A) with or apart from; and (demos) the demes, villages, or people. While Bruce suggests that this hints that utopia is a land without people, i.e., not found in reality, it can also be interpreted as rule from above, that is, that the patriarch is distinct and apart from the people and thus entitled to possess supreme authority. Ademos is God's counterpart on earth.

fashion" out of cloth valued only for its whiteness and cleanliness (57). Spared "all vile service...slavery...drudgery...and laboursome toil" (which is left to bondsmen and slaves) and blessed with a Samaritan spirit which finds form in a well-maintained system of hospitals, the populace resembles a society of resurrected souls in the prime of life and health: "They be light and quick of body, full of activity and nimbleness, and of more strength than a man would judge them by their stature" (85) the narrator reports, suggesting the image of an Augustinian heaven where "even earthly bodies can be made immortal" and "souls never separated by death nor ever burdened by their weight may live forever and in all felicity" (*City of God* 284). Indeed the Utopians embody Augustine's vision of heaven, one that moves away from the ephemeral idealism of Plato and embraces a physicality cleansed of the weight of sin and corruption.

When More arrives at his discussion of the Utopian belief system, his thinly disguised Christian theology reveals itself completely, albeit under a different name. The Utopians are not Christian and may practice various religions, but in that the main element that distinguishes their beliefs from Christianity is the lack of the idea of a messiah, their values and ontology correlate closely with that of the Church. And while they disclaim any knowledge of Christ, some worship "a man that was once of excellent virtue of famous glory, not only as God, but also as the chiefest and highest God" (107). Of the supernatural deity, all believe in "one chief and principle God, the maker and ruler of the whole world" called Mithras, a Being "unknown, everlasting, incomprehensible, inexplicable, far above the capacity and reach of man's wit, dispersed throughout the world, not in bigness, but in virtue and power." Clearly, despite his name, the Utopian

deity is identical with More's Christian God, from the metaphors used to describe him to the metaphysical elements of their ontological scheme.

To begin with, Mithras is a personal Creator God whom, echoing the analogy of the "Word," the Utopians refer to as "author and maker" of nature." As they "seek out the secret mysteries of nature," they do so imagining that it pleases this "artificer" who has "set forth the marvelous and gorgeous frame of the world for man with great affection intentively to behold" (87). The centrality of man parallels that of the Christian ontology and it is man only whom Mithras "hath made of wit and capacity to consider and understand the excellency of so great a work" (87). Accordingly, in this ontological scheme there is the promise of immortality: all believe in the soul and an afterlife where virtues will be rewarded and vices punished (109, 110).

It is this belief, perhaps more than the Utopian system of communal sharing of the wealth, which provides for the stability and harmony of Utopia; it is the ontological scheme that brings order and meaning to the social-political life. Indeed, Manuel and Manuel insist that Utopia is inconceivable without a belief in the immortality of the soul and the rewards and punishments of the next world (125)[4]. And yet, More addresses the benefits of his commonwealth so well, and supports the abolition of private property so convincingly, that it is his communism that ultimately makes his utopian state resemble, if not heaven, then the millenarian earthly paradise of Judeo-Christian belief, an Eden that provides reward enough for the living even without the promise of eternal life. It is

[4] For an imaginative counter to this argument, Robert J. Sawyer's *Neanderthal Parallax*, an updated take on the traditional utopia, provides persuasive arguments for why utopia is ensured only when belief in God and an afterlife are absent.

this essentially communistic scheme that places More's utopia on the cusp of modernism, despite its underlying Christian ontology.

CHAPTER 4

THE SCIENTIFIC REVOLUTION AND FRANCIS BACON'S *NEW ATLANTIS*

In comparison to More's comprehensive social scheme, which addresses education, warfare, production and exchange, foreign relations, health, and marriage, Francis Bacon's *New Atlantis* (1627) is a utopian vision that offers scant information on social institutions, marriage being the exception. And yet, it is illustrative of what Edwin A. Burtt characterized as the modern philosophical shift of focus from the metaphysical apprehension of truth to the practical application of knowledge to human life and the human good (xv). Presented as an appendix to the *Sylva Sylvarum,* Bacon's work of natural history, *New Atlantis* leaves no questions about his focus on science, in particular chemistry, biology, and the medicinal arts, and the role that science should play in modern life. Roughly one third of the text is devoted to descriptions of the wonders of Bacon's fictional scientific academy, Salomon's House, and throughout there is a pervasive tone of objective and methodical observation and recording of facts. This attention to science notwithstanding, *New Atlantis* also illustrates the tenacious hold that Christianity maintained on European culture in the early seventeenth century even as science began to undermine the certainties promised by Scripture. Written one hundred years after More's work, it reflects both the excitement and the tension provoked by the scientific advances of the sixteenth and early seventeenth centuries, a time in which man's relation to the universe underwent a radical shift. While Bacon follows in the generic path laid out by More, his is a utopian vision which, on the one hand pays a

heavy-handed lip-service to Christian belief while on the other heralding the coming subordination of religion to science as a way to understand reality and as a guide to organizing human society.

Informed as More's *Utopia* was by recent geographical discoveries and the travel narratives they inspired (Bruce x), *New Atlantis* features the island state of Bensalem located somewhere in the South Seas between Peru and Asia. At just over thirty pages, the work is roughly divided between a first section detailing the reception of the narrator's seafaring party by the Christian inhabitants of Bensalem, with explanatory passages on the establishment of Christianity in their land, and a second listing the scientific works of Salomon's House. It is in the first section with its heavy religious overtones that one sees how cleanly Bacon distinguished his own embrace of Christian ontology from what he otherwise referred to as "idols of the mind" in Aphorism xxiii in the *Novum Organum* (1620), a work meant to be "an exposition of the new experimental method" (Burtt 3). In the aphorism, Bacon writes, in a very Platonic frame, that "There is a great difference between the idols of the human mind and the Ideas of the divine. That is to say, between certain empty dogmas, and the true signature and marks set upon the works of creation as they are found in nature" (31). For Bacon, there seems to be no contradiction between his Christian faith and science, and the reality he describes in the first section of *New Atlantis* is still that of the *ens creatum*.

Bacon is recognized more today as an adept rhetorician than as a scientist (Bruce xxix) and one must wonder if Bacon was simply currying to political pressures to conform to religious dogma when reading the first part of the work. Here the account of

the seafarers' doldrums at sea is rife with Biblical references and allusions to such well-known stories as Jonas and the whale, and the "divine pool of healing." The state his narrator describes upon landing, one whose name—Bensalem—can be interpreted as "son of Jerusalem" or "son of Solomon" (Bruce notes 232), is a Europeanized Christian absolute monarchy in which all spiritual and political power is vested in a sort of king-bishop. Its Christianization occurred through a miraculous event mirroring the story of the pillar of fire in Exodus 13:21-2 (Bruce 232) and its main institution, the College of the Six Days' Works, is a clear reference to the Christian story of creation and the prohibition of work on the Sabbath.

Bacon carries the religious imagery further when he introduces the so-called Fathers of the college, priest scientists whose dress and demeanor are highly suggestive of Church hierarchy. The procession into town of one of the Fathers after an absence of twelve years is one with both kingly and sacerdotal overtones: Richly "clothed in a robe of fine black cloth, with wide sleeves and a cape" and "accompanied by "fifty attendants...in white satin loose coats...stockings of white silk...and hats of blue velvet...with fine plumes of diverse colors" the elder "held up his bare hand as he went, as blessing the people, but in silence" (176). Indeed each event described calls to mind highly orchestrated Church panoply and processions; this is a utopia fully deserving of criticisms about its stasis. Spontaneity is entirely lacking and one never gets a sense of the inhabitants as anything other than stage props for a medieval morality play.

Bacon the scientist finally appears midway through the tale and when he does *New Atlantis* becomes what Fredrick Jameson, in *Archaeologies of the Future*, calls "an

enclave emergence of secular science...a fantasy of a whole world organized along the new research principles" (17). Now Bacon fulfills the promise of the brief introduction by his secretary, William Rawley, in the preface to the first publication to describe Salomon's House, or the College of the Six Days' Works, as "a model or a description of a college instituted for the interpreting of nature and the producing of great and marvelous works for the benefit of men" (151). This task is carried out through the character of the visiting elder of Salomon's House who delivers a discourse on the true state of the institution presented under four headings: the end of the foundation; the preparations and instruments for its works; the employments and functions of its fellows; and the ordinances and rites which are observed.

Now appear clear parallels between Bacon the great codifier of scientific enquiry and Bacon the utopian. In *Novum Organum*, Bacon had written "that the true and lawful goal of the sciences is none other than this: that human life be endowed with new discoveries and powers" (lxxi, 56). In a similar vein he describes the purpose of the foundation in *New Atlantis*, through the mouthpiece of the Elder: "The end of our foundation is the knowledge of Causes, and secret motions of things; and the enlarging of the bounds of Human Empire, to the effecting of all things possible" (177). Here one sees a very succinctly stated goal of science set forth in literature, one that does not always appear to simply fulfill a service to God. Though Manuel and Manuel observe that the work of the scientists is always carried out with the intention of performing "a religious duty to inquire into God's creation as a Gloria...to yield up in works all the potentialities inherent in creation" (260), here Bacon's objective seems decidedly less religious and

more pragmatic. It is also one that arrogates the power before held by God alone and now places it in the domain of man.

