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Peer-Reviewed Proceedings
“Evolution of the American Ecological Paideia”
presented at the
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Paideia: Education in the Global Era*
Samos Island, Greece, 15-21 July 2007

ΥΠΟ ΤΗΝ ΑΙΓΙΔΑ ΤΟΥ ΠΡΟΕΔΡΟΥ
ΤΗΣ ΕΛΛΗΝΙΚΗΣ ΔΗΜΟΚΡΑΤΙΑΣ
ΔΕΚΑΤΟ ΕΝΑΤΟ ΔΙΕΘΝΕΣ
ΣΥΝΕΔΡΙΟ ΦΙΛΟΣΟΦΙΑΣ
ΣΑΜΟΣ: 15-21 ΙΟΥΛΙΟΥ 2007

UNDER THE AUSPICES OF THE PRESIDENT
OF THE HELLENIC REPUBLIC
NINETEENTH INTERNATIONAL
CONFERENCE OF PHILOSOPHY
SAMOS: 15-21 JULY 2007

ΠΑΙΔΕΙΑ: Η ΕΚΠΑΙΔΕΥΣΗ ΣΤΗΝ ΕΠΟΧΗ ΤΗΣ ΟΙΚΟΥΜΕΝΙΚΟΤΗΤΑΣ
ΠΑΙΔΕΙΑ: EDUCATION IN THE GLOBAL ERA



ΟΡΓΑΝΩΣΗ ΣΥΝΕΔΡΙΟΥ:

ΔΙΕΘΝΗΣ ΕΤΑΙΡΕΙΑ ΕΛΛΗΝΙΚΗΣ ΦΙΛΟΣΟΦΙΑΣ
ΔΙΕΘΝΕΣ ΚΕΝΤΡΟΝ ΕΛΛΗΝΙΚΗΣ ΦΙΛΟΣΟΦΙΑΣ ΚΑΙ ΠΟΛΙΤΙΣΜΟΥ

ΣΕ ΣΥΝΕΡΓΑΣΙΑ ΜΕ:

ΤΟ ΥΠΟΥΡΓΕΙΟ ΠΟΛΙΤΙΣΜΟΥ
ΤΟ ΥΠΟΥΡΓΕΙΟ ΑΙΓΑΙΟΥ & ΝΗΣΙΩΤΙΚΗΣ ΠΟΛΙΤΙΚΗΣ
ΤΟ ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ
ΤΟ ΥΠΟΥΡΓΕΙΟ ΤΟΥΡΙΣΤΙΚΗΣ ΑΝΑΠΤΥΞΗΣ
ΤΟ ΥΠΟΥΡΓΕΙΟ ΕΣΤΕΡΝΩΝ, ΔΗΜΟΣΙΑΣ ΔΙΟΙΚΗΣΗΣ ΚΑΙ ΑΠΟΚΕΝΤΡΩΣΗΣ
ΤΗΝ ΠΕΡΙΦΕΡΕΙΑ ΒΟΡΕΙΟΥ ΑΙΓΑΙΟΥ
ΤΟΝ ΕΛΛΗΝΙΚΟ ΟΡΓΑΝΙΣΜΟ ΤΟΥΡΙΣΜΟΥ
ΤΟΥΣ ΔΗΜΟΥΣ ΚΑΡΛΟΒΑΣΙΩΝ & ΠΥΘΑΓΟΡΕΙΟΥ

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THE DISTRICT ADMINISTRATION OF NORTH AEGEAN
THE GREEK NATIONAL TOURIST ORGANISATION
THE MUNICIPALITIES OF KARLOVASSI & PYTHAGORION

09.50 - 10.10:

Νικήτας Χιωτίνης
Διδάκτωρ Αρχιτεκτονικής
Καθηγητής Τ.Ε.Ι. Αθήνας
Διευθυντής Σχολής Γραφικών Τεχνών
και Καλλιτεχνικών Σπουδών
Αθήνα
Dr. Nikitas Chiotinis
Architect
Professor and Director of the Faculty of Graphic Design
and the Applied Arts
Technological Institute of Athens

Η παιδεία στην εποχή της μελαγχολίας ή περί της ανάγκης
θεμελίωσης ενός νέου πολιτισμού
Education in the Era of Melancholy or on the Need of
the Foundation of a New Civilization

10.10 - 10.30:

Richard Snow
Professor of Meteorology
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Florida, USA
και/and
Mary Snow
Professor of Meteorology
Applied Aviation Sciences
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Florida, USA

Evolution of the American Ecological Paideia
Εξέλιξη της αμερικανικής οικολογικής παιδείας

10.30 - 11.00:

Hideya Yamakawa
Professor of Philosophy
Department of Philosophy
Saint Andrews University
Honorary President of IAGP, Japan

The Stoics used to say "to speak well means to speak the truth" (Οἱ Στωικοὶ δὲ τὸ εὖ λέγειν ἔλεγον, τ' ἄληθῆ λέγειν). The philosopher achieves his goal when he manages to convey his thought through speech, the language acting as an interpreter for his ideas. Grammar was another subject whose teaching was prized by the Stoics, as speech must be governed by clarity which is conducive to the learning of virtue. Acting and silence in turn, facilitate the expression of the meaning of our speech. Geometric and philosophical forms are also necessary for teaching. The shape of the circle, for instance, holds the position of germinal speech, present in all people.

