Aboriginal Sin and the Garden of Eden:

Humanist Views of the Amerindian

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The discovery of the Americas is not generally thought to have contributed to Renaissance humanism in the same manner as new knowledge of India and the Orient and of the nearby ancient civilizations of Greece, the Near East, and Egypt. With growing interest in man and his works these latter, in particular, were seen as part of the mainstream leading to the civilizations of Europe. Debates questioning the rationality and intellectual capacity of Amerindians because of the "bestiality" to be seen in their idolatry, cannibalism, human sacrifice, and polygyny focused more on the nature of the human species and whether (and how) the Amerindian was to be included in it. We know a good deal about the defense of Amerindian humanity by Las Casas and other New World missionaries and about their humanistic approaches to the understanding of Indian culture and society. What has not yet been fully evaluated by scholars, however, is evidence that humanists of the sixteenth and seventeenth centuries took seriously the evidence of ancient, high civilization in the Americas and considered it alongside that of classical antiquity in a quest for fundamental clues to the secrets of the universe.

The evidence that I refer to is disparate. We know of Dominican and Franciscan missionaries who were charged with investigating indigenous antiquities and esoteric knowledge. We know of idols and other ancient Amerindian artifacts which were incorporated into the collections of elites in Italy and southern Germany not simply as curiosities but rather as preciosities on a par with relics of classical antiquity. Codices, particularly those with cosmological content and hieroglyphic writing, were sent to Europe for study by philosophers. As encyclopedists began to account for new flora and fauna, doctors were sent to learn the secrets of Amerindian medicine. I believe that this fascination with the esoteric and occult can be connected to neo-Platonic mysticism in which the Art of Memory, natural magic and the revelations of classical antiquities were combined in the so-called "Hermetic tradition," which had its center of gravity in Tuscany. The connection is particularly obvious in the writing of Jesuits after the mid-sixteenth century.

One reason these connections have not been made previously is the understandable emphasis of scholarship on Spanish humanist engagement with the Amerindian. During the reign of Charles V (1517-1556), Spanish humanism was strongly influenced by Franciscan apocalyptic messianism and Erasmian
 evangelism, emphasizing Scripture rather than classical antiquity as a source of revelation. Spanish humanists were interested in pre-Columbian antiquities, but not in the same manner as their Italian counterparts. After 1555, the counter-reform zeal of Philip II led to the anihilation of everything related to pre-Columbian heathenism in Spain, whereas interest in aboriginal America elsewhere in Europe appears to have grown concomitantly with anti-Spanish politics. For these reasons, the clues to be connected predominate outside of the Spanish arena and are not easily to be recognized within it.

A second reason is that the connections between the clues are obscure to us, based as they are in a conception of the universe and of man's place in it quite alien to our own. My plan is to locate the evidence within the framework of these fundamental conceptions. Humanists shared metaphysical assumptions of a concentrically organized cosmos encompassed by the mind of God. They shared belief in a hierarchy of cosmic influences giving shape to the natural world, and of man's placement by God both within nature and apart from it so as to know him through it. Original sin thrust man into the world, and its natural influences led to divergence among the descendants of Adam and Eve. God equipped man with intellectual capacities and with ancient revelation to adapt to nature and to comprehend God through understanding nature. The belief was that ancient wisdom had devolved and degenerated but could be recaptured through study of the hidden meaning in ancient texts. Furthermore through proper living in organized polity based on applying the sciences of natural philosophy and the arts, or man-made skills such as rhetoric and artificial memory, man might construct in the utopian city or the renaissance court a comprehensible replica of the cosmos. Encyclopedists participated in this endeavor through collections organizing the mineral, vegetable, and animal diversity of nature. Philosophers sought the hidden meaning of ancient texts and hieroglyphics. Hermetists promulgated the controversial (indeed, heretical to some) systems of natural magic in which man-made idols and natural objects had a legitimate role to play in mimicking the cosmos and bringing it within the grasp of the human mind, which could thereby be at one with the mind of God. My intention is to fit humanist treatment of the Americas into this framework.

Fig. 2. Levels of the Cosmos. From Fludd, Utriusque Cosmi ...Historia II:219 as illustrated in Yates (1964:147). See text page 3.
The cosmos

Humanists thought the universe to be onion-like in structure, encompassed by God's mind from which potency flowed toward the core. Captured in successive layers and transformed, this potency was differentiated into the many cosmic influences giving form and force to the components of nature. Causal models of nature attributed continuity and change to these influences which were ranked from superior to inferior depending upon the immediacy of their source to God. The scheme combined notions of hierarchy, power, mind, and matter into a paradigm shared in body imagery and ideas of the state when the individual or the polity were taken as microcosms of the universe. This world view, though attributed by intellectuals to Aristotle, was probably widely shared in variant forms throughout the Mediterranean world.

Graphics of the era show concentric positioning of spheres as metaphors of the relationships between parts of nature rather than as strict physical representations. For instance, while man shares the earth's surface with plants and animals, the domain of earth is depicted by Fludd with humanity at its core encompassed by the arts and by spheres corresponding to the mineral, vegetable, and animal orders of which mankind makes use through his arts (see Figure 1). Earth is in turn encompassed by water, air, and fire in a manner symbolizing the relative potency of these elemental substances (Figure 2). The ordering of the spheres of the planets (which include the sun and moon) had relation to the influences with which they were associated as well as to their movement. These were enveloped by a backdrop of stars, differentiated along the ecliptic (the path along which planets appear to travel) into the twelve signs of the zodiac. Further out were unobservable spheres corresponding to ranks within heaven, such as the cherubim, seraphim, and archangels. Finally there was God himself.

The animation of this universe is by "influences" - literally the inward flowing of seminal force from the mind of God. Penetrating the earth, this energy causes excretion of substances that rise to a level corresponding to the virtues or qualities they embody. Each planet, for instance, correlated with an element distilled from the earth whose qualities and characteristics radiated power downward again toward the earth's core. The ascension of substances thus added to the descending of force, bringing about a greater
Fig. 5. The steps leading to the city of God and their correspondence to the levels of the cosmos. From Lull, Liber de Ascensu et Descensu Intellectus, edition of Valencia, 1512, as illustrated in Yates (1966:180). See text, page 4.
differentiation of influences according to their superior or inferior positioning in the cosmos. The influences radiate from their source and converge like rays from the base of an inverted pyramid toward its apex. Every point on earth receives a distinct configuration of influences according to the positioning of the cosmos around it. The characteristics of creatures on earth are shaped by these influences at the moment of their creation. For instance, parts of the body were associated with zodiac locations in the ecliptic (see Figure 3) and were thought to be influenced by the planets found in these locations at conception. Furthermore, movement of the cosmic spheres brings about the change and cycling of these influences which continue to affect creatures through their life cycle. It was on the basis of these notions that the horoscope could assess individual well being by reconstructing for the place and moment of an individual's conception and thereafter in life of the positioning of the planets in the heavens.  

Humanists found the relational metaphors of this model of the cosmos useful for thinking about other domains. The equation of human intellect with God and visceral body functions with the earth was, for Fludd, a way of interpreting man as a microcosm of the universe (see Figure 4). The ordering of celestial spheres transformed metaphorically for Lull into steps of wisdom leading to the city of God (see Figure 5). The cosmos was a model for the proper organization of polity for humanists like Erasmus who compared the Prince to God and the sun (1936:159):

"As God is good in all his beneficence..., so it should be with the prince who is really great - who is the likeness of the Eternal Prince.... God placed a beautiful likeness of Himself in the heavens - the sun. Among mortal men he set up a tangible and living image of himself - the king. The sun is freely shared by all and imparts its light to the rest of the heavenly bodies. The prince should be readily accessible for all the needs of his people."

As a causal model for nature this world view did not necessarily imply determinacy. One could distinguish "superior" influences of planets from "inferior" influences of local geography and climate according to their regularity. The former had a greater bearing on the characteristics taken on by a creature at conception and carried through life, whereas the latter, their impact being modified by diet, clothing, housing, and other life ways and by the movement of creatures from one locale to another, had effects that were more immediate but less predictable. Thus one could speak of the "accidental" causes that bear on creatures according to the "particular" events of their lives.
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Fig. 6. Classification of the attributes of seasons of the Indies and Spain according to the humoral dimensions, following Cárdenas. See text page 5.
Nonetheless generalities about each region of the world could be attributed to determinate cosmic influences, and such explanation is particularly evident in sixteenth-century writing about the Americas. An example is the effort of Juan de Cárdenas (1591) to account for the astonishing peculiarities and secrets of the Indies. The correlation of winter months with dry season and summer months with rain in New Spain was puzzling to Spaniards not only through comparison with the hot, dry summers and cold, wet winters of Spain, but especially because of the inverse correlation of the hot/cold and wet/dry humoral dimensions (Cárdenas 1591:17) (see Figure 6). Cárdenas attributed the Indies' climate as well as the peculiarities of their flora, the propensity of the New World for earthquakes, and the abundance of its mineral wealth to the continent's location within the torrid zone of the earth directly under the vertical rays of the sun and other celestial bodies. In the summer the sun's rays would penetrate the earth with such force as to cause the excretion of vast amounts of water vapor into the cold "middle region of air" to precipitate as rain; in winter this effect would be ameliorated and render the season cold and dry. By contrast with Spain, where the alternation of winter rains and summer heat elicit plant development cycling from root growth to stem and leaf growth, flora of the Indies experience both heat and wetness simultaneously, causing horizontal spread of roots (as in the buttressed roots of tropical forests) and evergreen growth that ignores the cycling of seasons. The same effect of the sun would riddle the earth with caves and render it soft and spongy (like bread baked in an oven), and thus particularly prone to earthquakes. In a similar manner, the direct, and hence forceful influence of the planets in the Indies draws gold, silver, copper, tin, and lead out of the earth and onto its surface.