By the time he wrote his utopia, Francis Bacon had already heralded the coming dominance of science with his rejection of all "idols of knowledge," that is, all past beliefs that were ungrounded in fact or reason.[5] With his dream of "a total reconstruction of the sciences, arts, and all human knowledge, raised upon proper foundations" (*The Great Instauration* 6), Bacon set the stage for a new vision for the future of humanity based on the idea that "knowledge is power" (Lombardo 293) and the conviction that the truths revealed by science could be applied to the betterment of humanity, an idea he now elaborates on in the second section of *The New Atlantis*. Just as his *Novum Organum* has been called "a manifesto for the Western anthropocentric outlook, which holds that human beings stand at the apex of creation and that the earth and its sundry life forms have value only insofar as they serve human needs" (Best and Kellner 198), Bacon's ideal scientific foundation is one that, in keeping with the modern exaltation of applied knowledge, reflects the idea that the function of knowledge is to gain control over nature (Best and Kellner 198) for the express purpose of benefitting human life.

Thus, when Bacon launches his description of the wonders of Salomon's House, the preparations and instruments of the independent academy of sciences he describes are all devised for the alleviation of pain and disease and the prolongation of human life, as well as the general improvement of man's earthly lot. From the caves or "lower regions

[5] In the *Novum Organum* (xxxix–xliv) Bacon includes four classes of "false notions...in possession of human understanding": *Idols of the Tribe* (human nature), *Idols of the Cave* (pertaining to the individual man), *Idols of the Marketplace* (resulting from association with others), and Idols of the Theater (dogmas of philosophy). It is interesting that Bacon does not place Christian dogma in the last class. (*English Philosophers From Bacon to Mill,* ed. Edwin A. Burtt, 1967, pp. 34–35).

for coagulations, indurations, refrigerations and conservations of bodies" used for the "curing of some diseases, and for prolongation of life" (177); to the meteorological and astronomical observation towers and the harnessing by engines of the wind and streams (178), Bacon's relentless enthusiasm for the application of science to practical concerns is everywhere evident.

The committed man of science goes even further, though, stepping beyond his professed mission to serve God's glory and anticipating developments five hundred years into the future. Not only does Bacon describe an array of mechanical arts—furnaces that imitate the sun's heat, experiments with light and optics that presage the telescope and microscope, engines that "imitate the flight of birds" and "ships and boats for going under water"—he also moves into the realm of horticulture, medical experimentation and bioengineering. Bacon's scientists conduct practices that make the trees and flowers "by art greater much than their nature" thus deriving benefit for medicinal uses (178). Anticipating modern vivisection and animal experimentation, they dissect birds and beasts for the purpose of discovering "what may be wrought upon the body of man." And most radically, they engage in the manipulation of species not only to increase and decrease fertility and to modify appearance and traits, but to produce "many new kinds," all of which is done not by chance but by intentional design (179).

Noble as Bacon's intentions may have been, the activities described in *New Atlantis* elicit the same reaction as that given by Best and Kellner to the *Novum Organum*, that is, that it is " a manifesto for the Western anthropocentric outlook of mastery and control over a natural world in opposition to human life" (198). Best and

Kellner do not make the connection that such anthropocentrism was also a hallmark of the Christian notion of man's dominion over nature, that it is a logical extension of Christian ontology that places man at the center of creation. At any rate, that the natural world, indeed the cosmos, was one that would soon shed its mystery, as Best and Kellner assert, to be equated to a vast machine governed by universal and invariable laws that function in a stable and orderly way that can be comprehended (197) would make such control over nature increasingly conceivable. Bacon is the beginning of this. And as with nature, so with society: Bacon's ideal state is a static, highly controlled and predictable society which, under the guidance or a corps of scientists, can be controlled by the rational mind.

Bacon belongs to an early modern cadre of scientists/thinkers who, for all their faith in science, yet operated under the conviction that the order in the changing world of nature and time revealed by the Scientific Revolution did not preclude the idea of God. Indeed the giants of the Scientific Revolution shortly to emerge on the scene found as little contradiction as Bacon had in combining science and Christian doctrine. As Lombardo observes, early scientists believed that they were discovering the laws set down by God; in this sense what Kepler and Newton and other early scientists kept from Plato was the idea that the order in nature was imposed by an eternal reality (301). In the next centuries, science would move away from Plato (as it had during the Scholasticism of the high Middle Ages) and closer to the Aristotelian concept that the order in nature

was somehow directly derived from nature itself (Lombardo 301).[6] The implications of this ontological shift for the Enlightenment thinkers of the coming century were profound.

As Lombardo further points out, in the seventeenth century science adopted the concept of lawful change—that is, that all change in nature was determined and predictable from natural laws, and the concept of mechanistic causation—that each individual event in nature is an effect determined by specific antecedent causes. This implies that the past determines the present, in contrast with the teleological view of change whereby some future event or intended future purpose determines the flow of events in the present. In challenging the teleological view of change, science put forth yet another argument that would undermine the Christian belief in an active, guiding, ruling Providence by whose design all reality was created and maintained (302).

Moreover, such developments in the physical sciences would have a dramatic effect on the nascent social sciences in the eighteenth and nineteenth centuries. Just as Newton, Galileo, and Kepler had discovered laws that provided an orderly scheme for the natural (and separate, physical) world, other thinkers looked for laws that would control the psychological and social world in the same way (Best and Kellner 201). As scientific materialism and determinism became a modern faith and came to be the only road to truth, the overarching umbrella for what amounted to a new secular "religion" was the

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[6] This is not to say the modern thinkers embraced Aristotle. Best and Kellner describe the modern shift from an Aristotelian investigation of the *qualitative* study of things to a *quantitative* analysis of the external physical characteristics of matter that can be measured in fixed, mathematical laws by a detached observer (p. 197). Bacon accused Aristotle of corrupting "natural philosophy by his logic: fashioning the world out of categories...and imposing countless other restrictions on the nature of things" (*Novum Organum* lxiii, p. 43).

theory of progress. As Best and Kellner put it, "Science became the new God and science-driven technological change in turn advanced the Gospel of progress" (202). Nowhere is this more vigorously expressed than in the eighteenth-century Enlightenment philosophers for whom a focus on the laws of nature as opposed to the laws of God would power the fundamental ontological shift from theological or religious conceptualizations of reality to secular explanations for all that exists, including human kind and its concerns.

CHAPTER 5

THE ENLIGHTENMENT SECULARIZATION OF UTOPIA IN CONDORCET'S *OUTLINES OF AN HISTORICAL VIEW OF THE PROGRESS OF THE HUMAN MIND*

Just as Christian ontology formed the foundation for utopian images of ideal societies throughout the Middle Ages and into the earliest decades of the modern era, so the secular progressivism sparked by the Scientific Revolution transformed not only the image of utopia but its form in the eighteenth century.[7] In place of the static vision of tranquil happiness and order delivered in fiction form, realistic and philosophical visions of the future progress and perfectibility of mankind emerged. While presenting a handful of rigid schemes, some so extreme as to be taken purely as satire,[8] the eighteenth century turned to philosophical extrapolations on the future of human kind based on the new faith in natural laws and progress and the emerging social sciences, which saw clear and ever advancing stages in the development of human civilization.

The exemplary utopian vision of this period, *Outlines of an Historical View of the Progress of the Human Mind* (1795), came from the pen of Marie-Jean-Antoine-Nicolas Caritat, Marquis de Condorcet. A French aristocrat who nonetheless supported the Revolution, a mathematician, scientist, and philosopher, Condorcet's optimistic

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[7] See Manuel and Manuel's chapter on "The Utopian Propensity" for a broad overview of the direction of utopian thinking across the centuries, including an excellent analysis of the shift from Christian-inspired utopias to secular, Enlightenment era utopian thinking, pp. 1–29.

[8] In their chapter "The New Faces of Love," Manuel and Manuel provide a trenchant analysis of the libertine utopias of the Marquis de Sade with their "scatological and sadistic…erotic visions of society" (544) and those of Restif de la Bretonne, whose perfect world was a "super-rationalist society in which the piling up of ordinances assured social tranquility" (539), even in such private affairs as marriage. Examples of their work in *The Utopia Reader* support the Manuels' evaluation.

sketch for the future of humanity is even more remarkable for having been written while its author held little hope of evading Robespierre's Jacobin police (a fear that was not unfounded; he is thought to have taken his own life as they closed in). Here in the form of a philosophical overview of the progress human kind had already made, with a final utopian chapter predicting infinite future progress, Condorcet builds his ideal future society on the pillars of Enlightenment thought: reason, freedom, and progress. Underlying it all is the assumption of a reality revealed by science, one grounded in the natural world and knowable through observation and ideas arrived at through the use of reason rather than dogma and revelation.