To the extent that virtue can be taught, as Cleanthis sustains, once somebody acquires it, he will have it for ever.

Aristo commends the learning of philosophy as a means for man to resist all those dangers that threaten his soul and in order to acquire gentleness of soul (ἡθὸς ἀγνόν καὶ ζόσιμον). The Stoics insisted on the proper teaching of language, in order to safeguard it and in order for children to learn to speak well and correctly. In this way was man led to the truth. Truth is virtue and as such it is also a good. The Stoics claim that we must make our way towards virtue through any path.

Poetry finally, helps to promote the moral ideal. Yet another stoic thesis contradicting Plato's theory and according to which poetic skillfulness is a God sent gift. The poetry of the Stoics is, like all poetry, attractive and through its attractiveness it leads its listeners to wisdom.

What would therefore be the ideal model of education during the Hellenistic years:

In sum, we should stress that the ideal of moral education towards the creation of the perfect man prevailed during the Hellenistic Period. This, of course, doesn't in any way mean that education in the previous period was indifferent to the cultivation of morality in future citizens. However, this was not its primary or sole objective. Education in the Hellenistic period almost ignored the ideals of the previous period and focused on the moral perfection of the growing youth.

It had become common belief for a long time that virtue was the only thing worth more than anything else in the world and something that would accompany its possessor even to the grave. Sources of the Graeco-Roman period echo the Hellenistic thought and stress the importance of the creation of a virtuous man.

MARY M. SNOW AND RICHARD K. SNOW

EVOLUTION OF THE AMERICAN ECOLOGICAL PAIDEIA

The westward expansion in North America, which has produced ill effects on the environment, followed largely from a naive misconception rather than from ill will on the part of the American pioneer. The abundance of game, fresh water, and expansive stands of forests the settlers encountered led to the perception that the New World's natural resources were infinite and inexhaustible. Along with positive traits such as self-reliance and independence, Europeans also brought deep-seated beliefs in humanism, rationalism, and

materialism. In the New World, anthropocentrism, humanism's hierarchical scheme among the various animal species, placed humans at the zenith. Once the hierarchy was confined to just the human species, males were awarded dominion over females, and those of light skin were afforded rights over those with dark skin. The rationalism carried to the New World is closely related to humanism and espoused the idea that through scientific inquiry humans have the capacity to know all. This view is reflected in the cornucopian educational attitude toward technology as the answer to environmental dilemmas such as global warming. Similarly, Western materialism is reflected in our hedonistic society that teaches us from a young age to be highly consumptive.

The American pioneers incorporated ideas of absolute rights to property and resources into their value system that do not exist in law, but rather are based on Locke's definition of property rights. Such systems that cater to the accumulation of capital by those already controlling the wealth tend to abandon the lower strata of society and disregard the natural world. Especially in an information age, the prevailing perception of a people should evolve in light of the facts and should be reflected in their value system. We believe a disturbing disparity has arisen between the actions taken by elements in the federal government with respect to protecting the natural world, as evinced by the refusal of the current U. S. administration to ratify the Kyoto Accord, and the priority that a majority of Americans place on the well being of the environment. This essay examines the evolution of the western view of the environment briefly outlining the varying perspectives carried by Europeans to the New World. We argue that these cultural traits provided the paradigm for the value systems that became established in the New World, including the perceptions of land ownership, property rights, and the natural world as a commodity. We also discuss the westward expansion and contrast the resulting conservationist views with those of the preservationists within the larger context of the environmental movement. Finally, we propose that today citizens can network with others in order to gain support for or against issues of common interest. The computer facilitates participation in the political process by allowing concerned individuals to monitor the environmental voting records of elected officials, the status of legislation, and to send immediate electronic mail messages to their representatives. The good will of the American people can become the political will of the nation by acting diligently and vigilantly through support of environmental organizations, by remaining informed, and through political activism that reflects an evolving ecological paideia.

EVOLUTION OF THE AMERICAN ECOLOGICAL PAIDEIA

Abstract

This essay examines the evolution of the western view of the environment briefly outlining the varying perspectives carried by Europeans to the New World. We argue that these cultural traits provided the paradigm for the value systems that became established in the New World, including the perceptions of land ownership, property rights, and the natural world as a commodity. We also discuss the westward expansion and contrast the resulting conservationist views with those of the preservationists within the larger context of the environmental movement. Finally, we propose that today citizens can network with others in order to gain support for or against issues of common interest. Especially in an information age, the prevailing perception of a people should evolve in light of the facts and should be reflected in their value system. However, a disturbing disparity has arisen between the actions taken by elements in the federal government with respect to protecting the natural world and the priority that a majority of Americans place on the well being of the environment. The computer facilitates participation in the political process by allowing concerned individuals to monitor the environmental voting records of elected officials, the status of legislation, and to send immediate electronic mail messages to their representatives. The good will of the American people can become the political will of the nation by acting diligently and vigilantly through support of environmental organizations, by remaining informed, and through political activism that reflects an evolving ecological paideia.

