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PROPERTY AND STEWARDSHIP—
PRIVATE PROPERTY PLUS PUBLIC INTEREST EQUALS SOCIAL PROPERTY

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This article presents an in depth analysis of the historical and jurisprudential underpinnings of property and the rights associated with ownership. The question of whether the nominal title to property confers a right to unrestricted possession and unrestrained use of the property or merely the right to use it for what may be deemed purposes socially acceptable at the time of such use, is examined from a historial and philosophical perspective. The author discusses private property rights, the concepts of property and sovereignty, and then analyzes the law of property from ancient times to the present. The law of private property is then shown to be a system of rights that has evolved throughout history according to a common thread: societal limitations on the use of private property.

INTRODUCTION

One of the basic concerns of American jurisprudence today is how to regulate land use, control the exploitation of the finite supply of non-renewable resources and respect the naturally imposed limits to growth, all the while protecting the public interest in those fundamental capital assets of civilization—land, landscape and natural resources—and at the same time assuring the continued existence of the American Free Enterprise System.

The fundamental question facing all the "owners" of natural resources or real property and those who would develop real property and exploit natural resources during the remainder of this century is whether the nominal title to property confers upon its holder a right to unrestricted possession and unrestrained use of the property or merely the right to use it for what may be deemed purposes socially acceptable at the time of such use.

Objections have been raised to any formal legal recognition of the interest that society has in land, landscape and non-renewable

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natural resources.[1] Many purveyors of gloom and doom[2] predict the demise of the free enterprise economic system, claiming it is rooted in the concept that private property rights, even in land and other nonrenewable natural resources, are absolute and inviolable whatever the needs of society might be. This view overlooks the fact that the concept of social property has been with civilization from its earliest days,[3] and still can be found in some form in most cultures today.[4]

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1. *See, e.g.*, McClaughry, *Farmers, Freedom and Feudalism: How to Avoid the Coming Serfdom*, 21 S.D. L. REV. 486 (1976), in which the author, President of the Institute for Liberty and Community at Concord, Vermont, asserts that feudalism and the concept of social property are somehow historically linked, and that the concept of freehold title to real property is an essential element of the American way of life and the free enterprise system.

2. *See particularly*, the extensive debates in the Committees and on the floor of the Congress during the consideration of the bills seeking to establish a national land use policy or planning act during the last year of the Nixon Administration.

3. *See* H.S. MAINE, ANCIENT LAW, ITS CONNECTION WITH THE EARLY HISTORY OF SOCIETY AND ITS RELATION TO MODERN IDEAS ch. VIII (1861).

4. Social property in America includes the common lands of New England Towns, which have been jealously overseen by the town proprietors since the seventeenth century. *See, e.g.*, S.C. POWELL, PURITAN VILLAGE: THE FORMATION OF A NEW ENGLAND TOWN (1963); K. LOCKRIDGE, A NEW ENGLAND TOWN: THE FIRST HUNDRED YEARS (1970); W. KAVENAGH, VANISHING TIDELANDS: LAND USE AND THE LAW IN SUFFOLK COUNTY, N.Y. 1650 TO THE PRESENT (1977).

The Adirondack Park in New York State is larger than the entire state of Massachusetts and represents one of the last great wilderness and semi-wilderness areas east of the Mississippi River. It is administered by an agency with almost dictatorial land use regulatory power over 6,000,000 acres, almost one-third of central New York State. Within the Park and subject to the jurisdiction of the Adirondack Park Agency pursuant to the provisions of N.Y. EXEC. L., Art. 27, §§ 801-819 (McKinney), are 12 counties, 92 townships, and 15 incorporated villages, each with its own government as local municipal subdivisions of the State of New York, and each with land use regulatory and planning authority pursuant to state enabling legislation patterned after the STANDARD ZONING ENABLING ACT (1926 version). The Adirondack Park Agency has become the target of many constitutional challenges to legislative determinations that certain property shall be deemed so vested with the public interest that it is subject to regulation on behalf of the people and treated for administrative purposes as social property. The statutory language is almost an invitation to suit by all the private property interests who dream of second home development and quick profit from the increasing interest of the affluent in clean air, clean water and the "wilderness experience."

Recently the Agency has survived a number of challenges to its land use restrictions, of which perhaps the most far reaching was the controversy over whether a permit should be granted to the Lake Placid Olympic Organizing Committee for construction of a new 90-meter and an improved 70-meter ski jump for the 1980 Winter Olympics under N.Y. EXEC. L. § 809.10e (McKinney). The permit could not be issued by the Adirondack Park Agency without an express finding that,

> [T]he project would not have an undue adverse impact on the aesthetic, ecological, wildlife, historic, recreational or open space resources of the park, or upon the ability of the public to provide supporting facilities and services made necessary by the project, taking into account the commercial, industrial, residential, recreational or other benefits that might be derived from the project.

Id. As some indication of the extent and significance of the controversy, in addition to the project proponents, the intervenors included: The Sierra Club in opposition to the application on the grounds that the proposed ski jumps would be visible from areas within the Park designated "wilderness" and "forever wild;" the Adirondack Park Local Government Review Board, a statutory body composed of local government representatives whose executive director was bitterly opposed to the Adirondack Park Agency as a supra-municipal planning board and zoning board of appeals; the Adirondack Council, a coalition of organizations whose member groups all had substantial interests in the wilderness and environmental amenities of the Park; and the New York State Department of Environmental Conservation, whose official position was at best ambivalent since it was a developer of intensive recreational facilities within the Park, such as the ski complex at Whiteface Mountain, but was also responsible

for maintaining the environmental quality of the State of New York, including the Adirondack region. The Agency had already been sued by a number of developers and the Natural Resources Defense Council, and at that time concerted efforts were being made in the New York State Legislature to repeal the enabling Act, or at least abolish the Agency and return its land use regulatory powers to the local municipal subdivisions.

While the Adirondack Park Agency itself had only to make the rather limited legal determination whether the record developed by the Hearing Officer provided substantial, credible evidence that the project as proposed "would not have an undue adverse impact, . . ." the Hearing Examiner was forced to consider a number of questions novel in environmental law before making his determination. The finding, report, and decision of the Hearing Examiner indicate the problems inherent in any attempt to regulate land use and development by statute. During the remainder of this decade, at least, it is obvious that such determinations will have to be made on a case-by-case basis following consideration of the relevance, materiality, competency, credibility and substance of the evidence by testing in what the trial bar euphemistically refers to as the "crucible of cross-examination" during adversary judicial or quasi-judicial proceedings, as this portion of the decision illustrates.

JOHN BROWN NATIONAL HISTORIC SITE

> The National Historic Site that is the burial place of John Brown on a farm that played a significant part in the history of the United States prior to and during the early days of the War Between the States will be subject to an unavoidable visual impact as the result of constructing the twin towers and associated "in-run" ramps of the 90-meter and 70-meter ski jumps for the 1980 Winter Olympic games.
>
> The evidence clearly established that these two structures will have a substantial visual impact upon the historyscape in the region of the John Brown National Historic Site, and there seems to be general agreement among the expert witnesses testifying on behalf of both the project sponsors and the State of New York Department of Environmental Conservation, that such an impact will be negative or adverse.
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> The most significant contention of the Sierra Club and The Adirondack Council is that the intrusion of these towers into the view from the farm and gravesite of John Brown represents not only an adverse impact, but an "undue adverse impact" within the meaning of the Adirondack Park Agency Act. It is this contention that must be addressed eventually by the Adirondack Park Agency.
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> At this time the Agency must accept as a well-established fact that the twin towers associated with the proposed ski jump facilities at Intervale together with some undefined portion of the in-run ramp associated with each tower will represent a significant visual intrusion in the historyscape that includes the farm and gravesite of John Brown, a national historic site designated pursuant to the provisions of the appropriate Federal legislation. It can be reasonably assumed that such an intrusion will, in fact, represent an adverse impact upon the National Historic Site.
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> If there were an alternative acceptable to the Lake Placid Olympic Organizing Committee, the choice would be clear and the Agency could limit further development of the Intervale site and, if possible, encourage transfer of the entire complex to the alternate location. However, the Lake Placid Olympic Organizing Committee does not consider any location other than Intervale a viable alternative site for the Olympic ski jumps, and it is not for the Adirondack Park Agency to substitute their judgment for that of the successful bidder for the 1980 Winter Olympic Games.
>
> The Adirondack Park Agency is not a designer of ski jumps for Olympic competition. Neither is the Adirondack Park Agency technically competent to determine whether or not one site or another is more appropriate as far as ski jumping is concerned. However, the Adirondack Park Agency is quite capable of determining, and indeed the Adirondack Park Agency is charged with the obligation to determine, whether the proposed 90- and 70-meter ski jump facilities at Intervale . . . represent an undue adverse impact on the resource of the Adirondack Park, one of which is the John Brown National Historic Site.

Counsel for the Adirondack Council read into the record a moving comment:

> Lost in the Adirondack hills with two companions one day in late June 1849, Richard Henry Dana, Jr., noted author of *Two Years Before the Mast* . . . sighted a one-story house on a freshly cleared farm. Its owner, as the three lost campers soon learned, was a recently arrived settler named John Brown. He "received us with kindness," wrote Dana,

Largely as a result of the rush to develop the national economy during the westward expansion following the Louisiana Purchase, the concept of social property, or public limitation on the private use of property vested with the public interest, has been rigorously repressed in favor of a theory of absolute rights associated with private ownership that would make a medieval monarch envious.

Social Property is nothing more than property which has become vested with the public interest to such an extent that the property itself can be considered dedicated to public use. Whether in fact or at law, the nominal owners of property so vested with the public interest become trustees[5] of the property for the benefit, use and enjoyment of the general public, and are bound to exercise their personal rights as nominal owners in behalf of others for the accomplishment of purposes which may not be dictated by self-interest.

The prime agricultural lands and arable soils of this nation have become so important to the welfare of the people of this generation and those generations yet unborn, that they impose the general obligation of a trustee for the public benefit upon the nominal owner. Enforcement of the public trust[6] in the fertile soils of America is one of the great objects of equitable jurisprudence.

The food and fiber demands of civilization have established that the prime agricultural lands of the United States, at least, are pro-

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> inviting them to stay for supper. Seated at the long table were a black man and a black woman. Somewhat taken aback by this display of social equality, Dana was even more surprised when his host introduced the blacks by their last names with the prefixes of Mr. and Mrs. In his diary, Dana duly underscored these courtesy titles given to the black diners, Mr. Jefferson and Mrs. Waite. At John Brown's family board, as Dana quickly found out, blacks neither sat below the salt nor were addressed as unequals.

And there can be no doubt that it was this egalitarian attitude on the part of John Brown and his family, which is the memory of his tormented spirit that speaks most eloquently to the people of today.

Yet where in American history can we find the most significant break of the barrier between Black and White that Society erected as part of its reaction to the shame of slavery in America, but in competitive athletics? It was at the athletic training table that Black and White sat together and shared a meal during this century. It was competitive athletics that gave Blacks the opportunity to make a mark in what was an otherwise White society. Four years after Lake Placid hosted the 1932 Winter Olympic Games, Adolph Hitler watched Jessie Owens, an American and a Black man, win four Gold Medals at the 1936 Summer Olympic Games, the last Olympics before the Holocaust of World War II.

In re Application for a Project Permit for the Construction of Certain 90- and 70-meter ski jump facilities proposed by the Lake Placid Olympic Organizing Committee at Intervale, Town of North Elba, Essex County, New York, to be used for the 1980 Winter Olympic Games.

5. The word "trust" or "trustee" appears to have come into use during the early years of the reign of Henry V (*circa* 1402). *See*, Dodde v. Browning, 1 Cal. xiii, a suit which alleged a feoffment of land and chattels in trust during plaintiff's absence and charged that defendant Feoffees had farmed the land without plaintiff's assent and refused to re-deliver the chattels. D. KERLY, A HISTORICAL SKETCH OF THE EQUITABLE JURISDICTION OF THE COURT OF CHANCERY 84 (1890).

6. For a general discussion of the public trust, *see*, V. YANNACONE, B. COHEN, S. DAVISON, ENVIRONMENTAL RIGHTS & REMEDIES ch. 2 (1972).

See also, Yannacone, *Agricultural Lands, Fertile Soils, Popular Sovereignty, The Trust Doctrine, Environmental Impact Assessment and The Natural Law*, 51 N.D.L. REV. 615, 621-630 (1975).

perty vested with sufficient public interest to claim equitable protection by and on behalf of the people of the United States. Preserving the productivity of the prime agricultural land in the United States for the benefit of all the people of this and succeeding generations is certainly one of the unenumerated rights retained by the sovereign people[7] of the United States through the ninth amendment[8] and

7. In feudal times, the king was but the suzerain of suzerains, each of whom possessed his own rights and power. It is from the time of Jean Bodin (1530-1596) that the concept of truly absolute sovereignty imposed itself upon the jurists of the Baroque Age. The divine right of kings, a theory which reached its peak at the time of Louis XIV, states that absolute power is directly conferred on the King by God, and not indirectly through a transfer from the people of the absolute power of the commonwealth. The "divine right" theory was based on the idea that the King as a person was possessed of a natural and inalienable right to rule his subjects from above. Once the people had agreed, whether by positive affirmative act or mere acquiescence in the existing state of affairs, upon the means and method of government for the kingdom, no matter how long ago, they were forever deprived of any right to govern themselves. The natural right to govern the body politic resided thereafter only in the person of the King, or other individual ruler, as his personal and private property.

Since this natural and inalienable right to supreme power resided only in the person of the King, and was independent of the body politic, the power of the King was supreme, not only as the highest power existing in the body politic, but as a monadic and supernal power existing above the body politic and separately from it. The King reigned over all his subjects, and took care of their common good from above as the political image of God, a royal privilege which was to become rather disparaging of God as time went on. Any restriction on the supernal independence and power of the King could only come from a free and gracious concession granted by the King, most often in actual fact under pressure from the people. This was the connotation of "sovereignty" that surrounded the entry of the word into the vocabulary of political theory from the low Latin *superanus*. *Cf.* J. MARITAIN, MAN AND THE STATE (Phoenix ed., 1966). "*Ex Optimatum ordine, princeps*" was employed long ago in the common language to mean any official endowed with superior authority. Du Cange quotes an edict of the French King Charles V, made in 1367, which reads: "*Voulons et ordonons que se . . . le Bailli ou autre leur souverain*."

In Chisolm v. Georgia, 2 U.S. (2 Dall.) 419 (1793), Mr. Justice Wilson sets forth the characteristics of a despotic government in this language:

> Even in almost every nation which has been denominated free, the state has assumed a supercilious pre-eminence above the people who have formed it: hence the haughty notions of state independence, state sovereignty, and state supremacy. In despotic governments, the government has usurped, in a similar manner, both upon the state and the people: hence, all arbitrary doctrines and pretentions concerning the supreme, absolute, and incontrollable power of government. In each man is degraded from the prime rank, which he ought to hold in human affairs: in the latter,the state as well as the man is degraded. . . .

Id. at 461. After reviewing the situation in France during the reign of Louis XIV, he turns to England where the sovereignty has been described as being with the "King in Parliament" and demonstrates that this is the very model of a despotic government:

> Another instance, equally strong, but still more astonishing, is drawn from the British government, as described by Sir William Blackstone and his followers. As described by him and them, the British is a despotic government. . . . In that government, as so described, the sovereignty is possessed by the parliament: in the parliament, therefore, the supreme and absolute authority is vested (citing 1 BLACKSTONE'S COMMENTARIES 46-52, 147, 160-62); in the parliament resides that uncontrollable and despotic power, which, in all governments must reside somewhere. The constitutent parts of the parliament are the King's majesty, the Lord's spiritual, the Lord's temporal, and the Commons. The King and these three estates together form the great corporation or body politic of the kingdom. . . . The parliament form the great body politic of England! What, then, or where, are the people? Nothing! Nowhere! They are not so much as even the 'baseless fabric of a vision!' From legal contemplation, they totally disappear! Am I not warranted in saying that, if this is a just description, a government, so and justly described, is a despotic government.

Id. at 462.

8. U.S. CONST., amend. IX: "The enumeration in the Constitution of cer-

entitled to protection under the *due process* clause of the Fifth Amendment,[9] and similarly by operation of the *rights, privileges and immunities, due process*, and *equal protection* clauses of the Fourteenth Amendment.[10]

In the case of a unique, non-renewable, natural resource treasure such as the limited supply of prime agricultural land in the United States, a Court of Equity can act to protect the public interest in the arable soil even if it means limiting the rights of the nominal "owner" of the property. Equity can be called upon to protect the rights of the sovereign people of the United States in and to the full benefit, use and enjoyment of property vested with the public interest long after it has come into nominally private ownership.[11]

The concept that all who are free are free to take freely from that which nature has provided for all has always carried the implicit ethical and later equitable injunction, "so long as no damage is done to the rights of others similarly free."[12] Unfortunately, the Industrial Revolution and the accompanying rise of modern economic theory based on the philosophy of materialism have led the corporate oligarchy of the industrial world to ignore the equitable maxim, "so use your own property as not to injure the property of others, particularly that which is the property of all human beings—the air we breathe,

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tain rights shall not be construed to deny or disparge others retained by the people." For a more extensive discussion of the ninth amendment, *see*, V. YANNACONE, B. COHEN, AND S. DAVISON, ENVIRONMENTAL RIGHTS & REMEDIES ch. 3 (1972).

9. U.S. CONST., amend. V: "No person shall be . . . deprived of life, liberty or property, without due process of law . . . ."

10. U.S. CONST., amend. XIV, § 1: "No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."

11. F. MAITLAND, EQUITY chs. 5, 7 (1909); 3 J. POMEROY, A TREATISE ON EQUITY JURISPRUDENCE § 1060 (2d ed. 1899); 2 J. POMEROY, A TREATISE ON EQUITY JURISPRUDENCE § 958 (2d ed. 1899).

Judicial declaration of the rights and interest of the people in and to the benefit, use and enjoyment of certain property was not unknown at common law. Courts often declared the public right to privately held lands. *See*, Irwin v. Dixon, 50 U.S. (9 How.) 9 (1850); New Orleans v. United States, 35 U.S. (10 Pet.) 662 (1836); Cincinnati v. White, 31 U.S. (6 Pet.) 431 (1832). *See also*, Longley v. City of Worcester, 304 Mass. 580, —, 24 N.E.2d 533, 537 (1939); Dickinson v. Ruble, 211 Minn. 373, 375-76, 1 N.W.2d 373, 374-75 (1941).

12. It is interestıng to note the relationship between farming the land and harvesting the sea:

> [F]rom the time primitive men first applied husbandry to the animal and plant products of the land the labor of the fisherman has stood in sharp contrast to that of the rudest farmer. A Yarmouth sea chantey illustrates this difference:
>
> The farmer has his rent to pay.
> Haul, you joskins, haul.
> And seed to buy, I've heard him say.
> Haul, you joskins, haul.
> But we who plough the North Sea deep
> Though never sowing, always reap,
> The harvest which to all is free,
> And Gorleston light is home for me.
> Haul, you joskins, haul.
>
> In Norfolk terms, joskins are part-time fishermen who farm in the summer and join the herring fleet during the winter.

J. BARDACH, HARVEST OF THE SEA, at 106 (1968).

the water we drink, and the land and other non-renewable natural resources which are the source of our food, clothing, and shelter."

Of course fertile soils, no less than air and water, may be appropriated by individuals and business entities for private pecuniary profit. The extent of the appropriation and the uses permitted must accord, however, with the needs of Society at each period in human history. In spite of institutions such as title insurance companies, and even the "taking clauses" of the fifth[13] and fourteenth[14] amendments to the United States Constitution, those who hold nominal title to the unique and non-renewable national natural resource treasure represented by the fertile soils of our country, hold that title, even though it may be denominated fee simple absolute, as trustees for the benefit, use and enjoyment of all the people of this and succeeding generations.

Equity provides a degree of elasticity not to the meaning, but the application of constitutional principles, and it is this ability to accommodate the public interest that has been the boast and the excellence of the common law.[15] To concede this capacity for growth and change in the common law while at the same time saying that the

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13. U.S. CONST., amend. V: "No person shall be . . . deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation."

14. U.S. CONST., amend. XIV: § 1: "[N]or shall any State deprive any person of life, liberty, or property without due process of law. . . ."

15. The common law in America is characterized by the supreme value it places on individual liberty and respect for individual property. It is concerned more with individual rights than with social righteousness. Its respect for the individual makes its procedures inherently contentious and preserves the theory that litigation is essentially a contest between parties represented by champions who fight fairly according to the rules of chivalry. It relies more on individual initiative rather than government action to vindicate rights. It tries questions of far-reaching social significance in the context of private controversies between nominal litigants.

Nevertheless, the common law in America tends to impose duties and establish liabilities independently of the will of those bound, looking to relations rather than to legal transactions as the basis for assessing legal consequences.

Among the historical factors that have determined much of the early course of the evolution of an American common law have been feudal law with its roots in Germanic legal institutions; Puritanism as it was brought to America by the New England colonists; the confrontations between the courts and the Crown in seventeenth century England; eighteenth century political philosophy; the "State of Nature" in the New World prior to the War Between the States; and the concepts of justice, law, and sovereignty that prevailed among American political leaders and intellectuals during the period the English common law was being made over in the American courts.

If the causes of the reactionary response of the law to consideration of social problems are to be found in the traditional elements of our legal system, so too the introduction of moral considerations through the law of equity was not an achievement of legislation but rather the work of the courts. American common law can meet the exigencies of justice and from the results of individual efforts establish a scientific system of equity jurisprudence.

Many fundamental changes in the American legal system have already taken place case-by-case along the way toward social justice. It was the courts that provided restraints on anti-social exercise of the incidents of property ownership. The American courts have gradually limited what the French call "abusive exercise of rights;" passing through the law of equity from preventing unconscionable exercise of legal rights against individuals to limitations on the anti-social exercise of those legal rights. The law of equity has been moving toward a doctrine that the law should secure satisfaction of the reasonable wants of a property owner with respect to the use of property, but only to the extent that such use is consistent with the interests of society.

courts are forever bound to perpetuate rules, which by reasonable test may be subsequently found to be neither wise nor just, simply because they have once been declared suitable to the situations and institutions of some past time and condition of humanity, is to deny the common law and equitable jurisprudence that flexibility and capacity for growth required to meet the exigencies of each historical epoch.[16] At the heart of most controversies over the regulation of land

16. More than a century ago, Chancellor Kent stated that upwards of a thousand cases in the English and American reports could then be pointed out "which had been overruled, doubted, or limited in their applicaton." The great Chancellor continued by declaring that decisions which seem contrary to reason "ought to be examined without fear, and revised without reluctance, rather than to have the character of our law impaired, and the beauty of harmony of the system destroyed by the perpetuity of error." Rumsey v. N.Y. & N.E.R. Co., 133 N.Y. 79, 85-86, 30 N.E. 654, 655 (1892).

Every extension of the rights of the "People" as against the unfettered exercise of private or corporate property rights has been resisted in the courts and even in the halls of the legislature on the grounds that there is no "precedent." Of course, if that were a valid objection, the common law today would be the same now as it was during the time of the Plantagenets. Even the British Courts realized that: "When those ghosts of the past stand in the path of justice clanking their medieval chains, the proper course of the judge is to pass through them undeterred." United Australia Ltd. v. Barclay's Bank, Ltd., 1 A.C. 29 (1941).

Of course the modern American statement of that position is found in Woods v. Lancet, in which the New York Court of Appeals said that: "The common law does not go on the theory that a case of first impression presents a problem of legislative as opposed to judicial power." 303 N.Y. 349, 354-56, 102 N.E.2d 691, 695 (1951). The ultimate statement of the fundamental maxim that equity suffers no wrong without remedy has been put forth as follows: "If it were necessary to go much further than it is, in opposition to some sanctioned opinions, in order to open the doors of this court to those who could not obtain [justice] elsewhere, I should not shirk from the responsibility of doing so." Wallworth v Holt, 4 Myl. & C. 619.

While legislative bodies certainly have the power to change old rules of law, nevertheless, when they fail to act, it is the duty of the court to bring the law into accord with present day standards of wisdom and justice. Funk v. United States, 290 U.S. 371, 382 (1933). If the rule were otherwise, we would still be burdened with many of the morally outrageous rules of law that were laid down during the nineteenth century, such as:

> [I]n the eye of the law, so far certainly as civil rights and relations are concerned, the slave is not a person, but a thing. The investiture of a chattel with civil rights or legal capacity is indeed a legal solecism and absurdity. The attribution of legal personality to a chattel slave, legal conscience, legal intellect, legal freedom, or liberty and power of free choice and action, and corresponding legal obligations growing out of such qualities, faculties and action implies a palpable contradiction in terms.

Bailey v. Poindexter's Ex'or., 56 Va. (14 Gratt.) 132, 142-43 (1858). The Virginia Court simply followed the rulings of the Supreme Court of the United States in Dred Scott v. Sanford, 60 U.S. (19 How.) 393 (1856), in which Chief Justice Taney stated that the Constitution was made by and for White men who were the People who had ordained it in order to secure the Blessings of Liberty for themselves and their posterity, and then proceeded to deny to Negroes ". . . as a subordinate and inferior class of beings, who had been subjugated by the dominant race," the rights of national citizenship.

Only two years before *Dred Scott*, the California Supreme Court extended the impact of a statute which provided that: "[N]o Black or Mulatto person, or Indian shall be allowed to give evidence in favor of, or against a [W]hite man," to include the Chinese because they were "a race of people whom nature has marked as inferior, and who are incapable of progress or intellectual development beyond a certain point . . . between whom and ourselves nature has placed an impassable difference." People v. Hall, 4 Cal. 399, 405 (1854).

In 1875, when a woman sought to practice law in the State of Wisconsin, the court proclaimed that:

> The law of nature destines and qualifies the female sex for the bearing and nurture of the children of our race and for the custody of the homes of the world, . . . [A]ll life-long callings of women, inconsis-

use and the exploitation of natural resources, we find the basic legal question: "What are the constitutional limitations on the public control of private property?" We also find the even more fundamental philosophical question: "What is contained in the *ius abutendi*,[17] the 'bundle of rights' associated with nominal title to real property?"

PROPERTY AND PROPERTY RIGHTS

While "property" is a right in both the philosophical and juristic sense, "private property" is an institution of society.

One of the most profound influences upon the concept of private property throughout history has been the philosophical acknowledgement that there exist certain human rights which seem to be inalienable since they are part of the essence of humanity. Just because certain fundamental human rights are inalienable, however, does not necessarily mean that such human rights may be freely exercised without limitation. Even absolutely inalienable rights are subject to some limitation upon their exercise, if not their possession, and the distinction between *possession* and *exercise* of a right becomes important since it enables us to explain the limitations that can be justly imposed upon the assertion of certain rights under certain circumstances within the structure of certain societies without denying the existence of such rights.

This distinction between possession and exercise of a fundamental human right makes it possible to accept the fact that, as history advances, it is fitting to forego the exercise of certain rights which human beings nevertheless continue to possess as an essential part of their human nature. This philosophical insight is essential to any

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> tent with these radical and sacred duties of their sex, as is the profession of the law, are departures from the order of nature; and when voluntary, treason against it. . . . The peculiar qualities of womanhood, its gentle graces, its quick sensibility, its tender susceptibility, its purity, its delicacy, its emotional impulses, its subordination of hard reason to sympathetic feeling, are surely not qualifications for forensic strife. Nature has tempered women as little for the juridical conflicts of the courtroom as for the physical conflict of the battlefield. . . ."

In re Goodell, 39 Wis. 232, 245 (1875). The court carried its position even further in chastising the male attorney who had the temerity to represent the young lady:

> And when counsel was arguing for this lady that the word person . . . [in the statute describing those qualified to practice law] necessarily includes females, her presence [in the courtroom] made it impossible to suggest to him as *reductio ad absurdum* of his position, that the same construction of the same word . . . would subject woman to prosecution for the paternity of a bastard, and . . . prosecution for rape.

Id. at 246.

17. *Ius Abutendi (jus abutendi)* literally means the right to abuse. By this phrase is understood the right to abuse property, or the state of having full dominion over property; the right to destroy or consume, the right to freely dispose of property. MOREY, ROMAN LAW 383.

Ius Utendi (jus utendi), on the other hand, referred to the right to use property without destroying its substance; a concept similar to the later idea of "use without waste." It was employed in contradistinction to the "*ius abutendi*." The phrase *ius utendi tantum*, referred to the use of property for the purpose for which it is fitted, without destroying it, and which use can, therefore, be repeated.

consideration of the social problems associated with the forms the right to own property takes in any society that is in the process of economic evolution.

Property as a subjective right is a purely metaphysical concept.[18] The concept of absolute rights associated with private ownership of property, however, reflected the emphasis on individual liberty, which prevailed in society during the period of its ascendency. The *dominium* of the individual is no more intelligible as such a right than the *imperium*[19] of the government.

In the second part of the ***Discourse on Inequality***, Rousseau discussed the transition from the state of nature to organized society, and laid special emphasis on the establishment of private property as an institution of society. Property was introduced, equality disappeared, forests became smiling fields, slavery and misery arose with the crops. Private property was the result of man's departure from a state of primitive simplicity, and it brought untold evils in its wake. Given the insecurity and other vices that attended the development of the institution of private property, Rousseau believed that the establishment of political society, government and law were foregone conclusions.[20]

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18. Metaphysical justification of private property begins with Kant, who assumed the inviolability of the individual human personality and then attempted to justify a law of property in the abstract based upon the idea of a system of "external mine and thine." In order to justify the law of property, Kant went beyond what the Romans call "natural possession," to conclude that, "a thing can only be mine where I will be wronged by another's use when it is not in my actual physical control."

Kant raised the question of how merely juridical or rational possession as distinguished from purely physical possession is possible; and this same fundamental question—the distinction between physical and juristic possession—appears as consideration of the distinction between detention and possession in the Civil Law and between custody and possession at Common Law.

Of course juristic possession is only possible within a civil society in which a declaration by word or act that some object is mine and making that object subject to the exercise of my will is a "juridical act," which imposes upon others a duty to abstain from the use of the object; and admits that the individual is bound in turn to respect the objects that others have made "externally theirs."

Having worked out a theory of *meum* and *tuum* as legal institutions, Kant developed a theory of acquisition, distinguishing original and primary acquisition from derived acquisition, and postulating that nothing is "mine" by original title without a juridical act, that is, an act of right, an ethical transaction, as distinguished from the legal transaction by which derivative title may be acquired.

This metaphysical version of the Roman theory of occupation is evidently the link between the eighteenth century and Savigny's aphorism that all property is founded on adverse possession ripened by prescription: the origin of titles to land in Western Europe founded on the Germanic invasions and physical takeover of the land in the later Middle Ages.

It must be remembered that Kant was writing at the end of the eighteenth century fully aware that Rousseau held the view that the man who first laid out a plot of land and said, "This is mine," should have been lynched; and that vested rights were commonly being disregarded in revolutionary France. Kant was not thinking of how those who *had not* might claim a greater share of what they produced, but rather how those who *had* might claim to hold what they already had!

19. By *dominium* is meant ownership in the sense of personal possession. By *imperium* is meant the power of the sovereign to regulate the use of things.

20. "The first man who, having enclosed a piece of ground, bethought himself of saying, 'This is mine,' and found people simple enough to believe [him]was the real founder of civil society." Metallurgy and agriculture were the

The period from which the doctrine of the absolute nature of private rights in property was inherited differs from today in a number of obvious and significant respects. Before the rise of capital-intensive agriculture, the ownership, or at least the secure and effective occupation of land and possession of tools by those who used them, was a condition precedent to effective work in the field or in the workshop. The forces which threatened such private property at that time, much like today, were the fiscal policy of governments, in particular taxation, and in some countries the decaying legal formalities of feudalism.[21]

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two arts which produced this great revolution. "All ran headlong for their chains in hope of securing their liberties; or they had just wit enough to perceive the advantage of political institutions, without sufficient experience to enable them to foresee the dangers." ROUSSEAU, DISCOURSE ON INEQUALITY 221.