As with Turgot before him, Condorcet places his faith in reason and science, predicting with what is now clearly a utopian optimism, the complete eradication of the influence of religion. Rather than accept a metaphysical explanation for "the progress of the human intellect," Condorcet relies on a historical determinism whereby the results of the developments "of a great number of individuals united in society" at one instant "depends solely upon that of the preceding instants, and has an influence on the instants which follow" (Introduction). Through the empirical methods of observation and prediction, now applied to history and the other emerging social sciences, Condorcet places his trust for the future of human kind on the law of natural progress. As he states at the beginning of the work, "no bounds have been fixed to the improvement of the human faculties; that the perfectibility of man is absolutely indefinite, that the progress of this perfectibility has no other limit than the duration of the globe upon which natural law has placed us." Moreover, while for Condorcet there may be slower and faster phases to this

progress, "it can never be retrograde; at least while the earth retains its situation in the system of the universe."

Condorcet's is a developmental, indeed an evolutionary, reality ruled by unvarying natural laws and subject to unending advances.[9] It is a reality that can be known and one of which, as regards human kind, a picture can be formed by "the successive observation of human societies at the different eras through which they have passed (Introduction). There is no teleological purpose to man's progress directed by a supernatural entity and upheld by religious authority. There are no supernatural causes of all that happens, only natural ones. And nature is not a static *ens creatum* but a dynamic, progressive and open-ended reality.

The observation of the "unbroken chain of connection...between the first people known to us, and the present nations of Europe" is what makes up the first nine books of Condorcet's *Outline*. These "nine grand epochs" trace the vital and necessary stages of human progress from primitive savagery when "Men United Into Hordes"; through the development of agriculture and alphabetical writing; the rise of rational philosophy and science; the invention of printing and the "Period When Science and Philosophy Threw Off the Yoke of Authority"; and further progressive changes leading to the triumph of reason in the seventeenth and eighteenth centuries and the great contribution of the sciences. When he reaches his own time in the ninth epoch, Condorcet celebrates the individual contributions of the great minds of his day and the overthrow of tyranny and

[9] See Nisbet asserts that the terms "developmental" and "evolutionary" were interchangeable up to the time of Darwin, p.174.

superstition represented by the French Revolution and the formation of the French Republic (Nisbet 208).

Having thus outlined the historical development of human kind and shown how each stage at once emerges from the previous and builds for the following, Condorcet devotes the tenth and final epoch to his optimistic—indeed utopian—"picture of the future destiny of mankind, a destiny he can deduce "from the results of its history." By this point, indeed from the Introduction on, Condorcet's vision can be seen as a vehicle for the intentional application of the Enlightenment ontological position, a position based solely on science and reason, to the emerging arena of social engineering.

Condorcet's starting point is an ontological scheme that places historical determinism and the law of progress above previous preoccupations with an absolute and metaphysical reality. Both concepts derive from an emphasis on natural science and observation as the means for arriving at truth. The progress of the human intellect is, for Condorcet, not divinely dictated but "subject to the same general laws, observable in the individual development of our faculties; being the result of that very development considered at once in a great number of individuals united in society" (Introduction).

In Condorcet we hear echoes of John Locke, best known as the starting point of philosophical empiricism. A century earlier, Locke had already asserted the primacy of both observation and reason as the sole authorities for gaining knowledge and ascertaining the truth of things. "There is nothing in the intellect that is not first in the senses," he declared in his *Essay on Human Understanding* (1690), maintaining that there were "two fountains of knowledge, from which all our ideas come: experience and the

operations of our own minds" (II.i.2). In speaking of the mind's operations, Locke is referring to sensation and reflection, which together provide the basic material—the simple ideas—out of which most of our more complex knowledge is constructed (Sharpe 527). He defined reason as "the discovery of the certainty or probability of such propositions or truths which the mind arrives at by deductions made from such ideas, which it has got by the use of its natural faculties," that is, again, by sensation or reflection (IV.xviii.2). And he asserts that "whatsoever truth we come to the clear discovery of, from the knowledge and contemplation of our own ideas, will always be certainer to us than those which are conveyed to us by traditional revelation" (IV.xviii.4).

For Locke, then, no new idea could be conveyed by traditional revelation. Moreover, any knowledge derived from ideas gained though observation of nature or reflection must depend solely on human reason. With the same clear-headed rationale that Aristotle had used against Plato when he denounced his theory of Ideas as a complicated design for reality by which "The whole study of nature has been annihilated" (Metaphysics I.9.991a9–10)[10], Locke assailed the Christian claim to truth through faith and revelation. "We can never receive for a truth anything that is directly contrary to our clear and distinct knowledge," he wrote, adding that "faith can never convince us of anything that contradicts our knowledge." For Locke, only "reason is the proper judge" and "faith can have no authority against the plain and clear dictates of reason" (IV.xviii.6).

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[10] The Platonic theory by which ideas are the ultimate principle of things was, for Aristotle, nonsensical and unsupportable. In Book I of the *Metaphysics* he asks "What on earth the Forms contribute to sensible things, either those that are eternal or to those that come into being and cease to be." At any rate he concludes that "they in no wise contribute towards the knowledge of the other things" (I.9.991a9–10).

In his support of empiricism and reason over superstition and dogma, in the Tenth Epoch, Condorcet delivers a scathing renunciation of Christian metaphysics altogether while further championing reason. Indeed, lacking a guiding Providence in his scheme, reason becomes of critical importance to human advancement. The Tenth Epoch is a stage of development where not only "tyrants and slaves" but "priests and their hypocritical instruments" will have become obsolete. "Acknowledging no other master than their reason," men will flourish in a social arena in which "the absurd prejudices of superstition will have ceased to infuse into morality a harshness that corrupts and degrades instead of purifying and exalting it." Once reason prevails, all people will recognize the validity of scientific endeavor and endless progress will ensue. But one other support needs to be in place, and that is freedom.

Condorcet was deeply influenced by other eighteenth-century philosophers, perhaps by none more than Anne Robert Turgot, philosopher turned economist and Controller-General of France under Louis XVI. Not only had Turgot been the first to provide a historical framework for progress and to detail the "general course of advancement of the human mind," an advancement "determined by a chain of causes and effects which unite the existing state of the world with all that has gone before," (qtd. in Nisbet 180), he had also recognized the interconnectedness of freedom and the growth of knowledge, both of which were essential to progress. Like other Enlightenment thinkers, Turgot understood that the gains in human knowledge and the increasing command of the natural world that that knowledge made possible, were only possible when all limits to the individual's freedom were removed (Nisbet 179). Indeed, freedom was seen as

necessary to human creativity of any kind, according to Turgot, and the success of all enterprises from manufacturing to advances in arts and sciences depended on individual freedom and autonomy (Nisbet 182, 185).[11] In this, Turgot followed other thinkers such as Rousseau who would argue that "man is born free" and that "to renounce liberty is to...surrender the rights of humanity and even its duties" (*The Social Contract*, bk. 1, Ch. 4 "Slavery," 1762), sentiments that were echoed by Voltaire for whom freedom of thought was essential and Montesquieu who, like Rousseau, contributed articles to the *Encyclopèdie* (1751–1772) (Sayre 946).

While freedom was and is an essential feature of Christian ontology, and the idea of free will critical to its theodicy, the kind of political freedom proposed by the French philosophers constituted yet another attack on the whole edifice of authority which the Christian ontological position upheld: the strict hierarchies of Church and state and the absolute authority of Pope and kings. This political freedom was part of a new view of reality, one that would do away with the top-down social structure and distribute power throughout society. It was an essential element in the move towards a more pluralistic view of reality wherein all individuals had value in and of themselves—a value equal to that of priests and kings not only in the afterlife but in this world—and not only as pieces that had a function in the stable whole.

In the Tenth Epoch Condorcet effects a realistic picture of how the fundamental values of freedom, progress, and the growth of knowledge could be actualized in a

[11] Though Nisbet asserts that not only scientists and philosophers but intellectuals in general had come to hold liberty and freedom sacred by the mid eighteenth century, there were those who saw a grave danger in it. In *Reflections on the French Revolution*, Edmund Burke warned that "Men must have a certain fund of moderation in order to qualify them for Freedom else it becomes noxious to themselves and a perfect nuisance to everybody else." (qtd. from a letter to Lord Charlemont, Introduction 14).

progressive society by focusing on two elements, both of which are tied to individual liberty. Like More, he aims at the "destruction of inequality" and as with Bacon, he sees science as the catalyst for the infinite perfectibility and advance of the species. The institution which will provide for both is education.

