



The Owl of Athena

CONTRATYRANNOS

The Natural Law Theory of Human Progress Website

EXCURSUS #1

One of a series of monographs that expands the discussion of important topics examined in *The Natural State of Medical Practice*.¹

EXCURSUS 1: THE NATURAL STATE OF MEDICAL PRACTICE, A SUMMARY ²

Summary: The following is a summary of volumes 1 and 3 of *The Natural State of Medical Practice*. An abridgement has been published, *Medical Practice and the Common Man and Woman: A History*, but at seven hundred pages an even more brief version has been requested, but one that includes all salient points the unabridged work encompasses. That approach is presented here, roughly approximating the sequence as found in the abridgement's thirty-eight chapters (and accordingly numbered and bracketed in bold { } for ready reference to the abridgement's chapters), with the understanding that much evidence supporting the work's conclusions is to be found only in the unabridged volumes.³

PART I

Historical Assessment

Every person is susceptible to pain, emotional distress and death associated with disease and trauma, and every person is motivated to lessen their effects. To understand *The Natural State of Medical Practice* and to explain the profound conclusions concerning human progress that emerged from its study, we therefore use medical practice as a universal gauge of progress. Thus, first we must analyze the great variety of medical practices that have existed throughout history and prehistory so that characteristics of success and failure at medical progress can be identified.

¹ Volume, chapter and page number of otherwise unreferenced statements in this monograph refer to the version of the four volumes as published by Liberty Hill Press:

Vol. 1 – *The Natural State of Medical Practice: An Isagorial Theory of Human Progress*

Vol. 2 – *The Natural State of Medical Practice: Hippocratic Evidence*

Vol. 3 - *The Natural State of Medical Practice: Escape from Egalitarianism*

Vol. 4 – *The Natural State of Medical Practice: Implications*

² A “natural state of medical practice” is an established, objective (rational) and clinically effective medical practice free from institutional influences or other forms of external coercion except for those interpersonal influences to which both physician and patient are equally exposed and susceptible. It does not include individuals occasionally dispensing nostrums.

³ Volume 2 is primarily a translation of several important Hippocratic treatises presented in a relatively literal interlinear format followed by a vernacular translation. Its value to this trilogy is that its new translations support the conclusions concerning the prominence of ancient Greek medicine referred to in the other two volumes.

{1} To begin, there must be mention of the medicine-man or shaman, who some think represents the ancient and primitive forebear of the modern physician. This is incorrect. The method of the medicine-man has been, without exception, devoted to manipulating demons and controlling fellow humans, not disease. The medicine-man, often the possessor of deviant behavioral characteristics, is shown to be the forebear of the psychic and the huckster, and he has no place in the history of medicine. Empirical medicine finds its roots instead in the anxious observations of practical individuals in family units or tribes who sought, without official sanction, remedies for pain and disease for themselves, their families and neighbors.

{2} But with increasing regional populations there developed larger societies and, ultimately, great civilizations. Chaos was prevented by authoritarian rule at the highest level and elitist interpretation of custom at lower levels. Mystical or theurgical beliefs accompanied the transformation of the medicine-man to priest, a more predictable form of population control. Thus, the early Mesopotamian civilization of Sumer had acquired by 3000 BC an early form of rational medicine and a primordial physician, the *azu*, although the nature of that medicine and its practitioners is only now being appreciated. Documentation of clinical acuity has been demonstrated in translations of the ancient Babylonian (but in my opinion originally Sumerian) *Treatise of Medical Diagnosis and Prognosis*. But consolidation of individual Sumerian city-states into kingdoms, followed by 2000 years of monarchical empires that included the Babylonian and Assyrian, was associated with domination of the *azu* and his medical practice by the palace favorite, the exorcist-priest, or *asipu*. Mysticism prevailed, and as the Common Era approached any Sumerian rational medicine had, despite Babylonian emendations, ceased to exist.

{3} Nine hundred miles to the west, ancient Egyptian medicine was developing what would be renowned as the foundation of Western medicine, although enthusiasm for this theory is not unanimous. It is the writings of the predynastic and early dynasties, *ca.* 3000 BC, as revealed in the famous 1550 BC copies known as *Papyrus Ebers* and the Edwin Smith papyrus, that provide insight into empirical and rational medical practices. But, appropriated by the priest-caste of the early pharaonic State, that empirical-rational medicine became manipulated canon. Thus, a mere twelve papyri grace the medicine of a 2500-year-old empire, a component of many of the twelve being but repetitions of clinical cases or sections from the *Papyrus Ebers*, which therefore must be considered the high point of ancient Egyptian medicine (*i.e.*, 5,000 years ago). Despite a promising beginning, medicine in North Africa, just as in Mesopotamia, came to nothing long before the Common Era.