One of the characteristics of American jurisprudence has been an uncompromising insistence upon individual rights and private property. Individualism as a philosophical concept emerged at the turn of the seventeenth century from the rise of theories of natural rights from the older theories of natural law. Historically, this period was characterized by the emancipation of the middle class and the rise of Protestantism.

The common law of America prior to the Civil War was generally the law according to the *Institutes* of Sir Edward Coke, and the age of Coke was the age of the Puritan in England. Philosophically, the Puritan proceeded from the fundamental doctrine of a "willing covenant of conscious faith" made by the individual to the proposition that individual conscience and individual judgment were supreme and no authority might rightfully coerce them for every individual must assume the results and accept the consequences of the choices he made. The covenant between God and Abraham which made the Children of Israel the chosen people of God furnished the religious basis of the New England Puritan community, and when applied to civil organization made all legal consequences result from exercise of the individual human will rather than from the existence of some feudal relation. Both Luther and Malanchthon vigorously denounced the Anabaptists and the rebellious peasants on the grounds that submission to civil government was enjoined upon Christians by the Scriptures and no individual claim of right could stand against the State.

The Puritan ideal demanded a fixed, absolute, universal rule which the individual recognized and contracted to respect. In the realm of politics, the conception of the people not as a mass but as an aggregate of individuals led to ascribing rights to each individual. There can be little doubt that the religious phase of the Puritan Revolution contributed to the evolution from the legal rights of individuals to the concept of the natural rights of man. In the administration of justice, however, our Puritan colonists gave us the concept of liberty of contract as an abstract notion which has been the bane of all social legislation, and the basis for objection to equitable application of general legal rules to particular cases.

In the law of property the Puritan influence can still be heard in the argument that whatever the motive or effect of private actions, "the public good [has] in nothing [a] more essential interest than in the protection of every individual's private rights." (Blackstone).

The impact of the Puritan tradition in America on the law can still be observed. Equity helps fools who have made bad bargains, whereas the Puritans believed that fools should be allowed and required to act freely and then held for the consequences of their folly. Equity acts directly upon the person, coercing the individual free will. Equity acts preventively, instead of permitting free action and imposing after the event the penalty assented to in advance. Equity involves discretion in its application to actual cases, and in the Puritan view permitted the magistrate to judge another by a personal standard instead of by an unyielding, impersonal legal rule.

21. Sixteenth century Spain is a prime example:

> Spain found herself the first victim of her dazzling newfound wealth that, [having] come so easily, was to go even more easily, much of it [to] . . . service [the] mounting foreign debts that were Charles' nightmare throughout the whole of his reign [Charles V, 1516-1556]. . . . The industrial boom scarcely lasted beyond the middle of the [sixteenth] century. With soaring prices went a dwindling trade with the rest of Europe, [while] gradually increasing self-sufficiency in the colonies . . . lessened reliance on the products of the home country. With easy wealth [came] a contempt for honest labor, and with penal taxation and wrongheaded

The extreme position that the right to own property is absolute led a number of philosophers following the French Revolution to the logical conclusion that those who owned property could, by use or misuse of that property, do injury to others and escape liability by virtue of the absolute character of the rights associated with private ownership of property.[22]

Nevertheless, the power of that fundamental equitable maxim, as old as the Talmud and the Roman Law, which became the cornerstone of Anglo-American Equity Jurisprudence—*sic utere tuo ut alienam non laedas*—so use your own property so as not to injure that of another—led even the French Civilians, imbued as they were with the possessive and individualistic philosophy of the Revolution, to note that "In spite of its absolute character, ownership must still be circumscribed within reasonable limits. The truth is that there is no absolute property right and that the ownership itself is not an absolute right but subject to limitation."[23]

So long as men knew of no means of subsistance but the chase, pasturage or agriculture, the patrimony of human nature was a share

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> policies, such as the sacrifice of agriculture to the vested interests of the Mesta [a sheep grazing monoply], a progressive thwarting of the country's economic development. . . . It was a revealing commentary on the reign of this colossus who bestrode half the western world that [Charles was] unable to abdicate until funds could be had from Spain to pay off his household in the Netherlands. . . . Near bankruptcy had pursued him throughout [his reign]. The true measure of what the crushing of the *Communeros* at Villalar portended lay in the compliance thereafter of the Castilian Cortes, that [for] over forty years approved twenty-one of twenty-two demands for ever more crushing sums in taxation. Their one refusal, in 1527, resting on the fact that the [taxes] previous[ly] vote[d were] still uncollected. Charles got revenues even out of the Church. The nobles proving more difficult, he had [to] resort to . . . selling titles of nobility and thus exempting from the ranks of the taxpayers precisely those best able to pay. . . . The spectacle of a Spain in the process of financial strangulation in spite of all the wealth of the Indies was nothing new. [Phillip II, (1556-1598)] wrote in 1545, "The common people who have to pay taxes are reduced to such extremes of calamity and misery that many go naked and this poverty is even greater on the estates of the nobles, many of whose vassals have not the wherewithal to pay their dues, . . . the prisons are full, and everyone is heading for ruin."

W. ATKINSON, A HISTORY OF SPAIN AND PORTUGAL 144-45, 154 (1967).

Less than a century later in Stuart England, Charles I, eager for fiscal independence from Parliament, sought to expand his personal revenue base by extending the collection of Ship Money, that tax on coastal towns used for support of the Royal Navy, to the interior towns, thus touching the pockets of many budding mercantile metropolises and their inhabitants and stifling economic expansion among the tradesmen and working classes. It was a London merchant who complained, "The merchants are in no part of the world so screwed and wrung as in England." C. HILL, THE CENTURY OF REVOLUTION, 1603-1714, 56 (1966).

One need only consider the fiscal policies of the *Ancien Regime* in eighteenth century France and Stalin's extermination of the Kulak's family farms in Georgian Russian during the 1920's and 1930's to further illustrate the point.

22. BAUDRY-LACANTINERIE, I DROIT CIVIL, no. 10296, at 726 (10th ed., 1908). This statement, however, is not found in BAUDRY-LACANTINERIE & CHENEAUX, IA.C. DROIT CIVIL, no. 10296, at 738 (11th ed. 1912). While Cheneaux declares that the owner "enjoys as he pleases, and if he desires, in an abusive manner," Baudry's collaborators have been far less categorical regarding property as an absolute right. L. Duguit, *The Functional Theory of Property*, ch. 25 of RATIONAL BASIS OF LEGAL INSTITUTIONS 315, 318 [hereinafter cited as Duguit]; CHAUVEAU, DES BIENS, no. 215 [hereinafter cited as CHAUVEAU].

23. IV BARDE, DES OBLIGATIONS, no. 2855, at 342, quoted by Duguit, *supra* note 22, at 318.

in the soil;[24] in the Middle Ages, in the towns where commerce and industry were developed, it was a place in the community and a share in the ownership of all that belonged to the community.

In seventeenth century England, the traditional justification for the right to possess private property was the security necessary for individuals to enjoy the fruits of their own labor.[25] By that time, property ownership had become for the majority of mankind the critically important factor determining their actual freedom and the practical prospects of realizing their full human potential. The right to own and possess property was read back into the essential nature of humanity. Individuals, it was thought, are free in as much as they are proprietors of their own capacities and of what they had acquired

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24. While Rousseau was primarily concerned with the natural right of all human beings to govern themselves, the natural right to which Locke paid most attention was the right of property. Just as man has both the right and the obligation of self-preservation, he has a right to those things which are required for self-preservation. Relying on Genesis to support the position that God has given to men the earth and all that is in or on it, and conceding that God had not divided up the earth and the things on it, Locke nevertheless claimed that reason shows it is in accordance with God's will that there should be private property not only in the fruits of the earth and the things on and in and under it, but also in the earth itself. In the state of nature, according to Locke, a man's labor is his own and what of the earth and nature he changes from its original condition by the addition of his labor, becomes his. Locke believed that the property interest in land is acquired in the same way.

25. Locke's theory of labor as the primary title to property was eventually to be incorporated in a labor theory of value and come to be used in a way that its author never envisaged. There is no question that much of the mineral law of the United States and the appropriation doctrine applicable to water rights in the Western United States are direct extensions of Locke's theory. Locke himself, however, raises an objection to the proposition that if gathering the fruits of the earth confers a right to them, anyone may amass as much as he likes by answering: "Not so. The same law of nature that doth by this means give us property, does also bound that property, too." As for land, the doctrine that labor gives title to property sets the limit to the amount of property that can be acquired. "For as much land as a man tills, plants, improves, cultivates and can use the product of, so much is his property."

It is clear that Locke presumed a world in which there was a more than enough land for everybody, and his naive shortsightedness is no better illustrated than in this passage:

> Nor was this appropriation of any parcel of land by improving it any prejudice to any other man, since there was still enough, and as good left; and more than the yet unprovided could use. So that, in effect, there was never the less left for others because of his enclosure for himself: For he that leaves as much as another can make use of, does as good as take nothing at all. Nobody could think himself injured by the drinking of another man, though he took a good draught, who had a whole river of the same water left him to quench his thirst; and the case of land and water, where there is enough of both is perfectly the same . . . [God] gave [the world] to the use of the industrious and rational (and labour was to be his title to it). . . . [T]he same measure may be allowed still without prejudice to anybody, full as the world seems. . . . We shall find that the possessions he could make himself upon the measure we have given would not be very large, nor, even to this day, prejudice the rest of mankind or give them reason to complain or think themselves injured by this man's encroachment, though the race of men have now spread themselves to all the corners of the world, and do infinitely exceed the small number there was at the beginning.

J. LOCKE, OF CIVIL GOVERNMENT §§ 33-35. However, unlike Hobbes, Locke did not consider the state of nature an ideal condition of affairs. Although according to Locke, "[t]he great and chief end of men's uniting into commonwealths and putting themselves under government is the preservation of their property," we must take the word "Property" as Locke intended. Men join together in society according to Locke, "for the mutual preservation of their lives, liberties and estates, which I call by the general name, property." *Id.* at —.

by the exercise of those capacities. The human essence is independence, freedom from dependence on the will of others. Since freedom was a function of possession, therefore Society must consist of relations involving exchanges between proprietors or owners of material goods, and political society became nothing more than a device for the protection of property and the maintenance of order in the relations of exchange.

While it cannot be said that the seventeenth century concepts of freedom, rights, obligations, and justice were all entirely derived from the concept of possession, they were powerfully shaped by it.[26] Possessive individualism as a philosophical system could be rationally based upon physical possession of property because it substantially corresponded to the actual relations that characterized the emerging market society which existed in Seventeenth Century England.[27]

Possessive assumptions were present not only in the two main systematic political theories, those of Hobbes[28] and Locke,[29] but also where they might be least expected, in the theories of the radical Levelers[30] and the gentry-minded Harrington.[31]

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26. Sir Edward Coke can be numbered among the early proponents of private property and opponents of the feudal system. Coke was also antagonistic to the relatively new (for England at that time) political theory of the Divine Right of Kings, and in asserting the supremacy of the common law against royal prerogatives, lost most of his positions and honors. The legal foundations for a modern free society were established by COKE, INSTITUTES (London 1628), in which property was defined as private ownership and rights rather than as loyalty to the King, feudal allegience and feudal duties. *See*, W. GOEDECKE, CHANGE AND THE LAW 22-23 (1969).

27. Where Coke fought the battle for constitutional freedom, common law, and property rights against the Stuart Dynasty upon the ascension of James I in 1603, John Locke, who held many minor government positions during the reign of Charles II and James II, found himself allied with the first Earl of Shaftesbury against the Stuarts and carried the fight forward even after the abrupt termination of that dynasty in 1688. In 1683, Locke entered self-imposed exile in Holland, eventually returning to England with William of Orange in 1689. By his own statement, Locke wrote his *Two Treatises of Government* "to establish the throne of our great restorer, our present King William [and] to make good his title in the consent of the people," and to provide some philosophical justification for ousting James and placing William on the throne of England by popular acclaim and parliamentary demand.

28. Hobbes begins with an extreme statement of individualism. In the so-called "State of Nature," the state which precedes, logically at least, the formation of political society, each individual strives after self-preservation and the acquisition of power for the better attainment of personal ends. At that time there is no law in existence by which any personal actions can be called unjust. This is the state of the war of every man against every man; the state of atomic individualism.

The possessive quality of Hobbes' political philosophy was rooted in his conception of an individual as proprietor of his own person and human capacities, owing nothing to society for them.

29. While Locke also starts from an individualistic position and makes society depend on a compact or agreement, his individualism is different from that of Hobbes. The state of nature is not necessarily in essence a state of war between each man and his fellows. Even in the state of nature there are natural rights and duties which are antecedent to the State. Chief among these rights is the right of private property. Men form political society for the more secure enjoyment and regulation of these rights.

30. The Levellers became prominent in 1647 during the protracted and unsatisfactory negotiations between the King and the Parliament, while the relations between Parliament and the army were very strained. They became an important political party in England during the period of its Civil War and short-lived Commonwealth. The appellation first appears in a 1647 letter wherein they

For a short period during the struggle for commercial survival which characterized the seventeenth and early eighteenth centuries, the assumptions underlying the theory of possessive individualism served the purpose of maintaining individual personal freedom in society and though appropriate to the age in which they arose, soon suffered the fate of most political theories and were cast aside along the prosaic course of economic evolution.

Unfortunately, the theory of possessive individualism was more suited to protection of corporate persons than individual human beings, and gradually it became the means by which the oligarchy in business and industry was able to radically curtail the individual personal freedom of workers during the ninteenth and early twen-

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are referred to as extremists who "have given themselves a new name, *viz*. Levellers, for they intend to sett all things straight, and rayse a parity and community in the kingdom."

Like another republican party, the Agitators, the Levellers were found mainly among soldiers who were opposed to the existence of the monarchy, and feared that Cromwell and the parliamentary leaders were too complaisant in their dealings with Charles. The distinguishing mark of the Leveller was a sea-green ribbon.

Another form of the movement whose members called themselves the "True Levellers" or "Diggers," took possession of some unoccupied ground which they began to cultivate in 1649. They were soon dispersed and their leaders were arrested, at which time they took the opportunity to denounce landowners.

Cromwell attacked the Levellers in his speech to Parliament in September 1654, when he said,

> A nobleman, a gentlemen, a yeoman; the distinction of these: that is a good interest of the nation, ... The "natural" magistracy of the nation, was it not almost trampled under foot, under despite and contempt, by men of Levelling principles? . . . For the orders of men and ranks of men, did not that Levelling principle tend to the reducing of all to an equality? . . . [W]hat was the purport of it but to make the Tenant as liberal a fortune as the Landloard? Which, I think, if obtained, would not have lasted long!

IV OLIVER CROMWELL'S LETTERS AND SPEECHES 23 (T. Carlyle ed. 1893).

In 1724 there was an uprising against enclosures in Galloway, and a number of the men who took part were called Levellers or Dykebreakers.

31. The political scientist James Harrington (1611-1677), (not to be confused with his cousin Sir James Harrington, a member of the Commission that tried Charles I) is perhaps best known for *Oceana*, a book which apparently incurred the wrath of both Cromwell and King Charles because of its two principal ideas: that the determining element of power in the State is property generally and property in land particularly; and that the executive power of the state ought not be vested for any considerable length of time in the same man or class of men.

Harrington proposed agrarian reforms that would limit the amount of land which could be held in terms of the revenue it produced, and consequently insisted on means to redistribute landed property. Harrington further angered his contemporaries following the Restoration by insisting that public offices should be rotated among many individuals of different classes through ballot. Perhaps the best summary of Harrington's position is found in the anecdote recounted by his biographer Toland, "When roughly asked why he, 'a private man,' had speculated on government, Harrington replied that nobody engaged in public affairs had ever written sensibly on the subject." *Quoted in* G. GOOCH, ENGLISH DEMOCRATIC IDEAS IN THE SEVENTEENTH CENTURY 242 (2d ed. 1967). While it may be difficult to prove any direct connection between Harrington's ideas and the constitutions of colonial America, certain broad similarities cannot be overlooked. *Oceana* is built upon the basic principles of a written constitution, the wide use of elections and the separation of powers together with short terms of office, popular approval of constitutional change, popular use of the ballot and petitions, with special safeguards for religious freedom and popular education. Harrington was quoted with respect by influential writers at the time of the American Revolution and his influence on Locke and Hume, and through Locke on Montesquieu was apparent.

tieth centuries. In protecting the rights of corporate entities as possessive individuals, the rights of human beings as free citizens were often sacrificed.[32] The "robber barons" sought the philosophical

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32. When industrialism began after 1865 the creation of a new world, this Puritan code of worldy ascetisism sprang into new importance. It had served well in a day when the wilderness was stubborn and when laborers were few. Then it had been a religious sanction behind inevitable frontier mores. But when Americans began the exploitation of the richest mineral resources of the world, the old doctrine began to have new uses. "By the proper use of wealth," wrote D.S. Gregory, author of a textbook on ethics used during the 1880's in many American colleges, "man may greatly elevate and extend his moral work. It is therefore his duty to seek to secure wealth for this high end, and to make a diligent use of what the Moral Governor may bestow upon him for the same end . . . . The Moral Governor has placed the power of acquisitiveness in many for a good and noble purpose . . . ."

[Andrew Carnegie wrote] "Avenues greater in number, wider in extent, easier of access than ever before existed, stand open to the sober, frugal, energetic and able mechanic, to the scientifically educated youth, to the office boy and to the clerk—avenues through which they can reap greater successes than ever before within the reach of these classes in the history of the world. . . . The millionaires who are in active control started as poor boys, and were trained in that sternest but most efficient of all schools—poverty. . . . Congratulate poor young men upon being born to that ancient and honorable degree which renders it necessary that they should devote themselves to hard work." Poverty, then, was viewed in terms of the individual, not of the mass. For the individual it was, or at least could be, a transient state. It was a blessing in disguise to the one who rose above it, but to him who did not, it was a symbol of shame, a sort of scarlet letter proclaiming that he was wanting in ability or character, or both.

The gospel of wealth was the intellectual concept of a generation that had stumbled upon easy money in a terrain well protected by nature from foreign brigands. It was the result produced when the individualism of a simpler agricultural and commercial civilization was carried over into a society luxuriating in all essential natural resources. But it was not the only result; this gospel of morality and of prosperity had its antithesis in the irresponsible philosophy of grab. The ill-fated gold corner of Fisk and Gould in 1867, the swindles of Crédit Mobilier, the wars between powerful bands of railroad buccaneers, the exploitation of the defenseless immigrant laborer. R. Gabriel, ***The Gospel of Wealth in the Gilded Age***, DEMOCRACY AND THE GOSPEL OF WEALTH (1949).

Pietro di Donato's ***Christ in Concrete*** has become a classic of American literature and a definitive, first hand description of "work" in America.

> March whistled stinging snow against the brick walls and up the gaunt girders. Geremio, the foreman, swung his arms about and gaffed the men on. . . .
>
> The Lean loaded his wheelbarrow and spat furiously. "Sons of two-legged dogs . . . despised of even the devil himself! Work! Sure! For America beautiful will eat you and spit your bones into the earth's hole! Work!" And with that his wiry frame pitched the barrow violently over the rough floor. . . .
>
> Mike the "Barrel-mouth" pretended he was talking to himself and yelled out in his best English . . . he was always speaking English while the rest carried on in their native Italian. "I don't know myself, but somebody whose gotta bigga buncha keeds and he alla times talka from somebody elsa!"
>
> Geremio knew it was meant for him and he laughed. "On the tomb of Saint Pimple-legs, this little boy my wife is giving me next week shall be the last! Eight hungry little Christians to feed is enough for any man. . . ."
>
> "Laugh, laugh all of you," returned Geremio, "but I tell you that all my kids must be boys so that they someday will be big American builders. And then I'll help them to put the gold away in the basements."

P. DIDONATO, CHRIST IN CONCRETE (1939). And what of the great American Dream that Geremio and his fellow-immigrants dreamt,

> A corollary of the gospel of wealth was the popular formula of success. The stream of success literature which appeared after the Civil War became a flood by the end of the cenutry. The patterns displayed in

> these writings suggest the intellectual climate in which the gospel of wealth flourished. "Young men," said Horace Greeley, "I would have you believe that success in life is within the reach of every one who will truly and nobly seek it." L.U. Reavis made this sentiment of the New York Tribune's editor the theme of a little volume which he brought out in 1871: L. REAVIS, THOUGHTS FOR THE YOUNG MEN OF AMERICA, OR A FEW PRACTICAL WORDS OF ADVICE TO THOSE BORN IN POVERTY AND DESTINED TO BE REARED IN ORPHANAGE (1871). Success, taught Reavis, depended upon a few simple rules: "Don't be Discouraged. Do the Best You Can. Be Honest, and Truthful and Industrious. Do your Duty, and Live Right; Learn to Read, then Read all the Books and Newspapers You Can and All Will Be Well After Awhile." In a thousand variations of phrase this simple prescription for success was presented to all Americans able to read the English language. It was as universal as those other panaceas, *Castoria* and the Compound of Lydia Pinkham. It was acted out in the adventures and successes of heroes of novels by Horatio Alger and in the biographies for juveniles by William Makepeace Thayer.

R. Gabriel, *The Gospel of Wealth in the Gilded Age*, DEMOCRACY AND THE GOSPEL OF WEALTH, 59, 61, 63 (1949) [footnotes omitted]. And what of Geremio and the other immigrants who believed?

> A great din of riveting shattered the talk among the fast moving men. Geremio added a handful of Honest tobacco to his corncob, puffed strongly, and cupped his hands around the bowl for a bit of warmth. The chill day caused him to shiver, and he thought to himself: Yes, the day is cold, cold . . . but who am I to complain when the good Christ Himself was crucified?
>
> Pushing the job is all right (when has it been otherwise in my life?), but this job frightens me. I feel the building wants to tell me something; just one Christian to another. . . . I don't like this. Mr. Murdin tells me, Push it up! That's all he knows. I keep telling him that the underpinning should be doubled and the old material removed from the floors, but he keeps the inspector drunk and . . . "Hey, Ashes-ass! Get away from under that pilaster! Don't pull the old work. Push it away from you or you'll have a nice present for Easter if the wall falls on you!" . . . Well, with the help of God I'll see this job through. It's not the first, nor the . . . "Hey, Patsy number two! Put more cement in that concrete; we're putting up a building, not an Easter cake!"
>
> Patsy hurled his shovel to the floor and gesticulated madly. "The padrone Murdin-sa tells me, 'Too much, too much! Lil' bit is plenty!' And you tell me I'm stingy! The rotten building can fall after I leave!"
>
> Six floors below, the contractor called, "Hey, Geremio! Is your gang of dagos dead?"
>
> Geremio cautioned the men. "On your toes, boys. If he writes out slips, someone won't have big eels on the Easter table."
>
> The day, like all days, came to an end. Calloused and bruised bodies sighed, and numb legs shuffled toward shabby railroad flats.
>
> That night was a crowning point in the life of Geremio. He bought a house! Twenty years he had helped to mold the New World. And now he was to have a house of his own! What mattered that it was no more than a wooden shack? It was his own!
>
> He had proudly signed his name and helped Annunziata to make her X on the wonderful contract that proved them owners. And she was happy to think that her next child, soon to come, would be born under their own rooftree.
>
> Annunziata whispered, "Geremio, to bed and rest. Tomorrow is a day for great things . . . and the day on which our Lord died for us."
>
> "Geremio. The month you have been on this job, you have not spoken a word about the work. . . . And I have felt that I am walking into a dream. Is the work dangerous? Why don't you answer?"

P. DI DONATO, CHRIST IN CONCRETE (1939). The American city was built by its immigrants as, many social studies classes carefully teach the children of today. Now many government spawned programs attempt to make students aware of the ethnic heritage of America. Indeed, as Pietro di Donato tells us, the immigrant often contributed more than just his toil to building the American city.

> Job loomed up damp, shivery gray. Its giant members waiting.
>
> Builders donned their coarse robes, and waited.
>
> Geremio's whistle rolled back into his pocket and the symphony of struggle began.
>
> The multitudinous voices of a civilization rose from the surroundings and melted with the efforts of the Job.
>
> The Lean as he fought his burden on looked forward to only one goal, the end. The barrow he pushed, he did not love. The stones that

brutalized his palms, he did not love. The great God Job, he did not love. He felt a searing bitterness and fathomless consternation at the queer consciousness that inflicted the ever mounting weight of structures that he *had to! had to!* raise above his shoulders! When, when and where would the last stone be? Never . . . did he bear his toil with the rhythm of a song! Never . . . did his rasping heart knead the heavy mortar with lilting melody. A voice within him spoke in wordless language.

The language of worn oppression and the despair of realizing that his life had been left on brick piles. And always, there had been hunger and her bastard, the fear of hunger.

Murdin bore down on Geremio from behind and shouted: "Goddammit, Geremio, if you're givin' the men two hours off today with pay, why the hell are they draggin' their tails? And why don't you turn that skinny old Nick loose, and put a young wop in his place?"

"Now listen-a to me, Mister Murdin—"

"Don't give me that! And bear in mind that there are plenty of good barefoot men in the streets who'll jump for a day's pay!"

"Padrone—padrone, the underpinning gotta be make safe and . . ."

"Lissenyawopbastard! if you don't like it, you know what you can do!" And with that he swung swaggering away.

The men had heard, and those who hadn't knew instinctively.

The new home, the coming baby, and his whole background, kept the fire from Geremio's mouth and bowed his head. "Annunziata speaks of scouring the ashcans for the children's bread in case I didn't want to work on a job where . . . . But am I not a man, to feed my own with these hands? Ah, but day will end and no boss in the world can then rob me of the joy of my home!"

Murdin paused for a moment before descending the ladder.

Geremio caught his meaning and jumped to, nervously directing the rush of work . . . . No longer Geremio, but a machinelike entity.

The men were transformed into single, silent beasts.

[After lunch] the ascent to labor was made, and as they trod the ladder, heads turned and eyes communed with the mute flames of the brazier whose warmth they were leaving, not with willing heart, and in that fleeting moment the breast wanted much to speak of hungers that never reached the tongue.

About an hour later, Geremio called over to Pietro, "Pietro, see if Mister Murdin is in the shanty and tell him I must see him! I will convince him that the work must not go on like this . . . just for the sake of a little more profit!"

Pietro came up soon. "The padrone is not coming up. He was drinking from a large bottle of whisky and cursed in American words that if you did not carry out his order—"

Geremio turned away disconcerted, stared dumbly at the structure and mechanically listed in his mind's eye the various violations of construction safety. An uneasy sensation hollowed him. . . . The Lean brought down an old piece of wall and the structure palsied. Geremio's heart broke loose and out-thumped the floors vibrations, a rapid wave of heat swept him and left a chill touch in its wake. He looked about to the men, a bit frightened. . . .

Snoutnose's voice boomed into him. "Master Germio, the concrete is re-ady!"

His hand went up in motion to Julio. The molten stone gurgled low, and then with heightening rasp. His eyes followed the stone-cementy pudding, and to his ears there was no other sound than its flow.

His train of thought quickly took in his family, home and hopes. And with hope came fear. Something within asked, "Is it not possible to breath God's air without fear dominating with the pall of unemployment? And the terror of production for Boss, Boss and Job? To rebel is to lose all of the very little. To be obedient is to choke. O dear Lord, guide my path."

Id. Today we have the Occupational Safety & Health Act (OSHA), labor laws and any number of administrative agencies and government bureaus protecting American workers whether newly arrived immigrants, native Americans or descendents of the earliest settlers or slaves. But for those who believe that industrial progress is worth the annual toll in maimed bodies and human life that are the result of what has euphemistically come to be called, for statistical purposes, the "industrial accident," consider Peitro diDonato's account of his father's death and transfiguration in the opening chapter of *Christ in Concrete*.

Just then, the floor lurched and swayed under his feet. The slipping of the underpinning below rumbled up through the undetermined floors.

Was he faint or dizzy? Was it part of the dreamy afternoon? He put up his hands in front of him and stepped back, and looked up wildly. "No! No!"

The men poised stricken. Their throats wanted to cry out and scream but didn't dare. For a moment they were a petrified and straining pageant. Then the bottom of their world gave way. The building shuddered violently, her supports burst with the crackling slap of wooden gunfire. The floor vomited upwards. Geremio clutched at the air and shrieked agonizingly. "Brothers what have we done? Ahhh-h children of ours!" With the speed of light, balance went sickening awry and frozen men went flying explosively. Job tore down upon them madly. Walls, floors, beams became whirling, solid, splintering waves crashing with detonations that ground man and material together in bonds of death.

The strongly shaped body that slept with Annunziata nights and was perfect in all the limitless physical quantities thudded as a worthless sack amongst the giant debris that crushed fragile flesh and bone with centrifugal intensity.

Darkness blotted out his terror and the resistless form twisted, catapulted insanely in its directionless flight, and shot down neatly and deliberately between the empty wooden forms of a foundation wall pilaster in upright position. His blue swollen face pressed against the form and his arms outstretched caught securely through the meat by the thin round bars of reinforcing steel.

The huge concrete hopper that was sustained by an independent structure of thick timber wavered a breath or so, its heavy concrete rolling uneasily until a great sixteen-inch wall caught it squarely with all the terrific verdict of its dead weight and impelled it downward through joists, beams and masonry until it stopped short, arrested by two girders, an arm's length above Geremio's head; the gray concrete gushing from the hopper mouth, and sealing up the mute figure.

Giocomo had been thrown clear of the building and dropped six floors to the street gutter, where he lay writhing.

The Lean had evinced no emotion. When the walls descended, he did not move. He lowered his head. One minute later he was hanging in mid-air, his chin on his chest, his eyes tearing loose from their sockets, a green foam bubbling from his mouth and his body spasming, suspended by the shreds left of his mashed arms, pinned beneath a wall and a girder.

A two-by-four hooked little Tomas under the back of his jumper and swung him around in a circle to meet a careening I beam. In the flash that he lifted his cherubic face, its shearing edge sliced through the top of his skull.

When Snoutnose cried beseechingly, "Saint Michael!" blackness enveloped him.

The rescuemen cleaved grimly with pick and ax.

Geremio came to with a start . . . far from their efforts. His brain told him instantly what had happened and where he was. He shouted wildly, "Save me! Save me! I'm being buried alive!"

He paused, exhausted. His genitals convulsed. The cold steel rod upon which they were impaled froze his spine. He shouted louder and louder. "Save me! I am hurt badly! I can be saved I can—save me before it's too late!" But the cries went no farther than his own ears. The icy wet concrete reached his chin. His heart appalled. "In a few seconds I will be entombed. If I can only breathe, they will reach me. Surely, they will!" His face was quickly covered, its flesh yielding to the solid sharp-cut stones. "Air! Air!" screamed his lungs as he was competely sealed. Savagely he bit into the wooden form pressed upon his mouth. An eighth of an inch of its surface splintered off. Oh, if he could only hold out long enough to bite even the smallest hole to air! He must! There can be no other way! He is responsible for his family! He cannot leave them like this! He didn't want to die! This could not be the answer to life! He had bitten halfway through when his teeth snapped off to the gums in the uneven conflict. The pressure of the concrete was such, and its effectiveness so thorough, that the wooden splinters, stumps of teeth, and blood never left the choking mouth.

Why couldn't he go any farther?

Air! Quick! He dug his lower jaw into the little hollowed space and gnashed in choking agaonized fury. Why doesn't it go through? Mother of Christ, why doesn't it give? Can there be a notch, or two-by-four stud behind it? Sweet Jesu! No! No! Make it give. . . . Air! Air!

He pushed the bone-bar jaw maniacally, it splintered, cracked, and a jagged fleshless edge cut through the form, opening a small hole to air.

basis for their "natural" law in economics rather than ethics and found in Social Darwinism[33] an industrial philosophy for the United

With a desperate burst the lung-prisoned air blew an opening through the shredded mouth and whistled back greedily a gasp of fresh air. He tried to breathe, but it was impossible. The heavy concrete was settling immutably and its rich cement-laden grout ran into his pierced face. His lungs would not expand and were crushing in tighter and tighter under the settling concrete.