Introduction

The westward expansion in North America, which has produced ill effects on the environment, followed largely from a naive misconception rather than from ill will on the part of the American pioneer. The abundance of game, fresh water, and expansive stands of forests the settlers encountered led to the perception that the New World's natural resources were infinite and inexhaustible. The American pioneers incorporated ideas of absolute rights to property and resources into their value system that do not exist in law, but rather are based on Locke's definition of property rights. Such systems that cater to the accumulation of capital by those already controlling the wealth tend to abandon the lower strata of society and disregard the natural world. Along with positive traits such as self-reliance and independence, Europeans also brought deep-seated beliefs in humanism, rationalism, and materialism. In the New World, anthropocentrism, humanism's hierarchical scheme among the various animal species, placed humans at the zenith. Once the hierarchy was confined to just the human species, males were awarded dominion over females, and those of light skin were afforded rights over those with dark skin. The rationalism carried to the New World is closely related to humanism and espoused the idea that through scientific inquiry humans have the capacity to know all. This view is reflected in the cornucopian educational attitude toward technology as the answer to environmental dilemmas such as global warming. Similarly, Western materialism is reflected in our hedonistic society that teaches us from a young age to be highly consumptive.

Materialism

Kirkpatrick Sale asserts that the Europeans introduced materialism to North America. A cursory review suggests that American culture is materialistic. America shops by Internet, as the emphasis is on image, ambition, and individuality. Society is designed such that the winner takes all, and of course the winner is he who dies with the most toys. There is peer pressure on children who are not old enough to go to school to own name brands. And there is an ever-widening chasm between those who cannot say enough, and those who literally do not have enough.

There is an abundance of political rhetoric revolving around reinstating the values of the American people. However, materialism is virtually never acknowledged as a value, good or bad, by the nation's legislators. Neither is there mention of materialism by political candidates, many of whom are running an almost exclusively value-oriented campaign. There is hypocrisy inherent in discussions of family values that steer clear of the acknowledgment of the nation's materialistic bent. Politicians who boast on taking a stand, and telling it from the heart play both side of the coin, since addressing the glaring problem of materialism would undoubtedly damage the economy. Other nations notice, however, and some have deliberately restricted the inflow of American culture.

Materialism is reflected in hedonistic societies that are highly consumptive and avaricious with economic systems that tend to encourage and reward materialism. When materialism is nurtured to fruition, the result can be a monistic society that holds that only the material exists (Carter, 1990). Sale adds that in addition to materialism, the West brought to America humanism, rationalism, and nationalism (Sale, 1990). As abstract philosophies, these "isms" are ineffectual. However, as the notions become manifested within a society, the empirical repercussions are readily apparent.

Humanism

Humanism began as the revival of Classical literature. However, becoming distorted with time, the philosophy finally evolved to assert that humans have absolute primacy among the species. Everything else in nature is a resource to be used to further human desires. Whereas materialism asserts the primacy of physical matter over the immaterial, humanism prioritizes humans over the rest of creation. Only humans have inherent worth, and all else has only instrumental value (Cahn, 1977). Anthropocentrism, humanism's hierarchical scheme among the various animal species, places humans at the zenith. Once the hierarchy was confined to just the human species, males were awarded dominion over females, and those of light skin were afforded rights over those with dark skin. Discrimination within the human species exists today in the form of toxic racism. Studies show that often hazardous waste disposal sites are located in minority communities that do not have the political clout to maintain a decent environment.

Any such strategy to grant supremacy to either a particular race or species was refuted by those holding the organic view of the universe. Ironically, the organic view was expounded by one of the greatest minds of Western thought, Plato, who saw all life as interconnected and interdependent. Plato's philosophy of the organic nature of the universe more nearly reflects the Native American view. However, Plato's organic view of the universe never took hold in mainstream Western thought. The doctrine of humanism mutated into several forms, and most tended to be non-theistic. Curiously though, the contemporary view of human supremacy is commonly defended with Judeo-

Christian Scripture. The twenty-sixth verse in the first chapter of the Book of Genesis has been translated to read, "And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowls of the air, and over all the earth." However, the Hebrew word that is translated in many versions as *dominion* is thought to be more accurately translated as *stewardship*.

The English philosopher Francis Bacon (1561-1626) elaborated on the idea that people must control and dominate nature in order to tame and subdue it like some wild beast. This became the prominent view in the West. The Native Americans did not perceive the forest, for example, as a wild and scary place. The Europeans coined the term *wilderness*, and brought that term and the fear of the natural world with them to North America (Sale, 1990).