{4} Looking now to the east, there is a tenuous early historical record for Asian medicine, but the *Huang Ti Nei Ching Su Wen*, assembled in the 2nd C BC, is said to encapsulate ancient Chinese medical thought.⁴ Legend, however, proposes the origin of its clinical material to be *ca.* 2500 BC during the formative years of a unifying China under the Longshan culture emperor, Huang Ti. There are undoubtedly valid clinical diagnostics in this document, and, especially important, it is not mystical and it acknowledges the uniqueness of the individual patient. Nevertheless, its theories and treatments reveal a codified system of disease and physiology with no basis in fact, a fabrication rather than a misunderstanding. It is remarkable that a civilization known for its many manifestations of brilliance would validate such a basis for medical practice, but the fault can be traced to a restrictive system of education and official examination by a central authority and to an elite Confucian society willing to tolerate, or unwilling or unable to challenge, that authority.

⁴ Veith, I., *Huang Ti Nei Ching Su Wen; The Yellow Emperor's Classic of Internal Medicine*, Baltimore, 1949.

Instead, already ancient medical knowledge in the *Huang Ti Nei Ching Su Wen* was altered and amended by learned scribes to become authoritative medical canon for a few elite practitioners. Emperors commissioned massive encyclopedic manuscripts of anecdotal herbal knowledge canvassed from their subjects. This is the knowledge that persisted up to, and was revived during, the twentieth century when the People's Republic of China adopted it as a cheap alternative to Western medicine, and, to the dismay of many, it has widely proliferated today as Traditional Chinese Medicine. The perennial itinerant practitioners caring for the great mass of the population have enjoyed a separate but unregulated and virtually unrecorded existence.

{5} The earliest historical record of Indian medicine, which has much of empirical worth, can be dated only to *ca.* 100 BC. Nevertheless, traditional Indian medicine, Ayurveda, is thought to have originated during the Vedic age and is found in the *Atharva Veda* that some place as early as 2000 BC. But with the advent Hinduism, *ca.* 500 BC, it came under the hegemony of the Brahmin, or priest, caste, even medical training being within their purview. The medical texts were then infused with elements of Hinduism that changed their initially rational nature features to numinous. Concomitantly there was centralization of medical authority within practitioner guilds that were integrated into regional monarchical governments. Despite the insertion of elements of Hippocratic medicine as a consequence of Alexandrian and Islamic intrusions into the subcontinent, traditional Indian medicine would have changed little up to the present time were it not for assimilation of elements of modern Western medicine since the 18th century. The popularity of Ayurveda in part rests on its being a less expensive alternative to scientific medicine.

{6} Moving halfway around the globe, the practice of medicine is barely definable in the ancient Americas. There is virtually no written medical literature. Some idea of the medical environment can be derived from figurines and herbal lore, but, with no evidence of communication between professionals, the conclusion is that, if there were practitioners, they were local medical empiricists. In many pre-Columbian societies shamans were positioned to influence social direction, but no evidence of medical organization, professional or otherwise, has been identified in pre-Columbian art or other archeological finds.

{7} Finally, in the contested lands between Mesopotamia and Egypt there arose epochal creeds and ideas. But historical assessment of their nomadic tribes is limited because of disruptions among their societies and the disappearance of perishable textual materials. The Bible is the principal source of their histories, in part supported by archeological finds, in part at odds with them. Amid the flux of cultures and migratory tribes just to the east of the Mediterranean it is ancient Hebrew medicine that is best documented, and that can be credited to religious writings which began to accumulate in the 8th C BC. Notable features of Hebrew medicine were (1) intolerance of magical devices, and (2) a distinction between medical practitioners and priests. Although the nature of medical practice is uncertain, it probably had rational as well as empirical components. An unsettled tribal existence explains why a formal, and ultimately scientific, medical organization did not develop. Roman domination provided the colophon to indigenous medical practices. A profound inhibitory effect on medical progress has often been attributed to religions, and it is with this in mind that the Levant has been chosen to conclude this brief overview of primitive and ancient historical authoritarian societies and their effects on medical practice, for it was Hebrew prophets who first began to neutralize earthly authoritarianism using the morality of the individual as judged by an almighty God, thus opening a path to social equality. The profound consequences of this to medicine will be explained.

{8} In conclusion, a review of selected ancient civilizations suggests that several had evidence of a transient period in their earliest histories consistent with a rational medical practice. But

within authoritarian society medicine did not benefit from the social advantages of a metropolis or the efficiency of centralized services, inevitably becoming, with the limited exception of Hebrew medicine, manipulated canon. None of the regions cited can claim precedence in originating a natural state of medical practice or of progress toward scientific medicine for none reached a steady state beyond that of the empirical. But the unheralded arrival of a new political system was soon to challenge, then surpass in greatness, all that had gone before.