Cárdenas is just one example among many who attributed unusual characteristics of the New World to macrocosmic influences. José de Acosta devotes an entire book of his Historia Natural y Moral de las Indias (1622:65-85) to characteristics of the New World connected with location in the "torrid zone" under equinoctial influences, taking pains to evaluate the accuracy of speculations by Aristotle, Plato, Pliny, Ptolomy, and Avicena about general qualities of the torrid zone (1622:70,77). Bartolomé de Las Casas, in his Apologética Historia... (1909: Ch. 17) resorts to similar reasoning. Such chroniclers wished to understand the puzzling New World environment within a world view generally accepted in Europe because it could be traced through medieval Arabic scholars back to philosophers of classical antiquity.
The nature of man

Looking back on sixteenth century European engagement with the New World, one is struck by questioning of the Amerindian's humanity, the extent and abilities of his intellect, and the degree of his ingenuousness. Many colonists, missionaries, and chroniclers saw polygyny, idolatry, human sacrifice, and other Indian practices as bestial; others fervently defended natives against this charge. Equally intriguing are the related debates over Amerindian intellectual capacity (for instance, to decide whether and how Indians should be educated) and discussion of their childlike simplicity. But these issues - bestiality, simplicity, and intellect - were not related to one another in the sixteenth century mind in quite the same way as they are to us. From our perspective which derives man from lower animals, bestiality, simplicity, and lesser intellect are equated with the primitive and unevolved. Humanists had a different theory, also evolutionary, which inverted this equation. Man had intellect from the outset of creation but evolved - or better, devolved - along lines that sometimes eroded intellect and made humans bestial. Civilization began simply, and became corrupted with change toward the complex. Let us examine the basis for these ideas about the varieties of human nature.

Humanists had definite ideas about the role of man in the cosmos. God created man to know Him by understanding and explaining His works through the functions of intellect. By seeking the causes of things man would work out the principles of nature that, taken as a whole, constitute God. God placed man in the temperate climate of Eden to sustain the subtle, soft qualities of temperament essential for the highest intellect. But by exercising free will and choosing to sin, man thrust himself into the variable and unbalanced climate of the world. One consequence of this downfall was the modification of man's temperament by climate and the concomitant degradation of his intellect. Left to his own devices, man might work toward a partial understanding of the cosmos; on the other hand he could be deceived by the devil in a manner leading to further degradation of intellect and increasing bestiality. These changes did accumulate gradually through the generations and were deemed "degeneration." To compensate for the changes and help restore a properly balanced temperament (the prerequisite for full intellectual function) God helped man develop polity, arts, sciences, and natural philosophy; but these adaptations gradually became "corrupted." Finally God sought through Christ to reveal the divinity of the cosmos for man to recognize in the exterior world as well as within himself.
Fig. 7. Classification of the attributes of Eden and the regions of the earth according to the humoral dimensions. See text page 7.
Fig. 8. Alterations of temperament corresponding to stages of the life cycle, according to Huarte (1930:91-83). The stages are (1) puercia or childhood; (2) adolescencia or youth; (3) juventud or young adulthood; (4) consistencia or maturity; and (5) vejez or old age. The scheme applies to males; the temperament of women is always cold and wet. Note that youth is the stage most closely approximating man's aboriginal humoral balance. This is the age at which humans' intellects are most impressionable, during which teaching has the most to impart.

Fig. 9. Classification of temperaments according to the humoral dimensions.
Humanists concerned with the New World sought to position the Amerindian relative to Old World Christians, Jews, Moors, and other gentiles within this framework.

In order to be known, loved, honored, and obeyed God created the knowable and its contemplator, the cosmos and man. But being himself a creation, man was simultaneously within and apart from nature, a creature with body and intellect. Like all things of creation, man had temperament, physical qualities measured along the humoral dimensions of hot/cold and wet/dry. Man shares with all living things "ánima vegetativa," a principle of life which seeks sustenance of temperament from the environment (as do plants by sending roots into the soil). Animals share with man "ánima sensitiva," the ability to adapt responsively to perceived changes in the environment that otherwise would alter temperament. But man alone is endowed by God with "ánima racional" or intellect.

Temperament is a key concept tied up with body functions. Food taken into the viscera and "cooked" excretes vapor just as does the earth when penetrated by cosmic influx; the stomach and liver both contribute to this process. As digested food passes into the intestines it becomes increasingly corrupt and earth-like as the vapors of moisture and warmth are taken into the blood and distributed by the heart throughout the body. Temperament consists not only of the absolute amounts of heat and moisture in the body but also their relative distribution. The heart is the seat of passion, evoking love when balanced in warmth and moisture, but being swayed to hot anger or dispassionate cold-heartedness when unbalanced. The liver and intestines are the seat of "concupiscence" or desire, and when filled with heat they generate greed. Accumulation of heat and moisture in the genitals is the cause of lust. The brain ("célebro") is an organ differentiated into loci of memory, imagination, and understanding which function optimally when the brain is balanced in the central position between hot and cold, wet and dry. "Ánima racional" or intellect interacts with memory in recall, with imagination in fantasy, and with understanding in reason. Thus intellect, while incorporeal, has functions which are shaped by man's nature, e.g. by his temperament.

At creation God placed man in Eden, an environment unique on Earth because of its balance between hot and cold, wet and dry (see Figure 7), a climate which would sustain the perfect balance of temperament necessary for full intellect. Because man's temperament was at one with the environment in Eden, he had no need of polity, arts, or sciences with which to adapt to nature. His brain was subtle
Fig. 10a. Localization of cerebral functions, after Romberch, Congestorium Artificioso Memorie, as illustrated in Yates (1966:256). See text page 8.

Fig. 10b. Dominant and secondary cerebral functions favored by the unbalanced temperaments of the life cycle, according to Huarte (1930:135-46). The optimal mixture of memory, imagination, and understanding is attainable only at humoral dead center.
and soft, being perfectly temperate, thus warm and somewhat moist and impressionable like barely-melted wax, receptive of images in fantasy and memory, and capable of subtle and sophisticated understanding. Furthermore, the brain was partitioned from the rest of the body by "justicia original," a barrier repressing the inferior influences of lower organs, such as anger, greed, or lust. This brain would interact fully with intellect and be capable of "sabiduría" or divine wisdom.

But intellect also equipped man with free will, and in consenting to the temptations of Satan man thrust himself into the world. In casting him from Eden, God removed the barrier of "justicia original," allowing the passions of the body thereafter to becloud man's brain as a consequence of original sin. Furthermore, thrust into variable and unbalanced climates, man's temperament diverged from humoral dead center. Man became mortal, subject to a life cycle in which his temperament changes gradually from being wet and hot in infancy to being cold and dry in old age (see Figure 8). The effect of these changes was to alter the temperament of the brain (see Figure 9) and destroy the balance of imagination, memory, and understanding requisite for full realization of intellect. (see Figure 10).

Man became subject to "accidents" of nature to which all creatures are prone, alterations passed on from one generation to the next and leading to "degeneration" varying among the lines of human descent. The alterations stemmed from influences, either cosmic or local, sometimes affecting a foetus at conception, otherwise corresponding to events during lifetime, but in all cases accumulating in the temperament passed to one's offspring. The process was one of evolution - or devolution - by the inheritance of acquired characteristics and was thought to explain differences in temperament among human races.

All creatures strive to adapt to nature, seeking an environment to complement their temperament. Aboriginal man had this adaptive capacity. Through his senses and intellect clothing, housing, diet, and other life ways developed and diverged according to the varying environments of the lineages of man. Such development was deemed "natural" because it comes about without divine aid through natural abilities of man when placed into the world.

On the other hand, man could not fulfill the purpose of his creation by natural reason alone. A mind beclouded by the passions of the body and limited by the disequilibration of temperament was not capable of grasping fully the
nature of the cosmos and recognizing God. A little revelation would help. Correspondingly God intervened in the affairs of the descendants of Adam and Eve, supplying them with laws, kings, priests, and systems of knowledge with which to organize their polity and society. Through these arts and sciences man could make optimal use of the things of nature. The ancients did indeed develop civilization of the highest order by applying this revelation, which was preserved in text form and handed down from the Egyptians to the Hebrews and ultimately inherited by the ancients of Greece and Rome.

Yet man did not achieve with this revelation full understanding of God because of the work of Satan. An angel dispelled from the City of God (the outermost layers of cosmos) and fallen to the earth, Satan was next only to God in his understanding of nature. Knowing the motions of the cosmos he could foretell its influences and used this knowledge to trick man into worshipping him instead of God by worshipping worldly things.