Rationalism

The rationalism brought by the West espoused the idea that through scientific inquiry humans have the capacity to know all (Sale, 1990). Rationalism is closely related to humanism. After all, humanism afforded humans supremacy because it was thought that humans are the only creatures capable of reason. It is presently accepted within the scientific community, especially among those who study animal behavior with state-of-the-art equipment, that differences between species are more a matter of degree than of kind.

Through painstaking research, hours of observation and training, and with the use of special instruments it has been discovered that dolphins display the sense of self-awareness that previously was reserved only for the human species. Chimpanzees have learned to use language. Further, the chimps have shown the ability to accomplish more than mere memorization. They demonstrate an understanding of semantics as well. Where there has been lacking the availability of the necessary symbology to communicate a thought, the chimps have created new means of communicating the same idea from the resources at hand (Gardner & Gardner, 1977).

It was thought that only humans learn and that the remainder of animal life was born with the instincts needed to survive. Now it is known that not only do other animals learn by doing, but that they learn by observing. Even the lowly octopus, a member of the invertebrates, has demonstrated this capability. One octopus in a study was able to remove the lid from a jar in order to eat the contents inside, and the second octopus could not. The octopus that could not get into the jar watched cautiously as the first opened the jar and ate the crab inside. The very next time the previously incapable octopus was given the jar, s/he repeated what s/he had observed and opened the jar. It is still undetermined which, if any, character traits make humans superior to the rest of the life forms that share the planet. But it has been determined that the capacity to reason is not exclusively human.

The science that had been so stringently suppressed by the Church throughout Medieval Europe blossomed with a fury during the Renaissance. Galileo Galili introduced the mechanistic model of the universe at the dawn of the seventeenth century. According to the mechanistic model of the universe, all of Earth's inhabitants are mere cogs in the machine. The Native Americans' organic view of the world focused on the interdependency and interrelatedness of all members in the web of life. While rationalism

systematically de-godded the universe, to the Native Americans, the Earth and all creation were sacred.

Nationalism

And finally concerning the ideals imported from the West, Sale points out that the Europeans brought nationalism. The spirit of nationalism was exemplified in such place names as New Spain, New England, and New France, New Netherlands, New Scotland, New Sweden, New Iberia, New Orleans, New Holland and New York. A formidable defense can be offered for the necessity of nationalistic notions. However, it should be pointed out that nationalism can, and often does, become distorted into chauvinism. This sort of militant and vainglorious patriotism can have horrendous effects. Ethnocentric tendencies, for example, lead to the formation of Neo-Nazis and other groups with a militia mentality. Separatism and superiority schema can lead to sudden eruptions of ethnic cleansing.

The seemingly benign, or even beneficial, concept of nationalism can result in the establishment of a powerful military-industrial complex within a country. That complex, like any other industry striving to succeed, may even grant quarterly profits priority over national security. Nationalism's resounding repercussions continue to ring out worldwide. However, in an age of the International Monetary Fund, an active United Nations, the World Health Organization, the World Resources Institute, the World Wide Web, and the growth of global economies and global environmental regimes, it seems apparent that the notions of nationalism and sovereignty are becoming as outmoded as past policies of isolationism (Porter & Brown, 1996).

Western Virtues

The West brought to North America a number of commendatory qualities as well. Puritan communities of the Northeast, for example, have been categorized as utopian villages. The Puritans were a faithful people, they established their communities around their religious zeal, and they followed a religious leader. Puritanism brought to America "principles of liberty from arbitrary power, checks and balances to government, morality, and the ethic of hard work" (Nelson et al., 1995, p. 467). However, the authors add that although the Puritans have been credited with furthering religious freedom, in reality "they favored religious freedom only for themselves and expelled from their communities those who dared to disagree with their doctrines" (1995, p. 467).

The pioneer spirit that prompted the newcomers to migrate to the New World and then spurred them westward encompasses a number of virtuous qualities. First, the pioneers were inarguably brave. To break with all that they had ever known, to pull up the stakes and board an ocean-going vessel, some of which were not even sea-worthy, and to set sail for a new land takes an enormous amount of courage, fortitude, and determination.

While it is true that many of the first pilgrims were compelled to migrate by the push-factor of religious persecution, there was nevertheless a great deal of intrepidity in them. Self-reliance, independence, and competence describe the successful American pioneer. These qualities are good ones, yet the doctrines mentioned by Sale run more deeply than do character traits. The four "isms" described by Sale, materialism, humanism, rationalism, and nationalism, serve as paradigms for thought. These

conventions circumscribe and color thinking to the extent that they are hardly acknowledged by those who hold them. Therefore, these traditions are changed only with concentrated effort.

The Westward Expansion and its environmental impacts are discussed in greater detail subsequently. However, at this juncture the expansion is mentioned in order to assert that the ill effects on the environment associated with it followed largely from a naive misconception rather than from ill will on the part of the American pioneer. The abundance of game, fresh water, and expansive stands of forests the pioneers encountered led to the perception that the nation's natural resources were infinite and inexhaustible. However, since misunderstanding caused the mismanagement initially, how is it allowed to continue in light of the facts?