The education of the young and the masses is a concern common to the modern utopia in general, as it was in Plato's *Republic* and countless other utopian visions from ancient times to the present. With Condorcet it becomes the driving force for the transformation of individuals and society. But whereas in many other utopias the function of education has been to produce citizens who serve and uphold the state at the expense of their own personal freedom—as in Plato for example— in the Tenth Epoch it works to ensure that both the interests of the state and those of the individual are met. Here Condorcet departs from Plato, More and Bacon entirely, placing his faith in the ability of the individual to function reasonably and in the interests of both himself and society without the rigid constraints of a top-down hierarchy. Within such a scheme, the authority of the ruling class is again challenged, as is the ontological justification for that authority. In transferring the right to decide the direction of society from priests and kings—the agents of God on earth—to the individual, Condorcet not only attacks the power and privilege legitimized by the Church with its doctrines of divine right and papal infallibility, but opens the doors for a more level, fluid, and pluralistic society, one that will be brought about through universal education.

Like More, Condorcet sees inequality as the first and foremost evil in society and he sees the "destruction of inequality" both among nations and individuals as essential to

progress. Here he seems to embrace Locke's idea that all individuals are "tabula rasa" in the political sense, born equal with no special rights or privileges. But Condorcet is not unrealistic: his future is one where "the difference of knowledge, of means, and of wealth" is replaced by an "actual inequality" that allows for and diminishes the differences in the natural capacities of individuals and leaves "no other inequality...but what is useful to the interest of all." The elimination of these three types of inequality will result in a society where "all will possess the requisite knowledge for conducting themselves in the common affairs of life by their own reason." Thus equipped with equality and the full exercise of their reason, people will naturally gravitate toward their own self-improvement.

For Condorcet the primary means towards this end is a kind of practical education whereby "the entire mass of people may be instructed in everything necessary" not only "for the transaction of their affairs" and "the exercise of their rights" but for the acquisition of good judgment, a sense of civic duty, and further "dignified sentiments that are an honour to society." Such a universal education, facilitated by improvements in methodology and the classification of knowledge, as well as by new tools and innovations that will render knowledge more accessible to all, will stoke a passion for learning. Coupled with a simplification and streamlining of language and terminology used in the new sciences, equality of instruction will draw a greater number of minds to the sciences, leading to a domino effect of improvements in technologies, production, safety, health, and all areas of human endeavor. In short, Condorcet's passionate endorsement of educating as many individuals as possible in the sciences and technical

arts in order to accelerate the growth of knowledge and its dissemination can be seen as the democratic culmination of Bacon's dream of a scientific academy in *New Atlantis*: after 150 years the Enlightenment exaltation of the scientific world view that emerges with Bacon finds its full flowering in Condorcet. For it is science that will, for Condorcet as for Bacon, transform society.

Certainly Condorcet's faith in the capacity of science to transform society and civilization equals Bacon's. Their visions, however, are distinguished by the radically different ontological approaches from which they start. Bacon's Christian oligarchy is rigid and hierarchical, its corps of scientist-priests at once fathers and masters of the meek and obedient masses. And like the eternal realm of heaven he believed in, the state in *New Atlantis* is a static reality, seemingly outside of time. While his is ostensibly a society ruled by science and reason, his real aim is the domination of the natural world and the growth of knowledge for the amelioration of the human condition, but not necessarily for its advancement intellectually and morally. True, his empirical approach is going to yield new knowledge and power but it will be power in the hands of a scientific elite. Science here is unlikely to transform the society as a whole or the anonymous, servile ranks of its citizens, at least not as it is applied *in New Atlantis*.

In stark contrast, Condorcet's future of human kind is a progressive, dynamic, and truly egalitarian one. While, like Bacon, he envisions a society dominated by science and reason, his next stage for humanity is one in which "the advantages that must result from the state of improvement...can have no limit but the absolute perfection of the species" in its entirety.

How can Condorcet justify such a faith in fallible human beings? If there is no higher ideal entity imprinting His design on humanity, how can the species reach perfection? Again, it is science. Condorcet's universe is the world of nature observed through the senses. As such, it is an empirical reality dictated by natural laws. As Condorcet insists, "In the same manner as the mathematical and physical sciences tend to improve the arts that are employed for our most simple wants, so is it not equally in the necessary order of nature that the moral and political sciences should exercise a similar influence upon the motives and actions?" For Condorcet, human beings, like all of nature, hold the capacity for improvement, not only physically but morally and psychologically. Following the historical determinism upon which he founds his picture of indefinite progress, it will only take the correct design of the social environment—the correct chain of cause and effect already in motion—and the promotion of the optimum sentiments and behaviors to provoke in men a merging of their self-interest with the communal interests. It is as clear and irrefutable as mathematics. As he asserts, "The application of the arithmetic of combinations and probabilities" to the emerging social sciences will yield results of an unprecedented precision.

It is just this unwavering faith, however, in knowledge and the laws of nature to produce only positive results and his trust in the capacity of men to use their reason that marks Condorcet as a utopian. So too does his tendency to relieve individuals of any responsibility for their own inherent flaws, laying the blame for vice and crime solely on corrupt institutions and prejudices. Condorcet's optimistic doctrine of progress blinds him to what his contemporary, Edmund Burke, in *Reflections on the French Revolution*,

characterized as the "the defects of our naked shivering nature" (171). Where Condorcet believes both in the capacity of humans to use reason and in the power of reason to achieve ideal ends, Burke was more circumspect in his expectations. As he warned: "We are afraid to put men to live and trade each on his own private stock of reason; because we suspect that this stock in each man is small" (183). While Burke was questioning the human capacity for reason, later thinkers would question the capacity of reason itself to reveal the very truth of things.

Condorcet's "view of the human race emancipated from its chains" would remain a powerful vision into the nineteenth century, inspiring schools of thought and actual utopian experiments from thinkers such as Saint Simone, Fourier, Comte (with his "religion of humanity") and Marx. But after Marx, whose influential theories, according to Manuel and Manuel, were either twisted into anarchistic utopias or watered down into the "Utopia Victoriana" (20), the utopian formula would encounter a transformative paradigm shift.

CHAPTER 6

OLAF STAPLEDON'S *ODD JOHN*: THE LEGACY OF NIETZSCHE AND EARLY EXISTENTIALISM ON THE LATE MODERN UTOPIAN SCHEME

If the modern paradigm reached its zenith during the eighteenth and early nineteenth centuries, carrying to extremes its theme of empiricism, reason, and the movement of history towards a state of human emancipation,[12] the latter part of the 1800s witnessed a repudiation of the secularism and empiricism of the Enlightenment. As Best and Kellner observe, the Romantics argued that reason and scientific empiricism were too limited to surface appearances of reality beyond which lies the infinite. Rejecting the Enlightenment emphasis on reason and logic as sterile, they championed passion and imagination as the true and liberating force of human beings and placed higher value on instinct and nature (28). After Hegel, whose dialectical model for reality fused a kind of Aristotelian teleology with inevitable historical progress, and who saw a direction—a divine end—to the universal process of becoming, the mood shifted and the optimistic outlook of the Enlightenment thinkers turned to one of pessimism in the face of the inherent chaos at the root of existence (Lombardo 340).[13]

At the threshold of this change stood Nietzsche, whose promethean despair over the "diseased refinement and moralization" of a Christianized Europe was matched only by

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[12] In Chapter One of *The Postmodern Turn,* "The Time of the Posts," Best and Kellner provide a succinct overview of the modern paradigm and show how new technologies and transformations in global capitalism gave rise to postmodern discourse, pp. 3–37.

[13] This paper is too short to address the influence of Marx on utopia and the merging of Romantic and Socialist elements in utopias such as William Morris's *News From Nowhere*, a vision of human society which is still optimistic but regressive and static.

his passionate conviction that modern man was not an end but rather "the harbinger and forerunner of something" yet to come (*On the Genealogy of Morals* 38, 55); Nietzsche, who saw himself as "something decisive and fateful between two epochs."[14] Deploring the nihilism of a godless and weakened Europe shackled by guilt and "bad conscience," disgusted with "the rotting and introspective present" in which he found himself (*Genealogy* 65), Nietzsche argued for a return to the ideals of the ancient Greeks and the "knightly-aristocratic 'values'" of strength, energy, and healthiness, indeed "of everything...contained in strong, free, and joyous action" (*Genealogy* 9). Far from the Christian morality that exalted the wretched, the poor, the weak, the lowly and the suffering, Nietzsche's is a morality which restores to the master, the aristocrat, and the warrior the designation of "good." It is a morality that informs a utopian vision in which those who are worthy, by stint of their strength and will to power, shall inherit the future.

Nietzsche is not the rational, scientific philosopher of the Enlightenment but an impassioned and lyrical poet whose vision of a superior man in *Thus Spake Zarathustra* can itself be considered a utopian dream for the future of the human race. Harking back to an earlier Greek ideal while at the same time challenging accepted modern morals, in this work and others Nietzsche sets the stage for a courageous view of the capacity of human kind to transcend its current limitations, limitations that Nietzsche attributes to all philosophy from Plato on and to the Christian worldview that perpetuated Plato.