[Geremio took a long time to finally die]

Id. And with the passing of life from Geremio, the living death of his family began,

At Easter dawn, the street door closed and footfalls sounded up the stairs. Paul nodded shock-awake, and called frantically, "Papa!"

Annunziata flew to the door, and as she reached out her arms . . . the policeman lowered his eyes and slowly removed his cap.

Easter morning bright. Slender dark-eyed Paul, holding little Annina's hand, entered the police station. He beat his thin fingers and stood nervously before the high desk.

The sergeant rested his elbows, peered forward, and finally said, "Well, what is it, kiddo?"

Paul opened his mouth to speak, but instead, round wet tears came down his cheeks and through the wavery blur he saw the high brown desk, the policeman, and behind him a big red, white and blue flag. He closed his eyes and gasped: "On Friday—Good Friday—the building that fell—my father was working—he didn't come home—his name is Geremio—we want him—"

The sergeant thought for a moment and called to the next room: "Hey Alden, anything come in on a guy named—Geremio?"

A second later, a live voice from the next room loudly answered: "What?—oh yeah—the wop is under the wrappin' paper out in the courtyard!" *Id.*

33. In its extreme form, the creed of competitive individualism became "Social Darwinism"—the doctrine that social progress and individual justice consist in the *bellum omnium contra omnes*, in the law of tooth and claw, in endless war leading to the survival of the fittest. This creed could be congenial to a businessman seeking to justify destruction of a competitor or exploitation of wage earners and consumers. But the typical American capitalist was not an educated man of the sort to read Darwin or Herbert Spencer, and Social Darwinism had its chief vogue among intellectuals like historian John Fiske, and sociologist William Graham Sumner. For every businessman who cited "the survival of the fittest," there were perhaps ten others who buttressed their behavior by talking about the "right to manage" *See*, R. GINGER, AGE OF EXCESS, THE UNITED STATES FROM 1877-1914 (1965); R. HOFSTADTER, SOCIAL DARWINISM IN AMERICAN THOUGHT (Rev. Ed. 1955); R.J. WILSON, DARWINISM AND THE AMERICAN INTELLECTUAL (1967).

In 1902 John D. Rockefeller, Jr. sought to explain the business success of his father with a fascinating analogy,

The growth of a large business is merely a survival of the fittest. . . . The American Beauty rose can be produced in the splendor and fragrance which bring cheer to its beholder only by sacrificing the early buds which grow up around it. This is not an evil tendency in business. It is merely the working out of a law of nature and a law of God.

Quoted in W. GHENT, OUR BENEVOLENT FEUDALISM 29 (1902). The Social Darwinism of Herbert Spencer is one of the classic examples of an idea which has attained much wider acceptance than the evidence of its validity warrants. It offered the business tycoons a perfect rationalization for their brutal exploitation of human labor and their ruthless competition with each other and the public interest out of which they gathered their riches and power. Spencer was a friend of Charles Darwin and coined the phrase "survival of the fittest," which provided the robber barons of America and the Continent with a scientific justification for their tactics. They survived and prospered because they were the fittest in the struggle. Financial success in business was the obvious measure of the validity of Social Darwinism, the theory which linked the rapidly developing natural science of the nineteenth century to the newly emergent social "sciences." Social Darwinism provided a convenient way for industrialists and entrepreneurs to ignore the social consequences of their actions done in the name of "business," although President Woodrow Wilson, in his first inaugural address, delivered on March 4, 1913, noted,

There has been something cruel and heartless and unfeeling in our haste to succeed and be great. Our thought has been "Let every man look out for himself, let every generation look out for itself," while we reared

States and justification for their[34] self-righteous moral position.

Today, as throughout history, we wonder whether the ancient equitable maxim, ***sic utere tuo ut alienam non laedas*** (so use your own property as not to injure that of another) is sufficient to protect the rights of the sovereign people of the United States in and to the full benefit, use and enjoyment of the unique, national natural resource treasure represented by the arable lands, particularly the Class I, Class II, and Class III Soils[35] of the Americas.

> giant machinery which made it impossible that any but those who stood at the levers of control should have a chance to look out for themselves.

Reprinted in II R. HOFSTADTER, GREAT ISSUES IN AMERICAN HISTORY 303 (1958).

34. It seems hard that a laborer incapacitated by sickness from competing with his stronger fellows, should have to bear the resulting privations. It seems hard that widows and orphans should be left to struggle for life or death. Nevertheless, when regarded not separately, but in connection with the interests of universal humanity, these harsh fatalities are seen to be full of the highest beneficence—the same beneficence which brings to early graves the children of diseased parents, and singles out the low-spirited, the intemperate, and the debilitated as the victims of an epidemic.

H. SPENCER, SOCIAL STATICS 323 (London 1851).

35. SOILS AND MEN, YEARBOOK OF AGRICULTURE (1938), contained a prophetic warning, "The social lesson of soil waste is that no man has the right to destroy soil even if he does own it in fee simple. The soil requires a duty of man which we have been slow to recognize."

Soils do not occur at random in the landscape. They have an orderly pattern related to the land form, the parent material from which the soil was formed, and the influence of the plants that grew on the soils, the animals that lived on them and the way men have used them.

The common-field system of agriculture or the open-field method of cultivation has had an extraordinarily long tenure in the history of world agriculture. Without some knowledge and appreciation of its operation, there can be little understanding of the evolution of real property law as it affects agricultural lands.

In Anglo-Saxon England, as in the Gaul of Julius Caesar, all the arable land in the township was divided into two or three open and unenclosed fields which were cultivated in rotation. Each of the fields was divided into a number of strips, the size of which varied with the intrinsic suitability of the soils in each field for raising particular crops. The holding of each landowner consisted of a multitude of strips scattered throughout the area and intermixed with tnose of neighbors. Attached to these holdings were certain common rights. Certain fields remained fallow each year, and while the field was fallow after the crop was cut, the cattle of the villagers could pasture in the fields. Many areas maintained Lammas meadows upon which hay was grown and which were divided into strips subject to individual ownership while the hay was growing, but common to all the villagers after the hay had been cut and gathered. As a general rule, there were extensive lands surrounding each community which were not intrinsically suitable for cultivation, and upon which the cattle of the township, or of adjoining townships could graze at will, subject to the rules which the community might promulgate.

The intricate delineation of fields, strips, pastures, hedgerows, furrow-strips and meadows found on any of the earliest British maps bears a striking resemblance to a modern soils map of the same area. It is this relationship that probably accounted for the continued existence of the common field system of agriculture through so many centuries and among such diverse cultures. Since we can probably assume that the original intention of those dividing the community landholdings was to divide them equally, we must recognize that these people also understood that an equal division of lands involved not only the quantity, but the quality of the land, and the simplest plan was to give each landowner some good land, some bad land and some land that was not particularly good or bad. It is a tribute to the agricultural wisdom of these early cultures that they were able to identify these three classes of soil and then divide each among their people in shares capable of approximately equal agricultural yield for the same amount of cultivation effort.

Caesar described the Gallic tribes as pastoral and vagrant people cultivating just enough land each year to supply themselves with grain. Later, Tacitus, describing the same area, notes that the tribes had come to dwell in small communities where, although each person had their own homestead, the arable

Over the centuries, attempts have been made to establish some standard for discriminating among the several archetypes of private property[36] in order to determine those which should be sanctioned by

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land was divided year by year among the villagers and plowed afresh. The same practice existed among the early Welsh tribesman who annually plowed fresh grassland, leaving it to return to grass after the years harvest, a not so undesirable agricultural practice in the absence of artificial fertilizers and synthetic pesticides.

The common-field system certainly represents a transition between the early period in civilization where permanent ownership of land was unknown, and the rather recent idea that land can be the object of separate and individual private ownership.

Soils are classified by the Soil Conservation Service of the United States Department of Agriculture in terms of land capability classes, subclasses and units. Of the eight classes established by the Soil Conservation Service, most of the arable land in the United States and Canada falls into Class I, Class II and Class III although a limited amount of Class IV land can be cultivated on an intermittent yield basis provided rigorous soil conservation measures are taken.

Because several kinds of soil often occur in the same capability class in the same area, the classes are divided into subclasses, each of which recognizes a particular problem: (e)-erosion and runoff; (w)-wetness and drainage; (s)-root zone and tillage limitations, such as shallowness, stoniness, droughtness, and salinity; and (c)-climatic limitations.

Soils are also identified by such characteristics as the kinds and numbers of horizons, or layers, that have developed in them. The texture (the relative amounts of stones, gravel, sand, silt and clay), the kinds and quantities of minerals presented the presence of salts and alkali help distinguish the horizons.

A soil series is a group of soils that have horizons that are essentially the same, with the exception of the texture of the surface soil and the kinds of layers that lie below what is considered the true soil. The names of the soil series are taken from the towns or localities near the place where the soils were first defined.

The soil type is a subdivision of the soil series based on the texture, (defined in terms of particle size) of the surface soil. Stones, gravel (between 0.08 and 3.0 inches), sand (between 0.08 and 0.0002 inch), silt (between 0.002 and 0.00008 inch), and clay (less than 0.00008 inch).

The soil type is the smallest unit in the natural classification of soils. The full name of a soil type includes the name of the soil series and the textural class of the surface soil equivalent to the plow layer—that is, the upper 6 or 7 inches.

While soil phase is not a part of the natural classification system, soil phases shown on soil maps are commonly based on characteristics of the soil significant to agriculture, and generally reflect differences in slope, degree of erosion, and stoniness, although other bases for defining phases include drainage and flood protection, climate, and the presence of contrasting layers below the soil.

The basic document in any legal system of land use regulation should be the soils map. Unless the classifications established in any zoning or districting scheme bear some reasonable relationship to the underlying soils in a rural or suburban area, there is no way to defend the legislation in the face of ecologically sophisticated attack.

The basic information on soils can be obtained most conveniently from the Soil Conservation Service of the United States Department of Agriculture and the United States Geological Survey of the Department of the Interior. Some of the foregoing was adapted from SOIL, YEARBOOK OF AGRICULTURE (1957), a relatively short work which was an adaptation of its 1938 predecessor. Other material was adapted from FUTURE ENVIRONMENTS OF NORTH AMERICA (1966).

36. It was Hobson who suggested a classification of proprietary rights based on the distinction between active and passive property along a line ranging from property which is obviously the payment for and a condition of personal services, to property which is merely a right to payment from the services rendered by others, or nothing more than a private tax.

A modern version of that list would include in the group of property interests which would accompany and in some cases condition the performance of work:

1. Property which represents payment for personal services;
2. Property in those objects necessary to maintain personal health and comfort;
3. Property in land and tools used by the owner;
4. Property in the work of authors and inventors protected by copyrights and patents.

positive law[37] and those which should not. From the late eighteenth century throughout the nineteenth and on into the twentieth until World War II temporarily terminated the economic unrest of the Great Depression, political thought oscillated between mutually inconsistent concepts of property which represented polar extremes, each leading in their different ways to extravagant claims and less than socially desirable states of human affairs.[38]

Such divergence of opinion is quite natural, since in most discussions of property the opposing theorists are usually discussing different things. Property is the most ambiguious of concepts, covering a multitude of rights which have nothing in common except that they are exercised by persons and enforced by the state. Apart from these formal characteristics, they vary indefinitely in economic character, in social effect, and in moral justification. They may be conditional like the grant of patent rights, or absolute like the ownership of ground rents; terminable like copyright, or permanent like freehold; as comprehensive as sovereignty or as restricted as an easement; as intimate and personal as the ownership of clothes and books, or as remote and intangible as commodity futures or shares in crude oil and natural gas reserves which have yet to be proven.[39]

It is only idle speculation to present a case for or against private property without specifying that particular form of property to which reference is made. The land developer who says, "Private

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and the group of property interests which arise from "the fortuitous confluence of propitious circumstances:" by operation of luck, chance or good fortune,

5. "Gambling" winnings, whether the result of commercial speculation or games of chance;
6. Property in the profit attributable to existence of a monopoly or oligopoly;
7. Property in urban ground rents; and
8. Property in royalties;

which obviously do not involve the performance of any social function or work by the property owner. There are some property interests, that partake of both active and passive property, such as agricultural rent, where the interest represents a necessary economic cost the equivalent of which must be born, whatever the legal arrangements under which the property is held, and is thus unlike the property represented by profits other than the equivalent of salaries and payment for risks necessarily taken, but which relieves the recipient from the obligation to perform personal services and thus resembles interests such as urban ground rents and royalties.

37. The best organized early statement of legal classification is that of Thomas Aquinas (1225-1274) in the SUMMA THEOLOGICA. There, in a series of questions (QQ. 90-97), Thomas considers the essence of law (Q. 90), the various kinds of law (Q. 91), the eternal law (Q. 93), the natural law (Q. 94), human law (Q. 95), its power (Q. 96) and mutability (Q. 97).

Human law, or positive

> [l]aws were made that in fear thereof human audacity might be held in check, that innocence might be safeguarded in the midst of wickedness, and that the dread of punishment might prevent the wicked from doing harm . . . these things are most necessary to mankind. Therefore it was necessary that human laws should be made.
>
> [I]n order that man might have peace and virtue, it was necessary for laws to be framed; . . . as man is the most noble of animals if he be perfect in virtue, so he is the lowest of all, if he be severed from law and justice. For man can use his reason to devise means of satisfying his lusts and evil passions, which other animals are unable to do. *Id.* at Q. 97.

38. *See, e.g.*, *Land Use Crisis: Two Solutions*, SHOPPING CENTER WORLD, at 18-23 (March, 1974); AMERICAN SOCIETY OF REAL ESTATE COUNSELORS, PROCEEDINGS OF THE 1970 HIGH LEVEL CONFERENCE, Williamsburg, Va. (1970).

39. M. King Hubbard, ***Energy Resources***, The ENERGY CRISIS, DANGER AND OPPORTUNITY, at 43-151.

Property is the foundation of civilization," cannot be said to disagree with Proudhon,[40] who said, "Private Property is theft!" Without further definition, the words of both are meaningless. Arguments which seem to support certain kinds of property rights may have no application to other kinds of property rights; considerations which are essential in one stage of the organizational evolution and

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40. Property is a civil right, born of occupation and sanctioned by law; . . . [property] is a natural right, originating in labor, . . .
Property is robbery! That is the war cry of '93!
That is the signal of revolutions!"

P. PROUDHON, WHAT IS PROPERTY? AN ENQUIRY INTO THE PRINCIPLE OF RIGHT AND OF GOVERNMENT 11-12 (1966).

Pierre Joseph Proudhon was born on January 15, 1809 in Mouillere, France. His father, though a cousin of the jurist Proudhon, a celebrated professor at Dijon, was a journeyman brewer. His mother, a genuine peasant, was a common servant. His family was so poor that they could not afford to furnish him with books, and he was obliged to copy the texts of his lessons from the books of his friends and from the town library. His friend and biographer, J.A. Langlois, tells us that one day, towards the close of his studies, on returning from the distribution of the prizes loaded with crowns, he found nothing to eat in the house.

Forced to earn his living first as a proof-reader and then as a compositor, he eventually became a foreman in the house of Gauthier & Co., a large printing establishment at Besancon where he corrected the proofs of the Fathers of the Church, and learned Hebrew by himself during the printing of a Latin Vulgate edition of the Bible from the original Hebrew. As the house of Gauthier published many works on Church history and theology, Proudhon came to acquire an extensive knowledge of theology which afterwards caused the misinformed to think that he had been in an ecclesiastical seminary.

In an 1839 letter to the Academy of Besancon applying for the prize academic pension, Proudhon expressed his firm resolve to labor for the amelioration of the condition of his brothers, the working men. In 1848, when asked by his biographer if he did not consider himself indebted in some respects to his fellow countryman, Charles Fourier, Proudhon replied,

> I have certainly read Fourier, and have spoken of him more than once in my works; but, upon the whole, I do not think that I owe anything to him. My real masters, those who have caused fertile ideas to spring up in my mind, are three in number: first, the Bible, next, Adam Smith; and last, Hegel.

The first memoir on property appeared in 1840, under the title, WHAT IS PROPERTY? OR AN INQUIRY INTO THE PRINCIPLE OF RIGHT AND OF GOVERNMENT, and led to threats of prosecution. Thereafter, Proudhon spent the remainder of his life as a social activist, writing and speaking out, even from prison, on all of the important social issues of the day until his death on January 19, 1865.

Proudhon recognized that all of the economical categories—competition, monopoly, the balance of trade and the institution of private property, as well as the division of labor, machinery and mechanization, taxation and credit—when considered in their thesis, that is, in terms of the law or human tendency which created them, are rational. Nevertheless, all of these categories are antithetical and contain inherent contradictions; all are opposed, not only to each other but to themselves. These perceptions led Proudhon to a significant philosophical insight first expressed in his SYSTEM OF ECONOMICAL CONTRADICTIONS (1848), that the solution of "social" problems lies not, as suggested by the philosophy of Hegel, in discovery of the fusion of thesis and antithesis since that would annihilate the system, but in establishing equilibrium within the system established by the existence of contradiction—an equilibrium forever unstable, and varying with the evolutionary state of society. All social and political disorder is born of these inherent contradictions within the elements of social systems; hence, the subtitle of the work, "Philosophy of Misery." Proudhon differed from many of the radicals of nineteenth century France by recognizing that no category of economic, social or political relations which has become an accepted element of the social system can be entirely eliminated if civilization is to be maintained. The contradiction which exists within each category cannot be suppressed. All that the government and the law can do is maintain a state of dynamic equilibrium consistent with the aspirations of society at any given stage of history.

Adapted from the biographical essay by J.A. Langlois, which introduced the first volume of the published correspondence of P.J. Proudhon and was first translated into English in 1890.

economic development of society may become almost irrelevant in the next. The wise course is to pass through this semantic miasma undisturbed, neither attacking the concept of private property in general nor defending it generally, but considering particular instances under the circumstances of particular times in the context of specific cultures. The object of jurisprudence is to discriminate among the various concrete embodiments of what is, in itself after all, little more than an abstraction.

Another source of confusion in the modern debate over "private property rights" is the tendency to speak of property as if it were an institution having a fixed and immutable form constant throughout history, whereas, in reality, that which describes the *right* to dispose of and enjoy material objects, "property," has assumed many diverse forms and still is susceptible of great and unforeseen modifications. As many as are the forms of property, there will be found some theory as to its origin and some philosophical attempt to justify it.

The concept of private rights in land, landscape and natural resources, particularly non-renewable natural resources, requires careful consideration of the parallel yet interrelated concepts of natural law and sovereignty as well as the institution of property over the thousands of years since civilization emerged from the Fertile Crescent, leaving behind a barren desert and starting mankind on the march down the road towards ecocide.[41]

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41. Man's misuse of the land is very old, going back thousands of years even to the earliest periods of human history. It can be read in the despairing chronicle of ruins buried in sand, of rivers running in channels high above their surrounding landscapes, of ever-spreading deltas, of fallen terraces which once held productive fields or rich gardens. It can be seen in man-made deserts and in immense reaches of bare rock from which the once fertile soils have been washed and blown away. Occasionally in some watered part of the earth a trace may be found of what was once there before the vast destruction. Perhaps there will be a terrace wall that did not fall away but held its portion of soil where still are growing vines or olive trees that flourish in spite of the surrounding desolation, or a grove of ancient cedars in some protected place where all but their own small plot of land has been destroyed around them.

Erosion and its fatal consequences have often been attributed to gradual changes in the climate of a region, or more especially, to the fact that certain regions have, over long periods of time, suffered a marked diminution in rainfall.

How did man become a land destroyer?

In the region that lies between the Tigris and Euphrates Rivers there once was a land suggestive of the Garden of Eden, a rich land whose people lived well, built flourishing cities, established governments and developed the arts. Advanced methods of agriculture were developed which included complex and extensive systems of irrigation works during the reign of Hammurabi, about 2,000 B.C., by which the waters of the two great rivers were drawn off to increase the fertility of the land. Gradually great changes took place and the whole region deteriorated. This may have been because of cutting the forests outside the cities, thus exposing land to eroding rains at certain seasons, and to the quick runoff which must always mean a dearth of water from natural sources later on. Also it may have been because of overgrazing the grasslands, which would have a similar effect. Eventually war seemed to have caused the final demise of these early civilizations, as the ditches and canals, which were the life streams of the settled populations, were blocked or destroyed so that invaders could plunder the cities, graze in the fields and gardens and cut down trees for firewood. In the end this impoverished or destroyed the people. These cities and the elaborate civilization they represented are today lost under the sands.

Near other early cities in western Asia the land had been heavily cultivated, and quite often terraced to conserve the soil which was the meat and bread of the people. Farmers had discovered then—as they are now rediscovering in many diverse parts of the world—that steep land from which trees have been cut can still be preserved by terracing, and by putting back into the terraces all the animal and vegetable waste products available, all the while controlling the flow of water from level to level, so that all parts of the terraced land get their share. The famous Hanging Gardens of Babylon were probably terraced slopes.

It takes much more labor to maintain terraces in a state of fertility, however, for where a terrace wall breaks, the wreckage of that relatively small area may be carried to lower fields, to break their supporting walls and continue destruction downward in an ever-widening wedge of ruin. The much used lands of Babylonian civilization required many workers to keep them productive. When town populations were reduced during attacks by nomadic invaders, there were not enough men left to carry on the perennial work of restoration and land care, which alone would preserve fertility.

Most of what is sometimes called "the cradle of civilization" gradually became a desert. Those who were left in the cities took desperate measures to keep alive, and even tried to adopt a nomadic form of life themselves. For this they were unfitted, however, and their numbers decreased until they died out entirely, leaving the empty ranges to nomads who could maintain themselves and their herds in what desert oases they could find.

The story continues in Syria, once a land of great richness. As populations spread into Syria toward the Mediterranean they moved into a wonderful country with forests and rivers offering a wealth of natural resources. In this region red-brown earth covered the limestone hills. More than a hundred cities sprang up in North Syria, their builders making use of great beams of wood obtained from the forests, and of stone which they learned to handle with great skill. We know little about the past of these cities, but we do know that they prospered for a short time at least.

These cities demonstrate erosion at its worst. They are not buried under sand, but stand up starkly on their rock foundations, their doorways several feet above the foundation stones, showing that productive soil has been washed away from the very dooryards themselves. The limestone is there, but the red-brown soil has disappeared and cannot be seen at all except in small pockets where a wall has kept a little of it intact. In these pockets still grow the vines and olive trees that were once the glory of North Syria and the source of her prosperity. The remains of wine and oil presses abound in the region, cisterns among the ruins even now hold water, but no one is there. The cities have been dead for a long time.

Yet this was a country that exported so much oil and wine to Italy that the discarded shards of the jars used for export form a hill to this day: the hill of Testaccio on the boarders of the Tiber. The oil and wine were placed in huge pottery jars and transported by ship to Italy, there to be decanted into smaller containers. The large jars were not thought worth sending back to the country of their origin, and so were broken up and piled to form a hill whose great size can testify to the extent of the trade in oil and wine.

From the city of Byblos, on the North Syrian coast, went much timber to Egypt. The cedars of Lebanon went to Egypt for the building of houses and temples in the Valley of the Nile. In the Syrian cities an elaborate system of terracing was developed to prevent land loss as the forests were cut and the rainfall became menacing, and for a long time the agriculture of the region was preserved. Indeed the earliest recorded reference to agricultural terracing is reported to be found in an inscription of Thutmosis III on the wall of the great temple of Karnak. This record states that wheat was grown on terraces at Arvad, not far from the Lebanon mountains, in 1472 B.C.

But today the terraces are down and the cities are empty. Old Roman roads stand high above the land on which they were built; they are no longer level, as they used to be, with the fertile floor of the plains, for there are no longer any fertile plains.

Of course other causes contributed to the disappearance of the civilizations that had thrived in these once productive regions of the near East. It seems that there were well established practices which maintained a balance between what was taken from the land and what was returned to it. The cities grew in prosperity and artistic achievement from the third to the seventh century A.D. until peace was destroyed by a Persian invasion in 614 and an Arabian conquest in 630. Here too there are evidences that the old feud between the nomads with their cattle, sheep and goats, and the settled people on their land—played its part. Today all is desert which may never be restored.

The Asiatic picture is so unfavorable, and the situation of many Asiatic peoples so desperate, that it would be a happy contrast if one could turn to the Mediterranean basin and the lands that surround it, and find there today a region of plenty. Once it was a region of plenty.

In ancient Greece, with its forested hills, ample water supply and productive soils, civilization reached one of the high points in human history. As happens in all balanced human societies, the arts flourished throughout the region and philosophy supported and adorned the life of the people. Beautiful cities were built, and men had the opportunity to attain greatness in a creative atmosphere that lasted for several centuries.

Twenty centuries have passed and great changes have been wrought upon that once beautiful penninsula. Every region of Greece, including its cultivatable lands, is severely eroded. Very little of its original topsoil remains, and this can be found only in those isolated regions that are still forested. Crops are now being grown on remnants of the fertile upper soil layers or on virtually sterile subsoils. The nutritive value of the crops grown on soils such as those still remaining in Greece is something else again. Centuries of cutting, burning and overgrazing by sheep and goats have brought desolation to the hillsides. Chaparral or brush covers most of the former timberlands. Practically all wood needed for shipbuilding and building materials, and even charcoal, is imported, a situation that has prevailed for several centuries. The deterioration of the land is still continuing. Tremendous quantities of silt are being carried to the lowlands from the upper watersheds. Serious erosion on slopes too steep to stand up under cultivation is characteristic of practically all of the mountainous regions. Finally, the extensive use of farm manure for fuel, in the absence of local timber, deprives the land of the organic matter that is so badly needed to maintain its fertility.

Turkey too has suffered substantially from the destruction of its forests and the misuse of its croplands. The mountain slopes and broad valleys of European Turkey, lying across the Bosporus north of Constantinople (Istanbul), once covered with extensive forests and prospering farms are now treeless. In desolation, scattered herdsmen keep flocks that search out such pasture as this sparse land affords. Successive invasions of nomadic hordes have been a major cause of the injury this country has suffered. The province of Anatolia provides one of the most dramatic examples of erosion to be found anywhere in the world. Here the washing of the soil into the sea has choked all the harbors with silt, with the result that some former port cities, such as Tarsus, now lie ten miles inland. It is estimated that the mouth of the Menderes River has advanced seaward at the rate of about half a mile per century since the time of Christ. Around Istanbul the hills lie slashed and barren and the city streets are filled with beggars. Nowhere is it more evident than in the Near East that land misuse and poverty go hand in hand. Palestine was once a forested, fertile country, but most of the formerly habitable areas were in a ruinous condition long before the state of Israel was established.

For thousands of years, Egypt, "the gift of the Nile," has had the security of a basic subsidy from nature. The great river whose silt-laden waters have provided both soil and moisture to the land from its sources in Kenya, Uganda and Ethiopia has supported a standard of living for thousands of years that was measured by the normal productivity of the soil carried to them by the annual floods. However, in the desire to gain financial profit from the soil through growth of "cash" crops for export rather than food for national consumption, year-round irrigation was substituted for basin or flood time irrigation, the secret of Egypt's fertility since long before the dynasties of the Ramses. The annual five month fallow, during which the essential fertility-preserving processes took place, was abolished and the soil steadily deteriorated. The Aswan dam, though a monument to engineering technology, also stands as a monument to ignorance of the basic principles of agronomy.

Great portions of North Africa bordering the Mediterranean, used to be fertile but are now desert. Wandering tribes of herdsmen move from oasis to oasis, their herds stripping such grass as there is from the gullied slopes, leaving nothing but the raw unstable soil. Here great cities lie buried under sand, ancient waterworks of extraordinary ingenuity are still found usable where attempts have been made to reclaim the land. Yet this garden of the Roman Empire has nothing about it today to show that it was ever a garden except scattered groves of olive trees standing in places which miraculously escaped the general wastage and erosion. The exact age of the trees is unknown, but the waterworks which have helped to protect them date back to Roman times. Their health and productive condition today would indicate that adverse weather conditions have had little or nothing to do with the desolation which surrounds them.

What must have happened to transform the fringe of Africa lying along the Mediterranean from the granary of the Roman Empire into a land of dead cities buried under silt and sand; a land of desolate valleys below rock-topped hills from which the soil has been torn away? There is little vegetation left anywhere. Gullies have developed throughout the region that once helped to feed a great nation, and such valuable soils as remain continue to be swept seaward. Again it

appears that in the age-old conflict between the settled farmers and stable communities which they support, and the roving herdsmen, the nomads and herdsmen have had the last word. Their flocks have eaten the green from the land and laid it bare to erosion from rain and wind, until the great cities of a flourishing culture were buried by silt and sand.

In Roman days this country was well cared for. It appears that the Phoenicians brought to it their skills in terracing and water control learned countless generations before and taken with them wherever they went. Throughout North Africa may be found the remains of cisterns and check dams of ancient origin.

Much of the foregoing was adapted from the work of Fairfield Osborn, particularly F. OSBORN, OUR PLUNDERED PLANET (1948).

During the great depression, Aldo Leopold pleaded for a conservation ethic. In philosophy an ethic differentiates social from anti-social conduct, but in biology, an ethic limits freedom of action in the struggle for existence. "The biologist calls [the tendency of inter-dependent individuals or societies to evolve modes of cooperation,] symbioses. Man elaborated certain advanced symbioses called politics and economics. Like their simpler biological antecedents, [they] enable individuals or groups to exploit each other in an orderly way."

Expediency was the characteristic originally common to all symbiotic relationships but, as the complexity of cooperative mechanisms increased with population density and technological efficiency, the human community eventually found expediency no longer a sufficient standard and was forced to evolve ethical standards. In the beginning, ethics dealt with relations among individuals and later with relationships between individuals and society.

As yet, there is no ethic dealing with the relationship between man and the land and between man and the non-human animals and plants which grow upon it. Land is still property; little more than a substrate for development. The relation between man and the land is still economic. The evidence that a new land ethic is needed has been with us since the earliest days of recorded history. Ezekial and Isaiah admonished us that despoilation of the land is not only inexpedient, but wrong. Nevertheless, society has not yet recognized that the extension of human ethics to include the relationships between man and the land is just the next step in the evolution of society.

For scientists and lawyers who are uncomfortable with philosophy, an ethic may be regarded as a mode of guidance for meeting ecological situations so new or intricate, or involving such deferred reactions, that the path of social expediency is not immediately discernable. " . . . [C]ivilization is not the . . . enslavement of a stable constant earth." It is a state of mutual and inter-dependent cooperation amongst humans, other animals, plants, and soils, which may be disturbed, even to the extent of serious, permanent and irreparable damage, at any moment by the failure of any element of the system. Land despoilation has evicted nations, and can on occasion do it again.

Plant succession has been a determining factor in historical evolution, and our own national history illustrates this fact even in recent years.

In the years following the Revolution, three groups contended for control of the Mississippi valley: the native Indians, the French and English traders, and American settlers. Historians wonder what would have happened if the English at Detroit had thrown more weight into the Indian side of those tipsy scales which decided the outcome of the Colonial migration into the cane-lands of Kentucky. Yet the wonder is why the cane-lands, when subjected to the particular mixture of forces represented by the cow, plow, fire, and axe of the pioneer, became bluegrass? What if the plant succession inherent in this "dark and bloody ground" had, under the impact of those forces, given us some worthless sedge, shrub or weed? Would Boone and Kenton have held out? Would there have been any overflow into Ohio? Any Louisiana Purchase? Any transcontinental union of the states? Any Civil War? Any machine age? Any Depression? The subsequent drama of American history, here as elsewhere, turned on the response of particular soils to the impact of particular forces exerted as the result of a particular kind and degree of human occupation. No statesman-biologist selected those forces, nor foresaw their effects. That chain of events, which in Fourth of July oratory we call our National Destiny hung on a "fortuitous concourse of elements," the interplay of which can now only dimly be seen in hindsight.

Contrast Kentucky with what hindsight tells us about the Southwest. The impact of occupancy here brought no blue grass, nor other plant fitted to withstand the buffetings of misuse. Most of these soils when grazed reverted through a successive series of more and more worthless grasses, shrubs, and weeds to a condition of unstable equilibrium. Each recession of plant types bred erosion; each increment of erosion bred a further recession of plants. The result today is still a progressive and mutual deterioration, not only of plants and soils, but of the animal community which depends upon them. The early settlers did

not expect this, " . . . [s]o subtle has been its progress that few people know anything about it."