{9} The societal strata, or coordinates, of reasoning can be broadly summarized by ancient Greek terms: *μονολογιζόμενος* (monologizomenos, or *that which is being reasoned by a solitary individual*), *ἀνισολογιζόμενος* (anisologizomenos, or *that which is being reasoned by unequals*), and *κοινολογιζόμενος* (koinologizomenos, or *that which is being reasoned in common council*). The first describes empiricism of the individual in primitive society, the second introduces the ruler or patron that characterizes authoritarian relationships, and the third describes a consequence of the democratic trend that first developed in ancient Hellas. Mycenaean Greece (1600-1100 BC), the Greek Dark Ages (1100-750 BC), and the early part of the Archaic Period (750-500 BC) provide little evidence for rational Greek medicine. But by the 5th C BC matters had dramatically changed. Many Greek city-states demonstrated broad acceptance of democratic governance. This preference demonstrated the principle of *κοινωνία* (from "koinon," or *common council*)⁵, and it was applied not just to government by the people, but also to political, trade, and craft associations. Simultaneously there emerged the availability of, and a public preference for, community practitioners of rational medicine, as corroborated by Thucydides' description of the plague of Athens.⁶

{10} Preceding paragraphs have exposed authoritarian management of medicine as a guarantor of its survival but not its progress. In Greece the advance through monarchy, aristocracy, tyranny, and thence to democracy reflected political progress in Athens and other Hellenic city-states. Concurrently, medical practice progressed. In contrast, Sparta, which purposely chose to retain firm authoritarian, essentially communistic, governance, remained silent in medicine as in other things despite its proximity to Athens. It was at this time that the medical profession opened its ranks to those outside the traditional medical families. But it was the democratization of medical practice itself, the interaction of physician and patient rather than the admission of outsiders, that led to: (1) the recognition of the uniqueness of each patient, (2) the recognition of the complexity of diseases, and (3) acknowledgement of the patient's role in contributing to and directing his own medical care. This democratization of Hellenic medicine, often attributed to Hippocrates, represented the beginning of the true physician-patient relationship, the *natural state of medical practice*. In this *κοινόν* (koinon) of two it was not the physician's role that had changed; it was the patient's role, a revolutionary transformation. Engaged in common council against illness, the patient and physician could contribute equally to decision-making, the physician being the advocate for his patient and for no one else. It is argued that the honorable physician with such an obligation is far preferable to the legislated physician of an amoral State.

{11} Because of the profound development in medical practice described above, Hippocrates has become the legendary icon for the modern physician. But the association of Hippocratic medicine with the modest Doric settlement on the eastern Mediterranean island of Cos is unexpected, for neither geography nor demographics support the idea of a "medical school" on that small island. A more likely source for the origin of medical enlightenment was the ancient

⁵ Koinon: an autonomous voluntary and democratic group sharing a common self-interest that meets in common council to freely exchange information and experience relevant to that self-interest and pertinent to all its members.

⁶ My translation of the appropriate sections is found in vol. 2 of *The Natural State of Medical Practice*, p. 519.

city of Miletos (romanized spelling of the Greek), located on the coast of Ionia about fifty miles from Cos, before it was laid waste by the Persians in 494 BC. But wherever its origin, Hippocratic medicine, which many consider the foundation of modern scientific medicine, is shown to be an indigenous Hellenic product, owing nothing whatsoever to prior or contemporary civilizations.

{12} A lifetime in medicine affords limited opportunity for the tedious acquisition, by first-hand clinical experience, of new data or observations sufficient for publication. Thus, Hippocrates and Galen, as individuals, have received far too much credit for making medical discoveries. The lionization of these two early physicians is to a great extent attributable to the naivete or clinical incompetence of their medical successors, translators and biographers. It is obvious that complex clinical analyses from assembled observations of Hippocratic physicians were used to transcend the limitations of individual clinical experience. Within the collective experience of the Hippocratic physicians' association, or *koinon*, the correctness of so many medical analyses is shown to be proof that scientific revision, *i.e.*, confirmation of or improvement on preexisting knowledge, was made over time. The profession of medicine could now be defined as a science as well as an art and a profession.

{13, 14} Early Greek clinicians, who, like the early sophists, were peripatetic, understood that diseases of civilization were not god-inflicted, a prerequisite for rational medicine. With population growth and enlarging cities enabling physicians to cease their itinerant existence, the profession became more responsive to societal pressures but remained uninhibited by official entanglements. Therapeutic options were limited, and the pharmacopoeia was small, the latter reflecting a critical assessment of its components by Hippocratic physicians rather than the massive lists of supposed medicaments posed in other civilizations. Medicine was a profession requiring hard work to obtain a livelihood, and the Hippocratic practitioner engaged in both medical and surgical treatments. Thus, by the 4th C BC medicine was an unattractive livelihood for the upper classes, although there was familiarity with its theories by intellectuals of the day.

{15} With regard to societal pressures and the Hippocratic Oath, there are profound limits on the assistance that a person can expect from a stranger unless society establishes, by custom or by laws, a form of compensation for the stranger. *Compassion*, as a modern "virtue" and viewed as commanding some vague form of intrinsic emotional compensation and one traditionally identified with medicine, holds no special place in that profession, and can at times be counterproductive, a problem identified by the Hippocratics. More important by far is humaneness, a "kinship of all sentient life expressed through kindness and mercy." This was a component of many ancient philosophical doctrines, but it expressed the thinking of but a few individual philosophers who, living in authoritarian societies, devised those doctrines and wished to inculcate humaneness into their followers. In contrast, Greek humaneness became a component of daily life concurrently with individual liberty. Although no discoverer of this virtue, the Greeks, as a society, elevated humaneness from philosophy to action. The reason, of course, is that virtue is impossible in the absence of freedom of choice. It was, therefore, the Greeks that injected humaneness into medicine. The Hippocratic Oath was not intended to mold a physician into the perfect man; it was a humane working document outlining the physician's obligations, and its enforcement was based on trust.

