Physiocracy means rule of nature. The term, coined in 1767 by Pierre-Samuel du Pont de Nemours to describe the doctrine of François Quesnay (and his unacknowledged collaborator Victor Riqueti, marquis de Mirabeau), captures the complex ideological character of the first French and indeed the first modern school of economics. Quesnay transformed economics from the role it had occupied from Aristotle to Rousseau as the management of the social household-first the city, then the state-to its modern role as the science of wealth. In so doing he disengaged economic process from its anthropological role as servant of the sociopolitical order, and established its claim to be the direct manifestation of the natural order. In other words, he argued that economic process itself embodied natural law and should thus dictate the sociopolitical order.

Quesnay had arrived at his theories of a free market and economic individualism by studying the emergence of a national market in England. But he always understood that in eighteenth century France the unfettered pursuit of individual interest might not result in the natural order he sought to establish: men could fail to behave "economically." Quesnay believed that his introduction of arithmetic precision into economics provided a scientific rule that should dictate appropriate political arrangements-and even the obedience of sovereigns. He was never willing, however, to trust the spontaneous development of the proper sociopolitical order. Nature required the assistance of an absolute authority capable of forcing natural order upon recalcitrant humans. [pp. 10-11]

Recently, critics have even liberated Quesnay from his belief in the exclusive productivity of agriculture, thus establishing him as the first analyst of capitalism. [p. 12]

The physiocrats always claimed that their program had been designed to strengthen the monarchy. They always remained committed to the notion of a single or absolute embodiment of sovereignty and would never entertain any breath of political pluralism. Certainly they never broadcast that the implementation of their economic policies would have entailed recasting the monarchy according to revolutionary principles. They did come to recognize that the practices of the monarchy departed from their conception of natural order, but in political terms they may have assumed that since both the monarchy and their legal despotism represented absolute authority, the one could be substituted for the other by administrative fiat. Like so many other philosophes, the physiocrats abhorred the prospect of social chaos and desperately assumed that men of good will could rationalize their world without paying that ultimate price. It never seems to have occurred to them that the mere implementation of their economic program could lead inexorably to the very social and political disruption they dreaded. Ironically, that fateful silence, which has never been recognized much less understood, accounts for the passion with which so many either accepted or rejected physiocracy, and explains how value-free social science passes into ideology. [p. 15]
The shift from early modern thought to theoretical individualism stands as one of the major revolutions in human consciousness. In this context, physiocracy can be seen not only as the first sustained attempt to integrate economics into social and political theory, but as a major constitutive element in the new paradigm. The very failures of physiocracy to triumph as political program or as social science elucidate the transition in thought. In this perspective, Quesnay's and Mirabeau's attachment to their myth of an ordered past matches in significance their vision of an individualistic future. Their particular intellectual hegira helps to elucidate the complexities of the formulation of modern thought and the creation of a new intellectual paradigm, as well as a new ideology. [p. 31]

Instead of calling Governments sometimes Monarchy, sometimes aristocracy, sometimes Democracy, we should have called them all Theocracy since God is the true master and lord of men.

Plato, The Laws, Book 4, as quoted by du Pont

The Enlightenment proudly proclaimed the values of rational individualism, and philosophes of all lands joined in constructing the new "science of freedom." Even those who, like Hume, enjoyed the benefits of relative political freedom and representative government enlisted as combatants in the great battle to free men's minds from the ignorance and superstition of religion. They assiduously cultivated the scientific method as their most formidable weapon. Science could demonstrate the true origins of the human species and its myths, explain the establishment of societies, catalogue the phenomena of the natural world, establish the true principles of human perception, chronicle the progress of civilization and the arts, and lay down the rational guidelines for the creation of a more humane society. Science, in a word, would permit men to tailor society to fit their own needs; it would release them from the contorted postures imposed by priests and kings in the name of an irrational higher truth.