Westward Expansion

Almost all of the founding fathers had considerable investments in land speculation, even before the American Revolution. However, following that war, the land rush began in full force. Pioneers viewed the western lands as the means to wealth. Once the Appalachian Mountains were crossed, the Ohio and Mississippi valleys were awash with new settlers, many of whom, like Daniel Boone, were intent upon clearing and reselling tracts of land. For most of the following century the formula for speculation, buy low and sell high, pushed America's manifest destiny westward (Runte, 1995).

Seven of the thirteen original colonies claimed lands extending to the Mississippi River. If additional lands were ceded to the newly forming nation, those seven territories could extend beyond the river. The remaining six colonies, such as Delaware or Rhode Island, that did not have access to the western frontier, were afraid of the unequal amount of power that the larger territories might acquire along with their acquisition of western lands. Consequently, most of the original colonies agreed to give up their western claims in order to facilitate an orderly expansion. All of the eastern states forfeited the western territories to small and large investors (Runte, 1995).

While the eastern states relinquished their claims for the good of the nation, they did not relinquish their conviction that America's resources should be managed carefully. Others see the situation differently. This group purports that after the Eastern Establishment used up its resources, it attempted to prohibit Westerners from developing in the same way. This is clearly the imposition of a double standard (Runte, 1995).

At the close of the Civil War, the government focused on expansion. In 1850, the government owned 80% of the land area of the United States. Native American tribes, who along with the forests were considered to be obstacles to development, had occupied much of the land. Various policies encouraged expansion. For example, laws were passed that permitted the use of western rangelands at no cost. By 1900, vast tracts of rangeland had been severely overgrazed (Miller, 1990). The Taylor Grazing Act of 1934 established the Grazing Service in an attempt to bring some sort of order to the degradation of the federal rangelands. However, the Grazing Service was poorly funded. In 1935, for example, about 60 employees were responsible for managing some 300 million hectares (Kittredge, 1993).

William Kittredge describes his boyhood on his family's MC Ranch in southeastern Oregon in the late-1930s and 1940s. His family owned 50,000 hectares of irrigated land, and had a federal grazing lease to an adjoining several hundred thousand

hectares. Visiting officials from the Grazing Service, who were regarded as "impractical college boys," would typically warn the family to keep cattle out of a sensitive area for a couple of years. Kittredge explains, "we would say sure, and smile and then do as we damned pleased." The 50-kilometer by 80-kilometer expanse of land leased from the government "was ours, we thought, in any sensible way of understanding the world, to use as we saw fit" (1993, p. 16).

Perhaps if the Grazing Service had been funded sufficiently and had been allowed to pay visits more frequently, the delusion of the Kittredge family and so many others using federal lands would have been diminished or nonexistent. In 1946, the General Land Office and the Grazing Service were combined to form the Bureau of Land Management (BLM) (Seager, 1990). Between 1850 and 1900, besides legislation promoting the use of the rangelands, many other laws were passed that encouraged the broad-scale privatization of federal land. The settlement of the frontier lands was considered a means to attain national security. To accomplish this, public land was sold at very low cost or given away to railroad, timber, and mining companies, to the states, to schools, or to homesteaders. The artificially low costs led to extensive exploitation and excessive waste of the nation's minerals, grasslands, and forests (Miller, 1990).

Property Rights

The early property rights theorists responded to the abjectly unjust feudal land tenure system of Medieval Europe. It is suggested that Americans have incorporated into speech and into thought ideas of absolute rights to property that really do not exist in the United States Constitution. The thinking results from the adoption of John Locke's definition of property rights, rather than from a precise understanding of the law (Echeverria & Eby, 1995). In Medieval Europe, the nobility owned the preponderance of the land. Peasants lived on and farmed the estates of the nobles, or feuds, in exchange for protection from hostile invaders from the north (Nelson et al., 1995). During the Renaissance, theorists, such as John Locke, began to devise more equitable systems of land tenure by systematically explaining what entitled one to a right to property.

Locke proposed that we have a "natural right" to whatever portion of the natural world that we have "mixed our labor with." Further, explained Locke, we can accumulate as much "natural property" as we deem fit, providing: 1) the accumulation does not allow the property to spoil; 2) there is enough property available for others to have an equal share; and 3) property "as good is left for others" (Echeverria & Eby, 1995). Mary Ann Glendon insightfully points out, "Locke's property theory entered into a distinctively American property story" (Echeverria & Eby, 1995, p. 184). Glendon's emphasis is on the word *story*. Glendon adds that Americans delude themselves by subscribing to the illusion of having absolute property and/or privacy rights such as those expounded by John Locke (Echeverria & Eby, 1995).