All civilization seems to have been conditioned upon whether the natural plant succession, under the impact of human occupation, led to a stable and habitable assortment of vegetable types or an unstable and uninhabitable assortment. The swampy forests that Caesar found in Gaul were changed by human use for the better; while Moses' land of milk and honey was utterly changed for the worse. Both changes were the unpremeditated result of the impact between ecological and economic forces.

This generation is no less proud of technological ingenuity than prior generations. We drive cars with the solar energy impounded in the carboniferious forests of bygone ages. We fly through the air in mechanical birds. We hurl our words and pictures through space, and we have landed men on the moon.

But are these not in one sense mere parlor tricks compared with our utter ineptitude in keeping land fit to live upon? Our engineering has attained the pearly gates of near-millennium, but our applied biology still lives in the nomads' tents of the stone age. If our system of land use happens to be self perpetuating we stay. If it happens to be self destructive we move, like Abraham, to pastures new.

Consider astronauts who look down at the Southwestern United States and see:

> A score of mountain valleys which were green gems of fertility when first described by Coronado, Espejo, Pattie, Abert, Sitgreaves, and Couzens. What are they now? Sandbars, wastes of cobbles and burroweed, a path for torrents. Rivers which Pattie said were clear are now muddy sewers through which pass the wasting fertility of the empire. A "Public Domain," once a velvet carpet of rich Buffalo-grass and grama, now an illimitable waste of rattlesnake bush and tumbleweed, too impoverished to be accepted as a gift by the states within which it lies.
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> Why?
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> Because the ecology of the American Southwest happened to be set on a hair trigger. Because cows ate brush when the grass was gone and thus postponed the penalties of over-utilization. Because certain grasses, when grazed too closely to bear seed stalks, are weakened and give way to inferior grasses, which in turn give way to inferior shrubs, and then to weeds, and then to naked earth.
>
> Because rain which spatters upon vegetated soils stays clear and sinks, while rain which spatters upon unvegetated soils seals the interstices of that soil with collidal mud and hence must be run away as floods, cutting the heart out of the country as it goes.
>
> Unforseen ecological reactions not only make or break the [historical evolution of the people,] they condition, circumscribe, delimit, and warp all enterprises, whether economic or cultural, that pertain to land. In the corn belt, after grazing and plowing out all of the cover in the interests of "clean farming," we grew tearful about wild-life and spent several decades passing laws for its restoration. We were like Canute commanding the tide . . . . [We now know that the] implements for restoration lie not in the legislature, but in the [farmer's] toolshed.
>
> In other instances we take credit for ecological windfalls. In the Lake States and the Northeast, lumbering, pulping, and fire accidentally created millions of acres of new second growth. At the proper stage we find these thickets full of deer. For this we naively thank the wisdom of our game laws.
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> The reaction of land to occupancy determines the nature and duration of civilization. . . . In all climates the plant succession determines what economic activities can be supported. The nature and intensity [of economic development] in turn determines not only the domestic but also the wild plant and animal life, the scenery and the whole face of nature. We inherit the earth, but within the limits of soil and plant succession we also rebuild the earth—without plan, without knowledge, and without understanding the increasingly coarse and powerful tools which science has placed at our disposal. We are remodeling the Alhambra with a steamshovel.

In 1933, Aldo Leopold wrote:

> [The] interactions between man and land are too important to be left to chance, even that sacred variety of chance known as economic law. . . . [A]ll the new isms-Socialism, Communism, Facism. . . . outdo even capitalism itself in preoccupation with . . . the distribution of more people. They all proceed on the theory that if we can all keep warm and full, . . . own a Ford and radio, the good life will follow. Their programs differ only in ways to mobilize machines to this end . . . . They are competitive apostles of a single creed: salvation by machinery.

Much of the foregoing was adapted from a number of works by Aldo Leopold, including A. LEOPOLD, A SAND COUNTY ALMANAC (1949), A. LEOPOLD, GAME

Property seems to be an indispensable condition of the existence, liberty and development of man. Innate sentiments of justice, primitive right and rational right, all seem to agree that Society has an obligation to guarantee to everyone the legitimate property which should belong to them and that Society must be organized to give effect to that obligation. What is the best form for the right of property at any given moment of history, however, can only be determined from the nature of man in society at that point in history.

The rational theories by which mankind has attempted to account for private property as a social and legal institution have been arranged conveniently[42] into six groups, each including many forms. Four of the groups: natural law theories, metaphysical theories, historical theories, and psychological theories seek an absolute universal justification for property as a necessary universal institution. The two remaining groups, positivist theories and sociological theories seek only empirical support to establish property as an institution of time and place.

The fact that the property interest in non-renewable natural resources and the land and landscape is essentially a public trust conditions the fundamental ethical implications of the right of property. There is a constant need to express the laws that sanction the "right" of property in the context of each stage of civilization in every culture in terms of the human values that the right exists to protect.

PROPERTY AND SOVEREIGNTY

It was during the sixteenth century that the concepts of property and sovereignty became hopelessly entangled by those philosophers and writers who supported the idea of absolute monarchy, whether in the person of an individual king or as some personified state. It is in the work of Jean Bodin[43] that the basic errors arise in consideration of sovereignty as a concept.

MANAGEMENT (1933), A. Leopold, ***The Conservation Ethic***, 31 JOURNAL OF FORESTRY 634 (1933), and augmented through discussions with several of his children, Dr. Luna Leopold of the United States Geological Survey, and Dr. Estella B. Leopold, also of the United States Geological Survey, the paleontologist who provided the fair preponderance of substantial, credible, scientific evidence necessary to establish that the Florissant fossils were a unique, national, natural resource treasure in imminent danger of serious, permanent and irreparable damage. (*See* note 72, *infra*).

In 1974, Angelo J. Cerchione wrote:

> For years . . . men have known, or with the exercise of reasonable prudence should have known, that at some point in time, all our fossil fuels: coal, oil and natural gas would eventually be consumed. Nevertheless, during those same years, the public has been led to believe that when coal and natural gas were no longer available . . . other sources of cheap, convenient energy would be available. (Plucked from the nether, perhaps, by the nimble technological fingers of our scientists and engineers.) Satisfied, [however,] mankind dozed— -warmed and cozened by the petrochemical fire in the basement and illuminated by the electrical fire in the lamp—fat-headed in fossil fueldom.

A. Cerchione, *The Epilogue*, THE ENERGY CRISIS: DANGER AND OPPORTUNITY (1973).

42. III R. POUND, JURISPRUDENCE (1959).

43. Jean Bodin (1530-1596) was the major continental European political

Recognizing that the right to self-government is naturally possessed by the people, certain medieval theorists in their consideration of the concept of sovereignty substituted for this essentially personal right that of the total power of the commonwealth. Intellectually they accepted the fact that the "prince" received from the people the authority with which he was invested, but in practice they overlooked or forgot that the prince was only the designated representative of the sovereign people and only as such designee the delegate of the power of the people. The vicarious nature of this transfer became obscured and was replaced eventually with a belief that there was a physical transfer and donation of the power of the people, as if it were some kind of good or chattel: a merely physical property that could be the subject of irrevocable transfer from the people to some individual denominated or designated the "prince" or "sovereign."

The source of this confusion about sovereignty was feudalism. About the end of the Second Race of Kings in France, a new kind of lawful possession came into being designated "fief." The governors of cities and provinces usurped with equal impunity the property interest in land and the administration of justice, establishing themselves as proprietary rulers over those places in which they had formerly been only civil magistrates or military officers. By this means, there was introduced into the State a new kind of authority, which eventually came to be called "sovereignty."[44] Over the course of the Middle Ages, the feudal system extended throughout France and almost all the other nations of Europe. Every kindgom became a large feudal fief. The system came to direct the course of real property and estate practice in England through the efforts of William the

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theorist in the immediate post-Reformation period. After studying law at Toulouse and lecturing there on jurisprudence, he settled in Paris as an advocate, but soon turned to literature and political science. He was appointed King's attorney by Henry III in 1576, but fell from favor after successfully opposing the King's attempt to alienate the public lands and royal demesnes. His chief work, the *Six livres de la Republique*, (Paris, 1576), was the first successful modern attempt to construct an elaborate system of political science since Aristotle.

Accepting without question the idea of a law of nature conditioning human activity, Bodin made that law largely ethical in character, a touchstone by which right could be distinguished from wrong. Essentially practical in his consideration of fundamental law, Bodin, like Suarez a little later, did not identify *jus naturale* with *jus gentium*, nor did he concede to the Prince as sovereign the right to violate the *jus naturale*, although he might violate the *jus gentium* with impunity.

44. The concept of sovereignty took definite form at the time when absolute monarchy was becoming the fashion in Europe. No corresponding notion had been used in the Middle Ages with regard to political authority. In feudal times the king was but the Suzerain of Suzerains, each one of whom was possessed of their own rights and powers, and medieval jurists only dealt in a remote way with the modern notion of absolute sovereignty. It was Jean Bodin, *supra*, note 43, who forced the idea of absolute sovereignty associated with the person of a monarch or in the state itself upon the jurists of the Baroque age. It was in the context of the absolute rights of some personal monarch in which the supreme power of the body politic was vested that the word "sovereign" entered the vocabulary of political theory from the Low Latin *superanus*. "*Ex optimatum ordine, princeps*" was long ago employed in the common language to mean any official endowed with superior authority, such as a "superior judge." Du Cange quotes an edict of the French King Charles V, made in 1367, which reads: "*Voulons et ordonons que se . . . le Bailli ou autre leur souverain . . .*" *See*, J. MARITAIN, MAN AND THE STATE, at ch. II (1951).

Conqueror who took title to all the land after Hastings and distributed it among his lieutenants in the feudal manner as a means of maintaining fealty among his nobles.[45] From that era probably comes the English concept of the King as the "fountain of justice."

In the case of the King, sovereignty operated to vest the ruler with jurisdiction over others, while at the same time excluding all others from jurisdiction over him. "The law," said Sir William Blackstone,

> ascribes to the King, the attribute of sovereignty; he is sovereign and independent within his own dominions; and owes no kind of subjection to any other potentate upon earth. Hence it is, that no suit or action can be brought against the King, even in civil matters; because no court can have jurisdiction over him, for all jurisdiction implies superiority of power.[46]

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45. W. SWINDLER, MAGNA CARTA: LEGEND AND LEGACY.

46. In 1793 the Supreme Court of the United States was called upon to consider the nature of sovereignty in the United States. Mr. Justice Wilson took the position that the term "sovereign" was unknown to the Constitution of the United States.

> [T]he term sovereign has for its correlative, subject. In this sense, the term can receive no application; for it has no object in the constitution of the United States. Under that constitution, there are citizens, but no subjects. "Citizen of the United States." Article I, section 2. "Citizens of another State." "Citizens of different States." "A State or citizen thereof." Article III, section 3. The term, subject, occurs indeed once in the instrument, but to mark the contrast strongly, the epithet "foreign" (Article III, section 3) is prefixed. . . .

Chisholm v. Georgia, 2 U.S. (2 Dall.) 419, 456 (1793). Chief Justice Jay recognized that it was the people of the United States, not the federal government, that were sovereign.

> From the crown of Great Britain, the sovereignty of their country passed to the people of it; and it was then not an uncommon opinion that the unappropriated lands which belonged to that crown, passed not to the people of the colony or States within whose limits they were situated, but to the whole people; . . . It is remarkable that in establishing [the Constitution of the United States], the people exercised their own rights and their own proper sovereignty, and, conscious of the plenitude of it, they declared with becoming dignity, "We, the people of the United States, do ordain and establish this constitution." Here we see the people acting as sovereigns of the whole country, and, in the language of sovereignty, establishing a constitution by which it was their will that the state governments should be bound, and to which the state constitutions should be made to conform. . . . [T]he sovereignties in Europe, and particularly in England, exist on feudal principles. That system considers the prince as the sovereign, and the people as his subjects; it regards his person as the object of allegiance, and excludes the idea of his being on an equal footing with a subject, either in a court of justice or elsewhere. That system contemplates him as being the fountain of honor and authority; and from his grace and grant derives all franchises, immunities and privileges; . . . It was of necessity, therefore, that suability became incompatible with such sovereignty. Besides, the prince having all the executive powers, the judgment of the courts would, in fact, be only monitory, not mandatory to him, and a capacity to be advised, is a distinct thing from a capacity to be sued. The same feudal ideas run through all their jurisprudence, and constantly remind us of the distinction between the prince and the subject. No such ideas obtain here; at the revolution the sovereignty devolved on the people; and they are truly the sovereigns of the country, but they are sovereigns without subjects . . . and have none to govern but themselves; the citizens of America are equal as fellow-citizens, and as joint-tenants in the sovereignty.
>
> From the differences existing between feudal sovereignties and governments founded on compacts, it necessarily follows that their respective prerogatives must differ. Sovereignty is the right to govern; a nation or state sovereign is the person or persons in whom that resides. In Europe the sovereignty is generally ascribed to the prince, here it rests

Exemplified in its most extreme form by political democracy, the fundamental truth is that authority claimed by the nominal rulers of the people derives from the right of the people to rule themselves, a right which is inherent in human nature and which permanently resides with all the people as individuals whatever the particular expression it may be given in the context of the current structure of the people collectively considered as the body politic. By investing their nominal rulers with authority to govern the body politic, the people in no way lost their basic right to self-government.[47]

Because the philosophers of medieval absolutism failed to recognize that sovereignty was a right which can be possessed by an individual as an essential aspect of human nature, and shared or participated in by another, the *right* of the people to govern themselves is still often confused with the *power* of the people to govern themselves. So confused, the right to self-government which is pos-

> with the people; there, the sovereign actually administers the government, here, never in a single instance; our governors are the agents of the people, and, at most, stand in the same relation to their sovereign in which regents in Europe stand to their sovereigns. Their princes have personal powers, dignities, and pre-eminences, our rulers have none but official; nor do they partake in the sovereignty otherwise, or in any other capacity, than as private citizens.

Id. at 470-472. There is no mistaking the fact that the majority of the United States Supreme Court, just five years after the Constitution was ratified, rejected the idea that any public official or the United States Government or the government of any State was the "sovereign." The people of the United States were the sovereign!

A century later, in 1882, the Supreme Court again considered the issue of sovereignty; this time in the context of whether "sovereign immunity" could be raised as a defense by the federal government or any of its officers in actions brought against them by citizens of the United States of America.

> Under our system the *people*, who are there called *subjects*, are the sovereign. Their rights, whether collective or individual, are not bound to give way to a sentiment of loyalty to the person of the monarch. The citizen here knows no person, however near to those in power, or however powerful himself, to whom he need yield the rights which the law secures to him when it is well administered.

United States v. Lee, 106 U.S. 196 (1882).

47. Under this interpretation, the authority to govern derived from the people themselves rises from the base to the summit of whatever structure is assumed by the body politic. The power of the people, however, is exercised by those individuals in whom authority periodically resides through designation by the people, within certain limits fixed by the people themselves collectively as the body politic whether through constitution or other means. The People manage these popular designees through periodic designation of those in whom the power to rule shall be vested by the people. It is this process of periodic designation of their nominal rulers that is the most obvious manifestation of the fact that the People continue to possess the right to govern themselves; whether the right is exercised at the ballot box or in the streets. The periodic exercise of the right to self-government entitles those who have been designated the representatives of the people to command in a political sense, other human beings. In the theological sense of this phenomena, the Supreme Uncreated Reason, the Godhead, or whatever suprahuman entity or power is respected as a First Cause by Society at any particular period of its cultural history, gives force to law, and permits the force of law in terms of the exercise of the power of the People to attach to whatever legislation is necessary for the very existence and common good of that society. It is this theological imperative that permits the power of government to be held *of right* by those individuals the people choose as their rulers; and *in justice* requires obedience to their mandates promulgated within the limits of their delegated power.

These philosophical principles were well-understood by our founding fathers through their familiarity with the political theory contained in the works of Thomas Aquinas, Cajetan, Bellarmine, and Suarez, each of whom clarified the notion of the Prince as "vicar of the multitude."

sessed as a fundamental human right by the people as individuals and possessed by them collectively as the body politic inevitably became considered as some kind of material property which cannot be possessed by more than one individual or entity at the same time.[48]

While some medieval scholars would have submitted their sovereign at least to the law of God, the inner logic of the concept of personal sovereignty made the political sovereign free from even heavenly limitations. From the fact alone that he existed, was not the sovereign always, as Rousseau put it, all that he ought to be? In actual fact this misconstrued sovereignty required that no decision made by the Mortal God of Hobbes,[49] or law established by the

48. It was during the sixteenth century that the concepts of property and sovereignty become hopelessly entangled by those philosophers and writers who supported the idea of an absolute monarch, whether individual king or national state. They discussed sovereignty in terms of the ruling power or in terms of goods and material power held either absolutely as owner or in certain cases, such as the right to navigate, as trustee.

While recognizing that the right to self-government is a right naturally possessed by the people as part of their essential human nature the relentless logic of Aristotle forced them to proceed from the principle that if a material good is owned by one individual or entity, it cannot be owned by another, to the conclusion that determination of sovereignty becomes only a question of transfer of ownership or donation of power.

Although these medieval theorists could intellectually accept the fact that the "prince" receives the authority with which he is invested from the People, they overlooked the character of the Prince as "vicar of the multitude," replacing it with the concept of physical transfer and donation of the power of the people, as if it were some kind of good or chattel, or a merely physical property that could be the subject of irrevocable transfer from the people to some individual denominated or designated the "prince" or "sovereign."

49. THOMAS HOBBES, LEVIATHAN (M. Oakeshott ed. 1957). In this work Hobbes stated:

> [Whereas the agreement of irrational creatures is natural,] that of men, is by covenant only, which is artificial: and therefore it is no wonder if there be somewhat else required, besides covenant, to make their agreement constant and lasting; which is a common power, to keep them in awe, and to direct their actions to the common benefit.
>
> The only way to erect such a common power, as may be able to defend them from the invasion of foreigners, and the injuries of one another, and thereby to secure them in such sort, as that by their own industry, and by the fruits of the earth, they may nourish themselves and live contentedly; is, to confer all their power and strength upon one Man, or upon one assembly of men, that may reduce all their wills, by plurality of voices, unto one will: which is as much as to say, to appoint one man, or assembly of men, to bear their person; and every one to own, and acknowledge himself to be author of whatsoever he that so beareth their person, shall act, or cause to be acted in those things which concern the common peace and safety; and therein to submit their wills, every one to his will, and their judgments, to his judgment. This is more than consent, or concord; it is a real unity of them all, in one and the same person, made by covenant of every man with every man, in such manner, as if every man should say to every man, *I authorize and give up my right of governing myself, to this man or to this assembly of men, on this condition, that thou give up thy right to him, and authorize all his actions in like manner*. This done, the multitude so united in one person, is called a COMMONWEALTH in Latin CIVITAS. This is the generation of the great LEVIATHAN, or rather, to speak more reverently, of that *mortal god*, to which we owe under the *immortal God*, our peace and defense. For by this authority give him by every particular man in the commonwealth, he hath the use of so much power and strength conferred on him, that by terror thereof, he is enabled to form the wills of them all, to peace at home, and mutual aid against their enemies abroad. And in him consisteth the essence of the commonwealth; which, to define it, is *one person, of whose acts a great multitude, by mutual covenants one with another, have made themselves, every one the author, to the end*

General Will of Rousseau,[50] could possibly be resisted by the individual conscience in the name of justice. A law did not need to be just to be enforced!

Although forced to admit that his sovereign was unrestrained by law and not even accountable under the law, Bodin was not willing to permit the sovereign to disregard the divine authority or the Natural Law, and insisted upon recognition of a natural right of property, sharply criticizing the communal theories of Plato and More.[51]

> *he may use the strength and means of them all 'as he shall think expedient' for their peace and common defense.*
>
> And he that carryeth this person, is called SOVEREIGN, and said to have *sovereign power*; and everyone besides, his SUBJECT.

Id. at 111-112.

50. J. ROUSSEAU, THE SOCIAL CONTRACT (McCranston trans. 2d ed. 1976). There is a temptation, especially in twentieth century America, to understand the term "General Will" as used by Rousseau in terms of the representatives of the sovereign people acting in a legislative capacity. This usually leads to thinking that the General Will can be identified for all intents and purposes with a decision expressed by the majority vote of some representative or delegate assembly. Interpreting Rousseau in this sense, however, misplaces the emphasis in Rousseau's statement, which distinguishes between the General Will (*Volonte Generale*) and the will of all (*Volonte de Tous*),

> There is often a great deal of difference between the Will of All and the General Will. The General Will considers only the common interest, while the Will of All takes private interest into account and does no more than sum the individual Wills.

Id. at 73.

Because the concept that the supreme power of the people resided in the king had been accepted before the Revolution it was simply restated as a return of the supreme power to the People after the French Revolution. It was considered a self-evident principle that the sovereignty of the People was just as monadic and transcendent as the sovereignty of any individual King, and this made the deputies of the people mere instruments without any right or authority to govern.

> Sovereignty cannot be represented for the same reason that it cannot be alienated . . . The deputies of the people, then, are not and can not be its representative; they are only its commissioners and can conclude nothing definitely. Every law which the people in person have not ratified is invalid; it is not a law. The English nation thinks that it is free, but is gravely mistaken; for it is free only during the election of members of Parliament. As soon as they are elected, the English nation is enslaved and counts for nothing. The use which the English nation makes of its brief moment of freedom renders the loss of liberty well-deserved.

Id. at 141.

51. Again, if a man's person is his only private possession, lawsuits and prosecutions will all but vanish, and they will be free of those quarrels that arise from ownership of property and from having family ties, . . .

THE REPUBLIC OF PLATO, at XVI, Part II, (Cornfold ed. 1958).

In contrast to the acquisitive society of his times, Sir Thomas More proposed an agricultural society in which the family would be the basic unit. Private property would be abolished and money would cease to be used as a means of exchange. The utopia of More was not a republic of uneducated peasants, however, the means of livelihood would be assured to all and the working hours would be reduced to six a day in order that the citizens may have leisure for cultural pursuits.

> Now I have declared and described unto you as truly as I could, the form and order of that commonwealth, [Utopia] which verily in my judgment is not only the best, but also that which alone of good right may claim and take upon itself the name of commonwealth or public weal. For in other places they speak still of the commonwealth, but every man procures his own private wealth. Here, [in Utopia] where nothing is private, the common interests are earnestly looked to. And truly on both accounts they have good cause to do as they do. For in other countries, who knows that he will not starve for hunger, unless he make some private provision for himself, even though the commonwealth flourish never so much in riches? And, therefore, he is compelled

even of very necessity to pay regard to himself rather than to the people, that is to say, to others. Contrariwise, where all things are common to every man, it is not doubted that no man shall lack anything necessary for his private use, so long as the common storehouses and barns are sufficiently stored. For there nothing is distributed in a niggardly fashion, nor is there any poor man or beggar. And though no man owns anything, yet every man is rich. For what can be more rich than to live joyfully and merrily, without grief and worry, not concerned for his own living, nor vexed and troubled with his wife's importunate complaints, nor dreading poverty for his son, nor sorrowing for his daughter's dowry? Yea, they take no care at all for the living and wealth of themselves and all theirs, their wives, their children, their nephews, their children's children, and all the succession that ever shall follow in their posterity.

And, besides this, there is no less provision for those who were at once laborers and are now weak and impotent than for those who now labor and bear the burden. Here now I would see, if any man dare be so bold as to compare with this equity the justice of other nations; among whom, may I perish utterly if I can find any sign or token of equity and justice! For what justice is this that a rich goldsmith, or usurer, or to be brief, anyone of those who either do nothing at all, or else something that is not very necessary to the commonwealth, should have a pleasant and wealthy living, either in idleness or in unnecessary business, when meanwhile poor laborers, carters, ironsmiths, carpenters, and plowmen, by such great and continual toil, as beasts of burden are scarce able to sustain and again such necessary toil that without it no commonwealth would be able to continue and endure one year, yet get so hard and poor a living and live so wretched and miserable a life that the state and condition of the laboring beasts may seem much better and more comfortable? For they are not put to such continual labor, nor is their living much worse; yea, for them it is much pleasanter, for they take no thought in the meantime for the future. But these ignorant, poor wretches are now tormented with barren and unfruitful labor, and the rememberance of their poor, indigent and beggarly old age kills them off. For their daily wage is so little that it will not suffice for the same day, much less yield any overplus that may daily be laid up for the relief of old age.

Is not this an unjust and an unkind commonwealth, which gives great fees and rewards to gentlemen, as they call them, and to goldsmiths, and to others who are either idle persons, or else only flatterers, and devisors of vain pleasures; and on the other hand, makes no considerate provision for poor plowmen, colliers, laborers, carters, ironsmiths, and carpenters, without whom no commonwealth can continue? But when it has misused the labors of their lusty and flowering age, at the last when they are oppressed with old age, sickness, needy, poor and indigent of all things, then forgetting their many painful watchings, nor remembering their many and great benefits, it recompenses and requites them most unkindly with a miserable death.

[Between the period of the Black Death (1348-49) and the first Statute of Laborers (1351), there had been no fewer than 14 acts of parliament dealing with working men. But like the first one, they were all in the interests of the employer, and those which treated wages set down maximum not minimum wages to be paid. Legislation under Elizabeth was to furnish some protection, but that did not come for many years after More wrote.]

And yet, in addition to this, the rich not only by private fraud, but also by public laws, every day pluck and snatch away from the poor some part of their daily living. So whereas it seemed previously unjust to recompense with unkindness the toils that have been beneficial to the public weal, the rich have now to this their wrong and unjust dealing—which is a much worse act—given the name of justice, yea, and that by force of law. Therefore, when I consider the weigh in my mind all these commonwealths, which nowadays flourish everywhere, so God help me, I can perceive nothing but a certain conspiracy of rich men procuring their own comforts under the name and title of the commonwealth. They invent and devise all means and schemes, first how to keep safely, without fear of losing what they have unjustly gathered together, and next, how to hire and misuse the work and labor of the poor for as little money as may be. When rich men decreed these devices to be kept and observed for the commonwealth's sake, that is to say, for the wealth also of the poor, then they are made laws.

Yet these most wicked and vicious men, when they have by their insatiable covetousness divided among themselves all the things which

The errors arising out of the confusion contained in the theoretical considerations of Bodin worked their insidious way into the political and social systems of medieval Europe and England as the Middle Ages passed into the Renaissance.

It was very easy to proceed from that original error to the transfer of the power of self-government from the people to the modern national state and a short step further from that transfer of the power of the people to the state or nation to totalitarianism. Sovereignty was in the sovereign and the sovereign had a right to be obeyed whatever might be commanded. Sovereignty was above moral law. Once the sovereignty of the state had been confused with the sovereignty of the nation and the sovereignty of the people, the inevitable but logical conclusion was that the totalitarian state became the master of good and evil as well as life and death.[52]

> would have sufficed everyone, still how far are they from the wealth and felicity of the Utopian commonwealth! From which, in that all desire of money and the use thereof are utterly excluded and banished, how great a heap of cares is cut away! How great a cause of wickedness and mischief is plucked up by the roots! For who does not know that fraud, theft, rapine, brawling, quarreling, brabling, strife, chiding, contention, murder, treason, poisoning, which by daily punishments are rather avenged then restrained, die when money dies? And also that fear, grief, care, labors and watchings perish even the very moment that money perishes? Yes, poverty itself, which only seemed to lack money, if money were gone, would also decrease and vanish away.
>
> And that you may perceive this more plainly, consider yourselves some barren and unfruitful year, wherein many thousands of people have starved for hunger. I dare be bold to say that at the end of that penury so much corn and grain would have been found in the rich men's barns, if they had been searched, that if it had been divided among those who famine and pestilence killed, no man at all would have felt that plague and penury. So easily might men get their living, if that same worthy princess, Lady Money, did not alone stop up the way between us and our livelihood, though she in God's name was excellently devised and invented, in order that by her the way thereto should be opened. I am sure the rich perceive this, nor are they ignorant how much better it would be to lack no necessary thing than to abound with overmuch superfluity; to be rid of innumerable cares and troubles than to be beseiged with great riches.
>
> And I doubt not that either respect for every man's private comfort, or else the authority of our saviour Christ (which for his great wisdom could not but know what was best, and for his inestimable goodness could not but counsel that which he knew to be best) would have brought all the world long ago unto the laws of this commonwealth, if it were not that one single beast, the princess and the mother of all mischief, Pride, resists and hinders it. She measures not wealth and prosperity by her own well being, but by the miseries and discomforts of others; she would not of her own will be made a goddess, if there were no wretches left whom she might be lady over to mock and scorn, over whose miseries her felicity might shine, and whose poverty she might vex, torment, and increase by gorgeously vaunting her riches. This hellhound creeps into men's hearts, and plucks them back from entering the right path of life, and is so deeply rooted in men's breasts that she cannot be plucked out.

THE UTOPIA OF SIR THOMAS MORE, at 168-173 (M. Campbell, ed. 1947).

52. Sovereignty is a curious example of one of those concepts that are right in one order of things and wrong in another. Ascribing to the national state (or the transnational or multinational corporations which have usurped the place of national states in many of the functional areas of society) the attributive sovereignty of the people as an independent power, separate and transcendently supreme, which may be exercised upon the body politic from above, leads inevitably to a totalitarian political system. Cosmetically, the image of the absolute or totalitarian state is often improved by personifying the state as the body politic or the people themselves and implying that obedience to the state is

Perhaps the most regrettable effect of the misapprehension of the true nature of sovereignty is that the entity which claims sovereignty, be it state, individual ruler, or corporation, exercises power without accountability. The fact that an absolute sovereign must be separately and transcendently supreme means that the sovereign is not accountable to its subjects other than as a result of revolution. It has been observed that, "the power to do all things without accountability is coincident with the sovereignty of God." This is the concept of sovereignty that represents all that could be wished for by any of the deified potentates, despots, and emperors of ancient times in their most celestial ambitions. In modern times, it has been ascribed to the state on the fictitious ground that the state is the people personified, and the people need not account to anyone for what they do. Most recently, it has been arrogantly assumed by the bureaucracies of industrialized society.[53]

The state as a juristic entity, no less than its agencies and officials, must remain accountable to the people. It is only the inherent *right* of human beings to self-government and spiritual autonomy that need not be accounted for to any tribunal or agency of the body politic. The people, as individuals, always account for their own decisions by their own sweat and blood.

Attributing sovereignty in the absolute sense to the state inevitably leads those individuals who wield the power of the state as sovereign to endeavor perseveringly, in accordance with the principle of non-accountability, to escape the supervision and control of the people.[54] To the extent that those claiming absolute sovereignty as or through the state succeed in avoiding accountability for their decisions, which commit the body politic and all the individual people of the nation, the people will bear the cost of the decisions made

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merely obedience to themselves. However, under such a concept of state sovereignty, pluralism cannot be tolerated and centralism is required.

After Bodin, sovereignty eventually rose above moral law. The philosophical trail proceeds by simple substitution of a single word from the principle that an act or institution is *just* which serves the interests of the *sovereign* (Bodin); of the *People* (Rousseau); of the *state* (Hegel); of the *Party* (Lenin).

53. Bureaucracy has been defined as organization incapable of correcting its own course of conduct, and it is now clear that the worst offenders in the process of environmental degradation are not ruthless entrepreneurs dedicated to wanton exploitation of our natural resources—the profiteers and abusers of the public interest in the air, water, land and landscape—but rather shortsighted, mission-oriented, allegedly public interest agencies.