In this sense, the Enlightenment, despite its diversity, represented an emerging ideology. Man, it claimed, was made for freedom. Established authority had perpetrated inhuman subservience long enough. The ideological chains of the traditional world view within which human society existed to serve the greater glory of God's inscrutable purpose had to be broken. If the concept of God was not banished entirely from the workings of the universe, it was commonly confined to the sphere of general providence; thus the particular regulation of human affairs was left to man. Considered as a whole, the Enlightenment proposed to change the consciousness of man. [pp. 43-44]

Physiocratic economics, however, cannot be understood apart from physiocratic political theory. The authoritarian system of politics was derived directly from a determination to protect -- if not to institute -- the market. The physiocrats saw both political and economic theory as integral parts of a single science grounded in private property. Like so many other theorists, the physiocrats sought to forge an individualistic world view to replace traditional notions of hierarchy. Protection of private property, the necessary prerequisite to economic progress, furnished the law for political life. Physiocracy
constituted a total social theory, the science of "L'ordre naturel et essentiel des societes politiques."

The members of the sect, following Quesnay's lead, sought to explain the nature of men's relations in society and to describe the political form those relations should take. They assumed that a natural law determines the proper rules of life and that an essential political order follows logically. The physiocratic doctrine held that the roots of human social existence lie in the material conditions of life which provide for survival and physical well-being.

The physiocrats usually insisted upon the dictates of nature, or material conditions, as the prime determinant of human behavior, but their rhetoric cannot obscure a fundamental commitment to the ultimate role of divine intelligence. Nature realizes the plan that first existed in the eye of God. Like their contemporaries in the Scottish historical school, the physiocrats never abandoned the notion of divine purpose behind man's most mundane actions. The physiocrats insisted that the human animal, like all others, must eat, but that unlike the others, it stands unique in creation by its possession of an intelligence directly linking it to the deity whose purpose informs the universe. In other words, although they shared the physiological materialism of a Diderot, they supplemented it with an idealist conception of human intelligence (as distinct from animal intelligence) as an emanation from God -literally a divine light that informs the human mind.[pp. 46-47]

All social institutions derive from the right of property. Personal property implies the freedom of labor. Movable property represents no more than personal property in use. Freedom to trade cannot be separated from personal and movable property because every individual must enjoy the right to dispose of his own. Cultivation of the soil also requires the free use of personal and movable property; landed property forms its necessary extension, and like all other properties must be completely unrestricted. Without security, property would be a theoretical right constantly violated in practice.

The need for security of private property justifies government, the principle duty of which is to guarantee that security. Physiocratic political theory thus echoes Lockean liberal political theory in its contention that "the less government the better." In all other respects; physiocratic notions of government reverse the liberal model. The physiocrats invented the name "legal despotism" (for which they occasionally substituted "tutelary authority") to describe the government they favored. It included a sovereign, assisted by administrators, and a group of magistrates to serve as the custodians of the fundamental laws of the realm. No restrictions except the sovereign's own sense of responsibility to observe the laws hampered the free exercise of authority. The true rulers, argued the physiocrats, were the laws, which derived inexorably from nature.

Formally, the physiocrats followed the Lockean tradition in their insistence that the natural pursuit of self-interest by the discrete members of society would result in the maximum social good. Nature, or the market, best knows its own requirements. Any artificial interference with the natural process, however well-intentioned, can only distort the natural order. But individual pursuit of self-interest has no place in political life and must be confined to the economic sphere.
Few of the philosophes would have gainsaid the physiocrats' mistrust of political individualism. The physiocrats' major departure from French enlightened thought lay in their total confidence in economic individualism. Nevertheless, their choice of the term despotism provoked outrage. Repeatedly, they felt obliged to explain that their despotism sanctioned only the power of those laws clearly derived from nature, and hence from God. Legal despotism, they explained, only expressed the general belief that it was better to accept the hegemony of the natural order than to risk the arbitrary interference of men.