The Fifth Amendment of the Constitution addresses property rights, yet it is somewhat indefinite in its present form: "No person...shall be deprived of...property, without due process of law; nor shall private property be taken for public use, without just compensation" (Echeverria & Eby, 1995, p. 187). Over time, a shift has occurred in the manner the Fifth Amendment has been interpreted by the nation's highest court. During the last half of the nineteenth century and through the early-1930s, the Supreme

Court repeatedly afforded a great deal of support to owners of property (Echeverria & Eby, 1995).

The adherence to the popular rhetoric of the Lockean paradigm ceased temporarily when the Supreme Court upheld Franklin Delano Roosevelt's economic and labor legislation of the New Deal. At that time, the Supreme Court rejected numerous prior cases that, according to Glendon, had "sacrificed progressive (environmental) legislation on the altar of a broad notion of property" (Echeverria & Eby, 1995, p. 185). While the Lockean paradigm presupposed a situation wherein resources were abundant, other theorists addressed the property rights problem from a different angle.

Thomas Hobbes (1588-1679) formulated his political theory while assuming limited resources. Hobbes' view of human nature is not a flattering one. Humans, according to Hobbes, are motivated purely by self-interest and the pursuit of power. In his masterpiece, *Leviathan*, Hobbes described this motivation as "a perpetual and restless desire of power after power that ceases only in death" (Cahn, 1990, p. 448). There is no such thing as altruism, says Hobbes. Instead, all living organisms merely follow the dictates of survival.

According to Hobbes, people left to their own devices and without a form of government would be abandoned to the infamous "state of nature," which is pervaded by fear and scarcity, and where "every man is an enemy to every man" (Palmer, 1988, p. 161). In summary, life in the Hobbesian "state of nature" is "solitary, poor, nasty, brutish, and short" (Cahn, 1990, p. 448). In order to survive in this situation, a person must relinquish his or her individual sovereignty to a governing body. The body politic makes and enforces laws concerning property and justice and creates institutions that will most equitably distribute the scarce resources (Cahn, 1990; Palmer, 1988).

Hobbesian theory concerning the need for a government to manage scarce resources proves to be a more portentous premise than the Lockean assertion of abundant resources. However, the Lockean paradigm endorsing absolute property rights is still held fast by many. As previously exemplified by Kittredge, many ranchers in the Western United States have asserted that the mixing of their labor with leased public land affords them ownership of that land.

Economic Theory

Often, property is thought of in terms of objects. From another point of view, property refers to the "set of rights that the owner of something has in relation to others who do not own it" (Robertson, 1987, p. 462). Those in society who own the property or the means of producing and distributing the goods and services invariably have power over those who do not. Ideal economic systems, which occur only in theory, are designed to ensure the greatest material good for the greatest number. Therefore, discussions of property are closely related to thoughts of economic theory. The two most dominant forms of economic systems in the world today are capitalism and socialism (Robertson, 1987).

Generally, those who advocate capitalism hold that if the portion of wealth owned by the public is minimized, then society as a whole is more likely to prosper. Those who advocate socialism, on the other hand, propose that when the public owns the preponderance of the wealth, there results a more equitable society, and there will be less exploitation of that society's resources (Robertson, 1987).

Capitalism has two main components. The first is the goal to maximize personal profit. J.D. Rockefeller, a proponent of capitalism, described capitalism as "a working out of a law of nature and a law of God" (Robertson, 1987, p. 463). The second essential component of capitalism is the policy of *laissez faire*. The notion implies that government should not intervene in the economy, but should let the free market forces of supply and demand drive the economic dynamic.

Some argue that just as pure theoretical communism was never achieved in the Soviet Union or in other communist countries, neither has capitalism been fully achieved in the United States. There is hardly a facet of the American economy, from farming to the exchange of information through communications, in which government subsidies do not play a major role. Others add that the means by which profits are procured is fundamentally flawed. When any commodity is produced, there are internal costs that include fuel, labor, equipment and the like. These internal costs are recovered from the buyer upon the sale of that commodity and profits are accumulated. Yet, there are external costs, or externalities, as well, and these costs are covered by neither the buyer nor the seller (Velasquez, 1992).

For example, in the process of producing electricity, coal-fired power plants produce by-products. Sulfur dioxide and nitrogen oxides that cause acid rain, forest destruction, dead lakes, and similar ills, are released into the atmosphere. When that power company sells its electricity for, say, a nickel a kilowatt, the damages from the emissions are not covered in the selling cost but are absorbed instead by a degraded environment. The profits in America are procured largely by ignoring external costs. By using rivers, the soil, the atmosphere, and the underground as waste dumps free of charge, profits are accumulated at the expense of the environment. As the economist John Kenneth Galbraith describes the situation, "there is a coexistence of private affluence and public squalor" (Murphy, 1994, p. 119).

When external costs are internalized, that is borne by their producer, for example, when scrubbers are installed on the power plant, either profits are reduced, cost to the consumer rises, or both. When a company can produce the same commodity without incurring the external costs, under present legal and economic systems, that company gains a competitive edge. That edge may even drive conscientious competitors out of business.