If we have to find a common denominator for the serious, environmental crises facing all technologically developed countries, regardless of their nominal form of government, it would have to be entrenched bureaucracies essentially immune from criticism or public action. These self-perpetuating, self-sufficient, self-serving bureaus are power sources unto themselves, effectively insulated from the people and responsible to no one but themselves

54. One of the strange inconsistencies of bureaucracy is the reluctance of administrative agencies to expose themselves to public scrutiny. A review of the published reports of Nader's Raiders, Bahnzaf's Bandits and similar citizen vigilante investigative groups, chronicle tales of evasion, suppression of information and a general policy of restricting public information. Assuming the best of motives on the part of bureaucrats and politicians, this course of conduct can only be explained by a kind of totalitarian paternalism inconsistent with American constitutional concepts.

in their name. The French have put it well, "*ce sont toujours les memes qui se font tuer*": It is always the same people who are getting killed!

> The woes of the people settle the accounts of the non-accountable supreme persons: State, agencies, ministries, committees, boards, staffs, rulers, law givers, experts, advisors—not to speak of the *intelligentsia*, writers, theorists, scientific utopians, connoisseurs, professors, and newspapermen.[55]

THE LAW OF PROPERTY

Without any necessity to resort to abstract notions of justice, or the obscurity of historical origin, many writers have maintained that property is nothing more than an invention of the law.

> Banish governments . . . and the earth and all its fruits are as much the common property of all mankind as the air and the light. According to primitive natural right, no one has an exclusive right to anything, but everything is a prey for all . . . . Hence . . . the right of property, and, generally speaking, every right must spring from public authority.[56]

> As men have renounced their natural independence to live under political laws, they have also renounced the natural community of goods to live under civil laws. The former laws give them liberty, the latter property.[57]

Much like the problem of which came first, the chicken or the egg, it appears that the notion of property must precede the law which regulates it, yet it is law in some form which gives rise to the notion of property. Legal recognition of individual claims to property ownership, legal definition of those claims, and provision of the legal means to secure private interests, are at the foundation of the economic organization of modern society.

Inquiry into the law of property, however, requires investigation of the fundamental philosophical concepts upon which rest that social instrumentality, the object of which is to protect the application of personal wealth and individual effort to private uses. Property exists to be owned and its significance as a social institution is largely exhausted in the relation of ownership.[58]

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55. J. MARITAIN, MAN AND THE STATE 52 (1951).

56. Jacques Benigne Bossuet (1627-1704), quoted by Louie Victor de Laveleye, *The Theory of Property*, in RATIONAL BASIS OF LEGAL INSTITUTIONS, at 174 (1923).

57. Montesquieu, quoted by Laveleye, *supra* note 56, at 174.

58. The right I have to my property, to my possessions is derived from physical, from natural acts: being derived from natural acts it is a natural right: being derived from nature it is not derived from law: its origin, its existence was antecedent to law: for nature existed before law. Being antecedent to law, it was not created by law: not being created by law it cannot be taken away by law. Law was instituted to protect a man in the enjoyment of such his rights, not to deprive him of them, or of any part of them: these rights like all other natural rights are sacred and indefeasible. So far as it protects him accordingly, it is conformable to natural justice: so far as it deprives him of such his

The theory of property interests grew up in the law to answer an economic need. The instrumentality by which society assured that the application of personal wealth and effort to particular individual or social uses would be protected was the law of property. In many communities, however, the economic need that was once satisfied by the law of property as it now seems to exist is undergoing profound alteration. It is evolving as an institution of society and the direction of its evolution is being determined by principles of human ecology.[59]

> rights or any part of them it is repugnant to natural justice. Laws conformable to natural justice are valid, and ought to be observed: laws repugnant to natural justice are ipso facto void, and instead of being observed ought to be resisted. Those who make them are tyrants, those who attempt to enforce them are the tools of tyrants: both the one and the other ought to be resisted, made war upon and destroyed.
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> Of rights thus self-evident the existence requires not to be proved but only to be declared: to prove it is impossible because the demonstration of that which is self-evident is impossible: to doubt of it argues of want of sense: to express a doubt of it argues not only a want of sense but a want of honesty.
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> Property the creature of law?—Oh, no—Why not? because if it were the law that gave every thing, the law might take away every thing: if every thing were given by law, so might every thing be taken away.
>
> The case is that in a society in any degree civilized, all the rights a man can have, all the expectation he can entertain of enjoying any thing that is said to be his is derived solely from the law. Even the expectation which a thief may entertain of enjoying the thing which he has stolen forms no exception: for till it is known to have been stolen the law will as fully protect him in the enjoyment of it, as much as if he had bought or made it.
>
> [I]n the rudest and earliest state therefore of society whatever property a man possesses, whatever articles of property he expects to have the enjoyment of, his possession if derived from any source more permanent than the casual forebearance of those in whose presence he has occasion to find himself, must be derived from a principle which can be called by no other name than *law*. Relations purely physical might then as now generate an expectation of this kind for a moment and in a weak degree: but an expectation in any degree strong and permanent can only be derived from law. Till law existed, property could scarcely be said to exist. Property and law were born and die together. Till there was law there was no such thing as property: take away law and property is at an end. . . .

J. Bentham, *The Limits of Jurisprudence Defined*, A BENTHAM READER, at 152-53 (M.P. Mack ed. 1969).

59. Ecology is often characterized as the scientific study of the "web of life." Man can be found somewhere in that web, either as spinner or unwilling captive, and there has been much written about man's "place in nature." As a modern science, Ecology deals with organisms in their environment and with the processes that link organisms and their habitats.

Ecology, however, is more than the study of any organism in *its* environment, it is the integrated study of organism*s and their* environment. Ecology involves consideration of the prerequisites of human existence on earth: the essential physical and chemical factors, food, and energy. Ecology as an integrative discipline provides a framework within which seemingly disparate human activities can be seen in relationship to each other; although the vision is less than clear at times in relation to the whole of life.

The study of the relationships among different organisms and between organisms and their environment has resulted in the description of various biogeochemical cycles which provide a convenient way of modeling very complex systems. The most nearly perfect cyclical processes are those involving water and nitrogen, while the least cyclical processes are those in which material is removed from the continents and deposited in the permanent basins of the ocean.

While individual ecologists may work on only one problem at a time and their working view of ecology may be quite limited in scope, the ideas and concepts that are the consequence of their individual work fit together to build an intellectual construct of greater dimension and significance. What ecologists are about is no less than building an understanding of the role of living things within the structure and function of the universe. Although there is a discipline

Private property must now be considered as just another element of those natural, social, societal and economic systems[60] the interac-

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in sociology designated Human Ecology, it has dealt mostly with urban geography and population demographics. In 1969, Paul Shepard observed that

> Ecology . . . as such cannot be studied, only organisms, earth, air, and sea can be studied. [Ecology] is not a discipline: there is no body of thought and technique which frames an ecology of man. It must be therefore a scope or a way of seeing. Such a perspective on the human situation is very old and has been part of philosophy and art for thousands of years. It badly needs attention and revival.

P. SHEPARD, THE SUBVERSIVE SCIENCE: ESSAYS TOWARD AN ECOLOGY OF MAN (1969).

> The constant feedback between man and environment inevitably implies a continuous alteration of both. However, the various aspects of biological and social nature constitute such a highly integrated system that they can be altered only within a certain range. Neither physicochemical concepts of the body machine nor hopes for technological breakthroughs are of use in defining the ideal man or the proper environment unless they take into consideration the elements of the past that have become progressively incarnated in human nature and in the human societies, and that determine the limitations and the potentialities of human life."

R. DUBOS, SO HUMAN AN ANIMAL (1968).

The fundamental and basic concepts of animal ecology are also the fundamental and basic concepts of human ecology. The laws of Nature apply to the human species as they do to animals. Mankind cannot ignore the dynamic forces of the environment with impunity.

While many philosophers, most notably John Locke, have supported the concept that all who are free are free to take freely from that which nature has provided for all, their positive statement of philosophical principle always assumed the implicit ethical and later equitable injunction, so long as no damage is done to the rights of others similarly free. Unfortunately, the Industrial Revolution and the rise of modern economics and the philosophy of materialism have led the corporate oligarchy of the industrial world to ignore the equitable maxim, "so use your own property as not to injure the property of others," particularly that which is the property of all human beings, not only during this, but succeeding generations: the air we breathe, the water we drink, and the land and other non-renewable natural resources which are the source of our food and clothing.

There is no question that much of the mineral law of the United States and the appropriation doctrine applicable to water rights in the western United States are direct extensions of Locke's theory of labor as the primary source of title to property. A theory which was eventually to be incorporated in a labor theory of value and come to be used in a way that its author never envisioned. Locke himself objected to the proposition that if gathering the fruits of the earth confers a right to them, anyone may amass as much as he likes, by answering "Not so. The same law of nature that doth by this means give us property, does also bound that property too." As for land, the doctrine that labor gives title to property sets the limit to the amount of property that can be acquired. "For as much land as a man tills, plants, improves, cultivates and can use the product of, so much is his property."

60. In environmental land use planning and resource management, considerable emphasis is placed on the need to understand the system of interacting elements or component parts of the social, economic and natural environments. Environmental systems analysis demonstrates the extent of the overall impact on the environment of a region (The Regional Environmental System, see note 61, *infra*) which can be expected from any alteration, modification or disturbance of any particular system or system element.

Systems analysis is a method for studying, or in the first instance determining, relationships among elements of interdependent systems which can be considered as sets (in the mathematical sense of a collection or aggregation of objects or events) because they behave as a unit; are involved in a single process, or contribute to a single effect.

The principle reason for using systems analysis in ecology, economics and more recently, the social sciences is the complexity of environmental systems originating from a variety of causes: number of variables; number of different types of variable; different levels of organization of systems (populations, communities, trophic levels, biogeochemical cycles) and the nonhomogenous and nonuniform distribution of system elements throughout time and space.

tions among which establish the Regional Environmental System[61] in which the property may be located at the moment of concern or define the region, in space and time, throughout which the effects of its use can be perceived.[62]

According to Hume[63] there is need of a

> convention entered into by all the members of the society to bestow stability on . . . possession of . . . external goods, and leave everyone in the peaceable enjoyment of what he may acquire by his fortune and industry . . . it is by that means we maintain society. . . .[64]

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61. Before the Regional Environmental System can be defined, the word "environment" which has become so common must be precisely defined since it has come to mean different things to different people. "Environment" should be defined in the broad sense now accepted by environmental systems scientists after a series of courtroom tests which began in 1966 with the first challenge to DDT as an environmental toxicant, Yannacone v. Dennison, 55 Misc. 2d 468, 285 N.Y.S.2d 476 (1967), and tested during hearings before the Wisconsin Department of Natural Resources, [1968] No. 3 DR-1, and in the federal courts during the *Project Rulison* litigation, Crowther v. Seaborg, 312 F. Supp. 1205 (D. Colo. 1969).

> Environment is the word used to represent the complex System established (in the mathematical sense) by the union of the sets of natural, social, economic and societal resources existing in a region; and the set of all interactions among those resources; *and* the sets of natural, social, societal and economic processes operating within or upon the region.

See V.J. Yannacone jr., ***Environmental Law/Environmental Systems Science: Interaction at the Interface in Litigation and Legislation***, ENVIRONMENTAL SYSTEMS SCIENCE, at 191-326 (V.J. Yannacone jr. ed. 1975).

62. One of the most valuable results of a comprehensive definition of "Environment" is the ease with which the region within which the potential for liability resulting from the use of property must be evaluated. *See*, V.J. Yannacone jr., ***Environmental Auditing***, ENVIRONMENTAL LAW: PRACTICE AND PROCEDURE HANDBOOK, at 165-76 (1976).

63. Locke combined acceptance of the principle that all our ideas arise ultimately from experience with a modest metaphysics. Berkeley, though he carried empiricism further than Locke by rejecting the concept of material substance, utilized empiricism in the service of a spiritualist metaphysical philosophy. The task of completing the empiricist experiment and presenting an uncompromising antithesis to continental rationalism was reserved for David Hume.

Hume contended that there can be a convention or agreement between people although no explicit promises are ever made, and in speaking of the convention from which he contends the ideas of justice, property and right arise, illustrates the "common sense of interest" which is expressed in action rather than in word with this example, "Two men, who pull the oars of a boat, do it by an agreement or convention, tho' they have never given promises to each other." D. HUME, A TREATISE OF HUMAN NATURE, at Book 3, V.2 § 2 (1888).

64. However, Hume does not mean that there is a right of property which is antecedent to the idea of "justice." A "general sense of common interest" expresses itself in the general principles of justice and equity, in fundamental laws of justice; and "our property is nothing but those goods whose constant possession is established by the laws of society; that is, by the laws of justice. . . . The origin of justice explains that of property. The same artifice gives rise to both." Justice, therefore, is founded on self-interest, on a sense of utility. And it is self-interest which gives rise to what has been called the "natural obligation" of justice. To Hume, "public utility is the sole origin of justice." D. HUME, INQUIRY CONCERNING THE PRINCIPLES OF MORALS, at Book 3, V.1, § 145.

Left to themselves, individuals could not provide adequately for their needs as human beings. According to Hume, organized society came into being because of its utility to mankind. It is a remedy to the inconveniences of life without society.

> By the conjunction of our forces, our power is augmented: by partition of employment, our ability increases; and by mutual succour we are less exposed to fortune and accidents. It is by this additional force, ability and security that society becomes advantageous."

While Hume believed that it is self-interest alone which drives men into society, he recognized that disturbances inevitably arise in any society if there are no conventions establishing and regulating the rights of property.

With the rise of socialism as the form of government in many areas of the world today,[65] one of the most vexing questions in philosophical jurisprudence becomes how to rationally account for the so-called "natural" right of property while fixing the "natural" limits to that right.

Recognizing the existence of certain fundamental ethical or moral principles gives direction to change and tempers the imperatives of operational necessity during each epoch of human history, and the course of evolution for this "natural" law as an element of modern jurisprudence clearly shows that the guidelines for its interpretation must be found in the context of the needs of human society at the particular period in history. Just as many evolutionary biologists have noted that to a certain extent "ontogeny recapitulates phylogeny"[66] in many living systems, so the interpretation of the "natural law" inevitably reflects the historical circumstances of each previous stage of its development.

Since the Middle Ages, the natural law has been a weapon in the attack on totalitarianism whether by church or state. While the very existence of a "natural" law promotes stability in society by postulating the existence of some rational system or organizational framework capable of human perception which can serve as a structure for the positive law at any time, the capacity of a "natural" law to accommodate the changes which occur during the course of societal evolution has served to protect individuals from the personal injustice and the arbitrary administration of executive whim.[67]

D. HUME, A TREATISE OF HUMAN NATURE, at Book 3, V.2, § 2 (1888). This utilitarian element was later developed by Bentham and the two Mills.

65. Socialism may be defined as the policy or theory which aims at securing by the actions of a central democratic authority a better distribution of wealth, through control of production, than is alleged to prevail under a capitalist system of free, unfettered enterprise. For an interesting analysis of Socialism and its impact on today's world, *see* M. HARRINGTON, SOCIALISM (1973).

66. The oft-quoted "theory of recapitulation," or "biogenetic law" propounded by the German naturalist Ernst Heinrich Haeckel (1834-1919) states that an individual organism in its development (ontogeny) tends to recapitulate the stages passed through by its ancestors (phylogeny). More accurate are the "laws" of embryonic development proposed by Estonian embryologist Karl Ernst von Baer (1792-1876): (1) General characteristics appear before specialized characteristics in the development of an individual organism; (2) From the more general, the less general and finally the specialized characteristics of an organism develop; (3) Each animal during its development departs progressively from the form of other animals; (4) The young stages of any animal are like the young or embryonic stages of other animals lower in the evolutionary scale, but not like the adults of those animals. Haeckel's views, however, are not entirely indefensible, although he should be remembered as the man who first used the term ecology to refer to the study of living organisms in relation to one another and to the inanimate environment. He also believed that psychology should be considered but a branch of physiology.

67. If justice is defined as all forms of rightful action, then at least two forms of justice may be distinguished. Natural justice, which is the idea of

This natural law was variously conceived: sometimes as a vaguely outlined ideal order of society; sometimes as a body of moral ideals to which conduct should be constrained to conform; sometimes as a

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justice as it is, in truth, and positive justice which is that conceived, recognized and expressed, more or less incompletely, inaccurately and imperfectly, by civil authority in the form of legislated or mandated positive law. The term "positive" in this sense meaning established by some form of human authority.

The general and universal precepts of the natural law are a fundamental law, a law of laws, which originates in the nature of humanity and should always be the rational, social, and moral norm or standard for positive law if law is to be:

> . . . the bond which secures our privileges in the commonwealth, the foundation of our liberty, and the fountainhead of justice. Within the law are reposed the mind and heart, the judgment and the conviction of the state. The State without law would be like the human body without a mind—unable to employ the parts which are to it as sinews, blood and limbs. The magistrates who administer the law, the judges who interpret it—all of us in short—obey the law to the end that we may be free.

Cicero, *In Defense of Cluentius*, ORIGINS OF THE NATURAL LAW TRADITION, at 21 (1954).

Much of the difficulty in recognizing the natural law as an acceptable element of Anglo-American jurisprudence can be attributed to the rise of logical positivism as a philosophical system during the eighteenth and nineteenth centuries. The positivists insisted that the only source of human rights was positive law, and that the positive law was independent of any natural law or universal law influence.

The positivist view of law leaves no room for equity, much less a philosophy of law which must concern itself with right, wrong, justice, and injustice. For if, as the legal positivists contend, just or unjust are identical with what is permitted or forbidden by positive law, there remains no room for any consideration for the philosophy of law, since it has all been stated by the positive law of the moment in any particular state or principality. Kelsen, who spent most of his life attempting to "purify" the law from all considerations of justice or injustice, or whether a particular law might be good or bad, summarily dismissed those concerned with such questions by accusing them of making value judgments, pursuing politics and succumbing to the evils of subjectivism. So successful was Kelsen in convincing legal scholars, jurists and leaders of the American Bar that law can become an "objective science" only by abstaining from consideration of fundamental questions of justice and injustice, morality, ethics, right and wrong, that eventually the leadership of the Corporate Bar, Big Business, and the Executive Branch of Government became inextricably inter-twined without the hinderance of any moral scruples so long as the letter of the positive law was not violated. This unholy alliance culminated in the national crisis of conscience and loss of confidence in the American legal profession during 1974. (*See* note 78, *infra*).

Positivism continued to dominate the philosophy of law until the end of World War II. In 1932, Radbruch provided the philosophical support for the position that the judge and jurist must disregard their sense of justice and obey the command of the law as written by the state. Thus instructed, the jurists of Nazi Germany established the "justice" of the Third Reich. The theoretical powerlessness of the German judiciary to resist the implementation of unjust laws made those judges agents for the imposition of policies such as genocide. However, the same Radbruch whose writings and teachings left German jurists impotent before Hitler, wrote in 1947—after Nuremburg:

> The traditional conception of the law, [t]he positivism that for decades . . . dominated German jurists, and its teaching that "the law is the law" were defenseless and powerless in the face of such an injustice [the Holocost] clothed in the form of the law. The followers of [judicial positivism] were forced to recognize as 'just' (Recht) even that iniquitous law. The science of the law must again reflect upon the milennial common wisdom of Antiquity, the Christian Middle Ages, and the Age of Illumination, that there exists a higher justice (Recht) than [positive law—] a natural law, a divine law, a law of reason—briefly a justice (Recht) that transcends the [positive] law. As measured [against] this higher justice, injustice (Unrecht) remains injustice, even when it is given in the form of a law. Before this higher justice also the judgment pronounced on the basis of such an unjust law is not the administration of justice but rather injustice.

G. RADBRUCH, DIE WANDLUNG, quoted by W. LUIJPEN, PHENOMENOLOGY OF NATURAL LAW at 27 (1967). It appears that legal positivism, as a justification for ignoring the natural law, was a hypothesis wrecked by the gruesome reality of history.

body of ideal legal precepts by which the precepts of positive law are to be criticized and to which, so far as possible, they should be made to conform. But whatever meaning was given to the ideal or body of ideals, the interpretation and application of existing rules of law were to be guided by it, and law making, judicial reasoning and doctrinal writing were to respect it.

The Middle Ages had been content to accept the doctrine of *suum cui que tribuere,* (render unto each that which is theirs, one of the three fundamental maxims of the law set forth by Justinian in 525 A.D.), because acquisition and private ownership of land and chattels were an accepted part of the existing social system sanctioned by political authority and supported by military force. Seventeenth and eighteenth century jurists, however, sought to derive the right of property by means of natural reason and establish that right as the philosophical justification for other institutions of society.

The disintegration of relationally organized society at the time the New World was discovered provided the opportunity for free individual enterprise and encouraged the exploitation of natural resources. The boundless faith in human reason which had come with the Renaissance,[68] and the breakdown of spiritually directed authori-

68. The Renaissance priest of the Roman Catholic Church was different from both his medieval predecessor and his modern successor. He believed less and enjoyed more; he could make love and war. Peasants, however, were the same as peasants had always been and were until machinery made an industry of agriculture; businessmen were like their past and present peers. The Italian workers were like the workers of Rome under the Caesars or Mussolini: the occupations made the men. Nevertheless, a combination of intellectual enfranchisement and moral release produced the "man of the Renaissance," whose unique quality was audacity: intellectual and moral; sharp minds, alert, versatile, open to every impression and idea, sensitive to beauty, eager for fame, recklessly individualistic spirits set on developing all their potential capacities, scorning Christian humility, despising weakness and timidity, defying conventions, tabus, Popes. In the city such men might lead turbulent factions; in the state, armies; in the Church they would acquire benefices and use their wealth to climb to power. In art they were no longer artisans anonymously collaborating with others in some collective enterprise as in the Middle Ages; they were "single and separate persons," who stamped thier individual character upon their works, signed their name to paintings and carved it on statues. Whatever his achievements, the "Renaissance man" was always moving and discontented, fretting at limits, longing to be a "universal man"—bold in conception, decisive in deed, eloquent in speech, skilled in art, acquainted with literature and philosophy, at home with women in the palace and with soldiers in the camp. The Renaissance men were realists and seldom talked of nonsense. They had good manners when they were not killing, and even then they preferred to kill with grace. They had energy, force of character, direction and unity of will, accepting the old Roman conception of virtue as manliness, but adding to it skill and intelligence. They were not needlessly cruel, and excelled the Romans in their capacity for pity. They were vain, but that was part of their sense of beauty and form. They appreciated the beautiful in women, nature, and art. Those were the common characteristics of the Renaissance man. Individual Renaissance men were as different as the idealistic Pico, with his belief in the moral perfectibility of mankind—or the grim Savonarola, blind to beauty and absorbed in righteousness—or the gentle, gracious Raphael, scattering beauty about him with an open hand—or the demonic Michelangelo, haunted with the Last Judgment long before he painted it—or the melodious Politian, who thought there would be pity even in hell—or the honest Vittorino da Feltre, so successfully binding Zeno to Christ—or the second Giuliano de' Medici, so kindly and just that his brother the Pope considered him unfit for government.

Throughout Italy during the fifteenth century there was a remarkable indifference to the matter of legitimate birth, as a rule became recognized which took no account of pure or impure birth. The fitness of the individual, his worth and

ty during the Reformation, eroded the universal, stable law taught at the medieval universities. Morality was set free from authority. Philosophy was emancipated from Aristotle. Jurisprudence was divorced from theology and law was cut loose from the *Corpus Juris*. Nevertheless, philosophers still felt the need for an unchallengable starting point and believed they had found it in human reason. Reason demonstrating the natural law and the natural law as the expression of the quintessence of human reason replaced authority.[69]

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capacity, were of more weight than all the laws and usages which prevailed elsewhere in the West. It was the age in which the illegitimate sons of allegedly celibate Popes were founding dynasties. The most admired form of illegitimacy was represented by the Condottiere, who, whatever may have been their origin, raised themselves to the position of independent rulers.

The emergence of women was one of the great achievements of the Renaissance. The Renaissance woman of the upper class raised her sex out of medieval bondage and monastic contempt to be the equal of man. She conversed on equal terms with him about literature and philosophy; she governed states with wisdom, like Isabella, or with force, like Caterina Sforza. Sometimes, clad in armor, she followed her mate to the battlefield. She refused to leave the room when coarse or ribald stories were told and could handle the language of the barracks without losing her modesty or her charm. The Italian Renaissance is rich in women who made a high place for themselves by their intelligence and virtue. The education given to women in the upper classes was essentially the same as that given men. Till the time of the Reformation, the personality of women outside of Italy, even of the highest rank, comes forward but little. Exceptions like Isabella of Bavaria, Margaret of Anjou, and Isabella of Castille, are the forced result of very unusual circumstances. In Italy, throughout the entire fifteenth century, the wives of the rulers, and still more those of the Condottieri, have nearly all a distinct, recognizable personality and their share of notoriety and glory. To these came gradually to be added a crowd of famous women of the most varied kind; among them those whose distinction consisted in the fact that their beauty, disposition, education, virtue and piety combined to render them harmonious human beings. There was no question of "women's rights" or female emancipation simply because it was taken as a matter of course. The educated woman, no less than the man, strove naturally after a characteristic and complete individuality. The same intellectual and emotional development which perfected the man, was demanded for the perfection of the woman. The educated women of the Renaissance emancipated themselves by their intelligence, character, and tact, and their success in raising the consciousness of men to a heightened sensitivity toward their tangible and intangible charms. The women of the Renaissance influenced their time in every field: in politics by their ability to govern states for their absent husbands; in morals by their combination of freedom, good manners and piety; in art by developing a matronly beauty which modeled a hundred Madonnas; in literature by opening their homes and their smiles to poets and scholars. During the Italian Renaissance, women moved into every sphere of life; men ceased to be so coarse and crude and were molded to finer manners and speech. The civilization of the Renaissance, with all its laxity and violence took on a grace and refinement such as had not been known in Europe for a thousand years.

Caterina Sforza, wife and eventually widow of Girolamo Friario, whose hereditary possession, Forli, she gallantly defended first against his murderers, and then against Cesare Borgia is typical. Though finally vanquished, she retained the admiration of her countrymen and the title "prima donna d'Italia." This heroic strain of character can be detected in many of the women of the Renaissance. *See, generally*, J. BURCKHARDT, THE CIVILIZATION OF THE RENAISSANCE IN ITALY (2d ed. 1954); W. DURANT, THE RENAISSANCE, V THE STORY OF CIVILIZATION, (1953); THE RENAISSANCE PHILOSOPHY OF MAN (1948); R. ROEDER, THE MAN OF THE RENAISSANCE, (1933).

69. "Man, as the minister and interpreter of nature, does and understands as much as his observations on the order of nature . . . permit him; and neither knows nor is capable of more." *See*, FRANCIS BACON, NOVUM ORGANUM (London, 1620). This "declaration of war on mysticism, obscurantism, and pedantry" was the "bell that called the wits together," and sounded the tocsin of the Renaissance. For fifteen centuries truth was defined not by sensation or reason, but by searching the Scriptures and convening the cardinals. Eventually, however, the Church tolerated the Scholastic game of proving revelation with reason and some of the most

Security of acquisitions and security of transactions have been the domain in which the Law has been usually involved. It is no wonder therefore that property and contract are the two concepts about which the philosophy of law has had the most to say. The philosophical theories of property, however, have generally been explanatory rather than critical or creative. Most of the philosophical theories about property have not shown how to build new and socially useful institutions, but have sought to satisfy mankind with what had been built already. As a result of the highly institutionalized position which property has attained in American life, the "Law of Property" has become a static system more concerned with form than substance.

The many varied and disparate theories about property which appear throughout the history of the law well illustrate how legal principles grow out of the circumstances of particular times at specific places as an explanation of those circumstances at those times and in those places, but then are given universal application as if they were necessarily explanatory or determinative of social and legal phenomena for all times and in all places.

"Ownership": A Mixed Blessing Today

The system of property ownership in the United States is peculiarly ambivalent. Much is said about the "absolute" nature of private property rights, yet the right to own property is not really absolute as against public authority, which can restrict the use of property in order to protect the public health, safety and welfare, and which can even take it upon payment of some indemnity euphemistically denominated "just compensation."

The fact that legislation limits the use of property, and thereby may reduce its value, does not necessarily make such legislation

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> brilliant minds were seduced by rationality. Descartes fell in love with reason, Spinoza starved for it, Bruno burned at the stake for it; and men honored the new mistress all the more for being sadistically cruel to her lovers. The worship of reason became itself a religion and a faith: the Enlightenment based its noble belief in "the indefinite perfectibility of mankind" [upon it]; and the Revolution raised altars to a beautiful Goddess of Reason. There was no boon which the intellect would not bring to men.

W. DURANT, THE MANSIONS OF PHILOSOPHY 43 (1929).

> The time has come to revive the Renaissance Man, that noble intellect who believed that all knowledge was attainable. The time has come to instill in young people the desire to seek the unifying principles of science, and reverse that trend in higher education which encourages the learning of more and more about less and less. Students must emerge from their educational experience with a synthesis of the specialized knowledge of their teachers so that they can never again be constrained by the traditional limitations of departmentalized academic inquiry. While specialized knowledge is certainly valuable, it must be related to the general concerns of mankind and the world as the habitat of the human species. The next generation must be generalists synthesizing the specialized knowledge of the last hundred and fifty years of scientific inquiry and establishing a new Humanism.

V.J. Yannacone jr., *How Much Geology is Relevant to an 18-year-old Voter?* (October, 1971), reprinted in 22 JOURNAL OF GEOLOGICAL EDUCATION 162-66 (1974).

unconstitutional as a taking without due process of law and without payment of just compensation,[70] unless it can be shown that the taking itself is not a reasonable expression of public need. Diminution in value is a relative factor and though the magnitude of any reduction in market value of the property is some indication of a taking, whether in the public interest or not, of itself it does not establish an unconstitutional confiscation, since property cannot be confiscated unless it is "owned." "Who owns America?" is a question that has a number of answers, each of which ultimately depends upon determining the origin of title to property in this country.

No individual or corporation can be considered the absolute owner of property that has become vested with a substantial public interest, since, if we trace any claim of title back far enough, we find that title was originally in the sovereign, which in the United States, is the People, collectively. Although most of the public land has come into the "ownership" of private individuals and corporations, such property is still subject to reclamation by the people as the need arises.[71]

The origin of title to real property in some parts of America is well illustrated in rather famous, but probably apocryphal, tale of

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70. *See* Turnpike Realty Company, Inc. v. Town of Dedham, 284 N.E.2d 891 (Mass. Supp. 1972), in which flood plain zoning was upheld in Massachusetts. The court considered a possible eighty-eight percent reduction in property value not an unconstitutional taking of private property without just compensation.

See also, Steel Hill Development v. Sanbornton, 469 F.2d 956, (1st Cir. 1972) where the First Circuit Court of Appeals held that upzoning a 3/4 acre residential area to six acre minimum lot size in order to stop second home development in New Hampshire did not discriminate against the only developer in the town.

71. Consider the California Redwoods, for example. There is considerable national sentiment favoring some protection of these magnificent trees for the enjoyment of future generations. Unfortunately much of the Redwood forests are now owned by commercial forest product corporations which consider themselves a source of income and whose corporate policy is to harvest the Redwoods as quickly as consistent with maintaining market value and reforest the area with faster growing (though shorter-lived) more commercially valuable species. The timber companies apparently have no objection to returning the Redwood forests to public ownership, provided they are compensated by the public at the fair market value of the trees as commercial lumber in the inflated commercial timber market of today. This has made public acquisition of the Redwoods by the Congress, the State of California or non-profit public benefit organizations so expensive that the areas which can be acquired and protected are not sufficiently large to protect the Redwood forest ecosystem.

There is no doubt that under our existing concept of justice, the owner of land taken for a public use is entitled to just compensation. The issue is, what is "just compensation?" Is it the fair market value of the forest as commercial timber, or only an amount equal to the original cost of the land to the present owner, plus the taxes the present owner has paid on the land since it was acquired together with a reasonable return on that capital investment at a rate no greater than commercial bank interest, and whatever costs are incurred in removing the present operations?