The political concerns of the physiocrats did not differ as much from those of their contemporaries as their rhetoric would suggest. Quesnay's economic analysis, however, grounded their discussions of natural law, origin of society, authority, and other commonly discussed matters in a specific form of materialism. The economic analysis rests upon a few clear propositions. It begins with the central contention that land, the source of all wealth, furnishes the only disposable national economic surplus, which should, in modern economic terms, be thought of as "that portion of the total value of goods and services generated in an optimal circular-flow equilibrium not exhausted by factor costs." It follows that all commerce and industry must be recognized as "sterile" -- that is, non-surplus producing. It also follows that the only source of a real surplus is the rent of land, and that therefore it alone can be taxed without crippling the productive process that regularly reproduces the surplus that supports society and the state. Royal finances and general social prosperity alike depend upon the extent of the surplus, called by the physiocrats the "net product." The greater the net product, argued Quesnay, the more men can be freed from the direct cultivation of the soil and the more men can engage in transformative manufacturing, in commerce, in the arts, in government service. To render the analytic insights of his economic writings more graphic, Quesnay prepared his famous "Tableau economique" -- the first presentation of a circular-flow equilibrium in the history of economic thought. He believed that the Tableau proved, as scientifically as Newton had proved the existence of gravity, the rule for the expenditure of the net product. [pp. 49-51]

In physiocracy, nature, not man, determines the extent of taxation. Only the surplus afforded by the bounty of nature is available for taxation, and a share of that surplus must remain in the hands of the landed proprietors so that their spending lubricates the circular flow of goods and services that sustains the economy. At the same time the physiocrats held the monarch, or legal despot, to be coproprietor of all lands in the kingdom. They believed that the collection of funds by the state does not threaten the inviolability of property. Rather it is the natural attribution of a portion of the surplus to the upkeep of the market (roads, police, education), just as the proprietors' spending guarantees the market's proper functioning, or as their demand elicits a corresponding supply and thus stimulates the productive sector. The margin for debate about specific allocation remains very slim and that about principles nonexistent. The proprietors might retain a little more, the state collect a little less, or vice versa, but basically nature itself, as interpreted by positive economic science, determines the just and necessary proportions. Thus legal despotism would serve much better than representative institutions to allow the maximum free play to the natural law. Political negotiation, the physiocrats argued, would slow down progress and might even prevent it. For as Quesnay's metaphysics demonstrated, if nature offers man the indisputable laws for his greatest happiness, man retains the freedom to disregard those laws.[pp. 51-52]
Observing the startling increase of English wealth during the preceding century, he naturally sought its cause and believed that he found it in a rational, capital-intensive agriculture under the direction of modern entrepreneurial farmers. His analysis concentrated upon a close investigation of a single estate and emphasized the transformation of a number of small autarchic plots into homogeneous economies of scale, the product of which was marketed at a price sufficiently high to cover costs and yield a rent. He then arbitrarily extended his model to an entire kingdom and argued that the proliferation of such capitalist enterprises would amply provide for the needs of government.

Quesnay's economic analysis rested upon the understanding that mere subsistence farming does not produce wealth. In answer to the populationists, who argued that greater population promoted greater national wealth, he argued that powerful, monarchical states require not men, but money. For such monarchies to obtain cash, the product of the land, to which men owe their continued physical existence, must be endowed with a monetary value. Progress beyond autarchy demands that the agricultural product exceed the needs of those engaged in its production and that the excess be converted into monetary wealth. Continued prosperity also requires the continuous return to the land of some portion of the surplus. Quesnay thus isolates the separation of men from the land -- the creation of a market in labor-power -- as the decisive factor in escaping what has since become known as the Malthusian population-subsistence scissors. [pp. 53]