Similarly, when corporations relocate overseas in order to skirt regulations in the country of their headquarters, waste is internationalized along with economies. Increasingly, environmental costs are being paid in less developed countries. The World Commission on Environment and Development (WCED) has estimated that the lower cost commodities produced in the countries with minimal, if any, pollution control laws save the wealthier nations tens of billions of dollars each year. In a sense, explains the WCED, the health of humans and ecosystems in developing countries are subsidizing the accumulation of wealth in the developed world. This dilemma leads to an economic dynamic that Murphy refers to as the "survival of the filthiest" (Murphy, 1994).

The Conservation Movement

In response to the rapid reduction of the public lands into wastelands, between 1832 and 1870, the earliest voices of the conservation movement arose. Artist George Catlin preserved aspects of the Great Plains on canvas and advocated the preservation of

a massive national park on which to let the Native Americans and the animals on which they depended live. Writer Henry David Thoreau, transcendentalist Ralph Waldo Emerson, and scientist George Perkins Marsh began to warn that a portion of the public land should be set aside and protected. Marsh, a congressman from Vermont, was intent on dispelling the myth that the nation's resources were inexhaustible and developed the principles for basic resource conservation that have endured over the past century (Miller, 1990). These events were among those that led the federal government to establish a public domain that was considered necessary for the health and well being of the American people (Runte, 1995).

In addition to the federal role in resource management, citizens themselves began to organize on behalf of the natural world. In 1892, John Muir, who recorded the wonders of his famous 1000-mile walk, founded the Sierra Club. In 1905, the National Audubon Society was founded. That same year the United States Forest Service was formed, and Gifford Pinchot was appointed as its first chief (Miller, 1990). Gifford Pinchot was a prominent figure in the earliest phase of the conservation movement. Pinchot introduced terms that the anti-environmental coalition, the "Wise-Use" movement (WUM) uses today. In fact, the name adopted by the "Wise Use" movement was coined by Pinchot when he wrote, "Conservation means the wise use of the earth and its resources for the lasting good of men" (Echevarria & Eby, 1995, p. iv). Pinchot also introduced the principles of scientifically managed resources to achieve sustained yield and the principle of multiple-use of public lands that are espoused by the WUM (Miller, 1990).

Other leaders of the scientific conservation camp were Theodore Roosevelt, John Wesley Powell, and Charles Van Hise. Roosevelt and Pinchot intended to form an elite corps of resource managers that would be free from outside persuasion. When Pinchot began to publish his ideas saying that the greatest fact concerning conservation is that conservation stands for development, although he advocated sustainable development, anxiety arose in many of those concerned with conservation. Led by naturalist and writer John Muir, a contrasting group of ideas was upheld by the preservationists (Miller, 1990).

John Muir, Aldo Leopold, Robert Marshall and other preservationists explained the importance of protecting large parcels of federal lands from development. Leopold wrote that the role of human beings was that of member of the biotic community as opposed to conqueror of the natural world (VanDeVeer & Pierce, 1986). The disparate views between the preservationists and conservationists became apparent when a proposal was made to build a dam.

In what is now Yosemite National Park, Gifford Pinchot and the conservationists wanted to build a dam that would furnish San Francisco with drinking water. Muir and the preservationists objected to the proposal and maintained that the Hetch Hetchy Valley was too beautiful to flood. The dam was built and the valley flooded. The controversy over the Hetch Hetchy Valley firmly established two schools of thought over not only the use of the nation's resources, but the role of humankind as inhabitant and sculptor of Earth's landscape. However, while the preservationists and conservationists held widely varying perceptions, they firmly agreed that there should be an equitable use of publicly owned resources. Both groups opposed having public lands fall prey to the extravagant exploitation by the few (Miller, 1990).

In 1890, Frederick Jackson Turner declared that the Western Frontier had closed. The West had become sparsely populated with scattered ranches and small towns. The large metropolitan areas with their goods and services were to develop on both coasts and in the Midwest, but not in the interior of the West. While not planned as such, the future of the West was to be based on cattle ranching, mining, logging and milling, and irrigated agriculture (Marston, 1989).

As environmental historian Alfred Runte (1995) points out, with grants to railroads totaling more than 32 million hectares, an area equal in size to California, Washington, and Oregon combined, and other speculative interests claiming the choicest of the western lands, the attempt to set aside public lands was largely a battle over leftovers. Deserts and mountain ranges were left, for the most part, and from these the government carved out a few more national parks, most of the national forests, and the vast, though often barren, BLM holdings. The national parks were originally areas that were considered undesirable for mining, logging, ranching, or settlement (Runte, 1995).

The nation became populated from east to west. By the time the federal government began to set aside lands to be protected, the West had more land available to be set aside. Therefore, the location of the vast preponderance of the land conserved as America's public domain is in the West. The frontier attitude collided sharply with the early voices of conservation, and the frontier view prevailed over the conservationists for decades to follow.