"Corruption" of civilization and the increasing "bestiality" of man's nature were the two principal consequences of Satan's activity. Deceived by Satan into evaluating things as worthy in themselves, man placed worth on the products of civilization and sought new modes of creating wealth. As silver replaced gold, and iron replaced silver as the basis of civilization, the virtue imparted to man's works declined. Another of Satan's tactics was to becloud man's intellect further with corporeal passions stimulated by feasting and drunkenness of idolatry. Satan could not take away man's God-given "anima racional" but he could so destroy its functions as to leave human beings with little more than the "anima sensitiva" of beasts.

In this tug of war over man between Satan and God, bestiality and corruption accumulated as degeneration in man's nature and could be countered only by further revelation and reform of man's ways. Christ's coming, falling in the age of Caesar Augustus, was seen as the "restauration" of a Golden era hearkening back to the Egyptians, in which Christian life ways restored in man the ability to suppress corporeal passions and in which empire's organization could help man attain comprehensive understanding of the cosmos. Humanists sought for their own era such restauration, some anticipating the second coming of Christ, others drawing the analogy between European monarchy and Roman empire, and yet others seeking in scripture and other ancient text the revelation and systems of knowledge of earlier Golden eras.
Understanding this conception of the nature of man and his role in the cosmos, it is interesting to see how it was applied to natives in the Indies. Bear in mind that the voyages of discovery were disclosing unsuspected varieties of humanity ranging from nomadic hunter-gatherer bands to highly organized chiefdoms, states, and empires in environments as assorted as the arid deserts, temperate highlands, and tropical rain forests. In the face of this diversity the sixteenth-century conception of natural man held up remarkably well.

I deem the conception to be one of "natural" man because of the equation drawn between natural environment, human temperament, and the possibilities these hold for human intellect. Indeed, it is striking to me how consistently these are tied together in discourse on the Amerindian.

Those writers, for instance, who are best known to us as defenders of the full intellectual capacity of the Indian are also the most ardent in correlating this capacity with influences of the environment. Fray Bartolomé de las Casas' Apologética Historia... is the example I have in mind. In this work Las Casas painstakingly develops the thesis that local conditions so tempered the heat and humidity of the Indies as to make it an almost perfectly balanced environment that would conform natives' bodies best to the intellect they were endowed by God. Las Casas compared the Indies favorably to the environments of the ancients of the classical world as a stepping stone in his argument that the social, economic, political, and religious achievements of natives rivaled and sometimes exceeded those of Egypt, Greece, and Rome.

The connection drawn by Las Casas and others between temperate environment and Indian capacity is doubly interesting because of the approximation of such an environment to that presumed to have prevailed in the garden of Eden. Correspondingly one would expect these writers to describe Indian temperament in the same terms as that of Adam and Eve at the time of the fall, and such is the case. We find, for instance, description of the Indian mind as soft and subtle, as having the impressionable qualities characteristic of soft wax. Indians are taken to be innocent and docile, like children that is to say at a stage of the life cycle in which temperament most closely approaches the humoral balance of Eden. To think of Indians in this way was consistent with speculation begun by Columbus that the garden of Eden was situated somewhere in the Indies, an idea that held currency through the sixteenth century.
Just as Adam and Eve were thought not to have need of polity, arts, sciences, required for life in the world after the downfall, so were Indians thought by some to lack such accoutrements of civilization. In this view, Indians were humble, care-free, naked, despising of the superfluous, and fond of festivity and drinking, and in these ways similar to the inhabitants of Lucian's Saturnalia, living in a golden age. Indians lacked "policía," meaning the habit of settled life in cities; they lacked law. This interpretation was inconvenient accorded with the apocalyptic messianism of the Franciscans who saw Indians as a race of gentiles predestined for conversion at the eleventh hour before the imminent second coming of Christ; what Indians lacked in polity and social forms would be supplied them in the primitive apostolic church that Franciscans claimed to be exclusively preordained to organize in the New World. A corollary of this view was that Indians should be maintained in republics regulated by Franciscans and isolated from the corrupting influences of colonial Hispanic society.

Needless to say, factions of missionaries, colonists, and administrators struggling among one another for jurisdiction and control in the Indies disagreed about the nature of the Amerindian and about the colonial policies thus appropriate to them. What is important is that the disagreements share metaphysical premises. Diametrically opposed to the views of mendicant missionary groups were those of colonists favoring full Hispanicization of the Indian for total incorporation into the colonial economy. These argued that Indians had lost any virtues descending from Adam and Eve through evil influences of Satan. For instance Fernández de Oviedo held Satan responsible for the hurricanes, winds, and bad air of the Indies' environment which rendered Indian temperament cowardly, vile, and "melancholic" (a combination of cold and dry) and thus naturally inclined to listless indifference, laziness, and vice, with a deceitful, fickle mind particularly unsuited to the functioning of memory; Satan was also responsible for the idolatry which made Indians irrational and bestial. In the middle ground were those attempting to justify a crown policy giving Indians a measure of autonomy through self rule while incorporating them into the economy. This position was most notably upheld by Vitoria, who thought Indians to have developed a substantial measure of polity and economy through the functions of "natural" intellect. Vitoria defended the legitimacy of Indian political jurisdiction while maintaining that the Spanish crown had an equally legitimate natural right to extension of its economy through trade and of its polity through the quest
for freely-willed allegiance and citizenship of new vassals. In summary, what we see in these divergent interpretations is agreement to disagree about the precise consequences for Indian temperament, intellect, and civilization of natural and Satanic influences accumulated after leaving Eden through generations of living in the environment of the Indies.

The Amerindian and the goals of humanism

The goals of humanism may be taken to be the use of knowledge in such a way as to restore to human life a state of being and a frame of mind capable of comprehending the cosmos. That achievement would be within the grasp of anyone who could master the intellectual techniques—artificial systems of knowledge, or "arts"—that the ancients utilized to accommodate their lives to nature but which were lost to subsequent generations. In the sixteenth century the New World and its indigenous civilization attracted attention as an integral part of this endeavor.

Seeking order and harmony in the cosmos

By representing man as an ape surrounded by arts at the center of the cosmos surrounded by the spheres of the natural world (see Figure 1), Fludd was expressing metaphorically the generally accepted idea that man could use the arts to "ape" or imitate Nature just as Nature, herself, imitates God. In the creation, "orden y concierto," the order and harmony of God's mind, was expressed in the organization inherent in the diversity of nature when taken as a whole. The arts help man recognize the ordering of the seemingly chaotic world surrounding him and thus to comprehend the plan of the "great chain of being" linking him through nature to God.

Philosophers' working out of the hierarchy of cosmic influences on nature had two distinguishable aspects. One emphasized the systematic differentiation of nature into coherent and distinguishable species; as each of these had a distinct "naturaleza" or configuration of humors from the moment of creation, to grasp the totality of these divisions would be to grasp the primordial purpose of God's mind. The second accentuated the blurring of each species into a continuum of forms brought about by influences on primordial temperament inherited as accumulated change; by tracing each such change to its cosmic cause, natural philosophers hoped to comprehend the cycling of the cosmos after creation.
Fig. 11. The Cospian Museum, as illustrated in Schlosser (1908:107). See text page 13.

Fig. 12. The Museum of Worm, as illustrated in Schlosser (1908:83).
Fig. 13. The library of Leopold I of Viena (1711). As illustrated in Schlosser (1908: 103). See text, page 13.
This goal is manifested in the encyclopedic collectivism of the Renaissance and Baroque eras, particularly in Italy and Hapsburg Germany. Collecting was conceptually linked back to the idea of Noah's arc as the prototypic natural history museum, which encompassed all the species, and of which the museum of Ptolomy in Alexandria was an imitator that combined library, zoo, and herbarium. Palaces became the place to bring together wild and exotic animals and plants from different parts of the world, either kept alive in kennels and botanical gardens or preserved in museums (see Figures 11, 12 and 13). The collections included both typical and atypical specimens, classified into categories of genus, species, differss, and accidentes to reflect both the systematics of creation and the accidental differentiation within species living in nature.

Renaissance courts integrated the collections of natural history with others of man's works that also reflected the order and harmony of the universe. Music, poetry, rhetoric, sciences, and the mechanical and imitative arts all had a place in the architecturally integrated court life of the Medici, Hapsburgs, and others.

Humanists extended this quest for order and harmony to the New World. They endeavored to fit entirely new ranges of flora and fauna into their classificatory schemes. They also studied Amerindian culture as an example of how man's works reflect nature.

Many of the sixteenth-century chronicles of the Indies are encyclopedic in their scope and organization. José de Acosta's Historia Natural y Moral de las Indias is a case in point, fitting America into a geocentric cosmos, describing its characteristics in terms of the essences of fire, water, earth, and air, relating the variation of the continent's mineral, vegetable, and animal orders, and finally turning to human religion and human nature to show the fit of the Amerindian into the universal history of Christianity. Juan de Cárdenas follows a very similar progression from the cosmic, through the orders of nature, and to man in his Problemas y Secretos Maravillosos de las Indias. Fray Diego Valades' inclusion of American plant, animals, and birds into the great chain of being (see Figure 14) depicted graphically the incorporation of the New World into globally appliable schemes of organization that these natural historians communicated in their writing.
Fig. 14. Valades' depiction of the great chain of being and its incorporation of flora and fauna of the New World into hierarchies of the cosmos, as illustrated in de la Maza (1945:37). See text page 13.