{16} But concurrently with the decline of Greek city-state democracies, a process that began in the 4th C BC, Greek medicine became less attractive as a profession over the next two centuries, and fewer practitioners were identified with the island of Cos and Hippocrates. Concurrently, in ascendant Rome scientific medicine never became an established vocation. As Rome embraced the Mediterranean, its medicine was for the most part provided by alternative (non-Hippocratic)

practitioners, often Greek, a process well-advanced as the Common Era opened and virtually complete shortly thereafter. It was against these incompetents that Galen (2nd C AD) railed.

{17} Possible reasons for the loss of Hippocratic medicine are presented, but only one seems adequate to the task. Early in the 1st C BC Roman guilds (*collegia*) became increasingly regulated by the State that frowned on plebeian organizations in general and Greek organizations in particular. Thus, in addition to a diminishing number of Hippocratic physicians concurrent with a declining and destabilized Greece, the proximate cause of the loss of scientific medicine was the medical profession's inability to sustain, within the Roman world, the medical *koinon*, or venue of common council, as a source for medical excellence. The medical *koinon* would have provided a focus for public esteem and, thereby, recruitment. In its absence medical attrition was quantitative rather than qualitative, but it was complete. After the Caesars and their successors were replaced by a theocratic bureaucracy nothing filled the void produced by the disappearance of the Hippocratic clinician as the Dark Ages approached.

{18, 19} Absent the rediscovery of classic authors there is little to recommend the European Dark Ages (400-1000 AD) and High Medieval period (1000-1300 AD), at least in the field of medicine. This is vividly supported by the dearth of medical discovery and the short life expectancy. Hippocratic medical practice in the Eastern Roman Empire was never established, and with the fall of the Western Roman Empire and the onset of the Dark Ages in Europe medicine became the work of the layman. Medicine as a profession had become extinct. Much Hippocratic learning was preserved by 6th C Nestorians in Gondeshapur (Jondi-Shapur), passing in subsequent centuries into Persian and Islamic hands and then slowly reentering Europe by the 11th C. Humanists then reopened the books of ancient scholarship, but this would have led to little had not medieval Europe retraced the political steps of ancient Hellas, passing sequentially through feudalism, aristocracy, and then tyranny in the guise of the Italian Renaissance. Thus, with a growing population and the creation of independent European city-states, medical practitioners organized through guilds and university faculties. But, instilling the words rather than the concepts of Hippocratic medicine, they produced, even through the 17th C, only the facade of a profession.

{20, 21} There did occur, however, a transient period with a burst of individualism in the Renaissance as select individuals offered a glimpse of the potential for genius that lay concealed for 1500 years. Often independent of ideas handed down from ancient physicians and natural philosophers, a few individuals were able to initiate studies of their own design. But consistent with the social pattern of the age, fine arts, architecture, music, and science were supported by the patron, a wealthy or prominent individual who afforded both protection and support for his favorites, expecting in most cases some public acknowledgement and secondary gain from his benevolence. Nevertheless, although the patron's support was a vital force in Renaissance discovery, it is shown that Renaissance medical discovery amounted to nothing of consequence for future ages.

{22} The vast abyss that was the medicine of the Dark Ages was finally traversed. Nevertheless, the impotence of medical progress persisted. It would remain to the resurgence of individualism, as reflected in the 16th C Reformation and the 17th C appreciation of natural law and natural rights, to bring forth the 18th C miracle of progress that has continued to this day.

When Martin Luther posted his ninety-five theses on the door of All Saints' Church in 1517 a massive stumbling block to progress was removed. Within three years his message, profoundly aided by the recent invention of the printing press, engaged much of Europe in a reordering of religious institutions. And the power behind this change was recognition of the individual's personal association with God. No longer would the common man and woman be

constrained adherents of a pan-European doctrinal kinship distributed among fiefdoms. The importance of the individual was not a new idea in the West. Thomas Aquinas (1225-1274) had viewed each person as having free will. But subsequent to the Reformation and concurrent with the emergence in Europe of elements of democracy as manifested in 17th and 18th century parliaments a *bona fide* medical practice appeared, just as it had 2300 years earlier in ancient Greece. Arising from the feudalism of the Dark Ages and Medieval Period, the increasingly liberated common citizenry now had opportunities for displaying their genius, including medical practice.

{23} Western Europe and Great Britain were the sites for this reincarnation of the Hippocratic koinon of Cos. Autonomous professional organizations and medical journals improved the work of the medical profession. Discoveries would now be vetted by the new koinons, and physicians began to successfully compete with the medicine-men of their day. It was the unencumbered physician and his organizations, not the Renaissance, that would bring about a second approximation to the *natural state of medical practice*. Herein is found support for the assertion that modern medicine would have progressed to its present point even without Hippocrates or the Renaissance. It is shown that in each of three eras (Greco-Roman, Renaissance, and Modern) equivalent discoveries were not only made, but were made independent of any prior discoveries and without sophisticated technology. A logical corollary is that many seminal discoveries and inventions of the 18th and 19th centuries could just as well have been made prior to the Common Era had freedom for the individual and for group associations (the koinons) prevailed in the Greco-Roman world.