If the timber companies are considered the absolute owner of property that has become vested with the public interest, then they might argue that they are entitled to compensation in an amount that reflects the most profitable use of the property to them as its nominal owners—in the case of the Redwood forests, lumber. Title to the redwoods, however, was originally in the sovereign people of the United States and although the sovereign people under the constitution are required to pay "just compensation" in recovering their property, just compensation does not include an unconscionable profit at the expense of the people. The sovereign people have an obligation to make the nominal title holder whole. The sovereign people have no obligation to provide the property owner with a windfall profit.

the Louisiana title searcher who, shortly after the Civil War, was asked by a large New York City law firm to abstract the title to a parcel of real property in New Orleans. The Louisiana lawyer traced the title back to 1803, and certified title in the present owner. The Wall Street lawyers, however, were not satisfied with the short time covered by the attorney's abstract, and haughtily demanded further search of the title prior to 1803 with re-certification of title in the present owner. To this demand the Louisiana lawyer replied,

> On December 20, 1803, the United States purchased Louisiana from Napoleon Bonaparte who had acquired it on November 30, 1803 from the Count of Casa Calvo, Spanish governor of the Louisiana Territory and the duly authorized agent of the King of Spain who claimed title to the territory by discovery, exploration and conquest in the exercise of his Divine Right as King and successor in interest to the Holy Roman Emperor whose title to all the world came from the Pope acting as the earthly vicar of Jesus Christ, the Son of God; and God, as you all know, made Louisiana.

In the United States, all power over land and natural resources once held by the Kings of England, France and Spain, has been acquired by the people of the United States collectively, and is exercised, on behalf of those sovereign people, by the executive, legislative and administrative branches of the government. In the United States, the government acts as the trustee of the power of the people for the benefit of the people.

Before constitutional protection against the seizure of "private" property, the sovereign could simply take property at will. The "taking" clause of the fifth amendment merely assured that the sovereign people would demonstrate a public need and pay just compensation for any such reclamation or taking. The mere fact that the sovereign people of the United States may not be able to move as fast, at times, as the bulldozers of a developer does not prevent a court of equity from acting on behalf of the people to protect a national, natural resource treasure threatened with imminent danger of serious, permanent and irreparable damage.[72]

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72. In the short history of environmental litigation preservation of the Florissant fossil beds still represents one of the most dramatic instances of limiting the use of private property by imposing a public trust on the landowner.

The Florissant fossil beds are located a short distance west of Colorado Springs, Colorado, and contain seeds, leaves, plants and insects from the Oligocene period (approximately 34 million years ago), which are remarkably preserved in paper-thin layers of volcanic shale throughout more than 6,000 acres of an ancient lake bed. Unfortunately, these fossil shales begin to disintegrate when the thin layer of soil protecting them from the weather is disturbed. For many years, scientists, conservationists, naturalists, the National Park Service and individual Congressmen worked to protect the fossil beds by establishing a Florissant Fossil Beds National Monument.

When the Bill passed the Senate in 1969, a Colorado Springs real estate group contracted to purchase approximately 1,800 acres of the monument, and while the House of Representatives was deliberating its version of the bill, the land company announced that it would bulldoze a road through the fossil beds

to open the area for second home development. A group of Colorado conservationists attempted to persuade the land company to wait until the House of Representatives acted on the bill, or at least confine excavation and development to the area outside the fossil beds. The land company refused, but did offer to sell the land containing the fossil beds to the conservationists—for cash at considerably more than what it had contracted to purchase the land for.

Faced with the irreparable loss of a substantial portion of these unique and irreplaceable fossil beds, a small group of concerned citizens formed a nonprofit public benefit corporation called the Defenders of Florissant and commenced an action for declaratory judgment and injunctive relief against the land company and all other land owners and contract vendees in the area that was to be included within the National Monument.

The United States District Court heard the application for a temporary restraining order on July 9, 1969, and although the Defenders of Florissant established, without challenge or contradiction, that the excavation for the roads and culverts threatened by the land company would result in the loss of some of the most paleontologically valuable areas within the proposed national monument, the District Court held that there was nothing to prevent the land company from using its property in any way not expressly prohibited by law. While denying the application for a temporary restraining order and a subsequent application for a stay pending appeal, the District Court did note in passing, that the fossil beds ought to be preserved.

Following this decision, the land company agreed to postpone excavation for a few days if there was some assurance that the purchase price could be raised during that time. The Defenders of Florissant soon gave up their futile attempts to raise the ransom and appealed to the Tenth Circuit Court of Appeals the following morning. At the hearing before the court in the afternoon, the three judges questioned whether they had the authority to issue even a temporary restraining order in the absence of any statute protecting the fossils.

Admitting that Congress in its infinite wisdom, had not seen fit to protect fossil beds through either general or special legislation, plaintiffs' counsel argued that "if someone had found the original Constitution of the United States buried on their land and then wanted to mop the floor with it, is there any doubt . . . they could be restrained?" The Defenders of Florissant argued that the right to preservation of the unique irreplacable fossils, a national, natural resource treasure, was one of the unenumerated rights retained by the people of the United States in the ninth amendment of the Constitution and as such was entitled to protection under the "due process" clause of the Fifth Amendment, and the "rights, privileges, and immunities," "due process" and "equal protection" clauses of the Fourteenth Amendment.

While recognizing the right of landowners to make reasonable use of their land and to profit from their nominal title, the Defenders of Florissant claimed that a court of equity could impose a public trust on that portion of the property which had become vested with the public interest—the 34 million year old fossils. Procedurally, the Defenders established federal equity jurisdiction by invoking the maxim, "Equity suffers no wrong to be without a remedy."

In summation, counsel for the Defenders of Florissant picked up a fossil palm leaf that had been unearthed at Florissant, and holding it up to the court, pleaded:

> [T]he Florissant fossils are to geology, paleontology, paleobotany, palynology and evolution what the Rosetta Stone was to Egyptology. To sacrifice this 34 million year old record, a record you might say was written by the mighty hand of God, for 30 year mortgages and the basements of the A-frame ghettos of the seventies would be like wrapping fish with the Dead Sea Scrolls.

After a short recess, the Court of Appeals returned to the bench and announced that it was issuing an order restraining the land company and other land owners in the area from "disturbing the soil, subsoil, or geological formations of the Florissant fossil beds by any physical or mechanical means. . . ."

An evidentiary hearing was held on July 29, 1969 and the District Court denied the Defenders application for a preliminary injunction for the same reasons it had previously denied the application for a temporary restraining order. The Land Company announced it would begin excavation that afternoon although Congress had not yet completed action of the National Monument bill. Several hours later, The Defenders filed a motion for an emergency stay with the Tenth Circuit Court of Appeals, citing the Land Company threat, and the Court of Appeals dramatically issued an order extending its prior temporary restraining order indefinitely.

For a more extensive discussion of the Florissant fossil beds litigation, including the relevant pleadings, affidavits and orders, *see* YANNACONE, ENVIRONMENTAL RIGHTS & REMEDIES §§ 2:9-2:14.

If the use of property is restricted by public action, whether under the general police power or by some other expression of popular sovereignty; and if that restriction is based upon the need of society expressed through its social institutions, whether the courts, the legislatures or government executives do anything to protect and maintain the property as a public resource,[73] title, in the sense of absolute dominion over the ultimate use and disposition of the property is now and always has been in the sovereign people of the United States.

While any limitation on the unfettered exercise of personal rights can be considered a "taking," whether the limitation arises from the exercise of similar rights by some other person or by all the People collectively; nevertheless, limitations on the exercise of personal rights in order to protect the public health, safety and welfare, the classic exercise of the "police power"[74] of government, can cer-

73. The Roman citizen acquired property by discovery, by capture in war, by labor as a farmer or artisan, through commercial transactions or from inheritance. Private actions at law were available for property so acquired.

Other things which were subject to political, military, or religious use, or like rivers could be put to use by everyone without consumption, were considered not suitable for private ownership and designated *res extra commercium*. As to this class of property, the magisterial rather than the judicial power applied and such property was protected or its use was regulated and secured by interdicts. One could not acquire an interest in such property so as to maintain any private action at law.

Among the *res extra commercium* Roman law distinguished: *res communes*, things owned by no one the use of which was common to all—the air, running water, the sea and the seashores; *res publicae,* the property of the state—highways, rivers, harbors and other property adapted to public use, that is, suitable for use by public functionaries or by the political community for public purposes; *res universitatis,* property of the city such as theaters or other municipal facilities; *res sacrae,* things consecrated; *res religiosae*, tombs and burial grounds; and *res sanctae*, the gates and walls of a city. Because they were devoted to religious purposes or consecrated by religious acts inconsistent with private ownership, *res sacrae, res religiosae* and *res sanctae* were *res nullius divini iuris*—no one owned them and no one could acquire ownership of them. *Res nullius humani iuris*, on the other hand, could be acquired by anyone.

74. Beginning in 1827 with the decision of Chief Justice Marshall in Brown v. Maryland, 26 U.S. (12 Wheat.) 419 (1827), the American courts have attempted to identify the objects and define the limits of the police power. According to Marshall, when the Union was formed the states had the inherent power, and later—under the Consitution the reserved power, to pass laws to protect the health, safety, order and general welfare of their communities. A power "which unquestionably remains, and ought to remain, with the states," subject only to the limitations of the fourteenth amendment (ratified 1868) of the Federal Constitution which prohibits the states from depriving persons of the life, liberty or property without due process of law. Of course, the final arbiter of what is or is not a deprivation of life, liberty or property without due process of law is the Supreme Court of the United States.

In 1913, as New York City considered zoning, the 1905 spectre of Lochner v. State of New York, 198 U.S. 45 (1905), cast a forbidding pall over the novel experiment the City was about to undertake. Believing it had the power—the police power—to do so, New York State passed a law limiting workers to ten hours a day or sixty hours a week. A New York bakery operator immediately challenged the statute on the grounds that his property, the unfettered right to buy as many hours of bakery labor as he chose, had been taken without due process in violation of the fourteenth amendment of the Federal Constitution. This attempt by New York to regulate hours of employment came during the midst of the great reform movement in which Theodore Roosevelt, the muckrakers and eventually President Wilson played so large a role. Many of the demands for progressive state and local legislation rested their claims to legitimacy on the police power and the Supreme Court decision in *Lochner* was to

have important consequences for emergent social legislation and presage the great political confrontation of 1912 over the extent to which government could intervene in social issues.

Splitting 5-4, the court in *Lochner* struck down the New York law as an unreasonable and unconstitutional exercise of the police power. They held that there was no basis for interfering with the liberty of a baker or his employer to contract for hours of labor. After observing that the control of working hours had no possible connection with anything but the worker's health, the majority concluded that while a bakery might not have been the healthiest place to spend ten or more hours a day, it was vastly more healthy than some other places a man might earn his daily bread. (Consider note 32, *supra*).

Oliver Wendell Holmes wrote one of his memorable dissents in *Lochner* and challenged the judicial philosophy of the majority that rationalized the root, hog, or die conduct of the "Robber Baron" era. "The Fourteenth Amendment," Holmes said, "does not enact Mr. Herbert Spencer's *Social Statics*." Ten years prior, Holmes had written to Lady Pollock on the style and measure of Spencer's work: "He is dull. He writes an ugly uncharming style, his ideals are those of a lower middle class British Philistine. And yet, after all abatements I doubt if any writer of English except Darwin has done so much to affect our whole way of thinking about the universe." (*See* note 34, *supra*).

As Seymour I. Toll notes so perceptively in ZONED AMERICAN (1969), Darwinism put a decisive turn upon the direction of much American thinking after the Civil War. One of the grand inconsistencies of the time was that in the midst of rampaging social Darwinism, while the disciples of Herbert Spencer were using the theory of evolution to justify the absence of any public restraints on individual conduct, evolution offered a theory for imposing restraints through public planning, since according to the developing theory, man's environment is decisive in determining his evolution. Out of this logic came a new body of social thought which held that controls fashioned for such goals as slum eradictation, free land in the West, and the restraint of wealth would lead to the elimination of crime, the growth of democracy, and the disappearance of corruption. "Modern man did not have to allow the blind chances of nature determine the course of evolution; the use of his intelligence could shape its direction." This became the root assumption of the American urban planning movement as it took form at the turn of the twentieth century. For decades thereafter, zoning was thought to be the prime instrument of that movement and is as inseparable from the modern origins of planning as Darwinism.

> The evolution of evolution in the United States is as cross-grained as anything cut from the trunk of a great idea. Out of the same seed grew demands for *laissez-faire* and public control. Although they ran absolutely counter to each other, they arose from the common major premise that evolution is true as a scientific fact. And, with a kind of sporting indifference to Aristotle's prohibition against warring minor premises, they ultimately converged in the indentical conclusion that evolution inevitably yields progress.

S. TOLL, ZONED AMERICAN (1969).

The orthodox constitutional dogma held that reasonableness was the rule by which police power measures should be tested. If there was a reasonable relationship between the police power regulation and the health, safety, order, or general welfare of the community, then the regulation ought to be upheld. The success of zoning in the City of New York, and the pronouncement of the Supreme Court in Village of Euclid v. Ambler Realty, 272 U.S. 365 (1926), has given us zoning as the primary means of land use regulation today. The scheme was proposed by the Fifth Avenue Association of New York for less than noble reasons, however.

> The high-class retail business for which Fifth Avenue is so well known is the most sensitive and delicate organism imaginable, depending, first, on the exclusiveness of the neighborhood; second, on its nearness to the homes of the rich and the large hotels; and third, on its lack of congestion, especially on the sidewalks, so that the customers may not be crowded or jammed in a hurlyburly crowd on their way to and from the different shops. . . . The loft buildings have already invaded the side streets with their hordes of factory employees. . . . The employees from these loft buildings cannot be controlled. They spend their time—lunch hours and before business—on the Avenue, congregating in crowds that are doing more than any other thing to destroy the exclusiveness of Fifth Avenue. If the exclusiveness and desirability of Fifth Avenue are destroyed, the value of real estate on Fifth Avenue will depreciate immediately.

The Association's proposal was nothing more than an effort to get the Garment Industry out of the Fifth Avenue "zone,"

> because the very essence of the Garment industry—the strange tongues, the outlandish appearance and the very smell of its immigrant laborers,

tainly be justified under the doctrine of popular sovereignty, whether the agent of the people is denominated "Society," the "Nation," or the "Government."

The "taking" clauses of the fifth and fourteenth amendments[75] have been and continue to be the principal barrier to unfettered regulation of private property by Government agencies and public institutions. After years of litigation and the decisions in hundreds of cases have been considered by eminent scholars,[76] the extent and strength of the barrier still remains uncertain. As the authors of a 1973 CEQ report lament: "The taking issue is a weak link. All over the country attempts to solve environmental problems through land use regulation are threatened by the fear that they will be challenged in Court as the unconstitutional taking of property without just compensation."[77]

Whether the taking clause of the fifth amendment is a "weak link" depends on one's orientation, interests, and investment portfolio. For many years attorneys have been advising real estate developers and business clients that the "taking clauses," at least as interpreted by the Supreme Court of the United States (ever since that august body first personified the business corporation and then later endowed those corporate "persons" with all the rights, privileges, and immunities of human beings,[78] lacking only souls to save and backsides

> its relentless drive to follow the retail trade wherever it went, its great concentrations of plants and people—violated the ambience in which luxury retailing thrives. It demands insulation from gross forms of work and workers, the symbols of wealth and good living and sidewalks inviting the stroll, the pause, the purchase.

S. TOLL, ZONED AMERICAN, (1969).

75. F. BOSSELMAN, D. CALLIES & J. BANTA of the PRESIDENT'S COUNCIL ON ENVIRONMENTAL QUALITY, THE TAKING ISSUE, (1973) [hereinafter cited as BOSSELMAN].

76. N. WILLIAMS, JR., AMERICAN PLANNING LAW: LAND USE AND THE POLICE POWER (1976).

77. BOSSELMAN, *supra* note 75.

78. Perhaps the root of much of the disfavor which lawyers find in the eyes of the public is the continued adherence to a standard of non-involvement and non-accountability for the social effects of their counsel and advocacy which evolved during post-Elizabethan England.

> [A] lawyer has no business with the justice or injustice of the cause which he undertakes, unless his client asks his opinion, and then he is bound to give it honestly. The justice or injustice of the cause is to be decided by the judge.

BOSWELL, JOURNAL OF A TOUR TO THE HEBRIDES (1786). It is time for the Bar to heed certain 2,000 year old admonitions: "Woe unto you also, ye lawyers! For ye laden men with burdens grievous to be borne, and ye yourselves touch not the burdens with one of your fingers." *Luke* 11:46 (King James). "Woe to you! For you build the tombs of the prophets whom your fathers killed." *Luke* 11:47 (Revised Standard).

Much of the arrogance which is associated with delivery of the legal advice which has convinced many property owners and misled any number of law professors to the position that private property rights in the United States are absolute can be traced to the rule (most often applied in nuisance cases) which denied a private citizen the right to seek redress of a common or public wrong without some showing of special damage beyond that suffered by society generally. The rule was so onerous it led sympathetic courts to create and perpetrate all manner of legal fictions in order to circumvent the rule's manifestly harsh and unjust effects. A rule rooted in the unyielding procedural formalism of the English law which led the diverse wits of Swift, Shakespeare, Dickens and Gilbert to taunt the law and mock the lawyer.

> [T]here is a society of men among us, bred up from their youth in the art of proving by words multiplied for the purpose, that white is black, and black is white, according as they are paid.
>
> In pleading they studiously avoid entering into the merits of the cause, but are loud, violent, and tedious in dwelling upon all circumstances which are not to the purpose. For instance, . . . they never desire to know what claim or title my adversary hath to my cow: but whether the said cow were red or black, her horns long or short, whether the field I graze her in be round or square, whether she was milked at home or abroad, what diseases she is subject to, and the like; after which they consult precedents, adjourn the cause from time to time, and in ten, twenty, or thirty years, come to an issue.
>
> It is likewise to be observed that this society hath a peculiar cant or jargon of their own, that no other mortal can understand, and wherein all their laws are written, which they take special care to multiply; whereby they have wholly confounded the very essence of truth and falsehood, of right and wrong; so that it will take thirty years to decide whether the field left me by my ancestors for six generations belongs to me or to a stranger 300 miles off.
>
> In the trial of persons accused of crimes against the state the method is much more short and commendable: the judge first sends to sound the disposition of those in power, after which he can easily hang or save the criminal, strictly preserving all due forms of law.
>
> Here my master interposing said, it was a pity that creatures endowed with such prodigious abilities of mind as these lawyers, by the description I gave of them, must certainly be, were not rather encouraged to be instructors of others in wisdom and knowledge. In answer to which I assured his Honour that in all points out of their own trade, they were the most ignorant and stupid generation among us, the most despicable in common conversation, avowed enemies to all knowledge and learning, and equally disposed to pervert the general reason of mankind in every other subject of discourse, as in that of their own profession.

J. SWIFT, GULLIVERS TRAVELS.

> "In law, what plea so tainted and corrupt
> But, being season'd with a gracious voice,
> Obscures the show of evil?"

W. SHAKESPEARE, MERCHANT OF VENICE, III: II

> "The first thing we do, let's kill all the lawyers."

W. SHAKESPEARE, II HENRY VI, IV:II.

> "The law is an ass—an idiot."

C. DICKENS, OLIVER TWIST.

> "The law is the true embodiment
> Of everything that's excellent.
> It has no kind of fault or flaw,
> And I, my Lords, embody the Law."

W.S. GILBERT, IOLANTHE.

> "All thieves who could my fees afford
> Relied on my orations,
> And many a burglar I've restored
> To his friends and his relations."

W.S. GILBERT, TRIAL BY JURY.

> "Whether you're an honest man or
> whether you're a thief
> Depends on whose solicitor has
> given me my brief."

W.S. GILBERT, UTOPIA LIMITED.

> When I went to the Bar as a very young man
> (Said I to myself—said I,)
> I'll work on a new and original plan, . . .
> I'll never assume that a rogue or a thief
> Is a gentlemen worthy of implicit belief,
> Because his attorney has sent me a brief, . . .
> I'll never throw dust in a juryman's eyes, . . .
> Or hoodwink a judge who is not overwise, . . .
> Or assume that the witnesses summoned in force
> In Exchequer, Queens Bench, Common Pleas, or
> Divorce,
> Have perjured themselves as a matter of course . . .
> Ere I go into court I will read my brief through . . .
> And I'll never take work I'm unable to do, . . .
> My learned profession I'll never disgrace

to kick) were written for their benefit; and that private property cannot be taken without due process of law, which really means without paying all that can be squeezed out of the public treasury by a court in a condemnation proceeding.

Some still stridently proclaim that government regulation of land use or limitations on resource consumption is taking private property without just compensation; however, those who still hold this anomalous, aberrant and anchronistic position would do well to consider that 1973 CEQ report.[79]

> Many people seriously believe that the Constitution gives every man the right to do whatever he wants to do with his land, that foreign concepts like environmental protection and zoning were probably sneaked through by the Warren Court. Many more people recognize the validity of land use regulation in general, but believe that it may never be used to reduce the value of a man's land to the point that he can't make a profit on it.[80]

After reviewing both judicial interpretations and scholarly comments on the taking issue, this CEQ report concludes that the court has never adopted the philosophy of non-governmental interference or sanctioned any absolute right to make the greatest private profit from the ownership or use of land.

> The right to make money buying and selling land is a cherished American Folkway, and one that cannot be lightly ignored. But in an increasingly crowded and polluted environment can we afford to continue the myth that tells us that the taking clause protects this right of unrestricted use regardless of its impact on society? Obviously not![81]

By taking a fee with a grin on my face,
When I haven't been there to attend to the case.
(Said I to myself, said I!)
W.S. GILBERT, IOLANTHE.
See also:
"I am asham'd [t]he law is such an ass."
G. CHAPMAN, REVENGE FOR HONOR, III, II.
"He saw a lawyer killing a viper
on a dung hill by his own stable;
And the Devil smiled, for it put him in mind,
of Cain and his brother Abel."
S. COLERIDGE, THE DEVIL'S THOUGHTS, IV.
I know you Lawyers can, with ease
Twist words and meaning as you please;
That language, by your skill pliant,
will bend to favor every client;
That 'tis the fee directs the sense
to make out either side's pretense.
When you peruse the clearest case,
You see it with a double face;
For scepticism's your profession;
You hold there's doubt in all expression.
J. GAY, FABLES: THE DOG AND THE FOX IN THE POETICAL WORKS OF JOHN GAY (G. Fober ed. 1926).
"A fox may steal your hens, sir.
[But]
If lawyer's hand is fee'd, sir,
he steals your whole estate."
J. GAY, THE BEGGAR'S OPERA, I, VII, AIR XI.

79. BOSSELMAN, *supra* note 75.
80. *Id.*
81. *Id.*

The meaning of these comments is unmistakable, and the language of the New York Court of Appeals in *Ramapo*[82] becomes prophetic.

> Every restriction on the use of property entails hardship for some individual owners. Those difficulties are invariably the product of police regulation and the pecuniary profits of the individual must in the long run be subordinated to the needs of the community . . . . The fact that [An] . . . ordinance limits the use of, and may depreciate the value of the property will not render it unconstitutional, however, unless it can be shown that the measure is either unreasonable in terms of necessity or the diminution in value is such as to be tantamount to a confiscation. . . .[83]

Where it is clear that the existing physical and fiscal resources of the community are not adequate to furnish the essential services and facilities which a substantial increase in population requires, there is a rational basis for "phased growth,"[84] and justification for Impact

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82. Golden v. Planning Board of Ramapo, 30 N.Y.2d 359, 285 N.E.2d 291, 334 N.Y.S.2d 138 (1972).

83. *Id.*

84. In 1968, the town of Ramapo, New York, amended its zoning ordinance to prohibit residential subdivision development except where a developer had obtained a special permit or variance, issuance of which was contingent upon the availability of five essential societal services:

1. Public sanitary sewers or approved substitutes;
2. Drainage facilities;
3. Improved public parks or recreational facilities including public schools;
4. State, county or town roads;
5. Firehouses.

The undisputed intent of these regulations was to provide for orderly growth through sequential development, the timing of which would be governed by the progressive availability of new public facilities and societal services or by the increase in capacity of those already existing.

The amendments were attacked on a number of grounds, principally:

> They operated to destroy the value and marketability of property for residential use and thus constituted a present invasion of the property rights of certain named landholders. . . .
>
> The primary purpose of the amended ordinance is to control or regulate population growth within the Town and as such not within the authorized objectives of the zoning enabling legislation.

While the goals of the zoning ordinance amendments were clear and, according to New York State's highest court, such community purposes were "undisputably laudatory," the court acknowledged that the New York version of the Standard State Zoning Enabling Act of 1926 provided no specific authorization for "sequential development" or "timing" controls such as those proposed by Professor Freilich, who drafted the amendments to the Ramapo ordinance and successfully defended them in the courts. Nevertheless, the court refused to permit this lack of specific statutory authorization to serve as an absolute bar to municipal legislation controlling the sequence and timing of development, recognizing that the town of Ramapo was a municipality experiencing the pressures of increasing population and the ancillary problem of providing municipal facilities and services for that increased population. At the time of the litigation, all parties agreed that existing municipal facilities and services were inadequate to meet the increasing demand so the court made additional inquiry into whether the challenged amendments found support within the parameters of the devices authorized and purposes sanctioned under the enabling legislation. The court was more concerned with the effects of the state statutory scheme as a whole and its role in promoting viable land use policy and planning methods, than with legislation. Affirming the principle that towns, cities, and villages in New York lack the power to enact and enforce zoning or other land use regulations without legislative delegation to do so, the court found on the facts presented by the town that the amendments reflected legitimate public needs and were not veiled efforts at exclusion.

Zoning.[85] Hence ordinances regulating, and where necessary lim-

It seems obvious that the nature of the evidence offered, and the skill with which it was presented during the trial also contributed to the difference between judicial approval of the Ramapo development timing controls and initial judicial disapproval of the "Petaluma Plan." *See*, note 86 infra.

Although the court respected the fact that the town of Ramapo had adopted a capital budget which could provide the necessary public facilities and services required to support the population expected by the end of the period of development restrictions, it also pointed out that there was no assurance that these commitments would be met over the years by subsequent municipal legislatures and paid for by succeeding generations of taxpayers.

Much has been made of the "point system" used by the town of Ramapo to identify the suitability of an area for residential development at any particular time. It is apparent from the *Ramapo* decision, particularly when read together with the more recent opinions in *Petaluma* and *Mt. Laurel*, that any reasonable criteria which enable a developer to determine the time when development of a particular parcel will be permitted and the extent of development which will be permitted, together with the opportunity to provide necessary public services and facilities privately in order to mitigate the delay, or in the alternative, seek tax relief through reduction in the assessed valuation of the property equivalent to the reduction in market value attributable to the delay in development, will sustain sequential development and timing controls even when some land cannot be developed for as long as 18 years. Although Ramapo and Petaluma both sought to limit development to the capacity of municipal facilities and services, Petaluma did not permit the developer to provide such facilities as a way to advance the time when development would be allowed, while one of the elements of the Ramapo ordinance, which apparently satisfied the court on the due process issue, was the provision that, "a prospective developer may advance the date of subdivision approval by agreeing to provide those improvements which will bring the proposed tract within the number of development points required by the [ordinance]."

It is interesting to note that the intermediate appellate court in New York supported the developers' claim that the primary purpose of the Ramapo ordinance—to control or regulate population growth within the town—was "not within the authorized objectives of the zoning enabling legislation," but the New York Court of Appeals met that argument by simply stating, "We disagree." Unfortunately, the court never said whether it disagreed with the allegation that the primary purpose of the ordinance was to control population growth or the allegation that such a purpose was not one of the authorized objectives of zoning legislation. Golden v. Planning Board of Ramapo, 30 N.Y.2d 359, 285 N.E.2d 291, 334 N.Y.S.2d 138 (1972).

85. American society has grown larger and more complex since district zoning was first proposed as a way to keep the immigrants—especially woman and children from the sweat shops—far enough away from Fifth Avenue so that the rich and nouveau riche who made up the carriage trade of New York society would not have their delicate sensibilities offended. Local land use regulations should take the form of impact zoning programs which are more consistent with our Constitution, common law equitable jurisprudence, and the American free enterprise system than district zoning. (*See* note 74, *supra*).

Those who drafted the Standard State Zoning Enabling Act believed that density per se was the best measure of the character of a community and rigid segregation of land use and human activities was the only method of protecting the public health, safety and welfare. Perpetuation of that belief has led to overcrowded suburban schools, overloaded sewage treatment plants, overburdened transportation systems and over-taxed home owners!

Although many communities have responded negatively to such problems by trying to prevent future growth entirely, the courts have consistently frowned upon such efforts and it appears that no community will be permitted to shirk its share of societal problems by calling a general halt to local development activities, at least not for longer than it should reasonably take to develop a local impact zoning program.

It is becoming increasingly evident that present district zoning ordinances and their associated subdivision regulations, which cling to the exclusionary axioms underlying the Standard State Zoning Enabling Act of 1926, are likely to be struck down by the courts. Several states now have statutes allowing local zoning classifications to be ignored in favor of regional or statewide concerns, and many suburban communities must now face the very real possibility that within the next few years the courts may leave them without any of their conventional zoning tools with which to control new development.

Of course, this crisis in land use regulation like many of the other "crisis" in recent years represents both a danger and an opportunity. Impact zoning repre-

sents one way to meet the immediate danger of unregulated development inconsistent with the public interest while affording municipalities the opportunity to use the methods of environmental systems science in developing enlightened land use regulatory programs for managing local development so as to minimize adverse impact.

Impact zoning provides municipalities with an affirmative program for managing local growth while still accepting a fair share of regional growth. The basic elements of any community impact zoning program include:

> [D]etermination of the capacity of the ecological, societal and economic systems of the community and its region to accommodate existing and future growth;
> . . . identification and analysis of natural, societal and economic constraints upon development;
> . . . formulation and enumeration of community goals for future growth and development;
> . . . legal analysis of the extent of local land use regulatory authority.

The capacity of regional and municipal systems represent limits to growth and constraints upon development. Community goals determine the substance of impact zoning regulations, while state enabling legislation and legal limitations on local municipal authority dictate its form and procedures.

Impact zoning replaces arbitrary density restrictions with a realistic before-the-fact assessment of the total impact of any proposed project upon a particular community in terms of its effects upon a number of key parameters:

> [T]he growth rate of the community as a function of its present population and the extent of land available for development in the region in which the community is located;
> . . . the societal infrastructure of the community and region including its public facilities and services;
> . . . the economic systems of the community and its region, particularly the cost to the community of increased services which may be required as a result of particular development proposals and the additional tax revenues and other economic benefits which might be derived from such development;
> . . . Natural constraints upon, natural determinants of, and natural incentives for, development.

One of the principal advantages of impact zoning is its inherent flexibility. By contrast with existing zoning ordinances and subdivision regulations promulgated under the Standard State Zoning Enabling Act, impact zoning provides a framework for the orderly growth and evolution of a community by identifying a variety of acceptable land uses suggested by the unique characteristics of each parcel of land.

As a land use management system, impact zoning is based on the concept that the full impact of any proposed development on the natural, social and economic environment of a community can, and must, be evaluated before that development occurs, and encourages consideration of the effects of growth upon a community in the context of particular proposals for development. The results of such impact assessments can furnish the "fair preponderance of substantial, credible, scientific evidence" necessary to support planning, timing and management of development by local government in the courts, and direct the private sector, in its own enlightened self-interest, toward that kind of development which will minimize adverse impacts on the community. The interrelated studies and scientific investigations which are necessary elements of any impact zoning program can provide the conceptual model for comprehensive land use regulation and resource management in any municipality in the United States.

Based on the capacity of existing natural, societal and economic systems, the extent of available resources, and constraints upon development inherent in the assayed limits to local growth, certain inappropriate land uses and development activities can be categorically prohibited in specific, well-defined areas.

In those areas otherwise suitable for development, the absence of adequate community services and societal infrastructure can delay development, or transfer the obligation for providing necessary community services and establishing the required societal infrastructure to the developer.

Analyzing the capacity of natural, social and economic systems should establish the natural, social and economic constraints upon development in a community, and necessarily reveal the intrinsic suitability of particular areas for specific uses, which, if consistent with community goals, represent opportunities for development.