Fig. 15. Indigenous remedies from the Badianus manuscript. "Dandruff or Alopecia. Wash a furfuraceous head diligently with hot lye; then the sap of several ground Acetaria Silvestre well pressed out and strained should be poured upon the furfuraceous patients; when it has dried let the bile of a dog, fox, mole, hawk, swallow, water fowl, or quail... with the dregs or lees of Indian wine be smeared on the head. ...Have as a drink warm Indian wine in honey that has not been heated...." (Emmatt, 1940:212 and Plate 8). See text page 14.
Fig. 16. Mexican ballplayers of Cortez' entourage, illustrated by Weiditz in the court of Charles V in 1528. From Honour (1975:61). See text page 14.

Fig. 17. Aztec Indians with their clothing and artisanry, illustrated by Weiditz. From Honout (1975:59). See text page 14.
Europeans took interest in Amerindian cultural achievements at least in part as adaptations to living in the New World that they could utilize themselves. Indigenous medicine was thought to be more appropriate than European for maladies stemming from local influences on temperament. Codification of indigenous diseases and remedies was an important task both for missionaries concerned with the well-being of the Indian and doctors caring for the colonist (see Figure 15).

 Sahagún's famous Historia General de las Cosas de Nueva España illustrates a different form of encyclopedism. One must bear in mind that Sahagún was a mid-sixteenth-century Franciscan who inherited from his order a variety of evangelism that emphasized the interiorization of Christianity. At the same time Sahagún was more skeptical than his immediate predecessors about the ease with which missionaries could replace idolatry with Christianity in Indian minds and hearts. Sahagún's work can be taken as an encyclopedic inventory of Nahuatl religion, philosophy, and government. The Historia... begins with Nahuatl accounts of their gods, rituals, calendrics, and origin myths. It asseses Nahuatl astrology, divination, and the use of birds and animals as omens. A whole book is devoted to the rhetoric of Nahuatl ritual adages. Then the work turns to the succession of Nahuatl kings, to government, and to trade in gold, precious stones, and feathers. After examining illness and the use of natural medicine, a penultimate chapter describes and classifies animals, birds, fish, trees, grasses, flowers, metals, stones, and dyes, but this chapter is intended more as an aid to understanding Nahuatl language and systems of classification. Thus the Historia... is an encyclopedia of the interior organization of the Nahuatl mind progressing generally from religion to polity and economy, that is, from the macrocosmic to the microcosmic as reflected in Nahuatl intellect.

Beginning with Columbus, minerals, plants, animals, and sometimes natives themselves accompanied voyagers back to European courts, often to form part of encyclopedic collections. Cortez, who was stunned by the "orden y concierto" of the Aztec capital and who marvelled at Moctezuma's retinue of jugglers, dwarfs, and albinos and his unusual zoological and botanical collections, brought to the court of Charles V a fabulous assortment of specimens and artifacts illustrating not only novel natural species but also the high level of achievement of Aztec artisanry (see Figures 16, 17 and 18). Such shipments were treated as more than consignments of curiosities; throughout the sixteenth century encyclopedists incorporated them into their collections. For example, Ulysses Aldrovandi, a
Fig. 19. (a) Plant illustration similar to those of Aldrovandi, as illustrated in Heikamp (1972). (b) and (c) Ritual artifacts of Mexican provenience from Aldrovandi's Museum Metallicum (Bologna, 1648:156,158). Photos by author, courtesy of Bender Library, Stanford Univ. See text page 15.
Bolognese philosopher who likened his relationship to his patron (Francesco de' Medici) to that of Aristotle to Alexander the Great, amassed an unusually varied herbarium of American plants, and his encyclopedic writing classifies and illustrates American birds, animals, and Indian ritual artifacts in such detail that these must have formed part of his collections (see Figure 19). The goal of an ordered polity

The humanist ideal for polity was that it should model the universe in microcosm and therefore enable human minds to grasp its organization and meaning. The hierarchical ordering of the state should reflect the ranking of levels of the cosmos; leadership should use peaceful means to persuade men to follow of their own free will rather than through coercion. Thus the ruler was to be teacher to his pupils rather than lord or commander. All humans, having been illuminated by proper leadership, should take part in the ideal polity by raising their voices in unison to God.

Accepted myths about the leadership of the first kings articulated these ideas about polity. Leadership began with Adam reigning in an era of peace by means of supernatural knowledge that he taught to his heirs necessary for the propagation of mankind. Thus from the beginning of creation the leader was a teacher. Solomon's special qualification for rule was God's gift of clarity and understanding to help him illuminate scripture for his subjects. Rulers of the earliest Egyptian dynasties led skillfully by shaping the arts of man to nature and thereby imparting to their subjects the intellectual skills needed to understand the universe.

Advice to princes on how to rule tracing back to the late medieval period took on special importance to humanists because of their desire to restore an era of order in human affairs which had been lost in the course of human history. Dante's De Monarchia was one of the earlier works connecting the monarchy to terrestrial salvation through human intellect. Ramon Lull, a thirteenth-century Catalan theologian and philosopher and contemporary of Dante, wrote one of the first chivalric novels, Blanquerna, charging the philosopher-king with the duty of ruling with humility, justice, gentleness, and compassion thus stimulating in his retinue the courtliness and love essential to the ordering of the City as a microcosm of the universe. Castiglione's The Courtier, Macchiavelli's The Prince, and Erasmus' Querela Pacis are among the humanist contributions to
this genre advocating conduct of the court which spreads to the state and facilitates the grasp of Christianity in the heart and mind.

In an era not unmarked by warfare, peace was an important correlate of the humanist conception of polity. Metaphysically, peace reigned at the creation in nature close to God and corresponded to the harmony of the spheres. But advocacy of peace also presumed free will of intellect that should be persuaded, not coerced, to adopt Christian virtues. The association of peace and free will in Spanish humanism had a history tracing back to the intermingling of Christian, Moorish, and Jewish civilization in Iberia during the late medieval period. Ramon Lull, who missionized among the Berbers of North Africa, held that Christian rulers must do everything in their power to keep non-Christians in peace to be converted by persuasion of intellect and love. Lull's Arte Magna integrated the Jewish cabala, numerology, and the Islamic emphasis on the names of God into a comprehensive philosophical system (see below, p.20) which would convince anyone of the superiority of Christianity to other religions. Alfonso X's thirteenth-century laws of the Siéte Partidas accorded religious tolerance to Moors and Jews living in Christian territory while providing for education of the children of their nobility. After the conquest of Granada in 1492, Moors were still accorded this treatment, prompting Pedro de Alcala to write his Arte para Ligeramente Saber la Lengua Araviga as an aid to evangelizing in Arabic. In his Querela Pacis Erasmus exhorts Charles V to shepherd his flock without war because of the necessity of peace for conversion by persuasion and contagion of good example; making scripture accessible to lay folk in their own language to facilitate interiorization of Christianity through intellect and free will was Erasmus' principal method of persuasion.

Humanists developed models for polity in the various utopias of the sixteenth and seventeenth centuries. To remedy the degeneration apparent in the civilization of Europe, utopias proposed primitive but perfect alternatives. Many utopias were depicted as island paradieses free from contamination by other civilization. Their regular layout explicitly resembled the order of the cosmos. Cascading equal numbers of families into parochies, and these in turn into higher level entities subordinate to a leader, their social organization was hierarchical. The leader both governed and judged, functions which had become differentiated in European polities. Property was communal. Production scheduled rustic and urban activities for each individual. By such a plan of living, utopia's inhabitants would achieve a plasticity of temperament corresponding to that of
aboriginal man and capable of interiorizing Christian virtues and understanding. Humanists hoped for peace on earth under a Christian emperor whose rule would await the second coming of Christ. The reign of Caesar Augustus had been an era of world order under Roman law worthy of Christ's birth. In the ascendancy of Charles V as Hapsburg emperor Europeans saw the possibility of such an era in their own time (see Figure 21). Even after the collapse of empire and the rise of European statism, the metaphor of universal order continued to be linked to the idea of monarchy.

Policies of Spanish colonial administration evolved during the course of the sixteenth century in a manner closely linked to the resurgence of Christian universalism under Charles V and its ebb under Philip II. I have already made reference to how the struggle for jurisdiction over Indians evoked differing assessments of their temperament and intellect. Now I wish to connect up shifts in these assessments and changes in the relative power among competing sectors of colonial society with developments in Europe, particularly as reflected in plans for government of the Indian sector of New Spain.

The 1520's occupied Charles V with consolidating Hapsburg rule in Europe, waging war against rival Francis I of France and the allied papacy. The emperor was not yet able to wrest control of the Indies from colonists. New Spain inherited the encomienda as it had evolved in the Caribbean, the delegation of jurisdiction over Indians by the Crown to colonists participating in conquest. Colonists were in ascendance. Although Dominicans and other mendicant orders were beginning to make heard arguments for the abolishment of encomienda, colonists succeeded in forestalling change through arguments of Indian incapacity for other forms of rule, arguments in which purported Indian "bestiality" often played a part.