{24} The role of medical journals in the history of medicine has received inadequate attention, for it is the medical journal, as the mouthpiece of the medical koinon, that brought back the natural state of medical practice. Whereas the Renaissance inventor and his patron relied on distribution of a relatively small number of books, usually written in Latin, to a relatively small number of friends, associates, and prominent persons, the democratic and vernacular medical journal was available to professionals in all reaches of society, the phenomenal result being that koinons now had an international range and were thereby internationally productive to the benefit of all mankind.

{25} But progress is not inevitable and the authoritarian is again on the march, this time on a global scale. Today's phenomenal technology of medicine is a product of capitalism and will thrive only within a capitalistic system, and *the natural state of medical practice*, which is the stimulus for that technology, is a product of a free society. Today the practitioner finds himself increasingly regulated, and it is ironic that the regulation stems from the profession's increasingly porous boundaries. Medicine's immigrants are becoming medicine's masters. The Hippocratic Oath is increasingly irrelevant, the work of the profession is ever more performed by those with inferior training, the professional organization is diluted by nonphysicians, medical practice is managed by nonphysicians, medical care is distributed by nonphysicians, and, with the prize of medicine ever more fame and fortune, the attractions of a career in medicine are those of a business or a competition rather than a profession. The root of the problem lies not with those outside the profession who see advantage in a medical alliance. It lies, instead, with the profession that seeks them out. The koinon that guided the practice of medicine from superstition to science must redefine its limits and, reversing a sixty-year trend in America, cease being bigger and start getting better.

PART II

Prehistorical Assessment

{26} But what initiated valid medical practices in the first place, specifically those of Mesopotamia, Egypt, China, India, and Greece? Given the present subject, its huge volume and its vast unknowns, the opening chapter for Part II offers such justification for its examination and interpretation of prehistoric civilizations and their medical progress as is seemly for a clinical physician with an eye to the dearth of effective medical care over the ages. But to better assess prehistoric primary civilizations and proto-civilizations it is first necessary to return to, and focus on, the formative years of those historic civilizations for which evidence of medical progress, transient as it was, still exists. If common characteristics associated with their success can be identified, those same characteristics can then be sought in prehistoric civilizations.

{27} The history of Miletos from its founding until its razing by the Persians in 494 BC is briefly reviewed with a focus on its early governance and commercial enterprise. Miletos, arising *de novo* in the 11th C BC is selected as a paradigm population for an attempt at understanding the origin of the medical successes of Hippocratic Greece, for the home island of Hippocrates, Cos, can be excluded as the origin of Hippocratic medicine. Milesian medical practitioners of the 6th C BC are assumed to have been the source of at least some of the earlier clinical observations found in the Hippocratic Corpus, although it would be reasonable to assign a similar course of political, commercial, and medical practice developments to other city-states in ancient Ionia and the Dodecanese Islands. Selected metrics and observations, including population size and density, physical area, area of hegemony, governance, monuments, and life expectancy, are then summarized, against which sixteen other urbanized or proto-urbanized primary civilizations will be compared.

{28} Sumer is the first of four great primary civilizations to be compared to Miletos. The prehistory of Sumer and the founding and rise of its largest city-state, Uruk, are presented, and the early agricultural and commercial prosperity of that city before conquest by Akkadians (2350 BC) is proposed as the social milieu in which a network of medical practitioners acquired the ancient wisdom of clinical medicine that would find its way into later Babylonian medical writings. Extant writings and legend suggest that the independent *azu* (“physician”) was recognized as a commendable member of society probably as early as 3200 BC (during the Late Uruk Period), although a mature cuneiform probably was unavailable to record his observations until *ca.* 2800 BC. Scholarly literature has a number of fine articles revealing the clinical acuity of presumably Sumerian clinicians, and I review one exceptional example in detail. The rise of an autonomous city-state at a time of (1) weakening of egalitarian kinship ties, (2) commercial prosperity, and (3) prior to authoritarian centralization of political power is proposed as containing the window of opportunity for autonomous specialization, and this would include the formation of a medical koinon, or medical network capable of initiating medical progress.

{29} In Egypt the original compositions that would be transcribed *ca.* 1550 BC and subsequently known as the Ebers and Smith medical papyri can be traced to the Proto-Dynastic (3300-3085 BC) or Early Dynastic periods of Egyptian history, at least for *Papyrus Ebers*. In addition to linguistic evidence, reasons for this claim are presented, the principal one being the status of society adjacent to the unification of Egypt under the Pharaohs (3085 BC), a period noted for flourishing commercial manufacture, population growth, and prosperity. As the largest urban area along the Nile prior to unification, the city-state of Hierakonpolis is selected as the most likely site for the acquisition and collation of medical wisdom that is present in the two famous medical papyri. The

dissimilarity between Sumerian cuneiform and Egyptian hieroglyphic and hieratic clinical descriptions does not support the notion that Egyptian medicine was an importation from the Mesopotamian civilization.