Impact zoning is not just another Standard State Zoning Enabling Act or a model zoning ordinance, but a concept to be implemented by local legislation adapted to the capacity and aspirations of each individual community.

Impact zoning represents a dynamic instrument for land use regulation and

resource management in which the developer is given the opportunity for flexibility and innovation in design, while the community is furnished with sufficient information to rationally evaluate the impact of any proposed development. That impact assessment can become a credible basis for regulating, and, where necessary limiting, development to protect the public health, safety and welfare, and further the public interest.

A development proposal which might result in significant adverse effects may still be permitted; subject, however, to continuing, active municipal regulation and impact assessment including detailed consideration of alternatives.

See, Yannacone, Rahenkamp & Cerchione, *Impact Zoning: Alternative to Exclusion in the Suburbs*, 8 THE URBAN LAWYER 417-48 (1976).

The inflexible and rigid "master plans" spawned by federal largesse during the half century since ***Euclid*** and the Standard State Zoning Enabling Act must be replaced by conceptual models of community ecosystems which consider human societies as biomes and consider human ecotones as carefully as plant associations and vegetation gradients.

A natural community is an assemblage of populations of plants, animals, bacteria, fungi and other microorganisms that live together in some place at some time and interact with one another and their environment to such an extent that they may be considered together as a system of some definite composition and structure, relating to its external environment, and capable of development and function. A community, therefore, is just a system of organisms, including man, living together and considered as a set (in the mathematical sense of a group or collection of objects, relations or events) by reason of their effects upon one another and their interactions with the environment they share. A community and its associated environment when considered as a functional system of complementary relationships, together with the transfer and circulation of matter and energy thrughout the system is called an *ecosystem*.

Ecosystems are real like a pond, or a lake or a stream or a forest or an ocean; but they are also abstractions in the sense of being conceptual schemes developed from a study of real systems which, although characterized by great diversity and unique combinations of abiotic and biotic components, still may be characterized by certain general structural and functional attributes that are common to ecosystems as ecosystems. In particular, the two primary ecological processes of energy flow and material cycling establish the basis for consideration of ecosystem dynamics or ecological energetics.

The processes of energy flow and material cycling are fundamental to the study of environmental systems, whether those systems are "ecosystems" in the classic sense of that word as used by plant and animal ecologists, or the myriad of systems in which men interact with fellow men or their environment, and the systems are characterized by the jargon of economics or the social sciences. These fundamental processes, however, are manifested through the agency of living organisms: plants, animals, including human beings, and microorganisms.

By reason of the unique morphological, physiological and behavioral attributes of each species of living organism, each of those species has unique ecological attributes as well. For just as no organism is sufficient unto itself, neither are ecosystems, or in the larger sense, environmental systems, discrete entities delimited sharply from other ecosystems or environmental systems. The mere existence of contiguity and/or continuity complicates the study of environmental systems. *See*, EDWARD J. KORMONDY, CONCEPTS OF ECOLOGY (1969).

Perhaps the most fundamental dimension of an ecosystem is its productivity, whether that productivity is measured in terms of the creation of organic material per unit of area over time, or in the terms of industrial engineering or management science. All biologic activity including human life depends ultimately on the energetics of gross primary productivity, the energy bound in photosynthesis by green plants. *See*, M. King Hubbert, *Energy Resources*, THE ENERGY CRISIS: DANGER AND OPPORTUNITY ch. 2 (ed. V.J. Yannacone).

Although the over-all productivity of the world may seem very large, effective limitations on what man harvests as food result from characteristics of environment that affect production, the function of plant ecosystems and the efficiencies and technology of plant harvest as well as economic, social, political and cultural factors.

Three of the major modes of nutrition (the means of utilizing plant productivity) are represented in the three functional units of most natural communities. The producers, or green plants create their own food and metabolize a portion of it for their own needs. The consumers, or animals, feed by ingestion and internal digestion of organic material. The reducers, bacteria, fungi and other microorganisms live by absorption and employ external digestion; decomposing organic matter to its inorganic elements.

The functional unity of natural ecosystems is based largely upon a multi-

iting,[86] the rate of community growth in terms of the availability of societal services do not violate any co..-titutional mandate.

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plicity of transfers, a complex interchange of many inorganic and organic substances which interrelate organisms with one another and their environment. The pattern of movement of matter in a large environmental system is a product of movements in space of many dimensions (air, water, soil, biota, etc.), movements in place (the interchanges among organisms and their environment along food chains and throughout food webs) and movement in time.

The function of environmental systems includes a kind of metabolism—the complex patterns of transfer, transformation, utilization and accumulation of inorganic and organic materials.

Substances are transferred among as well as within, ecosystems. The biosphere—the largest ecosystem—includes all the earth's air, water, soil, and living organisms, and is an arena of movement. The air moves, waters flow, soils shift, and living organisms are free to travel. The circulation of nutrients throughout terrestrial, aquatic and marine ecosystems are interrelated by the transfer of nutrients from the land to the sea as a result of the runoff of precipitation, and from the sea to the land by evaporation and precipitation. Eventually, ocean sediments become land by the geologic processes of elevation and exposure.

All the ecosystems of the biosphere are ultimately coupled by biogeochemical cycles, patterns of transfer and concentrations of matter throughout the biosphere. The chemical characteristics of the atmosphere (air), the hydrosphere (water), and the lithosphere (earth and soils), are strongly influenced by living organisms, especially man, during the course of time. *See*, ROBERT H. WHITTAKER, COMMUNITIES AND ECOSYSTEMS (1970).

Ecologists often group similar terrestrial communities together in broad categories, named, for convenience according to their dominant vegetation type, and called *biomes* (when the concern is with both plant and animal elements of the system) or *formations* when considering plant communities alone. Although these units are often the same, biomes defined with vertebrate animals in mind are, in some cases broader units than formations. Since similar biomes and formations can be found widely distributed over the earth, a still broader grouping of systems whose characteristics tend to be similar has been established, called *biome-type* and *formation-type* to describe major communities of worldwide distribution.

Although in the broadest sense there are only two major classes of ecological systems or natural ecosystems—terrestrial and aquatic—each consists of many subdivisions. Aquatic systems are generally separated on the basis of major chemical differences (salinity) and range from freshwater to marine systems, while terrestrial systems are generally distinguished by the dominant type of vegetation.

The major biomes of the world include tropical rainforests; tropical seasonal forests, including monsoon forests; temperate rainforests; temperate deciduous forests; temperate evergreen forests; subarctic-subalpine needle-leaved forests or taiga; elfin woodlands; thorn woodlands and thorn scrubs; temperate woodlands; temperate shrublands or sclerophyll shrublands; Savannas or tropical grasslands; temperate grasslands; alpine grasslands; tundra; tropical and subtropical deserts; warm-temperate deserts; cool-temperate desert scrub; arctic-alpine deserts; cool-temperate sphagnum bog; tropical and temperate freshwater swamp forests; mangrove swamps; and salt marshes.

Ecology, particularly plant ecology, has been very prone to formalism, and the word *ecotone* was introduced to designate the ambiguous boundary between different communities or ecosystems. In the etymology of this word there is a reference to tension—a suggestion of something dynamic that can breathe life into colored patches on a map. Indeed, the boundaries between communities and ecosystems must be considered areas of tension in an uneasy state of dynamic equilibrium where the elements of diverse systems interact constantly along a chimerical frontier and the subtle stresses necessary to encourage evolution are at work.

Exchange at, along, and across, these system boundaries is an important concept of systems science that is of great significance to environmental land use planning and impact zoning. Not all ecotones are the same. Some exist between systems of diverse elements but at the same relative level of maturity as systems, while others separate systems and subsystems of different maturity. Nevertheless, the forces at work along a system interface or ecotone are largely determined by the general properties of the interacting systems. Greater mobility, especially random motion or diffusion is associated with the more rapid evolutionary processes of less mature systems, and there is more rigidity of structure and determinism in position and organization in the more mature systems. *See*, RAMON MARGALEF, PERSPECTIVES IN ECOLOGICAL THEORY (1968).

86. "Can Ramapo pass a law to bind the whole world?" One legal commen-

tator raised this interesting question and seems to believe that the court erred in upholding the Ramapo ordinance. Prudence, however, would suggest that the proper interpretation of the *Ramapo* decision, at least by real estate developers and municipal officials today, should be that municipalities can control or regulate their population growth to a rate consistent with available resources and the carrying capacity of natural, social and economic systems. There seems to be little doubt now that the public interest in air, water and other vital natural resources and environmental systems can be protected by limiting certain kinds of development and such limitations on land use, although perhaps technically a "taking," can be sustained under the general police powers of local government, outside the ambit of the Standard State Zoning Enabling Act:

> The power to restrict and regulate conferred [by the zoning enabling act] includes within its grant, by way of necessary implication the authority to direct the growth of population for the purposes indicated, within the confines of the Township. It is the matrix of land use restrictions, common to each of the enumerated powers and sanctioned goals, a necessary concomitant to the municipality's recognized authorized authority to determine the lines along which a local development shall proceed, though it may divert it from its natural course.

It seems to have taken municipalities a long time to accept the fact that the public health, safety and welfare of the community can be protected in ways other than by establishing essentially arbitrary zones and limiting the scope of human activities within those zones. "Zoning historially has assumed the development of individual plots and has proven characteristically ineffective in treating with the problems attending subdivision and development of larger parcels, involving as it invariably does, the provision of adequate public services and facilities. . . ." Although the federal court in *Petaluma* did not mention the *Ramapo* decision directly in its opinion, the issues in *Petaluma* had already been considered by the New York court:

> The nature of our inquiry . . . is essentially whether development may be conditioned pending the provision by a municipality of specified services and facilities. Whether it is the municipality or the developer who is to provide the improvements, the objective is the same—to provide adequate facilities, off-site and on-site, and in either case subdivision rights are conditioned, not denied.
>
> Undoubtedly, current zoning enabling legislation is burdened by the largely antiquated notion which deigns that the regulation of land use and development is uniquely a function of local government; that the public interest of the state is exhausted once its political subdivisions have been delegated the authority to zone.
>
> Recognition of communal and regional interdependence, in turn resulted in proposals for schemes of regional and State-wide planning, in the hope that decisions would then correspond roughly to their level of impact . . . .
>
> Yet, salutary as such proposals may be, the power to zone under current law is vested in local municipalities . . . [and] though the issues are framed in terms of the developer's due process rights, those rights cannot, realistically speaking, be viewed separately and apart from the rights of others . . . in search of a more comfortable place to live . . . .

In their opinion, the court considered the meaning of the mobile society:

> There is, then, something inherently suspect in a scheme which, apart from its professed purposes, effects a restriction upon the free mobility of a people until sometime in the future when projected facilities are available to meet increased demands. Although zoning must include schemes designed to allow municipalities to more effectively contend with the increased demands of evolving and growing communities, under its guise, townships have been wont to try their hand at an array of exclusionary devices in the hope of avoiding the very burden which growth must inevitably bring . . . . Though the conflict engendered by such tactics is certainly real and its implications vast, accumulated evidence, scientific and social, points circumspectly at the hazards of undirected growth and the naive, somewhat nostaligic, imperative that egalitarianism is a function of growth . . . .
>
> Of course, these problems cannot be solved by Ramapo or any single municipality, but depend upon the accommodation of widely disparate interests for their ultimate resolution . . . . Nevertheless, that should not be the only context in which growth devices such as these, aimed at population assimilation, not exclusion, will be sustained. . . .
>
> Hence, unless we are to ignore the plain meaning of the statutory delgation [in the state enabling act], this much is clear: phased growth is well within the ambit of existing enabling legislation . . . . The answer which Ramapo has posed can by no means be termed definitive; it is, however, a first practical step toward controlled growth achieved without forsaking broader social purposes.

Any system of land use regulation creates "winners and losers."[87] The winners get windfalls, the losers get wipeouts.[88] Both windfalls and wipeouts reflect injustice and any land use regulation system which produces both cries out for remedial action whether by judicial declaration or legislative reform.

Two obvious courses are available to prevent the injustices inherent in public regulation of land use. One is consistent with the determinist economic concept of the completely free market subject only to the limitations imposed by judicial recognition of the equitable maxim, *sic utere tuo ut alienam non laedas*[89] in private nuisance actions; while the other is for the same government that establishes the system of regulation which leads to windfalls and wipeouts to devise the legal and political means to balance the effects upon individuals and society of both the windfalls and the wipeouts.

In the free market system the government makes two crucial decisions—determination of the overall intensity of development to be permitted and the relative weight of different types of development—but once those decisions are made government disappears as an active participant in the use and development of real property. This minimal government scenario is not, however, the version of land use regulation attracting the most public interest of late.[90] Unfortunately, most land use control plans today rely on traditional

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Golden v. Planning Board of Ramapo, 30 N.Y.2d 359, 285 N.E.2d 291, 334 N.Y.S.2d 138 (1972).

87. Conventional rectilinear district zoning—America's legacy of exclusion and elitism from New York City's Fifth Avenue Association as the "twenties" roared toward the Great Depression—is essentially a system for dividing a community into zones for the purpose of separating allegedly incompatible land uses and segregating human activities such as work, recreation and residence. Current practice generally restricts density in terms of dwelling units per acre and seeks to group certain uses which are deemed compatible or segregate uses which are deemed incompatible by establishing specific districts with arbitrary, fixed boundaries. (*See* n. 74, *supra*).

Unfortunately, any such districting must accommodate prior non-conforming uses and provide for special exceptions and variances. It is the need to ameliorate the Draconian effect of inherently arbitrary district zoning standards which were often the result of capricious municipal action that has led to so much litigation and municipal scandal since World War II, especially in areas where a change in zoning classification or permitted use may mean a substantial increase in property value to a landowner or a windfall profit to a speculator.

88. Hagman, *Windfalls or Wipeouts?* THE GOOD EARTH OF AMERICA 109 (Harris ed. 1974).

89. According to the legal theory which began to develop in early nineteenth century America, building upon the foundation of the English law of the previous century, the police power of the state was its means and system of internal regulation. The system preserved public order, and in addition, established among its citizens a body of rules whose central purpose was the enforcement of the ancient equitable maxim, "Use your own property in such a manner as not to injure the property of another." This concept came to embrace not only property but also the life, health, comfort and peace of the community. Eventually the concept became the basis for the vague and sweeping legal phrase, "the health, safety, morals, and welfare of the community," as American state and local governments claimed their authority to enact laws to protect these broad objectives as part of their "police power."

90. In addition to seeking to establish a National Land Use Policy Act similar in scope and concept to the National Environmental Policy Act there has been a great deal of scholarly attention given to transfer of development rights, or TDR, as a means of reconciling the constitutional limitations contained in the "taking" clauses and judicial interpretations of "due process" and "equal protection" with the need to limit development of certain real property.

Landowners would be assigned "development rights" associated with their

Euclidian zoning[91] and only represent feeble attempts to redress the

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title to real property, which would be valued and regularly assessed by the community in a manner consistent with present methods for assessing the value of real property interests for purposes of taxation. Any restriction on land use imposed by public authority would act to diminish the extent of the development rights associated with the particular property, and would result in lower valuation and a reduction in assessment.

Development rights could be transferrable independently of the property with which they were associated, and when those development rights were transferred, either privately or by operation of law in the public interest to other property, the owner of the development rights would share in the economic gain resulting from the development which had been made possible through the transfer of development rights.

The idea that intangible development rights may be transferred from one parcel of land in an area where in the public interest development cannot or should not be accommodated to another parcel of land in an area where development would be more suitable is neither new nor novel. Both tangible and intangible interests in land have been recognized since remote antiquity. The principal virtue of TDR today is the flexibility it gives to a municipality when the time comes to pay "just compensation" for an actual taking of property in the public interest.

91. Since *Euclid*, conventional zoning laws have been upheld by the courts on the grounds that they represent an attempt by a community to determine the highest and best use of its limited resources for the greatest good of the greatest number of people without undue infringement of individual rights.

The human community and its social and economic systems constitute integral elements of any region just as surely as do the aquifers, aquifer recharge areas, precipitation, climate, topography, watersheds and drainage units, groundwater, soils, vegetation, wildlife, scenic vistas, historic sites, and all the other readily determinable elements that environmental scientists and planners are so fond of inventorying.

Today, determination of the highest and best use of the land, landscape and natural resources in any region must be done by teams of individuals skilled in the various disciplines necessary to define the elements of, the processes operating throughout, and the interactions among those elements and processes within, each and all the several natural, social, societal, and economic systems of a region.

Determination of the highest and best use of the limited land and natural resources of a region mandates a systems approach in order to determine the boundary values and elemental optimizations of the complex, nonlinear, dynamic relations that describe the region as it actually exists in real time, rather than as some stylized formalization which is often little more than a figment of the imagination of some self-proclaimed expert.

Any zoning law or land use regulation—local, state or federal—not based upon such an evaluation must fail. It should fail as legislation and it will fail in the courts if properly challenged.

Land use plans which fail to consider the integrity of regional systems and fully determine the relations and interactions among each element of the land, landscape and natural resources are scientifically inadequate and legally defective; while land use plans which do consider the relations and interactions among each element of the land, landscape, and natural resources can become the basis for legal restraints upon land use even when such restraints limit private property rights.

Any comprehensive plan, whether for village, town, city, county, state or region, which fails to provide for a thorough evaluation of the effects of any proposed land use upon each and all of the natural, social, societal, and economic systems of a region is an inadequate plan at best and ultimately destined to become a costly hoax upon the community.

"Planning" is an action word, and "planning" should be a dynamic process. Unfortunately, the word "planning" seems to have different meanings for life scientists, physical scientists, mathematicians, social scientists, lawyers, judges, and legislators. Perhaps if conceptual models became a common work product of "planning" in all disciplines, systems analysis could become a common language for land use regulation.

In environmental land use planning and resource management, considerable emphasis is placed on the need to understand the system of interacting elements or component parts of the social, economic and natural environments.

Systems analysis is a method for studying, or in the first instance determining, relationships among elements of interdependent systems which can be considered as sets (in the mathematical sense of a collection or aggregation of

objects or events) because they behave as a unit, are involved in a single process, or contribute to a single effect.

The principal reason for using systems analysis in ecology, economics and more recently, the social sciences, is the complexity of environmental systems originating from a variety of causes: the large number of variables; the large number of different types of variables; different levels of systems organization (populations, communities, trophic levels, cycles) and the nonhomogenous and nonuniform distribution of system elements throughout time and space.

Although systems analysis has its roots in military and industrial operations research, applied mathematics, probability, statistics, computer science, engineering, econometrics and biometrics, there are common and now somewhat standard approaches for dealing with the great complexities inherent in the considerations of real systems. One is the operating maxim that complex processes can be most easily dissected into a large number of relatively simple unit components, and that complex historical processes in which all variables change with time (evolve) can be dealt with most easily in terms of recurrence functions which express the state of a system at time $t+1$ as a function of the state of the system at time t. Thus the system is considered not in terms of its entire history but rather in terms of the cause-effect relationships that operate through a typical time interval. This idea of the recurrence relationship is common throughout mathematics. Matrices of transition probabilities in Markov processes are merely stochastic versions of a recurrence relation. Difference equations, differential difference equations, dynamic programming, and the "loops" of computer programs are all based on recurrence relations in which the output from each stage in the computation is the input for the following stage. No breakdown in this approach occurs if the state of the system at time t is a function of the state of the system not only at time $t-1$, but also at time $t+1$, t+2 . . . t+n. Only the number of variables in the recurrence relationship and the dimensionality of the problem are increased.

Another of the basic principals of systems analysis is optimization which brings to many practical problems the whole body of pure and applied mathematical theory related to the maximization and minimization of functions: the mathematics of extrema.

Systems analysis combines the basic ideas of recurrence relations and optimization in order to determine the optimal choice from among an array of alternative strategies at each of a sequence of times: the multistage decision process.

Multistage decision processes share two important basic similarities from a computational standpoint—high dimensionality and the need to be solved by some iterative process—requirements common to other types of problems often encountered in pure and applied mathematics and which have led to development of such now commonplace techniques as multiple linear regression analysis, iterative non-linear regression analysis, and gradient methods for finding maxima and minima among others.

Feedback and feedback control are other concepts of systems analysis that are important in the consideration of ecological, economic and social systems, so that a realistic mathematical description of a process includes terms such that deflection toward the equilibrium or steady state follows departure from equilibrium within the recovery limits of the particular system.

Interaction among system elements is easier to describe in terms of changes and the rates of change at some specific instant in time rather than in terms of the history of the process over time, so that models of interactions are typically conceived of in terms of differential rather than algebraic equations.

Inequality constraints are encountered commonly in ecological systems analysis problems, as are thresholds and limits. Similarly, the common technique of computer programming in terms of a cyclically repeated routine or "loop" is suitable for consideration of ecological problems where historical processes unfold through the repetition of variants of the same basic cycle of events and dispersal occurs through a parallel process, but in space as well as time.

Another important concept from systems analysis useful in environmental systems studies in that of information. The amount of information is related to the degree of order or negentropy in a system and this concept plays a role in studies of community organization. Modern digital computers are well suited for dealing with many of the computational problems of information theory.

Systems analysis usually involves construction of models which describe a system as the set of its interrelated and interacting elements so that mathematical techniques may be applied in an attempt to predict the behavior of the system as a whole over some future period of time. Traditionally, researchers used physical models in laboratory experiments to study the behavior of real systems, however, it has become increasingly difficult to construct physical models of complex environmental and social systems so the emphasis today is on the mathematical representation of such systems.

Ecological systems are composed of many components which interact in a variety of ways. Each biological component of the system is affected by the physical abiotic elements of the system, and all the variables change not only with respect to time but from place to place since the environment is heterogeneous. Discrete system elements interact and each component of the system affects all the others in one way or another. The complexity of the system of interlocking cause-effect pathways confronts us with a superficially baffling problem, and systems analysis was developed to handle such situations.

In general, a system is analyzed in terms of its components. The processes of affecting each component are analyzed and described so that changes with respect to time and distance can be described and ultimately predicted. The interrelationships among the components of the system are also analyzed and a model of the system is usually developed and eventually tested by attempting to simulate, generally with the assistance of a computer, the consequences of alterations in the state variables representing components of the system.

In the case of a real ecological system, no attempt at simulation can be truly complete. Indeed, the art of systems ecology is to determine the crucial elements and processes that govern the general behavior of the ecological system as a system. Systems analysis is particularly useful to citizens and legislators who have to make decisions from less than a total data base.

Viewing an ecological system as an interlocking complex of processes characterized by many reciprocal cause-effect pathways, it can be seen that one of the principal attributes of a system is that it can only be understood by considering it as a whole.

After it has been determined which variables need to be considered in order to fully describe a system, a model can be structured. A model is simply some method, usually a mathematical equation or set of equations, which can be used to describe the behavior of a system (a watershed, air mass, etc.). The first models are generally conceptual models which simply seek to fully describe the system and its behavior qualitatively without making any attempt to quantitatively predict such behavior.

Complex mathematical models require the use of an electronic computer for solution of these equations. Model development includes comparison of predictions based upon the model with observed system behavior. A wide variety of models are available to describe the movement of water and substances contained in water, movement of materials in the atmosphere and the accumulation of substances in individual organisms or communities of organisms. If calculated behavior does not correspond closely enough to observed behavior, appropriate changes are incorporated in the model to make it more realistic.

Models can often be used to predict the consequences of certain events or actions well in advance, thus allowing the public to consider risks and evaluate the costs, benefits of community action before embarking on a costly and perhaps disastrous courses.

Once a model has been developed which accurately describes the behavior of a complex system, it can be used in simulation studies to demonstrate how the system can be managed in real life for optimal benefit.

The ability to explain and simulate events clearly varies with their complexity. An architectural model, although a replica in miniature of a building, generally reflects only the form and visual elements of the building while ignoring its structure. Nonetheless, it is a model of the building.

The same type of simulation is employed to represent new towns and urban redevelopment projects in the abstract sense since they remained unpopulated. But while the dynamics of natural and social processes may not occur, the "model" often permits some prediction of the eventual dynamics of the real system.

Major regional subdivisions of the United States can be modeled in ways which describe their environmental systems and permit predictions to be made about regional consequences. Whatever the form of such regional models, however, it is inescapable that the descriptions of the natural, social and political phenomena of regions are usually made by specialists trained in the individual scientific disciplines which are now generally included under the designation "environmental science." In the first instance, the descriptions necessarily reflect the jargon and technical vocabulary of these independent academic disciplines, but models can nevertheless be developed for simulation of the operant natural, social and political processes of a region and these distinct perceptions can be arrayed in a layered multilevel model or plan reflecting reality, chronology and causality.

> The principal long term natural processes determining the course of future development in all regions will be geological. Bedrock geology provides the basement of a region and becomes the bottom layer in this type of simulation. Generally the geological events leading to the forma-

tion of igneous, metamorphic and sedimentary rock are measured in terms of hundreds and thousands of millenia. Bedrock geology serves as the physical foundation for plotting the evolution of a landscape.

Surficial geology or the manifestation of bedrock geology at the surface of the land provides a second layer. The major events determining surficial geological characteristics are those of the Pleistocene which began one million years ago and ended with the last Ice Age a little over 10,000 years ago.

The geologic processes and systems of a region are the principal determinants of ground water hydrology. Groundwater is likely to be abundant in surficial deposits and sedimentary rocks, but is limited to cracks, fissures, and faults in igneous and metamorphic rocks. The current expression of exposed bedrock and the upper surface of surficial deposits defines the physiography of the region and represents another layer in this model, a layer which includes the most recent geological activity-coastal and fluvial deposits.

Although river courses are dynamic, many large lakes and major rivers may have occupied their corridors for thousands of years. The hydrology of surface waters follows physiography in time and causality. Soils can be considered the final step in the evolutionary progress of geological events, and are largely a consequence and expression of surface water processes and climate.

The natural vegetation of a region depends on the geology, physiography, hydrology, soils, and climate of the region while the indigenous animal populations depend upon the vegetation. Existing current human land use provides the surface characteristics which are most recent in time.

This kind of model can be represented by a series of maps at consonant scales and can be digitized for computer munipulation. The primary value of such a model is that it is integrative, and demonstrates causal relationships among natural processes.

Mountains and hills reflect rock harder than adjacent valleys.

Rock type definition explains physiography.

Surfical deposits conceal bedrock and reveal their own morphology.

Terminal moraines, outwash plains, drift, till, kames, kettles, eskers and other topographical features become comprehensible in terms of the geological processes from which they were formed.

The patterns of rivers and streams vary with the permeability of rocks and soils and reveal this in the extent and structure of the drainage systems.

The abundance of lakes often reveals obstructions to drainage by glaciation.

The forces of weather and gravity work on rock and produce soils. Soil textures and patterns are derived from the parent material and the vegetation that has occupied them. Soils mirror river courses, old and modern. Coarse material remains at high elevations, while fine sediments occupy valleys.

Plants reveal the most discriminating perceptions of environmental factors. Elevation, slope, aspect, soils and climate are synthesized in the pattern and distribution of native vegetation throughout a region.

Animals, being mobile, are less localized than plants, nevertheless, animal habitats conform to vegetative associations.

Finally, at least until the Second World War, man can be seen mining where geology provides, farming in conformity to soil productivity, shellfishing in estuaries, building on sure foundations, locating roads and railroads in river corridors and through muntain passes.

The ecological model just described reveals the underlying basis for such superficial perceptions.

It can be said that even such a ecologically sophisticated model is static and of necessity frozen at some instant of time past. Indeed, this is true, and any such model must become dynamic if it is to describe and predict even the near future. Nevertheless, important elements of such a model can properly remain somewhat static. Few geological events are so dynamic as to be consequential on planning scales measured in decades, with the important exceptions of earthquakes, beach erosion and deposition, fluvial processes and subsidence.

Surface water systems are likely to remain within existing geological corridors, and soils to retain their lower horizons within the time scale of human planning. The native vegetation associations will probably persist or follow well-defined successional patters if permitted to do so by man. Not all of the elements in this type of ecological model are dynamic to the same degree.

The assemblage of scientists competent to construct each plane in the model ensures that the professional perceptions essential to describe the dynamic processes which resulted in the present reality will not be overlooked. It is common practice to isolate associated layers and model discrete processes.

> Bedrock and surficial geology can be considered together with climate as groundwater process.
>
> Soils and climate can be studied to predict runoff, erosion and sedimentation.
>
> Precipitation, runoff, and percolation can be examined as determinants of vegetation distribution and dynamics, while vegetation and land use can be considered as influences on microclimate.

As these and other relationships are integrated, the value of the basic data can be enhanced. There are innumerable sub-models which can be developed as parts of overall regional models.

This layered modeling technique leads to understanding of the causal relationships among the major phenomena and processes constituting the region as a system. It also facilitates identification and description of relationships among the elements of many seemingly unrelated elements and processes.

Until recently, ecological studies have usually been limited to consideration of small sites by small numbers of scientists. The significant insights that have been derived from such studies can now be used to quantify the great masses of data provided by our national remote sensing efforts (the Earth Resources Technology Satellite, ERTS, and similar programs).

When relationships among elements of major environmental systems have been identified and eventually quantified, predictive models can be developed by means of which the consequences of human activities on natural systems and the modification of natural processes by mankind can be enumerated and quantified. *See*, IAN MCHARG, DESIGN WITH NATURE (1970).

Mathematical models can be developed at various levels of sophistication and complexity permitting application of powerful mathematical techniques such as operations research. While mathematical models must remain generally idealized present representations of reality and at the present state-of-the-art cannot include all the variations of all the elements of even the simplest natural systems, nevertheless, physical and mathematical models have many advantages over verbal descriptions in the study of environmental problems.

Mathematical modeling requires a knowledge of the physical aspects of the system being modeled as well as the mathematical techniques for operating upon the model. In many ways, the characteristic of the model are influenced by the specific objectives of the model builder, and the techniques involved in analysis of the real world system will depend on the model formulated for its study. *See* Yannacone, *How Shall We Generate Electricity? Critera for Public Choice*, THE ENERGY CRISIS: DANGER AND OPPORTUNITY ch 4.

There are certain terms commonly used in systems analysis with which planners, attorneys and concerned citizens should be familiar.

> The controllable and partially controllable constrained inputs to a system are called *decision variables*.
>
> When each decision variable has been assigned a particular value, the resulting set of decisions is called a *policy*.
>
> A policy which does not violate any of the constraints imposed by the system is called a *feasible policy*.
>
> The set of all possible feasible policies is termed a *policy space* and may vary with time in space of many dimensions. (For example, air, water, soil, vegetation, and animal communities would each be considered "dimensions" in this sense of the word.)
>
> The condition of the system at any time and place is represented by variables known as *state variables*.
>
> Supplementing the state variables are the *system parameters* which may be constant or variable and are determined by considerations outside the system under immediate consideration.
>
> *State vectors* are quantities which in addition to magnitude are characterized by direction—in time (past or future), in space (any direction in any dimension), or both, and must include all aspects of the system which are or can be affected by changes in the decision variables.

The concept of a "best decisions" set or policy implies the existence of criteria by means of which the effects of any feasible policy on the output of the system can be evaluated. Such criteria are called *overall objectives,* and in most instances consist of many component objectives some of which are quantitative, while others are measurable at best only in an ordinal or qualitative sense.

If two objectives can be measured or described in the same units or terms and to the same general relative degree of accuracy, they are said to be *commensurate. Non-commensurate* objectives are those which cannot be expressed in

excesses of that already moribund system. The public interest and the interests of individual private property owners would both be better served by ecologically sophisticated, environmentally responsible, socially relevant, economically viable, and politically feasible legislation regulating land use and resource exploitation, but until

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common units or those in which the order of magnitude of the errors inherent in the evaluation of one variable may mask the significance of the magnitude of the other variables.

The *objective function* is a statement by means of which the consequences or output of the system can be determined, given the policy, the initial values of the state variables, and the system parameters. Although conventional usage, particularly in economics has limited the term objective function to quantitative objectives that are commensurate, many environmental systems include non-quantitative and non-commensurate objectives, which may account for the reluctance of many economists to consider environmental factors in cost/benefit and benefit-risk analyses.

Weighting and scaling factors can be used as means of combining multiple objectives of varying dimensions into a single objective function, but such factors are usually determined politically and socially rather than mathematically.