The consolidation of empire with Charles V's triumphal crowning as Holy Roman Emperor in Bologna in 1529 symbolized the beginning of Christian universalism in Europe. Seeking to wrest back from colonists administrative control of New Spain, the crown established in Mexico the First and Second Audiencies and finally the Viceroyalty in 1535. Franciscan apocalyptic messianism, supported by the Viceroyalty, came to the fore, founded on the presumption that Indians were an untarnished gentile race of plastic temperament predestined to form part of a universal Christian empire with utopian polity associated with a primitive, apostolic
Fig. 21. Relic incorporating the Hapsburg motto "A.E I O U" (Austria Est Imperare Orbi Universo, or Austria is the universal empire of the world) and letters symbolizing Christ, evoking the Christian universalism associated with the reign of Charles V. From Schlosser (1908:15). See text page 17.

Fig. 22. Map illustrating resettlement of Indians of Tecamachalco into a compact town. From John McAndrew, The Open Air Churches of Sixteenth-Century Mexico, Cambridge, Harvard University Press, 1965:103. See text page 78.
church under Franciscan supervision. Although the Viceroyalty did not eliminate the encomienda, it began forming Indian towns under its own jurisdiction (and therefore the crown's), supervised by clerics and carefully isolated from the rest of colonial society. Clerics became heavily involved in Indian education, stressing the communication of scripture in native tongues as a persuasive method of evangelization. Las Casas' famous experiment with spiritual conquest by peaceful persuasion of the theretofore impenetrable Guatemalan Tierra de Guerra dates to this period. Clerics set up self-contained republics for Indians to inhabit, some of them structured along lines suggested by humanist utopias. Overall, we can think of the 1530s as an era dominated by partisans of the view of the Indian as a pristine human type with capable but undeveloped intellect that would readily adopt polities designed to help man fulfill his purpose of creation in coming to know God.

Beginning as early as the 1540s, fundamental changes in Europe were coming about leading to the breakdown of empire, the rise of statism, and the growing power of capitalist commerce and trade, a trend that became increasingly apparent during the reign of Philip II. This is an era in which the crown took a much more active part in rationalizing the government of Indians to reconcile it with economic needs. The crown transformed the encomienda in 1542, stripping colonists of rights over Indian service, and establishing the repartimiento as a crown monopoly over the allocation of Indian labor for cash wages. Indian tribute was modified in 1549 to a payment in cash. Resettling Indians in compact towns endowed with inalienable communal lands (see Figure 22) also facilitated this form of tax by setting aside designated tracts for cultivation of cash crops. At the same time a measure of autonomous local rule was accorded Indian towns by laws reviving an indigenous nobility in charge of town government and coordination of labor for the repartimiento. By extending this degree of centralized planning to all sectors of colonial society the crown asserted the priority of its own economic interests. The period is interesting because of the emerging influence of the jurist and theologian Vitoria and his followers as counselors of the court. Vitoria's De Indiis Prior refuted colonists' claims that Indian bestiality justified the waging of war, confiscation of Indian property, and taking of slaves in conquest. On the other hand, while defending Indian intellect, Vitoria did not go so far as clerics who advocated exalted isolation of ideal Indian republics. Instead Vitoria held out for Indian polities and economies that were
Fig. 23. Massacre of Moctezuma. See text page 19.
(From Keen, 1971:162)

Fig. 24. The zodiac and circuits of the planets as a memory system. From Fludd, Ars Memoria p. 329-30,347, as illustrated in Yates (1966:336). See text page 20.
legitimate because of their natural evolution but that must accommodate to the equally legitimate temporal development of Spanish polity and economy. Vitoria extended the free-will concept behind the idea of peaceful conversion to the temporal domains of polity and economy, arguing that seas and rivers are public, that trading is a natural right, that citizenship is something that individuals can freely choose. Thus the Spanish king had the right to seek freely-willed economic and political dominion. By carving out a middle ground between colonists' and clerics' views of Indian nature, Vitoria provided the crown with a philosophical basis for its centralizing role in an overarching polity and economy in which the local institutions of the Indian community would be preserved.

The later sixteenth-century brought about a steady decline in the assessment of Indians, at least within the Spanish arena. Widespread epidemics decimating Indian population undermined Franciscan credence of Indians as a chosen race about to inherit the kingdom of God. Continued idolatry shook friars' faith in Indian intellectual capacity. At the same time, tremendous growth of mining and herding stimulated rapid expansion of the colonist sector. In this context the importance accorded the Indian in the ordering of polity gradually became eclipsed in Spanish thought.

At the same time, however, interest in the Indian grew in other parts of Europe. French, English, and Italians began to write the black legend of Spain's conquest of the Americas in polemical tracts that vilified the conquistadores and glorified their victims (see Figure 23). This stimulated interest in Aztec and Inca former rulers and in the political systems they headed which grew rapidly in the seventeenth century.

Structuring the mind

Humanists believed artificial techniques for remembering to be valuable means for organizing the mind for fathoming the universe. The art of memory was a part of classical rhetoric as it had been handed down through the middle ages. By the time of the renaissance, many distinct techniques for memory had evolved. They were important for mastering any complex body of knowledge in an era when printing was not extensive. Artificial memory was used in evangelization, played a part in encyclopedism, and came to have an important bearing on humanist integration of knowledge and faith.
Fig. 25. Lull's system of concentric permutations of letters and attributes of God as a memory scheme. From his Ars Brevis as illustrated in Yates (1966: 182-3). See text page 20.

Fig. 26. Ludovico Dolci's memory system, as illustrated in de la Maza (1945: pl. 19). This memnotechnics system inspired Valades' system of memnotechnics for Indian literacy (see Fig. 28). See text page 21.
Artificial memory developed to enable preachers and orators lecture at length. By breaking down a speech or sermon into constituent parts associated with an organized scheme, the lecturer could reconstitute a whole by keeping the organization of the scheme in mind. The twelve-place circuit of the zodiac was a widely utilized scheme (see Figure 24).

It was known universally and had the added attraction of a variety of overlaid associations, such as with parts of the body, plants, animals, stones, and so forth. The orator preparing a speech would imagine a room architectured into divisions corresponding to the signs of the zodiac. Walking around the room he would lay successive segments of his oration in each place and connect segment and place together by a pertinent association. Delivering the speech would entail simply “picking up the pieces” in their proper order.

Other sorts of schemes developed to suit varying purposes. Ramon Lull incorporated into one system of concentric wheels circuits corresponding to steps of the levels of creation (see Figure 5), letters of the alphabet, and the attributes of God (see Figure 25). Permutation of the positions of these generated correspondences and associations that he used to convince Jews and Moslems that the mystical meanings of the Jewish cabala and of the Sufist names or aspects of God could be integrated through the Christian trinity into one philosophical scheme enabling the ascent of the mind of the individual to the level of the mind of God.

The attempt of encyclopedists to discover the order and harmony of the natural world relied heavily on mnemonic schemes of classification. The principle of lexicographic ordering of entries in a dictionary or encyclopedia according to the alphabetic position of constituent letters is an example of encyclopedists’ use of a system inherently similar to Lull’s revolving memory wheels. Their use of the animal, vegetable, and mineral orders corresponded to a memory system organized according to the spheres of the cosmos.

Artificial memory enabled the integration of knowledge and faith, the temporal and spiritual, the body and the mind by preparing the brain to comprehend the complex order of the world. To fulfill the purpose of creation in knowing God, man had somehow to understand his works. Such a tour de force entailed, on the one hand, asceticism to clear the brain of visceral influences of passion and concupiscence, and on the other, intellectual skills such as philosophy with which to understand the natural world. Artificial memory was the bridge between these, allowing for the interiorization of knowledge by the properly prepared brain.
Fig. 27. Valadés' localization of the faculties of the mind, from his Rhetorica Christiana, as illustrated in de la Maza (1945: Pl. 7). Compare to Fig. 10a, and see text, page 21.

Fig. 28. Valadés' memmotechnic system for teaching Indian literacy, from his Rhetorica Christiana, as illustrated in de la Maza (1945: Pl. 20). See Fig. 26 and text page 21.
Fig. 29. Illustration of Franciscan use of memory images in evangelization among the Indians, from his Rhetorica Christiana, as illustrated in de La Maza (1946: Pl. 25). See text page 21.

Fig. 30. Valades' illustration of the layout of the church courtyard as a system of memory places for learning the sacraments. From his Rhetorica Christiana, as illustrated in de La Maza (1946: Pt. 29). See text page 21.
Fig. 31. Valadez's depiction of the Aztec calendar as a memory system. From his Rhetorica Christiana, as illustrated in de la Maza (1945:Pl. 18). See text page 21.
Artificial memory schemes figured importantly in the evangelization of Indians in the New World. We know of their use by Franciscans from Fray Diego Valadés' *Rhetorica Christiana*. Valadés, trained as a cleric in the Franciscan convent in Mexico, an evangelizer among the Chichimec of northern New Spain, traveled to Europe in the 1570s to become a representative of the Franciscan order to the papacy at a time when the order's apocalyptic messianism had fallen into relative disfavor in the court of Philip II. The *Rhetorica Christiana* endeavored to credit Franciscan evangelization in the New World by aligning it with the foremost techniques of Italian humanism. Valadés encountered in Italy the mnemonic systems of Ludovico Dolci (see Figure 26) and was stimulated to write extensively about Franciscan use of the art of memory in the New World. We know from Valadés' illustrations that this Franciscan shared with European humanists their theory of the mind (see Figure 27), similar schemes for mnemonotechnics (see Figure 28), and a belief in the efficacy of memory images (see Figure 29) and memory places (see Figure 30) for evangelization.