The importance of Nietzsche to utopian thought into and after the twentieth century does not lie solely in his vision of a transcendent overman however. It resides in his

[14] These lines are from a letter to Seydlitz in 1888 which is printed in its entirety in *Philosophy of Nietzsche,* p. 92.

conceptualization of being and the cosmos as something neither static and orderly nor progressive and predictable, but as an ever shifting, dynamic and even chaotic becoming. He equally deplored the "superior swindle" of Plato's dualism with its ideal, static perfection—"the most fundamental lie that has ever been told" Nietzsche exclaims in *Twilight of the Idols* (qtd. in *Philosophy of Nietzsche* 72, 92)—and the Enlightenment exaltation of the scientific method, arguing that "it is an illusion that something is *known* when we possess a mathematical formula for an event: it is only designated, described; nothing more!" (*The Will To Power* 335). And rejecting the trajectory of empirical thought from Bacon to Condorcet, he claimed that "Ultimately man finds in things nothing but what he himself has imported into them and all of science is the transformation of nature into concepts for the purpose of mastering nature" (*The Will To Power* 327). For Nietzsche, then, an entirely new conceptualization of reality was necessary, one that would do away with both the earlier Platonic-Christian sense of order, as well as the Enlightenment view of progress and ongoing perfection.

For Nietzsche the world was not determined and orderly but chaotic, elemental, and Dionysian. As described in the final passage of *The Will To Power*, it is "a monster of energy...enclosed by nothingness...a play of forces...flowing and rushing together, eternally changing, eternally flooding back...a becoming that knows no satiety..." It was a "Dionysian world of the eternally self-creating, the eternally self-destroying" And ultimately the world was for Nietzsche "the will to power and nothing besides..." (549, 550). Gone is any kind of certainty or predictability. Gone is the hope for progress and

order. Gone is the idea of "being" itself. Nietzsche's is an ontology of becoming and as such it posits an entirely new framework for utopia and for humankind itself.

Where does man fit in such a vision of cosmic flux and chaos and mutation?[15] Is man, too, characterized by incessant change, becoming and conflicts of energies? Is man, too, nothing but "this will to power—and nothing besides," as Nietzsche asserts in the final line of the passage quoted here? And if so, what kind of a utopian reality is possible for humanity?

Far from the "ideal man" of the eighteenth century—the integrated self of modernism—Nietzsche's vision of human existence is one that, as in the following excerpts from *Twilight of the Idols*, both harks back to the Pre-Socratic Greeks and heralds the postmodern fragmented identity. On the one hand, Nietzsche sees man as part of the cosmic whole, as a "piece of fate...one necessity more for all that is to come and to be" (qtd. in *Philosophy of Nietzsche* 417). On the other hand, man does not even exist; he is at best "merely a fiction added to the deed" (qtd. in Best and Kellner 62), or, as Best and Kellner summarize it, a multiplicity of drives, experiences and ideas (63). Most triumphantly, though, man is a Dionysian self-as-becoming in which the "fantastic exuberance of life" asserts itself, a being with "his ear to the heart-chamber of the cosmic will, who feels the furious desire for existence issuing therefrom" (*The Birth of Tragedy* 9, 91). This is far from Condorcet's ideal, improved man who, in Nietzschean terms, is still nothing but the "little good natured sheep" with "little herd-animal virtues" bred by Christianity; a "lower species" made "smaller and more governable by progress" (*The*

[15] It would be ingenuous to use the politically correct universal "human kind" when discussing Nietzsche. He largely relegated women to traditional roles as bearers of children. They did not figure in his heroic scheme for the transcendence of human nature.

Will To Power 119, 79). Nietzsche's man (and he does mean man; woman retains her original role as the weaker of the sexes, good only for raising strong children) is the "highest man," the overman who will transcend humanity as it is. This is he to whom the future belongs.

While Nietzsche provided his own heroic and mythical vision of the overman in *Thus Spake Zarathustra*, twentieth-century British philosopher and science fiction novelist, Olaf Stapledon, constructed a pathetic yet realistic picture of how the emergence of such a transcendent human type would play out in his novel *Odd John*. From his strength, intelligence, and self-control to his heightened sensitivity to beauty, identification with the heroic, and morality based on mastery and nobility, the title character of this short novel is the personification of Nietzsche's "highest man," a being driven by his will to power and superior capabilities. He is, too, from the perspective of the less-than-human *Homo sapiens* friend and narrator to whom he reveals his true nature, variously a "god pretending to be a monkey" (52) and a monster of cruelty devoid of all morality, an "urchin superman" (38) who will stop not even at murder to advance his purpose of raising the level of humanity.

Odd John traces the emergence not only of one instance of "punctuated equilibria" in the character of John, but of a smattering of superior human types across the globe who eventually band together to form a short-lived utopian enclave on a distant island[16] initially off the radar of the major powers. As with the eponymous character, the band of

[16] Nietzsche disdained the idea of utopia, adding it to concepts such as the "ideal man," the deification of nature, and "the subordination to propaganda for social goals" which he saw as dubious gifts from the eighteenth century. See *The Will to Power*, p. 61. In depicting an essentially utopian experiment in *Odd John*, Stapledon compels us to explore the usefulness and viability of the idea of utopia in face of the changes in ontology as early postmodern thinking chipped away at the modern paradigm.

supernormals represents a pantheon of Nietzschean types. Strong and self-controlled to the point of a pitiless cunning (as mentioned, they do not balk at the murder of lower types, for example; they psychologically manipulate the native islanders to commit mass suicide); possessing a mastery over emotion and a drive toward personal excellence; and endowed with telepathic abilities and foresight of the future, the mutated super humans create a colony that, in the words of the human narrator, was "a strange combination of lightness and earnestness, of madness and superhuman sanity, of sublime common sense and fantastic extravagance" (141). Indeed, morally, aesthetically, and spiritually, the colony is the supreme manifestation of Nietzsche's dream of human transcendence.

To begin, this is an enclave ruled by the iron wills of individuals who none-the-less, through a supreme intelligence and heightened sense of identity with one another, are able to merge their own self-interest with that of the community. Here is the answer to the criticism that a highly individualistic Nietzschean sensibility would preclude community. It is precisely two seemingly disparate characteristics of the supernormals that allow for harmony in the colony: their more discriminate awareness of self and of others, and contrarily, their greater detachment. "The greater accuracy of self-and-other consciousness was of course," the narrator explains, "responsible for a high degree of mutual understanding, tolerance, and sympathy in ordinary relations" (140). Though the relationships, erotic and platonic, could be vivid and emotional, this sense of detachment would normally intervene. Even in the case of highly charged romantic involvements, "mutual insight and self-detachment" would kindle "in each the spirit of the other so that the result was not strife but the mental aggrandizement of both" (140).

This identification with one another, brought to the level of species identification, underlies the whole moral scheme of the islanders, though it is a morality that to normal humans makes of them "an island of monsters" (135); "we are one together and there is no life apart," John explains when faced with the certain destruction of the colony. It is this sense of themselves as an entirely new species that justifies what is normally characterized as the "cold butchery of other human beings" (121). In explaining the necessity of murdering the unfortunate crew of a foundering ship before they can report to the outside world the existence of the "eccentric children," John equates the relationship between the supernormals and ordinary humans to that between ordinary humans and other noble and intelligent but essentially inferior animals; "just as you kill wolves and tigers so that the far brighter spirits of men may flourish," he explains, "so we killed those unfortunate creatures...Innocent as they were, they were dangerous" (121). Moreover, the certainty that the dominant species would not hesitate to eliminate them if discovered only bolsters this moral position, as does John's most powerful argument, an argument for the transcendence Nietzsche envisioned: "*Homo sapiens* has little more to contribute to the music of this planet," John argues, "nothing in fact but vain repetition. It is time for finer instruments to take up the theme" (122).

That John and his band are "finer instruments" is perhaps debatable, especially in light of their Nietzschean morality and the strange grotesqueness of their appearance. In the existential universe presented here, their superiority does not, at any rate, ensure their survival. The emergence of the supernormals may imply progress and an evolutionary direction to the universe but their eventual annihilation also underscores the randomness

and chance elements in reality. No longer is there any God to protect and guide humanity, nor is there any guarantee that progress will ensure the survival and flourishing of the higher types of any species. Indeed, the destruction of the small band by *Homo sapiens* illustrates Nietzsche's rejection of Darwin's theory of natural selection: it is not "selection in favor of the stronger, better constituted, and the progress of the species," Nietzsche claims, but the opposite: "the elimination of the lucky strokes, the uselessness of the more highly developed types, the inevitable dominion of the average, even the sub-average types" (*The Will To Power* 364). The only redeeming feature of their doomed existence is that they view all that happens through what Spinoza called "the eyes of eternity." "They must appreciate existence as precisely and zestfully as they could," John explains, "and salute That in the universe which was of supreme excellence" (144). The courage, strength, and nobility implicit in passages such as this only serve to highlight the pathos of their existential plight.