As early as the "Preface" for the Memoires de l'Academie royale de chirurgie, published in 1743, Quesnay laid out the general principles which he would develop into a full-blown metaphysics in "Evidence." To modern readers the "Preface" appears unoriginal, but Quesnay's contemporaries greeted it with enthusiasm. In it he maintains that in scientific research, experience and theory should move hand in hand, serving rather than combating each other. Physical observation and experience, he explains, are as lights "which must unite to dissipate obscurity." He then develops this theme into a number of concepts that stamp his later work. Thus he proposes that in observation "the mind is only a simple spectator." False impressions, those not sufficiently grounded in material reality, infect theory "with false opinions," which, passed from generation to generation, promote more false views. Only a constant return to individual experiments can provide an adequate check against the emergence of an entirely misleading science. But experiments alone cannot produce a brilliant surgeon. Knowledge progresses through theoretical insight and innovation, as well as through practice. The most original if least successful aspect of Quesnay's "Preface" is his attempt to distinguish between constructive theory and idle speculation. He has no trouble defining speculation, which he calls "those fictions of the imagination, those ideas which are not drawn from the depth of things, those principles founded on possibilities and on appearances." The delirium of speculation has led to the modern habit of constructing "systems," a word Quesnay mistrusts as much as do his enlightened colleagues. "On foundations built by imagination alone . . . philosophers have complacently erected the entire machine of the universe." The antidote to such false procedures seems simple: construct a theory based on experience alone. Quesnay, however, rejects that unilateral solution on the grounds that nature does not yield all her secrets in rational form. Her various manifestations permit an infinite number of possible solutions. Sooner or later scientists must resort to the deceptive but indispensable guides of conjecture and analogy, and
accept the consequences of that uncertainty which plagues all operations of the human mind. [pp. 81-82]

French Newtonians, following Voltaire, had gradually mitigated the force of Newton's theism. Furthermore, they increasingly assumed that gravity, that force of attraction which Newton had placed outside matter, actually constituted a property of matter itself. Over time this position permitted a kind of uneasy synthesis of Cartesian and Newtonian thought in the works of men like Buffon and Diderot. Quesnay, while working toward a similar synthesis, proceeded differently. Rather than assimilate attraction to matter, he apparently converted the general notion of attraction into the quality of human intelligence. Like the Cartesian materialists, he recognized a general notion of physical evolution which linked man and animals. Unlike them, he held out for a radical break between animal and human intelligence. Human intelligence -- and here the influence of Malebranche is clear -- partakes of the divine. That self-consciousness or intellectual clarity which permits at least the occasional genius to bridge the gap between theory and practice derives from a different realm than simple material being. It is a gift of God. Quesnay's great originality lies in substituting his own version of the Newtonian conception of attraction for the old Cartesian mind-body dualism. The brain is a natural or material phenomenon common to animals and men. Quesnay does not waste time on pituitary glands or other problematical material seats of intelligence. Intelligence, like Newton's original gravity, is a force from outside. Quesnay describes intelligence as a light from God that illuminates the mind.

Like so many other philosophes, Quesnay had learned from Locke to mistrust the notion of innate ideas, but he also came to reject doctrinaire sensualism. His epistemology viewed external experience as the source of knowledge, but argued that knowledge without judgment or intelligence led to abstract speculations or to a mere catalogue of meaningless facts. A coherent or true picture of reality depended upon the exercise of an active intelligence that derived from God. [pp. 84-85]

Men are different from animals in having immortal souls. God alone ultimately can judge their conduct. But since God is reasonable, conformity with the natural order should ensure salvation.

Quesnay has finally assembled all the elements, save the economics, of his analysis of the human condition. Man, a frail creature, can approximate divinity by the exercise of reason. He cannot, however, attain divinity and pretend to centrality in the universe, for his reason does not suffice either to apprehend all reality or to judge himself accurately. Collectively men can arrive at a series of rules to guarantee social harmony and individual existence, but divine sanction, understood as absolute standard, alone can secure the justice of a human community. [p. 87]