Formulation of an objective function is a major concern of systems analysis, and characterization of the appropriate restrictions or constraints on the operation of a model is one of the most critical steps in the process of formulating an objective function. There are natural and physical constraints, economic constraints, societal constraints, and political constraints limiting the operation of any real environmental system.

Systems analysis always includes formation, development, testing and validation of some model, usually a mathematical model, followed by identifying and optimizing an objective function. Human judgement, however, is required at every stage in the analysis of complex systems in order to avoid building computationally unfeasible models or models which may be mathematically feasible but so oversimplified as to be non-representative of the system modeled. Enthusiasm by a researcher for a particular solution technique occasionally leads to modeling systems in a way that will permit the use of that particular technique, rather than modeling the system as it actually occurs in nature. This is particularly true in consideration of economics where unreasonable committment to linear regression techniques often leads to misrepresentation of the environmental impact of business and government action on environmental systems.

Systems analysis is still to some extent an art wherein success requires a serendipitous blend of real world data, modeling, mathematical and scientific intuition, choice of the "right" optimization techniques, and often represents, in retrospect, the "propitious confluence of fortuitous circumstances."

There is no single or "best" optimization technique which can be applied to any specific problem in systems analysis. Each of the techniques available has advantages and disadvantages, so that selection of any specific technique involves consideration of many factors including:

> . . . the structure of the objective function and constraints inherent in the formulated model
> . . . the nature of the data available as inputs to the model
> . . . the level of accuracy of the solution sought
> . . . the characteristics of the computers available for solution of the problem
> . . . the computer time available.

Optimization methods are generally considered in two groups characterized by the mathematical techniques associated with their implementation:

> Control theory with its classical roots in the calculus of variations, and
> Operations Research which contributed substantially to the success of the Allies during World War II.

Operations Research deals mainly wth mathematical programming: the analysis of the mathematical model in order to achieve a specific solution goal. The word "programming" when used in the context of "mathematical programming" is analogous to "planning," and should not be confused with computer programming, although computers are frequently called upon to perform the iterative mathematical computations required by many mathematical programming techniques.

that time the interests of society will demand judicial protection of social property as the result of appropriate equity litigation.[92]

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92. Wherever citizens are faced with imminent danger of serious, permanent and irreparable damage to the land, landscape and natural resources, a clean hands appeal to equity, properly framed and imaginatively articulated, establishing the existence of an environmental wrong and demanding an equitable remedy can be the most effective weapon in the battle to protect national, natural resource treasures from private greed or public blundering. Class actions seeking declarations of the rights of the People to a salubrious environment . . . clean air, potable water, viable populations of diverse plants and animals and responsible utilization of the limited supply of the world's non-renewable natural resources for the full benefit, use and enjoyment of this generation and those generations yet unborn . . . asserting these rights under the ninth amendment and the Trust Doctrine are the ways the citizen can look to the law for protection of the environment while awaiting ecologically sophisticated, environmentally responsible, socially relevant and politically feasible legislation.

The environmental advocate usually has only one chance to obtain timely, temporary, equitable relief; and must plead all the elements of the cause of action in the initial application to the court, usually on a motion to bring the suit. *See*, Sierra Club v. Morton, 405 U.S. 727 (1972). Though the basis of the Court's decision in that case was the Club's failure to show that it was an aggrieved party, the decision is not to be interpreted as an inflexible judicial denial of standing to all those seeking to represent the public interest as private attorneys general. Rather, it was a failure of the conservation groups led by the Sierra Club to prove that in this instance they represented a party aggrieved by the actions complained of.

The Supreme Court ruled that the Sierra Club had failed to establish sufficient direct interest in the controversy to be accorded standing. The Club had not shown that the organization would suffer "injury in fact" from the action challenged. "[A] mere 'interest in a problem,' no matter how long standing the interest and no matter how qualified the organization is in evaluating the problem, is not sufficient by itself to render the organization 'adversely affected' or 'aggrived' within the meaning of the APA." The Court indicated that aesthetic and environmental interests if sufficiently established could provide a basis for standing. Further, the Court rejected the claim that standing required special damages. Thus the Court held that once a person is established as a proper representative of a party aggrieved or adversely affected that person, whether an individual or organization, may assert the interests of the general public in environmental litigation, without the necessity of showing special damages.

The *Mineral King* litigation is just one contribution to the miasma of apparently inconsistent decisions arising out of the morass of litigation spawned by those "Piper Cub" lawyers, Burger, 10 TRIAL LAWYERS QUARTERLY 12 (1974), of which Chief Justice Burger is so fond. The "747 litigation," which no doubt the Supreme Court eagerly awaits, would challenge proposed federal agency action on the merits and be supported by a fair preponderance of the substantial, credible, scientific evidence. Petitioners would assert imminent danger of serious, permanent and irreparable damage to natural resources and the environment as a result of the proposed agency action and would seek equitable relief, not merely procedural compliance with NEPA by pro forma filing of an environmental impact statement.

The real tragedy of the *Mineral King* case was the failure of the Sierra Club to establish the basic requisites for equitable relief in environmental litigation—imminent danger of serious, permanent and irreparable damage to a national, natural resource treasure.

Had the Sierra Club:

1. amended its complaint to challenge the proposed recreational development, supporting highway and overhead transmission lines on the grounds that such a development does not represent the highest and best use of a national, natural resource treasure; and

2. alleged that determination of the highest and best use of a national, natural resource treasure requires use of the methods of environmental systems science; and

3. brought the action on behalf of all the people of the United States, not only of this generation but of those generations yet unborn, who are entitled to the full, benefit, use and enjoyment of the national, natural resource treasure without damage resulting from failure of the federal agencies to determine the impact of their proposed public improvements upon such a national, natural resource treasure in accordance with the methods of environmental systems science; and

CONCLUSION

The absolute nature of private property rights has been attacked throughout history. "Private property" has been the citadel against which the polemiscists[93] of the late nineteenth and early twentieth century social reform movements hurled their sharpest epithets.

The American Constitution and the French Declaration of the Rights of Man[94] both treated property as one of the fundamental human rights which government existed to protect. Many of the legislative codes founded on the principle of individual private ownership of property as the necessary corollary of individual liberty, developed the social instrumentality of property by endowing the holder of property with a subjective but nevertheless substantive right, absolute in duration and in effect. The property "right" attached to the thing appropriated, and the duty corresponding to this right rested on all persons other than the owner of the property. The continental legislators who followed in the wake of the French Revolution adopted the rigid legal construction of the Roman *dominium*.[95]

> 4. then offered to prove by a fair preponderance of the substantial, credible, scientific evidence that the proposed government action did, in fact, represent an imminent danger of serious, permanent and irreparable damage;

standing could have been established and the evidence elicited in a trial on the merits might have induced Congress to re-examine the entire project in a manner similar to the President's reconsideration of the Cross-Florida Barge Canal in 1970, shortly after an action was filed by the Florida Defenders of the Environment challenging further construction of the Canal. Environmental Defense Fund v. Corps of Eng'r, 324 F. Supp. 878 (D.D.C. 1971).

> I am today ordering a halt to further construction of the Cross-Florida Barge Canal to prevent potentially serious environmental damages. . . . A natural resource treasure is involved in the case of the Barge Canal—the Oklawaha River—a uniquely beautiful, semi-tropical stream, one of a very few of its kind of the United States, which would be destroyed by construction of the Canal. . . .
>
> The step I have taken today will prevent a past mistake from causing permanent damage. But more important, we must assure that in the future we take not only full but also timely account of the environmental impact of such projects—so that instead of merely halting the damage, we prevent it. Address by President Nixon, Jan. 19, 1971, *reprinted in* PUBLIC PAPERS OF THE PRESIDENT 43 (1971).

For the actual "Counter-102" Statement prepared by the Florida Defenders of the Environment which led to the initial reconsideration of the Cross-Florida Barge Canal project, *see*, Yannacone, *The Cross-Florida Barge Canal Counter-102 Statement*, *Environmental Systems Science*, PROCEEDINGS OF THE A.B.A. NATIONAL INSTITUTE ON ENVIRONMENTAL LITIGATION, at ch. 10 (1975).

93. *See generally*, RATIONAL BASIS OF LEGAL INSTITUTIONS (1923).

94. "The aim of every political association is the preservation of the natural and imprescriptable rights of man. These rights are: liberty, property, security, and resistance to oppression." DECLARATION OF THE RIGHTS OF MAN, art. 2 (n.p. 1789). Article 17 of the same document begins, "Property being a sacred and inviolable right. . . ."

95. *Dominium* means ownership in the sense of personal possession, while *imperium* means the power of a sovereign to regulate the use of property. In modern law, as a result of the medieval confusion of the power of the sovereign to regulate the use of property (*imperium*) with ownership (*dominium*) and of the idea of the corporate personality of the state, we have made the *res publicae*, *supra* note 73, of the Roman law into property of public corporations, which has required modern systematic writers to distinguish between those things which cannot be owned at all, such as human beings; things which may be owned by public corporations but may not be transferred; and things which are owned by public corporations in full dominion.

The consequences of accepting the concept that property ownership is an absolute and inviolable human right are obvious. The owner, having the absolute right to use, benefit from, and dispose of, the property, has for many of the same philosophical reasons, the right not to use the property, not to derive any benefit from it, and not to dispose of it, as well as the right to abuse or misuse the property, and deny others, even society, the benefit of non-consumptive uses of the property. Accepting the concept of absolute private property rights cedes to the property owner the right to ultimately dispose of property by destroying it.

Critics of private property rights have ranged from advocates of primitive communal living groups[96] to prosaic and now partially realized proposals to transfer certain kinds of property from private to public ownership, or to limit their exercise by government regulations.

The limited availability of prime agricultural land has led many concerned citizens to consider supporting legislation which would treat productive agricultural land as a public resource with the owners of such land subject to public regulation much the same as public utilities.

The next logical step after converting public resources to public utilities is a legislative declaration that all non-renewable natural resources in critical or short supply are public property and con-

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96. During the second quarter of the nineteenth century many reformers experimented with socialist alternatives to the capitalist system. Notable among those who rejected the capitalistic system of wealth and acquisitiveness were, of course, Charles Fourier, Robert Owens, and those who began the Brook Farm experiment, including Elizabeth Peabody, in whose Boston bookstore the Farm was planned. Of it, she said,

> the plan of the Community, as an economy, is in brief this: for all who have property to take stock, and receive fixed income thereon; then to keep house or board in commons, as they shall severally desire at the cost of provisions purchased at wholesale or raised on the farm; and for all to labor in the community, and be paid at a certain rate an hour, choosing their own number of hours, and their own kind of work. With the results of this labor and their interest, they are to pay their board, and also purchase whatever else they require at cost, at the warehouses of the Community, which are to be filled by the Community as such. . . .
>
> All labor, whether bodily or intellectual, is to be paid at the same rate of wages; on the principle that as the labor becomes merely bodily, it is a greater sacrifice to the individual laborer to give his time to it; because time is desirable for the cultivation of the intellectual, in exact proportion to ignorance . . . . As a Community it will traffic with the world at large, in the products of agricultural labor; and it will sell education to as many young persons as can be domesticated in the families. . . . In the end it hopes to be enabled to provide not only for the necessaries, but all the elegances desirable for bodily and for spiritual health: books, apparatus, collections for science, works of art, means of beautiful amusement. These things are to be common to all. . . .

E. Peabody, Brook Farm, *reprinted in* J. Noyes, History of American Socialism 114-17 (1870).

Twentieth century reverberations of "share the wealth" plans echoed in Huey Long's plan to give each family a $5,000 homestead and a guaranteed annual income of $2,500 with the funds to come from the confiscation of great fortunes. 79 Cong. Rec. 8040 (1933).

sumption of such resources by the private sector is subject to regulation by the government "in the public interest." The final step would be to declare all land and natural resources national assets and eliminate any unqualified or absolute private rights in those assets.

However varied in emphasis and method, the general basis for what may conveniently be called the "Social" criticism of private property interests is found in the statement that, "many of the evils of society are primarily due to the unregulated existence of the institution of private property."

There is no surer way to discredit the institution of private property than to seek its justification in eighteenth century economic theory,[97] and insist that property is indispensible to human development and the attainment of personal liberty and individual freedom because property is but the external form of the inherent and

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97. Many of the economists who were spawned in the wake of the Industrial Revolution, first in Europe and then in America, believed that human nature requires the institution of property, arguing that without property there would be no stimulus to labor or saving. Since the land is not of human creation property interest in land must be justified other than on the basis of a right in those who labor to possess the fruits of their labor. For a person to appropriate a mere gift of nature, not made to them in particular, but which belongs as much to all others, is prima facie an injustice to all the rest of mankind.

> M. Adolph Wagner calls this system the economic theory of nature, and Roscher formulated it thus:
>
> "Just as human labor can only arrive at complete productivity when it is free, so capital does not attain to full productive power except under the system of free private property. Who would care to save and renounce immediate enjoyment if he could not reckon on future enjoyment?"

Roscher, *The Theory of Property*, RATIONAL BASIS OF LEGAL INSTITUTIONS, ch. XIII, at 176 (1923); *reprinted from* DE LAVELEYE, PRIMITIVE PROPERTY (G. Marriott trans. 1878). The private appropriation of land has been deemed by many philosophers and economists to be beneficial to those who do not, as well as those who do, obtain a share in the land appropriated, because the strongest interest which the community and the human race have in the land is that it should yield the largest amount of food, and other necessary or useful products of the land required by the community. Now, though the land itself is not the work of human beings, its produce is; and to obtain enough of that produce, certain human beings must exert their personal labor. In order to support that labor, which is deemed beneficial to all society, some agency of society must expend a considerable amount of the savings from earlier human labor. The reason usually assigned by generations of philosophers and economists for allowing land to become private property, and which, after all, may actually be the best reason that can be given, is that the majority of mankind will work much harder and make much greater pecuniary sacrifices for themselves and their immediate descendants than for the public. In order, therefore, to give the greatest encouragement to production, it has been thought right that individuals should have an exclusive property interest in the land, so that they have the most to gain by making the land as productive as they can, and may be in no danger of being hindered from doing so by the interference of anyone else. A property interest in the land, however, is not indispensible for its good cultivation. Lands have been well cultivated throughout history by temporary occupants. Private property in the soil, is not, therefore an economic necessity. *See* the discussion by de Laveleye on the assertion of John Stuart Mill that "Landed property, . . . if legitimate, must rest on some other justification than the right of the laborer to what he has created by his labor." *Id.* at 174.

The increased value of land and natural resources resulting from national activity such as provision of public services, such as highways and other means of transportation and the maintenance of certain national institutions, not the least of which is the legal system which protects "property" interests, should be reserved to the nation and not considered the "property" of those who hold nominal title to the land or resources and reap the harvest of public enterprise in the form of an increase in the market-value of the property.

necessary law of human nature which provides that it is in the free creative expression of the power of human dominion over material objects that individuals achieve their personality and manifest their freedom.[98]

It was noted in the early part of the nineteenth century that at any time in social history when the value of the greater part of the proprietary rights which the society maintains are to be found among active property rights, note 36 *supra*, creative work is encouraged, idleness discouraged and societal interests advanced. While at those times when the greater value of the property rights maintained by society fall into the passive category, the social effects are less salubrious.

The "property" which stampedes many concerned citizens into displaying the ferocity of terrified sheep when the cry is raised that "property rights are being threatened," is not the simple property interest of suburban homeowners in their one family homes or workers in their tools; still less the household goods, automobiles and other domestic amenities of the average citizen. It is rather the "property" represented by fuedal dues which robbed the French peasants of part of their produce until the Revolution abolished them. The question might be raised as to just how the modern income tax levied on each increment of wealth which labor produced differs from the *quintaines*, and just how transfer taxes differ from *lods et ventes*, which were such an onerous burden on the working class that they eventually toppled fuedal society. How do urban ground-rents differ from the payments that were made to English sinecurists before the Reforms Bill of 1832? Both are equally tribute paid by those who work to those who do not work. If the monopoly profits derived from maintaining a company town whose tenants must work in the mine or factory in order to earn the money to buy their food at the company store and pay their rent were an intolerable oppression to the workers of this country prior to the Great Depression, what is the sanctity attached to the monopoly profits of modern industry which is in a position to control both output of goods and the price of goods, while compelling the consumer to buy only what is offered on the pain of not buying at all?

Nevertheless, all of these examples of passive property interests claim absolute and unqualified protection as "property" which may not be taken by the federal government "without due process of law" because of the protection afforded by the fifth amendment in the Bill of Rights, and lately by the fourteenth amendment and its application of the Bill of Rights to all government action in the United States of America.

At the turn of the twentieth century, some philosophers and economists attempted to make a distinction between active and passive ownership. It was noted that in modern industrial society, the great mass of property in terms of value and wealth consists neither of personal acquisitions or other tangible property, nor of stock in trade or tools, but rather in rights of various kinds such as royalties, rents and shares in industrial undertakings which yield an income irrespective of any personal service rendered by their owners. These economists and philosophers lamented the divorce between ownership and use and noted that in modern industrial civilization, property had become attenuated to nothing more than a monetary lien secured by some kind of bond or other legally recognized obligation on the product of an industry which carries with it a right to payment, but which is valued because it relieves the owner from any obligation to perform any positive or constructive function in society. Such property was characterized as passive property or property for acquisition, property for exploitation or property held for the purpose of wielding power, to distinguish it from the property that is actively used by its owner for the conduct of a trade or profession, or the upkeep and maintainance of a household and family. Tawney, ***Property as a Function, Not a Right: Another View***, RATIONAL BASIS OF LEGAL INSTITUTIONS ch. XXVI, at 329 (1923); *reprinted from* THE ACQUISITIVE SOCIETY chs. II, III, IV (1920) [hereinafter cited as *Property as a Function*].

To the lawyer passive property may be as fully property as active property. It is questionable, however, whether passive property is truly property in the absolute economic sense. For over two generations, M. King Hubbert has stated that the real measure of wealth or value in the world today is the extent to which an individual or organization controls the non-renewable, consumable resources necessary to human survival, commerce and industry. M.K.Hubbard, ***Energy Resources,*** THE ENERGY CRISIS DANGER AND OPPORTUNITY 43-51 (V. Yannacone ed. 1974).

98. Hegel developed the metephysical theory of property further than Kant by getting rid of the idea of occupation and treating property as a realization of

the idea of liberty. In order to reach the complete freedom involved in the idea of liberty according to Hegel, personal liberty must be externally manifest. Hence a person has a right (which Hegel defines as a reasonable expectation of being allowed) to direct their personal will externally. Any object on which it is so directed becomes personal property. The material object which has become "personal property" is not an end in itself, but acquires rational significance from the exercise of the will of some individual person. Thus when human beings appropriate material objects, in a fundamental sense they manifest the majesty of their individual wills by demonstrating that external objects that have no will are not self-sufficient and are not ends in themselves.

Of course this assumes that the whole question of ownership is between the owner and the property owned, not between the owner and other human beings who do not own the property but might wish to own it.

It follows, adds Hegel, that the demand for equality in the division of the soil and the other forms of wealth is superficial. According to Hegel, differences of wealth are due to accidents of external nature which give to that property which one person impresses their will upon greater value than that property another impresses with theirs, and to the infinite diversity of individual minds and character which lead one person to attach their will to this object and another to that.

Other nineteenth century metaphysical theories of property proceeded to carry out the ideas or develop the method of Hegel, but they all ignored the existence of that property which was not subject to individual ownership or appropriation, the property that the Romans designated *res extra commercium*. One way of meeting the difficulties in applying Hegel's philosophical theory of property is to state that beyond what is needed for personal existence and individual human development, property can only be held in trust for the state. If the philosophy of Hegel were to be accommodated within the American system of government under our Bill of Rights, however, the alternative to expropriation of private property by direct act of the legislative or executive branch of government would be income or property taxation and inheritance taxes graduated to the eventual level of practical confiscation. Application of the philosophy of Hegel leads almost inevitably to a theory of property that can best be described as social utilitarianism in the context of a totalitarian state. (*See* note 73, *supra*).

At a time when large unoccupied areas were open to settlement and abundant natural resources were waiting to be discovered and developed, a theory of acquisition by discovery and appropriation of property, including land and natural resources that had not been claimed or appropriated by others already, the *res nullius* of the Romans reserving a few things as *res extra commercium, supra* note 73, property which could not be the subject of personal appropriation or private ownership, did not involve the kind of serious social concerns it now does in a crowded world facing shortages of essential natural resources including arable soil, the basis for all food and fiber production.

In the United States, the law of mining and of water rights on the public domain developed along the lines of discovery and reduction to possession under the conditions of the American economy in 1849, 1866 and 1872, while more recent legislation proceeded on ideas of conservation and wise use of natural resources. The argument that excludes some property from private ownership seems to apply more and more to land and certain non-renewable natural resources in short supply but subject to heavy demand.

Even Herbert Spencer, the prophet of Social Darwinism and Economic Determinism said, in explaining the extent of "property" in those things which are common to all such as air and water, the *res communes* of the Roman law: "If one individual interferes with the relations of another to the natural media by which the latter's life depends, [that individual] infringes the liberties of others by which his own are measured." (*See* note 33, *supra*).

Since this has been long held to be true of air, and of light, and of running water, mankind has insisted upon inquiring why it is not true of land, of the articles of land, of the articles of food production, of tools and implements, of capital, and even in the most recent extremes of social welfare legislation, of the luxuries upon which a truly human life depends. If, instead of looking at property from the ideal of maximum individual activity as Spencer did, one looks at it from the ideal of maximum effectiveness of the economic order, a distinction may be drawn, as has been done in many socialist systems, between instruments of production, which it is assumed may be used more efficiently when socialized; and consumer goods, "articles of personal consumption and comfort," destined only to be consumed or used for the individual life, with no potential for productive utilization by the community or larger society.

From the economic theory of the eighteenth and nineteenth centuries comes the belief that the particular forms of property which exist at any moment are sacred and inviolable and an unshakeable conviction that anything, including human beings (directly during the period when slavery was tolerated, and indirectly today as a result of the conditions of involuntary servitude that the modern business and social welfare systems have established as the state in which most citizens must exist) may properly become an object of ownership upon which private property rights may be exercised.[99]

By the end of the nineteenth century, all the advocates of the various private property interests vied with one another in repeating the shibboleth that property is a "natural right," but few of them fully understood the import of those words. The philosophical jurists of Germany, mainly influenced by the philosophers Fichte and Hegel, sought to explain this position.

Fichte reasoned that every man has an inalienable right to live by his labor, and consequently to find the means of employing his hands, and it is in this philosophical principle that we find the origin of the "right to work" movement. Hegel reasoned that everyone ought to be possessed of property, while the poet Schiller rendered the same idea in a two line couplet.

"Etwas muss er sein eigen nennen,
Oder der Mensch wird morden und brennen."

which is to say, that "a man must have something to call his own or else he will burn and kill."

During the late nineteenth century, the metaphysical theory of property was linked with theories derived from considerations of human nature.

Although it purports to be different, the positivist theory of property is essentially the same as that of Hegel. The verification of deductions from some "fundamental law of equal freedom" by observation of other civilizations is not essentially different from the verification of the deductions from the metaphysical fundamentals carried on by the historical school of jurisprudence. The most notable difference among the philosophers is that the metaphysical and the historical jurists rely chiefly upon the primitive possession of ownerless things, while the positivists have been inclined to lay stress upon the creation of new material goods by means of human labor.

The metaphysical jurists reached a principle about property by metaphysical speculation and deduced property as an institution from that principle. The historical jurists verified their deduction that property did and should exist by showing the same principle as the idea realizing itself in the course of legal history. In the hands of the positivists the same principle was reached empirically from observation, the same deduction was made therefrom, and the deduction was verified by finding the institution latent in primitive society and unfolding with the development of civilization.

The method of the historical school of jurisprudence has been to find a doctrine or institution in the Roman law, then trace its development into modern law; first through the German law and to that extent make the historical investigation comparative; then to attempt reconstruction of the primitive law and legal institutions of the Indo-European peoples seeking the roots of modern law therein; finally broadening the scope of inquiry by examining the social institutions of all primitive peoples and laying the foundations of a universal legal history. I POUND, JURISPRUDENCE 124-26. In addition to works on the Roman law in medieval Europe and England by Vinogradoff, *see also* H. MAINE, ANCIENT LAW: ITS CONNECTION WITH THE EARLY HISTORY OF SOCIETY AND ITS REFLECTION ON MODERN SOCIETY (1950), especially ch. VIII, *The Early History of Property*.

99. It was Karl Marx who finally joined the philosophy of materialism and political science in a formal theory of government and economics based on the abolition of private property of all kinds and the absolute sovereignty of the state. The National Socialism of Nazi Germany during the Third Reich and the Communist states of today, which owe their philosophical allegience to the political science of Lenin and the economics and materialism of Karl Marx, both represent the end result of the abandonment of natural law, misunderstanding of the nature of sovereignty and the failure to recognize that there are some material goods and some natural resources that are not subject to personal individual ownership but are essentially *res extra commercium*: not subject to ownership as private property.

Modern industrial civilization assumed its present shape in the age when one of the earliest political expressions of the property right—that once the right of private property is asserted, the personal title on which it is based is absolute and unconditional—dominated the mainstream of philosophy.

Unfortunately, the idea of social purpose as a necessary corollary of the right to own property seems to have been discredited by the industrial economists of the Robber Barons.[100] Nevertheless, it is not surprising that in the new commercial and industrial societies which arose on the ruins of the *ancien regime*,[101] the dominant note should have been insistence upon individual rights irrespective of any social purpose to which their exercise contributed. The natural consequence of the abdication of authority which had stood, however imperfectly, for a common purpose in social institutions, was the gradual disappearance of the idea of social purpose itself. What remained when that keystone in the arch of Society was removed were the pillars of private rights and private interests. The practical result of such ideas was a society ruled by laws, not by the caprice of Governments, but which recognized no moral limitation on the pur-

During his late student days and before he had developed an explicit theory of political communism, Marx attacked Hegel's insistence on private property as the basis for civil society, appealing for abolition of the monarchy and the development of social democracy. The idea of a classless economic society is implicit in Marx' criticism of Hegel's political state.

According to Marx, however, criticism by itself is inadequate. Whether Marx does justice to Hegel may be open to question, but he did oppose Hegel's primacy of the Idea and maintained that the fundamental form of human action is not thought, but manual labor in which man alienates himself in the objective product of his labor, a product which, in society as he saw it constituted, does not belong to the producer. This alienation cannot be overcome by any process of thought in which the idea of private property is regarded as a moment in the dialectical movement to a higher idea, it can be overcome only through a social revolution which abolishes private property and effects the transition to communism. The dialectical movement is not a movement of thought about reality; it is the movement of reality itself, the historical process. Society cannot be changed simply by philosophizing about it. Thought must issue in action, not theory and not philosophy, but social revolution which must be the work of the most oppressed class, which to Marx was the Proletariat.

By consciously and explicitly abolishing private property, the Proletariat would emancipate both itself and the whole of society from the egoism and social injustice which are bound up with the institution of private property.

Although today we consider Marx the prophet of world Communism, it is interesting to note how appropriate his philosophy and theory of property are to the idea of the modern corporate State. Perhaps the time has come in the history of America to seriously consider whether the emerging revolutionary class which Marx, Engels and the modern Communists believed was the Proletariat or workers of the world, might not, in fact, be the corporate oligarchy of today's multinational or more appropriately supranational or transnational corporations.

With the rise of socialism as the form of government in many areas of the world today, one of the most vexing questions in philosophical jurisprudence becomes how to rationally account for the so-called natural right of property while fixing the "natural" limits to that right.

100. *See generally*, G. MYERS, HISTORY OF THE GREAT AMERICAN FORTUNES (2d ed. 1936).

101. The term *Ancien Regime* was first used to describe retrospectively the social and political structure in France which the Revolution destroyed; that period of French history from 1748 to 1789. It has also been used to refer to other countries at different times, such as Russia at the end of the nineteenth century.

suit of individual economic self-interest—the "Acquisitive Society."[102]

The economic success of the United States has led to a belief that the strength of society is not to be found in socially useful function which would make the acquisition of wealth and the enjoyment of property contingent upon the performance of services beneficial to the public, but rather that all individuals enter the world cloaked with the absolute and inalienable right to freely dispose of any property they may acquire or appropriate in the pursuit of their personal economic self-interest by any means not specifically prohibited by positive law. The implication of this philosophy is that such property rights are antecedent to, and therefore independent of, any service that a person (particularly the corporate person so dear to the heart of a majority of the Justices of the United States Supreme Court prior to World War II) might render to society or any socially useful work they might perform.

The enjoyment of "property rights" in directing industry, and managing commercial enterprises used to be considered a self-evident prerogative of management, which stood by its own virtue and did not require any social justification. Industrial capitalism was a basic function of civilization, and not to be judged by how well its activities contributed to any overall social purpose. There is little doubt that the foundation of early industrial society in England and America was the dogma that rights in the possession and enjoyment of private property were absolute. Nevertheless, even during that grim period of social injustice which stretched generally unrelieved

102. The motive for establishing the public institutions of America, which directly or indirectly determined the policy of those institutions and colored political thought following the Revolutionary War, was not necessarily to meet the need for public services, but to increase opportunities for individuals to attain a "property interest in the material goods they desired."

During the 1920's, Roger Henry Tawney aptly named the social organizations that had evolved from this philosophical position the "Acquisitive Society," preoccupied as it was with promoting the acquisition of personal wealth.

> By fixing men's minds, not upon the discharge of social obligations, . . . but upon the exercise of the right to pursue their own self-interest, it offers unlimited scope for the acquisition of riches, and therefore gives free play to one of the most powerful of human instincts. To the strong it promises unfettered freedom for the exercise of their strength; to the weak the hope that they too one day may be strong. Before the eyes of both it suspends a golden prize, which not all can attain, but for which each may strive, the enchanting vision of infinite expansion. It assures men that there are no ends other than their ends, no law other than their desires, no limit other than that which they think advisable. Thus it makes the individual the center of his own universe and dissolves moral principles into a choice of expediences. . . .

Property as a Function, *supra* note 99, at 332.

A social organization in which the acquisition of wealth is made contingent upon the discharge of social obligations and which sought to proportion remuneration to service and denied it to those who performed no service—a "Functional Society"—is the stated, but still unrealized and probably unrealizable goal of many modern totalitarian states. Such a functional society also seems to be inconsistent with the origins of the American Republic and development of the early American way of life: the immediate concern of which was protection of personal economic rights from governmental interference, and which left economic functions, except in moments of national emergency, to fulfill themselves.

from the Industrial Revolution to the Second World War, some equitable limitations were imposed on the exercise of private property rights in order to meet specific social emergencies.

When laws, whether dealing with property or otherwise, do not have the sanction of the enlightened conscience of the community, they are already in the process of being abrogated by the people. Even the deliverances of the courts interpreting the rubrics of the positive law are of value only insofar as they enjoy the moral sanction of the community. Radicals easily find some justification for their attack upon private property rights in the gap that has arisen between the institution as it actually exists and the demands of the enlightened social conscience of the community as to what it should be. To widen that gap or to refuse to bridge it invites revolution, whether from the barrel of a gun or the pens of the Supreme Court.

When the organizations and institutions established by Society to promote the public interest become so arbitrary that they no longer assure the social relevance of economic activity, and so tyrannical as to thwart the social function of the economic system instead of promoting it, as was the case in most European countries by the middle of the eighteenth century, actions are often taken to emancipate the individual and to enlarge personal rights. In France, Germany and Russia the discontent over the "rights of those with property" culminated in bloody revolutions out of which emerged totalitarian states.

Let those who today hold nominal title to the land and nonrenewable natural resources of the world look around.

> Black, brown, red, yellow and white consumers are shopping for a better world with a whole new shopping list. They are demanding that the land, landscape and finite natural resources of the world today, particularly those upon which all the people of the world must depend for food, clothing and shelter, be considered a public trust to be used wisely by the people of this generation and conserved as the capital assets of those generations yet unborn.[103]

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103. Cerchione, note 85 *supra*.