{30} Recent archeology has revealed the remarkable remnants of an Indus River Valley civilization that may parallel in scope the Mesopotamian civilization. In contrast to Uruk, the minimal evidence of fortifications and social stratification provide traditional support for an egalitarian social organization in the region for much of its history. The prospering Indus River Valley civilization had access to the Arabian Sea, to central Asia, east through the sub-Himalayan belt across the Indian subcontinent, and to the tropical south. New findings indicate the local culture, rather than an Indo-Aryan immigration, was the likely source of at least a portion of the Vedas that have guided Indian culture ever since. The principal relevance to medicine has been the *Atharva Veda*, the foundation of Ayurvedic medicine. The *Charaka Samhita* and the *Sushruta Samhita*, roughly 2,000 years old, are the classic expressions of Ayurvedic medicine, and they contain a wealth of clinical material unfortunately rewritten over the ages to support a theocratic elite class, the Brahman. But the original objective observations in the two works probably derive from the Vedic age when the Indus River Valley civilization was commercially flourishing (2600-2000 BC), suggesting the presence during that period of a network of medical practitioners that had evolved in its early cities. That such medical acumen was of rural acquisition following the decline of that civilization is untenable.

{31} Again looking eastward, legend holds that it was in the time of the Yellow Emperor (*ca.* 2500 BC) that the Chinese medical classic, the *Huang Ti Nei Ching Su Wen*, a dialogue between the Yellow Emperor and his ministers, was composed. Although modern documentation places its composition *ca.* 150 BC, its contents were considered already ancient at that time. Confucius (6th C BC) was able to identify a “good physician” from a “good wizard,” suggesting rational medicine had evolved in earlier centuries. The traditional location of the Yellow Emperor is northeastern China. An example of the contemporary Longshan culture city-state in that region is Liangchengzhen, a prominent coastal commercial center and one postulated by archeologists, in part from the nature of its ceramics, to be relatively free from centralized authoritarian control. Although no medical presence has so far been uncovered from archeological sites, it is proposed that the medical observations in the *Huang Ti Nei Ching Su Wen* were first made in such an urban environment. Over the centuries substantial new content was amended and emended. But underneath the “new age” additions and the heavy editing in the 8th C AD by Wang Bing, a nonphysician, the practical, and sometimes acute, observations made by those ancient practitioners can be detected. These, the true authors of the authentic portions of the *Huang Ti Nei Ching Su Wen*, will remain unknown, but we can opine about the social world in which they worked.

{32} In reviewing the preceding four famed civilizations a distinction must be made between so-called “great” civilizations and primary civilizations, the former being sequences of regional civilizations that do not progress over time but their apparent longevity and wealth, achieved by conquest and exploitation, is viewed as a manifestation of “greatness.” A primary civilization, however, arises *de novo*, is independent of any pre-existing civilization, and has the freedom to lay the groundwork for subsequent prosperity before authoritarian centralization of political power occurs. Each of the four “great civilizations” began as a primary civilization. The four primary civilizations of the “great” civilizations, all of which had city-states, are compared to the ancient Greek city-state of Miletos with regard to size of the local population, the regional population, population density, city area, time to prosperity, life expectancy, duration of greatest flourishing,

and governance, *inter alia*. The term “heterarchy” is introduced.⁷ This is followed by a discussion of cities and urbanization.

{33} Then, after defining a “lesser” civilization, there is an explanation for the selection of twelve prehistoric civilizations and proto-civilizations for analysis, including a discussion of the significance of alluvial environments, geography, reasons for non-selection, and issues related to identifying form of governance. A precis of each of the twelve lesser civilizations is then given, along with a list of the same metrics and other characteristics that were applied to the five historical civilizations. This is followed by a summary of those characteristics relevant to present purpose.

{34} With data now in hand, limited and circumstantial as it is, discussion focuses on lifestyle decisions and urbanization. Following the Late Neolithic, it took several thousands of years before personal preferences led to agricultural settlements and village life. Commercialization then led to urbanization. But with one possible exception a most remarkable finding is that in none of the twelve prehistoric civilizations/proto-civilizations was there evidence of formalized medical care or medical care of any kind. This was so despite the long duration and large size of some of their well-defined population centers, *e.g.*, Catalhoyuk (8th millennium BC Anatolia, population 8,000-10,000, duration >1,000 years), Djenne-djenno (1st millennium AD sub-Saharan Africa, population 50,000, duration 600 years), Cucuteni-Trypillia (4th millennium BC eastern Europe, centers with populations of 10,000-30,000, duration 1,000 years). This is compared to the two or three centuries over which ancient Greece and the modern West moved from simple medical empiricism to scientific understanding. Then are discussed the Australian aborigines who, with their strong kinship ties, have for perhaps 50,000 years failed to develop either medical practitioners or a single town.