The question of divine purpose matters deeply, but the discussions about divine purpose, particularly in relation to the affairs of men, have moved so far from the real issues they claim to address that they can no longer offer anything. The important questions, he concludes, "can only be decided by evidence" [p. 88]
Quesnay defines evidence as "a certainty so clear and manifest in itself that the mind cannot refuse it." The certainty of evidence, however, he distinguishes from that of faith. Quesnay then re-evaluates the psychological and epistemological problems he had raised in "Immortalite de l'ame," and reaffirms his commitment to sensual psychology and to the pivotal role of memory in organizing sensations into rational judgments and interpretations. Despite his acceptance of the certitude afforded by the immediate registering of material reality, he rejects neo-Cartesian materialism and insists that the property of sensation does not derive from the organization of the body. Quesnay further insists that we can never directly know another being or any other external reality: we can only know the sensations that other objects cause in us. Sensations thus afford men their only path to certain knowledge. But they cannot themselves assure the validity of knowledge, since memory, the only mechanism for organizing and comparing impressions, can fail. The memories of the insane, idiots, even normal men in dreams convey distortions, not reality, although even these memories derive from sensations.

Sensations cause us "to perceive two kinds of truth; real truths and purely speculative or ideal truths." Both artificial truths and abstract general ideas lead us to misconstrue evidence, which can lead to the impression that our knowledge affords no certainty. Quesnay has returned to the problem, raised in the "Preface" to the Memoires de l'Academie, of establishing certainty, or a body of objective, scientific knowledge. He argues in "Evidence" against absolute relativism or skepticism: all men who deduce their truths direct from their immediate sensations will insist on the certainty of such immediate truths whether deduced by themselves or others. And science has afforded men a language that can reduce the element of uncertainty in even the soundest personal judgment. "A rule of arithmetic decisively subjects men in the disputes they entertain over their interests; because in that case their calculation has an exact and evident relation with the truths which interest them." Ideas can only be anchored to evidence by being rigorously subjected to established truths.

Quesnay believed that his epistemology could explain man's knowledge of the external world. The rule of arithmetic would minimize extraneous debate and obscure philosophical systems. He seems not to have realized how subjective a criterion his evidence remained. Certainly, many of his contemporaries doubted that there was anything evident about it. As Quesnay's discussion of memory shows, he did remain alert to the tricks played by sensations and defective thought processes and did attempt to complete his epistemology with a metaphysics that situated man in relation to himself and to God.

Developing an argument enunciated in the section "Liberte" from L'essai physique, Quesnay returns to a discussion of human motives and action, and repeats his dictum that free will resides in the moment of choice. Faith assists the choice by elevating man to the knowledge of moral good and evil "by which he can direct himself with reason and equity in the exercise of his liberty."

Quesnay defines both faith and God as "intelligence in essence." To reason intelligently, therefore, is to emulate God to whatever extent possible. Action based on reasonable motives thus merges with action based on faith; it has as its intent sound order and enlightened self-interest. In other words, man's enlightened self-interest merges with the divine order. To act thus is to choose freedom.
Quesnay was neither a systematic materialist nor a relaxed deist. His quest for absolute certainty in the knowledge of physical and social reality led him to reject both materialist and idealist determinism. Quesnay placed humanity at the center of his thought and attempted to establish the nature of and limitations on man's ability to know reality. His answer, the emphasis on mathematical calculation notwithstanding, retains man's will at its center. Man, by observing the proper rules of investigation, can know reality. Man, with the assistance of divine faith, can know himself and shape his own existence within given material possibilities. In teleological terms, however, Quesnay does not place man at the center of the universe. For Quesnay, perfect knowledge would consist in total apprehension of all physical reality at a single moment, something of which only God is capable. He suggests that if man could so apprehend material reality, knowledge would become one with existence, and our senses would register all experience directly and simultaneously. Man could then dispense with the agency of memory and reasoning and thus eliminate human fallibility.

Quesnay's epistemology addresses a crucial problem that has plagued modern thought since his time. He willingly accords a major role to the individual human intelligence. Like Diderot, he reveres genius, but he rejects the subjectivism inherent in a systematic individualism that casts man as the pivot of the universe. It is easy to misread Quesnay's self-proclaimed commitment to religious orthodoxy as backward-looking, or conversely to dismiss it as insincere camouflage. Both readings insult his intelligence and trivialize a fundamental problem. Quesnay refused to jettison all sanctions on human action, just as he refused to reduce humans to their material components. He believed that by identifying God with Reason he could explain the extraordinary quality of human intelligence without falling into a mechanical deification of man.