Evolving Environmentalism

While more people speak of a weekend in the wilderness as a means of recharging the battery, refreshing the mind, or refurbishing the soul, some believe that as grounds for environmental protection these reasons fail to reach far enough. This group would say that the problem lies at the fundament of those claims. In the eighteenth century Immanuel Kant warned us to steer clear of serpent windings of Utilitarianism. This camp warns that the appreciation and affinity must be for the whole of which human beings are a part (Stone, 1983). Therefore, those holding this view think it is necessary to completely overhaul the present popular perspective.

A subtle shift has taken place in the paradigm of thought revolving around natural resources over the last century, and that shift is reflected in the legislation that has been passed. Protective statutes such as The Wilderness Act of 1964, the Wild and Scenic Rivers Act of 1968, the National Environmental Policy Act of 1969, and the Endangered Species Act of 1973 represent the concern of the American people for the environment and other species.

Other significant environmental legislation that has been passed during the past few decades includes the Clean Water Act, the Clean Air Acts, the National Forest Management Act, and the Federal Land Policy and Management Act. Undeniably, this legislation is efficacious. However, it has been drafted in a fragmented fashion. Each stride made in environmental protection has more or less responded to one or another environmental crisis. All too often, crisis management substitutes for sound environmental planning. The detailed and disjointed nature of these policies is attributable to environmentalists, legislators, and other planners becoming caught up in the whirlwind of rapid change. There has been little time to reflect on the notion of what

is a natural resource, how those resources should be managed, or on determining a direction for the future (MacDonnell & Bates, 1993).

According to Lawrence J. MacDonnell and Sarah F. Bates of the Natural Resources Law Center, the time has arrived to rethink resources. They write, "the exploitation ethic is giving way to an ethic of sustainable use, an ethic that urges respect for a *place* with all its parts...an ethic of inclusion, of integration, of participation" (1993, p. 19). Indeed, conservationists and other scientists have been allowed to participate in the decision making process concerning the nation's resources during the past few decades. Ideally in a democratic society, that prevailing perception becomes policy, and the enlightened policy signifies progress for the nation.

The Ecological Paideia

A comprehensive approach to an ecological paideia is necessary to address numerous environmental issues. For example, we must learn to overcome the dichotomy that exists between accepting the importance of nature while devaluing the environment through our chosen lifestyles. Also, we should supply sufficient and satisfactory methods for developing and implementing guiding ecological principles rather than relying solely on the rule of law. And, we need to formulate an all-inclusive philosophy of nature that will facilitate valuation. The college-level curriculum for such an all-encompassing ecological pedagogy would be multifaceted and include the following possible topics:

- Natural Systems Ecology provides an overview of several distinct fields of study such as physiological ecology, dynamics of energy and element cycles, population ecology, population interactions, community ecology, and evolutionary ecology.
- Environmental Law and Policy examines the laws and policies pertaining to issues such as population, energy, pollution, land management, waste disposal, economic growth, and ecosystem management, as well as some of the theoretical underpinnings of how economic and ecological burdens and benefits are distributed within society.
- Environmental History and Philosophy provides a systematic historical and philosophical analysis of prevailing Western perspectives of the environment. Students begin by exploring the Classical and Judeo-Christian roots of Western thought, after which they consider how attitudes toward the nonhuman world have evolved since the collapse of the hierarchically structured medieval world and in the wake of modern science.
- Environmental Leadership and Community Involvement examines theories of leadership, group and community dynamics, grassroots and community organizing, and methods of dispute resolution. Students analyze historic social conflicts and the mechanisms that ultimately resolved those conflicts, with particular focus on the labor, consumer, and environmental movements, and international differences in the ways such movements play out in disparate political and social systems.
- Global Environmental Issues provides an overview of the science behind several major global environmental issues within the context of the physical environment of Earth including global climate change, resource extraction, water and air quality, urbanization, geohazards, and pollution. The main goal of the course is

for students to engage in rigorous analyses of data that can be compared with global trends and analyses.

Conclusion

Especially in an information age, the prevailing perception of a people should evolve in light of the facts and should be reflected in legislation. However, a disturbing disparity has arisen between the priority that a majority of Americans place on the well being of the environment and the actions taken by elements in the federal government with respect to protecting the natural world. Economic systems that cater to the accumulation of capital by those already controlling the wealth tend to abandon the lower strata of society to poverty. When elected officials respond more to campaign contributors, political action committees, and other sources of "soft money" than to those who they have been elected to represent, the chasm between the rich and poor widens and the natural world is degraded.

Today, cyberspace is home to abundant environmental and governmental databases. Citizens can network with others in order to gain support for or against issues of common interest. We suggest that once students have participated in a well-structured ecological pedagogy, they become educated environmental citizens able to network with others in order to gain support for or against issues of common interest. The computer facilitates participation in the political process by allowing concerned individuals to monitor the environmental voting records of elected officials, the status of legislation, and to send immediate electronic mail messages to their representatives. The good will of the American people can become the political will of the nation by acting diligently and vigilantly through support of environmental organizations, by remaining informed, and through political activism that reflects an evolving ecological paideia.

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