A separate issue is life expectancy, and of those seventeen civilizations for which there are data, the average life expectancy, based on archeologically estimated age at death, is little more than thirty years for the common man and woman, and children usually did not know their grandparents, a sad commentary on social organizations of the human species in the past but a spectacular comment on the freedom of Western nations where life expectancy now approximates eighty years and great-great-grandparents are not rare.

A statistical assessment of data from the seventeen civilizations in Part II receives a more extensive analysis in the unabridged publication of this work, but from its most significant conclusions, (1) statistically the most likely explanation for the failure to initiate progress in ancient primary civilizations is the egalitarian kinship system, and (2) a tentative list of demographic requirements for initiation of a nascent medical profession in a primary civilization includes:

1. A collegial network of at least several medical practitioners
2. Two or three centuries of social stability
3. Prosperity, as evidenced by trade and specialization, sufficient to support medical practitioners working for profit
4. A localized population in the tens of thousands, perhaps as low as 10,000

But for this overview social factors will now receive our attention.

{35} Egalitarianism is closely examined because its effects are greatest in that segment of ancient populations from which medical practitioners arose, the unprivileged, or commoner class. Definitions of egalitarianism are discussed, with social egalitarianism as a practical answer to social organization in early and primitive societies. With permanent settlements, specific

⁷ Heterarchy: A multifocal system of management in a social system in which there is no permanent head.

archeological characteristics help scholars identify the more egalitarian communities. As for the mechanism by which an egalitarian social organization existed in the first place, Maslow's system of motivational hierarchy is discussed. The primal levels of the hierarchy, survival and safety, are pressing personal motivations and are considered irrelevant to egalitarianism. But now the "need to belong" motivation comes into play as each member attempts to adapt to, or modify the behavior of, others to accommodate his or her own behavioral preferences. At some point the more forcefully impelled or popularly held opinion restricts opposing ones. Thus, a seemingly democratic result in an egalitarian society can shut down all alternatives. Primacy of the band or tribe over the individual also demands redistribution, another inhibitor of progress. But it is concluded that the evil aspects of egalitarianism decrease as trade promotes urbanization, prosperity, and population growth. It does this because urbanization, being solely a consequence of commercial ventures, weakens kinship allegiances and provides a window of opportunity for individuals and families to break free.

{36} To break free from the kinship means that individuals now can respond to their own needs rather than those of their leader or their society. It also provides a more discernable opportunity for implementation of natural law. Following a definition of natural law that includes its applicability to all mankind, it is axiomatic that it must apply equally to both early and modern man, including ancient hunter-gatherers. As far as it is a "law," it exists to assist social man, and to do this it protects the individual. Because of the varying definitions of natural law, the term as used here is equated with the *moral sense* as described by Dr. James Q. Wilson.⁸ Evidence supporting the existence and general applicability of natural law in historical and modern societies is reviewed. Its relevance to early human societies and the consequences of actions in accordance with, or inconsistent with, natural law as they affect the development of primitive society are then discussed. The conclusion is that coercive egalitarianism and egalitarian kinships include within their strategies infringements on individual freedom inconsistent with natural law and are therefore immoral. It is argued that they inhibit proper societal evolution and the realization of progress. Natural law functions, through the undirected effort of individuals, to assist communal good, but it is easily displaced by passion, rhetorical persuasion and threats. Sadly, as a consequence, the felonies of a few have, over thousands of years, devolved great misery upon the many.

{37} The role of writing in promoting progress is reviewed and it is concluded that inscribed symbols first develop as a tool for commercial operation, but proper writing is a sign of progress rather than a cause of progress. In this sense it can be equated with a medical practice as an early marker of progress. Once matured, the usefulness of the tool is remarkable to the point that it becomes, unexpectedly, an intellectual end in itself, an example of spontaneous order, an unintended good. In contrast to writing, it is the formation of small autonomous groups promoting self-interest that, although developing in parallel with writing, are the true initiators of progress. Both writing and the small autonomous group were conceived by breaking egalitarian kinship bonds as commerce first appeared in settled societies. The optimal small autonomous group is the *koinon*, and its features, discussed early in this work, are repeated. It is proposed that independent self-interest groups are more likely in a heterarchical society because such a society permits individuals to forego previous allegiances and thereby be free to pursue specialized self-betterments that evolve as part of what social scientists call a "settlement hierarchy."⁹

⁸ Wilson, J. Q., *The Moral Sense*, New York, 1993.

⁹ Settlement hierarchy: the mechanism proposed as the natural way intergroup adjustments take place as an enlarging population center that has had no prior experience with a leadership hierarchy becomes more complex and must deal with new goods and services needed by the evolving society.

{38} Concluding Part II, after a definition of historicism and a review of its criticisms, it is argued that historicism may justifiably identify some basic threats to human progress and as an aspect of social science should not be discarded. It is further argued that historicism has yet to be fairly tested, for history has never recorded a “satisfactory” civilization; duration is surely not a guide. The negative social consequences of political authoritarianism on the maturation of progress (Part I), and of egalitarianism on the initiation of progress (Part II), have been identified in this work. The importance of small groups to progress is discussed and the profound distinction between democracy and individualism is noted. Progress which emerged from release of the unprivileged, or commoner, citizenry was not the consequence of democracy. It was the consequence of freedom that permitted the voluntary autonomous group, fed and led by self-betterment, to discover and invent. That group, essential to specialization, is the koinon, and it finds its place at the pinnacle of a proposed new theory, the “Natural Law Theory of Human Progress.”¹⁰ Democracy is nonetheless useful, for it is the only form of governance that can accommodate the existence of koinons, meaning that it is the only form of governance that up to a point can resist the temptation to interfere with self-interest group activity. It is the not-so-subtle threat of today that such support can be withdrawn.