We know that Franciscan evangelizers attributed to Indians a high intellectual capacity for memory. Sahagún devoted an entire book of his *Historia...* to Nahuatl Huehuetlatolli, or rhetorical adages, partly because these embodied archaic language utilized in Aztec ritual, but also because these sayings were ancient rhetoric that had to be committed entirely to memory. Sahagún and many other writers saw sophisticated mnemonics in the complex organization of the Aztec calendar, whose permutations of glyphs and numbers must have brought to mind Ramón Lull's memory wheels. Valadés marveled at the sophisticated graphical techniques Aztecs used to represent their calendar (see Figure 31), which he described in detail for the benefit of pope Gregory XIII, the reformer of the Christian calendar.

The great interest of humanists, particularly those in Italy, in memory schemes must account in part for the selective shipment of Nahuatl and Maya codices with calendrical content to Europe during the sixteenth century. European collection and study of codices needs to be reexamined from this perspective.

**Renaissance magic and Indian idolatry**

In the context of the Reformation, differences in faith came increasingly to be associated with differences in political alignment within Europe. Although shared world-view concepts underlay a broad range of sixteenth-century thought, the construction of these ideas into philosophies or creeds diverged through both
time and space. I have already indicated how changes in attitudes toward Indians evolved among interests vested in Spanish colonialism in rough accord with the rise of empire and its displacement by statism in Europe, and I have alluded to differences between attitudes within and outside the Spanish sphere of influence. These differences are especially interesting to trace in European attitudes toward Indian religion. In considering how humanism integrated knowledge of the world, ordering of polity, and organization of the mind into expressions of faith I wish to turn at least to fundamentally different views of Amerindian idolatry that emerged during the sixteenth century. Within the Spanish sphere, suppression of Indian idolatry led to extreme measures to efface knowledge of aboriginal religion in an era of counter-reform after the Council of Trent in 1555. By contrast, in Italy and Southern Germany, areas in which Renaissance magic had developed along lines according some legitimacy to certain forms of idolatry, Amerindian ritual inspired considerable interest connected with the search for wisdom revealed in ancient religions.

Let us look at the evolution of Spanish treatment of indigenous religion as it is reflected in the work of Sahagún. Sahagún's activities began in the 1530s era of Franciscan apocalyptic messianism when his predecessors believed that the second coming of Christ was at hand and that Indians would be quickly and massively converted as a gentile race to be incorporated by the primitive, apostolic church into a Christian universal empire. Sahagún came into his own in the era of growing skepticism about the ease of this conversion. Sahagún's painstaking study of Nahuatl culture represents his conviction that the only way to eliminate idolatry is to understand its premises in Nahuatl thought and to refute those premises in a manner that would convince the Nahuatl mind.

The Florentine Codex includes materials that clearly reveal these attitudes of Sahagún toward Nahuatl idolatry. In his "Declaration of God's Will" Sahagún explains to Indians the difference between idolatry and proper faith. Proper faith requires the cultivation of a state of heart and mind (e.g. interior Christianizing) suited to the knowledge of God's creations (e.g. interiorization of knowledge). By knowing God's creations one would know God. Idolators go astray because they attribute to God's creations the attributes of God. Fire, water, wind, the sun, moon, and stars (all of them Nahuatl dieties) - these were created for our guidance and support; but to worship them is to confuse them with God, an error because only God is all-powerful and completely wise.
Sahagún describes how wood, intended for man's use, might be made, by art, into an idol through demonic deception. Wood carving, painting, lapidary work, goldwork, and other arts of replication (all of them Nahuaí crafts which Sahagún studied in detail) can be abused through their use in idolatry, an activity which is demonic in inspiration, which brings about witlessness and senselessness, and which is the ultimate cause of viciousness, filth, hatred, homicide, adultery, robbery, trickery, and public disorder. In his "Confutation of Idolatry" Sahagún goes on to use scripture to refute the Nahuaí beliefs in specific deities, utilizing language that carefully mimics the rhetorical style of Nahuaí ritual speech.

Sahagún's work represents a last-ditch effort to orchestrate the skills of Spanish humanism for the elimination of idolatry and the successful conversion of the Indian in separate republics under Franciscan supervision. After Philip II's accession to rule in 1555, however, Franciscan aspirations quickly faded. On the one hand, policies for Hispanicizing the Indian and integrating him into the colonial economy now came to the fore. On the other, the intolerance of the Spanish counter-reform manifested itself in the suppression of any expression of indigenous religion and worldview in Spain and the Americas. The encyclopedic scholarship on Indian culture of Sahagún and other missionaries was gathered up and destroyed because of the crown's belief that such records of indigenous belief might serve to perpetuate idolatry more than to help in its elimination. Interest in and knowledge of Indian idolatry would have no place in the Spain of Philip II.

Elsewhere in Europe fundamental tenets of humanism articulated their faith in which idolatry had a place as a form of legitimate natural magic. The "Hermetic" tradition was one such variant combining encyclopedism, utopianism, and the art of memory into a distinctive system that developed in Tuscany in the late 1400s and spread to other parts of Italy and Southern Germany by the opening of the seventeenth century.

The "Hermetic" tradition takes its name from Hermes Trismegistus, protagonist in the mythology justifying renaissance utilization of magic and to occult. Hermes was known as the original source of the Greek Asclepius, a text of supposed Egyptian origin dealing with astral magic that had been condemned as idolatrous by Augustine and hence ignored by almost all medieval theologians. Renaissance scholarship, however, revived interest in Hermes because of reference to him in the rediscovered work of Lactantius and Cicero.
The myth of Hermes Trismegistus held him to have been a Magus or philospher-magician-king of a marvelous ancient Egyptian city, Adocentyn. The city was a utopia in which Hermes maintained perfect order through the use of astral magic. The city was symmetrical in its layout and surrounded by walls incorporating gates displaying statues of animals representing the signs of the Zodiac. In the center of the city Hermes erected a tower from which to display colored lights representing the seven planets, flashing one each day to mark the days of the week. The images and colors emanated virtues that brought order into the lives of Adocentyn's citizens, protecting them from wickedness and harm.

Credence in the myth of Hermes was given a great boost by fifteenth-century scholarship in the Medici court. In 1460 one of Cosimo de' Medici's agents brought to Florence from Macedonia a Greek manuscript containing a nearly complete version of the fabled Corpus Hermeticum. Cosimo had Ficino, his Greek specialist, set aside translation of Plato in order to decode the Corpus Hermeticum first, as Plato was thought to have derived his thinking from Hermes. Ficino formulated his Pimander as selections from the Corpus Hermeticum with commentary that dwelled on the resemblances between the Corpus and the Book of Genesis, between Hermes and Moses. Immediately Hermes' work became legitimized among neo-Platonists of Tuscany as pre-figuring the wisdom of Moses and anticipating the incarnation of Christ.

This legitimization of Hermes led to renewed interest in the astral magic of the Asclepius. Ficino himself published De Vita Coelitus Comparanda, a treatise on astral magic derived from the Asclepius. Ficino held that astral magic was not demonic or black magic outlawed by Augustine because its basis was manipulation of talismans and objects embodying astral influences which have their ultimate source in the mind of God. Their use was legitimate, natural magic, natural because talismans made from animals, plants, and minerals in the natural world were enlivened with favorable influences from planets and stars.

Contemporaries and followers of Ficino within the neo-Platonic movement quickly elaborated on Hermeticism. An important elaboration was Pico della Mirandola's linking of Hermeticism to the Jewish Cabala and thus to Lull's art of memory. According to Pico, the Cabala's combination of the twenty-two letters of the Hebrew alphabet with names or aspects of God incorporated mystical hidden meaning which could be unraveled by the art of memory. The natural magic of Hermeticism could be systematized by combination with the Cabala.
Another elaboration of Hermetism was the tremendous revival of interest in ancient Egypt. Hieroglyphic texts on Egyptian obelisks and idols contained mystical clues to ancient wisdom and revelation. Such artifacts assumed a new position of importance among man's works in renaissance collections.

Hermetism added an unusual dimension to renaissance collectionism. Museums could become more than ordered aggregations of the things of nature. Works of man, especially idols, images, and talismans representing and elaborating the influences of nature, would have a legitimate place in such collections. Furthermore, by careful placement of natural objects into a properly architectured space, man could, perhaps, actively manipulate the forces of nature as did Hermes in the layout of the city of Adocentyn. By placing oneself in the center of such a layout one might achieve the understanding of the cosmos attained through ancient aboriginal wisdom.

Needless to say, Hermetism was a controversial system, embodying as it did systems of magic that had been banned by the medieval church, and thought to be heretical by many Christians. Some humanists, including Erasmus, explicitly disavowed Hermetism along with most of the rest of dialectics, metaphysics, and natural philosophy as being unnecessary distractions from an ascetic, primitive faith for which the words of Christ alone were sufficient for full understanding. Hermetism certainly played no part in the evangelism of Spanish humanism of the early 1500s and would not have been tolerated in any form under Philip II.