It is sentiments such as these, too, that at least hint at an evolved spirituality, especially when contrasted with the ordinary humans. Early on, in Nietzschean fashion, John methodically exposes all the weak and irrational tenets of human custom which belie a fundamental spiritual shortcoming: Conventional religion ("Ninety-nine *per cent.* slush and one *per cent.*- something else, *but what*?" (59) and psychiatry; nationalism and Communism; the institutions and cultural practices of war, hate, science and mechanism—all are evidence of a species having reached its limit of development beyond which lies only lethal consequences. *Homo sapiens* is, for John, Nietzsche's "last man," a doomed species "at the end of his tether," one whose incapacity to integrate his

whole being into a new and harmonious order, despite its intelligence, marks it as a species not worth tinkering with (70). When among them en masse, John is repelled by the Nietzschean "herd": he is struck by the "sudden sense of being different from every one else, of being a human being in a herd of cattle" (70). Indeed, aside from John's parents and the narrator, John's only friend—and even these are incapable of understanding John completely—the ordinary humans presented in the story are so uniformly weak, irrational, and self-serving that they increasingly seem to represent a primitive stage of humanity that must be transcended.

In contrast, what a heroic Nietzschean being John is. In a scene where John goes into the wilderness and kills a stag, he is the Nietzschean self as conduit for the workings of destiny, a free spirit embracing his fate. He is, as Nietzsche writes in the preface to *Human, All Too Human*, "the one in whom a mission seeks to embody itself and to 'come into the world'" (qtd. in *Philosophy of Nietzsche* 103), a tragic but fully alive and awake figure confronting the cosmos with its beauty, joy, suffering, and evil. Here, far from civilization, he achieves the unity with all being that was a hallmark of Nietzsche's cosmic framework. Here he is even able to see humans in the same light that he had seen the stag, "delighting in their clear-cut form, and in their unity with the rest of things...the way they...deepened and quickened the universe" (84). It is a spiritual catharsis necessary for the task to come: the searching out of more of his kind and the subsequent founding of the colony.

While the colony is eventually realized in the last twenty-five pages of the story, and its technological, aesthetic, and social accomplishments detailed, the focus is on the

emergence and transfiguration of John as a singular new type. True to the Nietzschean focus on the individual spirit and will, the novel reflects the emergence in utopian works of a distinctive personality. Whereas in *Utopia* and *New Atlantis*, (and much less in Condorcet's philosophical scheme), there is hardly an individual to be found save for a narrator or two, John and his cohorts are highly individualistic beings in the world who yet transcend their own singular existences to create, for a brief time, a shining utopian community where each is not only encouraged to reflect upon his or her position in relation to the others, but to the universe and being itself.

This last element in particular distinguishes this utopia from nineteenth-century socialist utopian visions such as *News From Nowhere*, for example, with its regressive and overt Communist overtones. As John explains to a group of Russian sailors who happen upon the island, "Communism is the goal [for you], but for us it is the beginning. For you the group is sacred, but for us it is only the pattern made up of individuals...We have reached beyond Communism for a new individualism" (151). How different a perspective this is, one that highlights the possibilities of a Communism that is yet a vehicle for heightened individualism. How different is this singular utopia from the dystopias that, feeding off of existential thought, Darwinian evolution, and Communism, would come to dominate the field in the early twentieth century. And what an ultimately inspiring picture of an existential reality that is often connected only to despair and angst.

CHAPTER 7

THE EVOLUTIONARY LEAP AND A HEIDEGGERIAN CAVEAT: J. D. BERNAL'S TECHNO-SCIENTIFIC UTOPIA *THE WORLD, THE FLESH, AND THE DEVIL: AN ENQUIRY INTO THE THREE ENEMIES OF THE RATIONAL SOUL*

Nietzsche may have dismissed the validity of Darwin's theory but the implications of evolution were critical to the direction interpretations of reality would take in the twentieth century. If the Enlightenment view of reality had begun the destruction of the Western theological ontological position, evolution finished it by demonstrating the complete fallacy of Biblical creationism. Along with it went the Enlightenment idea that there was orderly progression and purpose in the world and, in particular, that that purpose was the emergence of humanity.

Sadly, the positive implications of Darwin's theory were often dismissed. Nietzsche was not the only one to dispute his message in the conclusion to *The Origin of Species* that, "as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress toward perfection" (223), and the idea that man was descended from ape-like stock was interpreted as degrading rather than optimistic and progressive. Evolution underscored the contingency in reality, the frightening possibility that the process of natural development could go either way, towards the good or the bad. Moreover it seemed to say that there was no transcendent or supernatural meaning or guiding purpose in the universe. Darwin's sense of the grand meaning of it all was lost to many, the elevating last passage in *Origins* ignored: "There

is grandeur in this view of life," Darwin had written, "with its several powers, having been originally breathed by the Creator into a few forms or one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved" (223).

Not only that, but as concepts such as "the struggle for existence" came to be connected to Darwin's theory and the emergence of Social Darwinism popularized the idea of an underlying "tooth-and-claw" nature to human beings, novels such as H. G. Wells' *The Time Machine*, with its two strands of human "devolution" into Morlocks and Eloi, would emphasize the negative possibilities of biological evolution. As Manuel and Manuel observe, however, Darwinian theory was eventually wedded to extrapolations of scientific and technological changes already in process (775). It was this latter element that would provide more positive implications for evolution as science fiction developed. It would also make science fiction the natural heir to the utopian tradition.

The roots of science fiction can be traced back to Mary Shelley's *Frankenstein* if not further, and the contributions of Jules Verne and H. G. Wells are undisputable. But the power of this new form as a positive utopian vision and an ontological extrapolation on discoveries in physics evidenced itself clearly in the early decades of the twentieth century, not only in such works as Stapledon's evolutionary and cosmic saga, *Last and First Men: A Story of the Near and Far Future* (1930), which traces developments in society through eighteen stages of evolution, but in the curiously titled *The World, the*

Flesh, and the Devil: An Enquiry into the Future of the Three Enemies of the Rational Soul (1929) by British physicist, J. D. Bernal.

Here is a work whose influence on the genre of science fiction is everywhere evident eighty years later, from its imagery of disembodied brains and radically extended lifetimes—even immortality—to the abandonment of earth and the human colonization of space. Most significantly, and taking Bernal's work as representative of science fiction utopias in the twentieth century (almost all of which focus on human society in the future) *The World, the Flesh, and the Devil* is an example not only of the exaltation of the scientific world view in general, but of the changes being wrought by discoveries in "the micro mechanics of the Quantum Theory" and the fusion of physics, chemistry, and mechanics.

On the brink of the postmodern shift, however, (a shift that would introduce a more holistic, integrative and relational element to human kind's connection to the universe)[17] Bernal retains an attitude that in its oppositional stance to nature is distinctly modern; as he notes in the introduction to his short work, man is occupied with three kinds of struggle: struggle with "the massive and unintelligent forces of nature" (the world); with other animals and plants and the condition of his own body (the flesh); and with his desires, fears and stupidities (the devil). But though *The World, the Flesh, and the Devil* presents a picture of humanity which combines what seems to be an extreme form of Baconian mastery over nature, especially human nature, with a rigid Cartesian dualism

[17] Best and Keller provide an excellent summary of the differences in the modern and postmodern attitude to science and to human existence and the shift of emphasis from machine to organism; alienation from and domination over nature to reintegration with and respect for the natural world; and from immutable order to chaos. See p. 225 for a comprehensive list of characteristics.

that now literally divorces the mind from the body, it is a utopian picture which also eschews any simplistic scientific answer, acknowledging complexity on a universal scale and integrating the physical, physiological, and psychological elements of human evolution. It is one, too, that explores the very purpose of human existence and raises questions about man's relationship to technology, an issue explored by the German philosopher Martin Heidegger in his collection, *The Question Concerning Technology and Other Essays.*

Bernal's work precedes Heidegger's lectures from which *The Question Concerning Technology* was compiled, but they raise similar ontological issues about modern technology and the future. On the first point, Bernal typifies the modern embrace of a "way of being" which allowed man to view nature as something to be mastered, something to be viewed from a distinct and separate "position," that for Heidegger spelled danger, especially in view of the advance of technology ("The Age of the World Picture" 132). When Bernal describes man's future relationship to the world, it is one characterized by what Heidegger called "a challenging"; that is, "something which puts to nature the unreasonable demand that it supply energy that can be extracted and stored" ("The Question Concerning Technology" 14). Indeed, "challenging" is seeing all of nature and the cosmos as something to be exploited and turned into a resource for man's use, converted into what Heidegger called "standing reserve." Whereas modern technology was for Heidegger only one way that Being reveals the truth of things to man ("The Question Concerning Technology" 12), it is, in the modern paradigm, the only way and an exploitative way at that.