Quesnay's commitment to free trade has frequently been traced to his medical practice, in which he preferred letting nature take its course to the problematical intervention of ignorant practitioners. This respect for the workings of the natural order characterized all his thought, and his reading of Mandeville, Shaftesbury, and Hume would have encouraged him to extend his attitude to economics. He had, however, probably also read Vauvenargues, whose discussion of human motivation would only have confirmed Quesnay's healthy respect for the destructive effect of human passions.

For capitalist development and political participation, however restricted, were not understood as complementary phenomena. The economic liberals assumed that reform consisted in a rationalization of production and circulation that could be effected by the state. Furthermore, their experience proved that commerce and industry could make remarkable progress through the agency of the state itself.

When Colbert spoke of economic growth, he meant maximizing the output of the existing seigneurial economy. For Quesnay, growth meant the qualitative transformation of the existing system into a capitalist system. Physiocracy constitutes a watershed in the history of economic thought precisely because of this analysis of capitalist production.

Quesnay goes on to describe the farmer as a rich man who cultivates large plots with horses, a modern entrepreneur sharing nothing in common with those destitute peasants or sharecroppers who eke out a precarious subsistence from small-scale cultivation. The article then calculates the superior profitability of large-scale enterprise and leaves no doubt that profit alone
matters. "Peasants who cultivate wheat with their own hands would never be able to reimburse themselves for their own labor. "Only a large harvest can yield some profit." And the greater costs of producing such a harvest are insignificant compared with the monetary price it would yield in a free market. Only a free market would assure a price high enough to cover costs, furnish a surplus, guarantee greater and steadier returns for its producer, and raise the general standard of living of the citizens who "in paying a little more for the livre of bread, will spend less to satisfy their needs." [pp. 111-112]

For the first time in the course of their long dialogue, Quesnay presents his analysis of the necessary economic order and describes its mechanism with assurance. Together, he and Mirabeau develop the argument that agriculture alone assures the wealth of the state, and they demonstrate that the French monarchy has completely undermined its own property by its constant search for new sources of income. In its irresponsible pursuit of expedients the monarchy has created a parasitical social system, dependent upon itself but upon which it also depends. So long as the state needs money, it will not be able to free itself from its own creatures, particularly its bankers. Worse, their abuses will affect not only the physical but also the moral realm, because by their pursuit of wealth and favor they undermine all natural social order. The government's cupidity has made the entire life of the state mercenary.

Mirabeau has yet to assimilate the full implications of Quesnay's conviction that agriculture constitutes the principal source of capital accumulation and can produce more wealth than commerce or banking. Instead, he still sees the cure of monarchical decadence in moral terms, and not surprisingly argues that to cure the current evils "one must not seek remedies of detail," but rather return to the "unique remedy" of the constitutive orders, their essence, their strength, their terrain, and their authority. "All government consists in the conservation of property, . . . all tyranny and anarchy is nothing but the alteration of properties," and that, needless to say, includes feudal property.

Quesnay does not openly dispute Mirabeau's declaration. Having reviewed the economic disasters of the last century, he is horrified by the destructive powers of the monarchy and impressed by his own arguments in favor of economic laissez-faire, but he too falls back upon the necessity of guaranteeing a pluralistic structure to the social body. The subordinate powers, he argues, should all, by their concurrence, form only one power with the sovereign. No sovereign can either destroy or form these powers; he can only oppress one or another of them relative to the others and thereby jeopardize his own authority, since their function is to contain each other. If the monarchy abuses its power it will only expose itself to a "prompt revolution." "Let them beware, never has an arbitrary monarchical government which forgot the rights . . . of the nation existed except to destroy itself." [pp. 198-199]