Correspondingly one does not find any connection between Hermetism and New World idolatry in the residues of Spanish humanism and Spanish colonialism. Nonetheless there is suggestive evidence that Hermetists in Italy and Southern Germany took greater interest in Amerindian idolatry than their lack of direct interchange with the Americas might lead us to suspect.

One line of evidence comes from the interest of various sixteenth-century popes in Amerindian idolatry, and in the codices and artifacts pertaining to it. Clement VII (Julio de' Medici), who was pope from 1523 to 1534, is known to have been sent the "Vienna" codex as a gift within two years of its shipment to Europe after the conquest of Mexico in 1521. Paul III (Alexander Farnese), pope from 1534-49 and his successor Julius III are known to have taken great interest in the Dominican friar Juan Ferrer's erudite scholarship on Aztec hieroglyphic writing and ancient religion. Gregory XIII, reformer of the Christian calendar and pope from 1572-85, took a similar interest in Valades' documentation of the
Fig. 33. Mosaic mask of ancient Mexican provenience similar to those which formed part of the Medici collections. From Heikamp (1972: Pl. 56). See text page 26.

Fig. 34. Mexican jade mask set into baroque mount similar to those appropriate for talismans (see Fig. 35). From Heikamp (1972). See text page 26.
Fig. 35. Bezoar stones set into baroque gold and silver mounts. Bezoars were excretions from the viscera of various animals that were thought to have special powers as antidotes to poisons. Their use was a form of legitimate natural magic. From Schlosser (1908:101). See text page 26 and Fig. 34.
Fig. 36. (a) Mosaic mask from the British Museum, from Carmichael (1970:13).
(b) Mexican idol from the Hapsburg collections at the Castle of Ambras, as illustrated by Novotny (1960:pl. 17). See text page 26.
Figs. 37 and 38. Pignoria's illustrations of Mexican idols in Italian collections. Pignoria analysed the Egyptian origins of hieroglyphic writing and idolatry. See text page 26.
Aztec calendar and ritual. These interests suggest a possible connection with Hermetism in the sixteenth-century papacy that requires further investigation.

More convincing circumstantial evidence is the remarkable concentration of ancient Mexican artifacts in the encyclopedic collections of the Medici. Heikamp's meticulous study documents the continuing interest of the Medici in ancient Mexico throughout the sixteenth century. Their collections included codex materials, mosaic masks, featherwork mosaics, and gemstone objects. Many of the masks and stones were antique (see Figures 32, 33, and 34). Some of these pre-Columbian idols were turned over to goldsmiths to mount into settings that would otherwise be appropriate to talismans (see Figure 35). This circumstantial link between Amerindian idolatry and collectionism by Medici advocates of Hermetism becomes more convincing when we learn that these objects were integrated into the collections of gemstones and idols of other ancient civilizations in the "Guardaroba" room of Cosimo de' Medici and the "Studiolo" room of Francesco de' Medici; for we learn from Salerno that these rooms were constructed as memory rooms in which the decorations of cabinets incorporated iconographic schemes of correspondence linking classical Gods to the planets, and to the minerals and natural objects associated with these planets.

Evidently the Medici were not alone in their interest in ancient Mexican idolatry. Artifacts now in the British Museum, thought by some to be the treasure presented by Cortez to Charles V after the conquest of Mexico, can be traced back to the collections of other Italian houses (see Figure 36), and the general phenomenon of Italian encyclopedism is known to have encompassed the Americas. In Austria, the substantial collections of the Hapsburgs in the Castle of Ambras date to this time and include pre-Columbian artifacts from Mexico in much the same manner as those of the Medici.

In materials dating from the early 1600s we finally find concrete evidence of the tie between Hermetism and the Mexican artifacts that collections of the Medici suggest. The interest in ancient idolatry in the late 1500s led to popularity of such publications as Cartari's Imagini delle Dei de gl'Antichi. In 1615 (if not earlier) Cartari's work was republished with an appendix by Pignoria extending the scope of the work to include the idolatry of the Indies. Pignoria had access to idols in various Italian collections and used these as a basis for illustrations accompanied by text comparing the idolatry of India, China, and Mexico to that of ancient Egypt (see Figures 37 and 38). In this
Fig. 39. (a) Athanasius Kircher's museum, its cosmic organization, and its emphasis on Egyptian hieroglyphic writing and ritual as a system of hidden revelation. From Schlosser (1908:105).
(b) Kircher's Oedipus Aegyptiacus... (1652-54) utilized Hermetism to unravel the hidden meaning of Egyptian ritual, to which Kircher compared Mexican counterparts. Here Kircher depicts himself as Oedipus explaining the riddle of the Sphinx. From Shumaker (1972:244). See text page 27.
work Pignoria was attempting to disarticulate the demonic from the sacred inspirations of idolatry and to trace back the latter, wherever possible, to their Egyptian origins.

Finally we have the writing of the distinguished Jesuit Hermetist, Athanasius Kircher, who devoted two chapters of his *Oedipus Aegypticus*... (see Figure 39) to the comparison of Mexican and Egyptian civilization. Kircher was struck by the resemblances between Egyptian and Mexican pyramid construction and hieroglyphic writing. He analysed these resemblances in the context of an encyclopedic inventory of systems of hidden revelation such as the Hebrew and Saracen cabalas. Kircher utilized the *Mexican History in Pictures*, a facsimile publication by Purchas of the Codex Mendoza, as a source on Mexican writing, concluding that it did not represent a true hieroglyphic system equivalent to the Egyptian because of its apparent lack of mystical signification.

Evidently Kircher's work is symptomatic of a growing interest of the Jesuits in ancient indigenous civilization in the Americas. By the late seventeenth and eighteenth centuries the Jesuits were heavily engaged in missionization in colonial America. At this late date creole interest in indigenous antiquity had revived, having in part to do with the forging of a distinctive American identity in the later colonial period. Jesuit scholarship contributed to the study of ancient Mexico which accompanied this development. Clavijero's monumental *Historia Antigua de Mexico*, written after the Spanish expulsion of the Jesuits from the New World in 1767, exemplified this revival of interest in indigenous civilization, which in Europe still had Hermetic overtones (see Figure 40). But by this time Europe had entered an era whose fundamental tenets were quite different from the sixteenth-century humanism we have been studying.

**Concluding remarks**

In closing this essay on the ideological unities underlying sixteenth-century humanistic engagement with the New World I wish to delimit the scope of the conclusions that may be drawn from it. We have been examining an era of explosion of interest in man and his works, a century whose intellectual products are so rich that we cannot pretend to have done them justice. The principle of selection among these materials has been the focus on myths of the origin of mankind and explanations of human nature and diversity.
Fig. 40. Earliest extant depiction of hieroglyphics from the Dresden Codex, by von Racknitz, Darstellung und Geschichte des Geschmacks der vorzüglichsten Völker, Leipzig, 1796.

The depiction is as though in the framework of a Hermetic memory room. From illustration by Michael Coe in "Una referencia antigua al codice de Dresde" in Estudios de Cultura Maya 3:39. See text page 27.
Selection of materials always poses the risk of oversimplification, of findings that could be altered if the domain of inquiry were to be expanded. In this sense the essay is only a beginning that should be extended and qualified in various ways.

The unit of our analysis has been Christian Europe. We have every reason to expect valuable rewards from extending the inquiry to include North Africa, the Near East, and the Byzantine world. Braudel's work demonstrates the integrity of the Mediterranean world as a sphere of communication. In the case of Spanish humanism in particular, the shape given Christian thought by centuries of intermingling of Christian, Jewish, and Islamic civilization would be exciting to trace.

We have been examining the ideas of literate elites, chroniclers, missionaries, philosophers, and counselors to princes and courtiers. I am struck by the ideal that inheres in these materials of a hierarchical society that functions by consensus of its members to the wise guidance of the ruler. Would our conclusions about humanistic world view hold if we could include the views of peasants, craftworkers, and merchants in Europe and colonial Latin America? The variation that we have seen in the articulation of underlying themes into conflicting assessments of Indian human nature suggest that these alternative perspectives could be pursued fruitfully.
1 Shumaker (1972:1-59) and Yates (1969) both give very comprehensive accounts of humanist conceptions of the cosmos, and my interpretation is drawn largely from these sources.

2 Shumaker (1972:1-59) gives a useful explanation of the use of the zodiac in astrology.

3 Shumaker (1972:32) elaborates on the Aristotelian articulation of the nature of cosmic influences.

4 Cárdenas (1945:81ff) devotes the first part of the second book of his treatise on the New World to explaining the abundance of rare metals there as a consequence of cosmic influences.

5 Shumaker (1972:25) gives an interesting example of the horoscope of the Emperor Charles V.

6 This distinction plays an important part in Las Casas' attribution to the Indies of a perfect climate. According to Las Casas, the cooling influences of oceans and mountain range (inferior influences) offset the location of the Indies in the torrid zone which would otherwise be overly heated by the sun (superior influence). See Las Casas (1909:Ch. 17).

7 Las Casas (1909:Ch. 26) places emphasis on life ways as "accidental" causes that can bring about inheritable changes in human temperament. Other writers designated as "accidents" those changes in individuals brought about by natural influences as well.