This attitude is well exemplified in Bernal's section on "The World," in which the author/physicist describes the "emancipation" of humanity from the earth's surface and the eventual spread of human kind throughout the solar system and then beyond. Using a Baconian language of domination and control,[18] Bernal foresees a future time when men will "conquer space as they conquered the air," indeed, when "Man will not ultimately be content to be parasitic on the stars but will invade them and organize them for his own purposes." In this paradigm, "A star is essentially an immense reservoir of energy." Indeed, Bernal goes so far as to insist that once man has left the planet, "stars cannot be allowed to continue to be in their own way, but will be turned into efficient heat engines." To accomplish this, men will "challenge" bodies in space as they have challenged the earth, initially by mining the asteroids for materials with which to build permanent spatial colonies composed of thousands of pseudo-earth globes that orbit the sun. Most of the earth's population will eventually inhabit these globes.

While such a human expansion into space may open up heavenly bodies to exploitation, Bernal does offer the compensation that at least earth, "free from the economic necessity of producing vast quantities of agricultural products, could be allowed to revert to a much more natural state." Earth can cease to be Heidegger's standing reserve as man converts the solar system to resource. But what of human life in such a cosmic environment? Here Bernal echoes Bacon's distant dreams of human transformation through science and exceeds even twenty-first-century science writers such as Gregory Stock (*Redesigning Humans: Our Inevitable Genetic Future* 2002) and

[18] Best and Kellner discuss the Baconian-Cartesian mind set of conquest and control, citing various scholars who have seen "Bacon's constant use of sexual metaphors and rape images" as evidence of "a highly anthropocentric and patriarchal" attitude toward nature (200).

Ramez Naam (*More Than Human: Embracing The Promise Of Biological Enhancement* 2005) when he calls not only for genetic alteration of the species, as they do, but for the eventual disposal of the body—apart from its only critical component, the brain—in its entirety.

Bernal's human life cycle—as described in the section entitled "The Flesh"—starts in an ectogenetic factory on earth where all humans are allowed sixty to 120 years of unspecialized existence, during which time they may occupy themselves with traditional pleasures. For many this will suffice but for Bernal's version of the "ideal man," transformation awaits. After this phase, the ideal man abandons earth with a corps of scientifically enlightened companions, leaving the planet to those incapable of evolving and transcending their physical limitations—that is, to those who are "too stupid and stubborn to change." The advanced species travels to a hollow asteroid where the members undergo a long period of genetic enhancement, sprouting wings, perhaps, in adaptation to the new environment in the globe. Eventually the "new human" undergoes decorporealization and is transformed into a cerebral mechanism of unprecedented power and sensitivity. That this final state entails existence as a reparable brain inside a cylinder with nerve connections immersed in a kind of cerebrospinal fluid does not repel Bernal, for in his Cartesian estimation "it is the brain that counts, and to be a brain...is to be alive—to think." Moreover, for Bernal "normal man," encumbered with his body and a range of physiological and psychological flaws, "is an evolutionary dead end; mechanical man, apparently a break in organic evolution, is actually more in the true tradition of further evolution." Here is the culmination of the scientific world view, one that equates

human perfection to a well-functioning machine, one that, indeed, perfects human kind to the point of being unrecognizable as humans.

Certainly Bernal's work provokes Heidegger's caveats about the modern scientific mentality and modern technology. *The World, the Flesh, and the Devil* depicts a future age in which modern physics is used to create the machinery that reveals everything in the world as resource; that, in Heidegger's words, "pursues and traps nature as a calculable coherence of forces" ("The Question Concerning Technology" 21). The problem with such a view of reality, according to Heidegger, is that it can limit our perception of the other ways that Being shows itself to man, what he calls "revealing" and the "unconcealment," of truth about Being. Such a revealing can only occur when man is open to it. In simpler terms, if man limits himself to seeing reality and nature as something which can be measured, calculated, and exploited as a resource, he misses other truths about it.

And yet, there are hints in Bernal that the scientific world view he glorifies is not only about ordering nature is such a way that "what is unconcealed no longer concerns man even as object" but "exclusively as standing reserve" ("The Question Concerning Technology" 26, 27). If Heidegger's concern is that modern technology—in its essence and not just in its destructive capacity—"threatens man with the possibility that it can be denied to him to enter into a more original revealing and hence to experience the call of a more primal truth" about his own essence ("The Question Concerning Technology" 28), Bernal wishes to arrive at that discovery of man's essence too, but through technology. And where for Heidegger man's essence seems to be something more static, something

that, if modern man is open to it, will "presence" itself to him in the same way that Being itself revealed itself to the ancient Greeks, for Bernal, the essence and purpose of man is yet to be discovered. But it lies in man's desires, desires that will change as humanity transforms but that will yet lead to men wanting more and daring more.

It is precisely this daring, this experimentation, Bernal asserts, that "is really the essential quality of life." In this Bernal sounds very Nietzschean, but he also encapsulates the fundamental attitude of the modern age from Bacon on: there is some higher purpose, some deeper meaning and higher plane to existence, and not in a supernatural realm but here in the natural world. Progress, development, evolution: whatever it is, not only is the process incomplete, it is open-ended. And as the creature man is simply part of the reality of the natural world that can be known through science and modified to fill some future purpose, modifying reality, even if it means *Homo sapiens* "fast-forwarding its own evolution", as Gregory Stock would observe seventy years in the future, is simply the natural and the inevitable direction for humanity to go (4).

CHAPTER 8

CONCLUSION

At a time when the modern age has presumably slipped over into the postmodern age, this idea that there is an inevitable direction for humanity to go prevails, not only in scientific utopias but in the science writing of authors such as Ray Kurzweil, Stock, Naam, and a host of others. It is an idea that is deeply rooted in the modern, if not the premodern, ontologies that underlie the utopian vision. From Augustine, who saw the progress and transformation of humanity rather as a return to a pre-fallen state, and who argued for the perfection of humanity within the context of a higher, perfect realm and a teleological plan; to More and Bacon and their faith in the ability of human kind to reform and redeem itself in the earthly world through, in the first case, virtue and human institutions, and in the latter, science; to Condorcet and the Enlightenment discovery and embrace of the natural law of progress; and finally to evolution, the implication has been that human nature is not static; that it is capable of transformation.

And as with humanity, so with reality. Ontologically, what emerges over five hundred years of modernism is the move from stasis to dynamism and, ultimately, to the ubiquity of change and evolution in the very fabric of the universe. More's reality, like Augustine's, was dualistic, divided into an ultimate static, perfect, and eternal realm presided over by God, and a temporal and corruptible *ens creatum*, as was Bacon's. But Bacon's *ens creatum* was one that was less fixed, one open to wondrous modifications through science, and one where the corruptible could at least be staved off. Life could be

prolonged and the evils of the human condition ameliorated. For the Enlightenment philosophers, reality was rooted in the natural world; progressive, observable, and knowable, it had a purpose and meaning to it, not the least of which was the production and perfectibility of human kind. Existentialism retained the idea of change but introduced the concept of universal flux and chaos, while the elimination of God ensured the darker message that the universe was devoid of meaning. Such a reality was only fit for the strongest, the heroic. Darwin's theory followed with its message of biological change through competition and natural selection, presenting the strongest challenge yet to the idea that the world was manifestly well-ordered—evidence of a divine design (Watson 642).

Evolution presented a view of an underlying reality that, as the Manuels suggest, initially produced only negative visions of utopia and "prefigured the death of utopia as an ideal city in the Greek tradition" (774). But the prospect of a biologically transformed being—and not just a religiously or politically evolved human—expanded the possibilities for futurist visions of utopia, especially when wedded to extrapolations of scientific and technological changes (775). If Stapledon offered readers a glimpse of how the next stage of humanity might function on earth, Bernal's vision of the future evolution of humanity within a cosmic evolutionary framework would pave the way for positive science fiction utopias that could embrace the dynamism at the core of evolution while still maintaining community.

Science fiction continues to provide highly imaginative visions for the future of humanity in works such as Charles's Stross's *Accelerando*, perhaps the most

representative reflection of contemporary science in fiction today yet one clearly reminiscent of Bernal's vision of human transformation. Here in the vastness of space, in a future where the Singularity[19] has come to pass rendering artificial intelligence superior to humanity, augmented humans, post-humans, self-aware financial instruments, weak god-like intelligences, and uploaded lobster mentalities all vie for survival and one-upmanship in an accelerated, madcap cybernetic world that is nonetheless strangely familiar and distinctly modern. Science writing itself offers heretofore unimaginable scenarios for the future with scientists and scholars such as MIT's Ray Kurzweil promoting the idea of the Singularity and radical life extension—even immortality—through uploading one's consciousness to computers; Stock and Naam arguing for the biotechnological enhancement of humans—indeed the guided evolution of the posthuman or transhuman—through germline engineering, (the permanent alteration of the genetic code effected during the embryo or fetus stage of development); and Robert Zubrin, in *The Case for Mars*, delineating a real-life plan for the eventual terraforming and colonization of Mars that makes Robinson's *Mars Trilogy* seem much more a prescient forecast than a work of purely imaginative fiction.