8 Cárdenas (1945:14-15).

9 Cárdenas (1945:47).

10 Cárdenas (1945:31-32).

11 Cárdenas (1945:13).

12 Cárdenas (1945:12,14,81ff.)


14 See, for example, Lull's version of the purpose of creation as elucidated by Xirau (1945b:52).
The discussion which follows of the relation between temperament and intellect is drawn principally from a sixteenth-century treatise on intellect by the Spanish physician Huarte (1930). The treatise advises the crown to educate and train individuals for the occupations suited to their temperaments. Huarte drew his conclusions from doctors and philosophers dating back to Galen and Hippocrates.

Huate (1930:113).

Huate (1930:114).

Huate (1930:116).

Huate (1930:84-90).

Huate (1930:87-90, 344-345).

There is extensive discussion of this differentiation throughout Huate (1930).

Erasmus' Enchiridion, or guide for the Christian gentleman, posits a very similar explanation of the relation between temperament and intellect. Erasmus argues from this position that one must oppose the flesh with the spirit through interior Christianising in order to achieve full grace. See Bataillon (1950 (1): 222-40).

Huate (1930:24,37).

Hayden (1976).

This conception of the temperament of primitive man accorded with that described by Lucian in his Saturnalia for the inhabitants of an ancient utopia. See Zavala (1965:112-113).

Huate (1930:346).

The idea of free will entered into important debates between Lutherans and Catholic humanists. Erasmus defended the position that only man has the power of damning himself by choosing to sin (Bataillon 1950 (1):170-81). The debate was picked up by Spanish humanism and carried to the New World. Quiroga, for instance, argued that Indians could make up for their idolatry by choosing of their own free will to collaborate in the construction of his pueblo-hospitals; on this subject see Warren (1963:57).

Huate (1930:34,36).
29 Elliott (1974:121-125) gives a useful general discussion of this view of human evolution. For specific examples, see Cárdenas' discussion of the Chichimec tribes of northern New Spain as accidents of nature (1945:201-204) and of Indian temperament as flegmatic by accident (1945:184). See also Sandoval's explanations of the acquisition of skin color and other physical characteristics by the black races of Africa (1956:21-27). Finally, see Huarte's explanation of how Jews acquired the temperament suiting them for the practice of medicine through their peregrination in the desert after the departure from Egypt (1930:282-292).

30 See, for instance, Lull's articulation of this idea, as discussed by Xirau (1945a:48).

31 This was a fundamental tenet of Vitoria in his defense of the legitimacy of Indian temporal dominions. See Grisel (1976).

32 Huarte (1930:36,44).


34 Americo Castro's El Pensamiento de Cervantes (pp. 177-8) discusses this humanist theme of the corruption of civilization and the desire to recapture the attributes of an earlier Golden Age. See the discussion of these ideas in the context of their application to New World utopias in Zavala (1965:103ff.). Phelan (1970) has an excellent discussion of how Franciscan apocalyptic messianists deemed the rule of Charles V (who favored their endeavors) to be like an Age of Gold in contrast to the subsequent Age of Silver (a baser metal) under the rule of Philip II (under whom the Franciscans fell into relative disfavor).

35 See the excellent discussion of the link between Christian universalism and theories of monarchy in Yates (1975:3-4). Phelan (1970) also gives a lucid overview of this linkage in his Chapter 1, "The Universal Monarchy of the Spanish Hapsburgs".

36 Las Casas (1909:Chs. 17,18).

37 Las Casas (1909:Ch. 20). In this context it is striking that Las Casas compares Espanola and other parts of the Indies with other islands of the classical world. Perhaps there is a connection to be drawn between this, the conception of utopias as temperate islands discussed by Phelan (1970:Ch. 7) and the medieval idea of the papacy as overlord of Islands discussed by Weckmann-Munoz (1976).

38 Zavala (1965:14-15) discusses Quiroga's conception of the Indian in these terms, as does Warren (1963:29).

40 See Phelan (1970:Ch. 7).

41 Zavala (1965:112-113).


43 Phelan (1970) gives the most effective overview of these attitudes of Franciscan apocalyptic messianism in the New World. See also the excellent article by Maravall (1949). For the medieval origins of messianism, see Cohn (1957).

44 On Fernández de Oviedo's views, see Vázquez's excellent analysis (1962:47-72).

45 On Vitoria, see especially Grisel (1976). Hanke's work on Las Casas also contains useful materials on Vitoria (1959:22).

46 The theme of "orden y concierto" as something placed into nature by God is discussed by many writers of the sixteenth century. See, for instance, Huarte (1930:75).

47 Lovejoy (1957) devotes an entire book to the significance of this metaphor in the history of European thought.

48 See especially Schlosser's treatise on renaissance encyclopedia (1908) and Salerno's excellent discussion of the subject (1963). Heikamp (1976, 1972) contains useful discussion of encyclopedia and collectionism pertaining to the Americas.

49 Salerno (1963:193).

50 Salerno (1963:195).

51 Salerno (1963:196).

52 Cárdenas (1945:190-197) dwells at length on maladies attributable to the environment of the New World.

53 The Nahua herbal known as the Badianus manuscript was written to correlate plants with the maladies for which they had therapeutic value. For a thorough analysis of this manuscript, as well as an interesting discussion of the historical background of sixteenth century Spanish colonial medicine, see Emmart (1940).

54 See especially Baudot (1974) on the vehemence of Sahagun's skepticism in his later years.
55 López Austin (1974) gives an excellent overview of the organization of the Historia... in his analysis of Sahagun's research methods.


57 Marichal (1976) discusses the characterization of the high civilizations of the Aztec and Inca as embodying the renaissance ideal of order and harmony.

58 Cline (1969), Nicholson (1955), and Honour (1975) give interesting accounts of the gifts of Cortes to Charles V and their reception in the emperor's court.


60 Substantial numbers of artifacts from the New World made their way into German collections as well. See Novotny (1960).


62 Huarte (1930:44).

63 Kircher (1652-54 (1):83-87).

64 Phelan (1970:Ch. 5).

65 Xirau: (1945b:51-2).

66 Bataillon (1950 (1):100-106) deals with Erasmus' advocacy of peace and the metaphysical assumptions underlying it.

67 See Bataillon (1950 (1):170-181) on Erasmus' discussion of the doctrine of free will.

68 The discussion of Lull is drawn from Xirau (1945a,b) and Yates (1966:173-198).

69 Xirau (1945a:41-2).


71 It was a tenet of Erasmus' that man was peaceful by nature, that language was intended to promote human accord (Bataillon 1950 (1):101), a position having important bearing on the vulgarization of scripture as a legitimate part of counter-reform evangelization.
72 See Romeo (1976), Phelan (1970:Ch. 7), Bataillon (1950 (2):447-451), Warren (1963:26-42), Zayala (1965:10-40, 103-116), and Maravall (1949) for discussion and interpretation of sources on sixteenth-century utopias and their attempted institution in the New World. Relevant utopian schemes are Lucian's Saturnalia, More's Utopia, Lull's Blanquerna, Sancho Panza's island of Barataria, Bacon's New Atlantis, Campanella's City of the Sun and Corral's seven islands of the Antilles, as described in his Crónica del Rey Don Rodrigo y la Destrucción de España.

73 For discussion of this theme, see the collection of essays by Yates (1975).

74 Simpson (1966).

75 Phelan (1970). Maravall (1949:226) also has a helpful discussion of the linkage between the Viceroyalty and the apocalyptic messianism of the Franciscans.


77 Hanke (1965:72-82).

78 See especially the literature on Quiroga's pueblo-hospitals, as discussed by Warren (1963) and Zavala (1965).


81 Miranda (1952).

82 Mendieta y Nuñez (1946).

83 López Sarrelangue (1965).

84 See Grisel (1976) on the subject of Vitoria for a concise overview of his position.

85 See Cook and Borah (1971).

86 Sahagún, for instance, in later life came nearly to despair of the possibility of eliminating idolatry, because of its ready syncretism with Catholicism. See Baudot (1974).

87 Chevalier (1966).
Honour (1975:162-3) has an interesting discussion of the expression of this interest in European literature and art. For European views of the Aztecs, see Keen (1971).

My discussion of artificial memory draws heavily from the fascinating study by Yates (1966).


Salerno (1963:196).

Palomera (1963), de la Maza (1945), and Mendez Plancarte (1946) are useful sources on Valades.

For an excellent discussion of the work of Sahagun and related contemporaries, see the volume edited by Edmonson (1974).


Baudot (1974) discusses Sahagun's efforts to reconstruct the confiscated materials in his later life.

The discussion of the "Hermetic" tradition which follows is drawn principally from Yates (1964).

Yates (1964:9).


Yates (1964:12).


Yates (1964:40).


In this context see Yates' fascinating discussion of the theatre as a hermetic memory room (1966:320-341).

108 Heikamp (1972:9) discusses the probable transmission of the Codex Vindobonensis Mexicanus I by Charles V to his brother-in-law Manuel I of Portugal, who in turn sent it to Julio de' Medici just before he assumed the papacy.

109 O'Daniel (1930:99-102) discusses the work of Ferrer and its apparent loss through shipwreck while in transit to the papacy.


111 Heikamp (1972).


113 Carmichael (1970).

114 Nowotny (1960).

115 Pignoria (1647).

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