What connects all of these recent visions to the earlier modern utopias is an ontology variously characterized as one of development, progress, and, finally, evolution. If for More ultimate reality is still static and development is connected, as it is for Augustine, to a perfection only possible within the teleological scheme of eventual death and resurrection in the perfection of God, his utopia is nonetheless one embedded in reality.

[19] The term, "The Singularity," was coined by science fiction author Vernor Vinge and popularized by Ray Kurzweil. It refers to the coming age when computers exceed humans in intelligence, a time Kurzweil and others think is imminent.

Unlike Augustine's City of God, Utopia is located in real space, it deals with real material concerns, and it promises the improvement of man in this life not only through the practice of virtue but by means of a detailed organization of his material reality. Bacon engages in a similar dualism albeit one where spiritual concerns are far outweighed by his emphasis on science and its capacity to improve the physical condition of human kind. Bacon is a harbinger of progress. By the time of Condorcet, progress takes center stage as the defining principle of reality. There is no perfection, but rather infinite perfectibility. For Nietzsche there is no progress in the sense of an Enlightenment improvement of man, but there is a will to power that propels the species to a new cosmic level, to a transcendence of his current limitations. By the time of Bernal, this transcendence takes on a cosmic evolutionary perspective.

At this late stage of the modern era, reality is evolutionary, transformative, and open-ended. It is holistic and interconnected. It is something that humans are a part of but the evolution of which humans can also guide. This is the message of Kurzweil and Stock (a message not so different from Bacon's) that humans have the power to know reality and modify it. But if this sounds modern in its anthropocentrism, there is the idea, too, that the thrust of evolution itself will create beings transcendent to us who will redesign society and reality. From *Odd John* to the AIs (Artificial Intelligences) in *Accelerando*, this is the promise of evolution: it is unlikely that *Homo sapiens* are the end of the line, even if they could achieve the kind of ongoing perfectibility envisioned by Condorcet.

Whether science or science fiction—relics of the modern or heralds of the postmodern—visions such as those of the last two decades give lie to the old assumption

that utopia is always impractical, static, and naive. Utopia, like its underlying ontology, has evolved, never more so than in the modern era. And it will continue to do so. As for the foreseeable future, barring a return to regressive and static visions of an ideal world still rooted in religion and spirituality, utopia will continue to be intricately tied to science and the world that science reveals. As such, it is a legacy of the modern era that, like science itself, will continue to express the creativity, intelligence, desires and aspirations of humanity for as long as humanity has hope and desire for change.

WORKS CITED

WORKS CITED

Aristotle. *Metaphysics. The Basic Works of Aristotle.* Richard McKeon Ed. Toronto: Modern Library, 2001. 689–926.

---*Politics. The Basic Works of Aristotle.* Richard McKeon Ed. Toronto: Modern Library, 2001. 1114–1316.

Bacon, Francis. *New Atlantis. Three Early Modern Utopias.* Ed. Intro.and Notes Susan Bruce. New York: Oxford UP, 2008. 1–129.

---. *Novum Organum. The English Philosophers From Bacon to Mill.* Ed. Edwin A. Burtt. New York: Random House, 1967.

Bernal, J. D. *The World, the Flesh & the Devil: An Enquiry into the Future of the Three Rational Enemies of the Soul.* London, 1929. *Home Page of Cosima Rohilla Shalizi.* Ed. Cosima R. Shalizi. University of Michigan, 22 Dec. 1994. Web. 4 Nov. 2008 <http://www.cscs.umich.edu/~crshalizi/Bernal/>.

Best, Steven and Douglas Kellner. *The Postmodern Turn.* New York: Guildford P, 1997. 38–77, 196–203.

Bruce, Susan. Introduction and Notes. *More, Bacon, and Neville: Three Early Modern Utopias.* Oxford: Oxford UP: 2008.

Burke, Edmund. *Reflections on the Revolution in France.* London: Penguin, 1986.

Burtt, Edwin A. Introduction. *The English Philosophers from Bacon to* Mill. New York: The Modern Library.

Claeys, Gregory and Lyman T. Sargent. *The Utopia Reader.* New York: New York UP, 1999.

Condorcet, Marie-Jean-Antoine-Nicolas Caritat, Marquis de. "Tenth Epoch: Future Progress of Mankind." *Outlines of an historical view of the progress of the human mind.* Philadelphia, 1796. N. pag. *The Online Library of Liberty.* Ed. David Hart, Hans Eicholz, and Kristen Beach. Liberty Fund, Inc., N.d. Web. 4 Dec. 2008 <http://oll.libertyfund.org/title/1669>.

Darwin, Charles. *The Illustrated Origin of Species*. London: Faber and Faber, 1979. Original work, *On the Origin of Species*, was published in 1859.

Heidegger, Martin. "The Question Concerning Technology." *The Question Concerning Technology and Other Essays*. Trans. and Intro. William Lovitt. New York: Harper, 1977. 3–36.

---. "The Age of the World Picture." *The Question Concerning Technology and Other Essays*. Trans. and Intro. William Lovitt. New York: Harper, 1977.115–154.

Jameson, Fredric. *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions.* London: Verso, 2005.

Kurzweil, Ray. *The Singularity is Near: When Humans Transcend Biology*. New York: Viking, 2005.

Locke, John. *Essay on Human Understanding*. London, 1690. *Enlightenment*. Ed. Carolyn Ray and Tom Radcliffe. N.d. Web. 23 Mar. 2009 <http://enlightenment.supersaturated.com/johnlocke/index.html>.

Lombardo, Thomas. *The Evolution of Future Consciousness.* Bloomington: Author House, 2006.

Manuel, Frank and Fritzie Manuel. *Utopian Thought in the Western World.* Cambridge: Belknap, 1979.

More, Thomas. *Utopia*. Trans. Ralph Robinson. *Three Early Modern Utopias.* Ed. Intro. and Notes Susan Bruce. New York: Oxford UP, 2008. 1–129.

Morris, William. *News From Nowhere.* Ed. Stephen Arata. Peterborough, Ontario: Broadview, 2003.

Naam, Ramez. *More Than Human: Embracing The Promise Of Biological Enhancement.* New York: Broadway, 2005.

Nietzsche, Friedrich. *On the Genealogy of Morals*. Tran. Horace B. Samuel. New York: Barnes and Noble, 2006. Originally published in 1887.

---*The Will to Power*. Tran. Walter Kaufmann and R. J. Hollingdale. Ed. Walter Kaufman. New York: Vintage, 1968.

Nisbet, Robert. *History of the Idea of Progress*. New Brunswick: Transaction, 1994. 3–9, 179–185.

Philosophy of Nietzsche. Ed. And Intro. Geoffrey Clive. New York: New American Library, 1965.

Plato. *Republic. Plato: Complete Works*. Ed. John M. Cooper. Indianapolis: Hackett, 1997. 971-1223.

---. *Timaeus. Plato: Complete Works*. Ed. John M. Cooper. Indianapolis: Hackett, 1997. 1224–1291.

Sayre, Henry M. *The Humanities: Culture, Continuity and Change*, Volume II. Upper Saddle River: Pearson, 2008.

Saint Augustine. *City of God*. Ed. Vernon J. Bourke. Garden City: Doubleday, 1958.

Sawyer, Robert J. *Hominids* (Volume One of *The Neanderthal Parallax).* New York: Tor, 2002

---. *Humans*. (Volume Two of *The Neanderthal Parallax).* New York: Tor, 2003.

---. *Hybrids*. (Volume Three of *The Neanderthal Parallax).* New York: Tor, 2003.

Sharpe, Robert. "John Locke." *The Oxford Guide to Philosophy*. 2005. 525–529.

Stapledon, Olaf. *Last and First Men: A Story of the Near and Far Future* in *Last and First Men and Star Maker: 2 Science Fiction Novels by Olaf Stapledon.* New York: Dover, 1968. Original work published in 1931.

---*Odd John: A Story Between Jest and Earnest* in *Odd John and Sirius.* New York: Dover, 1972.

Stock, Gregory. *Redesigning Humans: Our Inevitable Genetic Future*. Boston: Houghton, 2002.

Stross, Charles. *Accelerando*. New York: Penguin, 2005.

Vernant, Jean-Pierre. Ed. and Intro. *The Greeks*. Trans. Charles Lambert and Teresa Lavender Fagan. Chicago: U of Chicago P, 1995. 1–21.

--- *The Origins of Greek Thought*. Ithaca: Cornell UP, 1982.

Watson, Peter. *Ideas: A History of Thought and Invention from Fire to Freud.* New York: Harper Collins, 2005.

Zubrin, Robert. *The Case for Mars: The Plan to Settle the Red Planet and Why We Must.* New York: Touchstone, 1996.