EPILOGUE

In recounting the history and prehistory of medical practice a pattern has fallen into place that was unintended at this work’s inception, namely an insight into the social circumstances surrounding the evolution of medical practice. As demonstrated in the three volumes of *The Natural State of Medical Practice*, medical progress, used now as a surrogate for both pragmatic and intellectual progress, has always been prepared to emerge from the shadow of existential threats that can be acute, poignant, and demanding. The window of opportunity for that emergence, however, is small and vulnerable. Had it been otherwise, much advanced knowledge of a modern nature might have been available in what we now call prehistory. Indeed, the prehistoric human experience might have been significantly shorter had the escape from egalitarianism by our ancient forbears occurred sooner. Based on data from the Population Reference Bureau it can be estimated that 100 billion humans died between 50,000 BC and the 18th C AD, at which time the natural state of medical practice was reinstated in the West and modern medicine and its scientific ramifications proceeded to mollify or prevent many of the miseries of humankind, dramatically improving what is bureaucratically termed QALY (Quality-Adjusted Life-Year), and doing so on a global scale.¹¹ It is a fair deduction, given the evidence in *The Natural State of Medical Practice*, that a significant proportion of those dying before the age of modern medicine would have had access to rational medical care had the escape from egalitarianism been successful thousands of years earlier. Absurd? Remember that rational/scientific medicine is, at its origin, simple, cheap, easy, convenient, and requires no technology, and everyone wishes it success.

¹⁰ *Natural Law Theory of Human Progress*: A theory ascribing all apolitical advances for the betterment of mankind to autonomous associations pursuing self-betterment in which each member has equal opportunity to speak freely and share ideas about the group’s common interest without fear of retribution. Axiomatically it excludes “betterments” that have been stolen, copied, derived by exploitation, or used for subjugation of others.

¹¹ See: Weinstein, M. C., Torrance, G., McGuire, A., *QALYs: The Basics*, in *Value in Health*, 12:S5-S9, 2009.

Nevertheless, with the remarkable progress that has been made in the past three centuries, perhaps mankind has finally, and permanently, ridded itself of a self-imposed serfdom that has led to entrapment of the mass of humanity and has shuffled off all past civilizations to their demise. But in doing so it has left historians with only the history of authoritarian machinations and the monuments recording the tragedies of human folly rather than the story of the common man and woman from which to untangle the story of mankind. Thus, the question to be posed is not “what happened in our past.” It is, instead, what did not happen. Although what did not happen will never be known, why matters happened as they did is now known. The root problem, having heretofore been overlooked, is demonstrated in the present work: authoritarianism in its many nefarious forms, one being social egalitarianism.

It is proposed that the recent efforts of the West, successful so far, and in retrospect the few and temporary successes of ancient times, can be attributed solely to liberty, but not of just liberty of the individual. More importantly for human progress, it is liberty of the autonomous group with focused self-betterment. The reason is simple: two heads are better than one.

The desire for and appreciation of liberty is inherent in every human heart, a component of the individual conscience traceable to natural law, that subtle human attribute that is neither genetic nor learned but has been available to all mankind since the first man and woman. Always, in the past, have authoritarian policies or doctrines pushed the good genie of our conscience back into the bottle as the authoritarian conscience ascended and asserted its own definition of right and wrong. In our age, however, a marvelous expansion of both progress and of an appreciation of liberty in promoting the welfare of all mankind can be dated to the commencement of the Reformation.¹² Indeed, it may be stated that *the natural state of medical practice*, as defined and historically interpreted herein, has contributed to unprecedented healthful longevity because of beneficent consequences from adherence to natural law.¹³ Let us, then, reconsider our attribution of today’s manifold successes to great empires, great cities, and great men, to ethnic forbears, and to central planning. It is nothing like that; they are but the headline-catching flotsam on the far more interesting sea of humanity. Rejoice in the accomplishments of genius, but forget not that genius has abounded in every age and in every people as a well-kept secret, and that every person, in the appropriate place and at the appropriate time, can be considered a genius at something. Indeed, the unique genius of *Homo sapiens* lies in its variations that are expressed best in the ability of that species to recognize the benefits of peaceful group deliberation by free individuals for their varied ideas with a goal of self-interest focusing on the problem at hand. Unfortunately, it has

¹² Although one must wonder what the consequences of the early 19th C “invention” of socialism would have been had it been more successful in shaping social policies in the West prior to the work of Pasteur, Maxwell, Curie, Roentgen, Edison, and Einstein, among many others. It is probable, perhaps even certain, that many of the great discoveries and inventions that have produced our brave new world would never have transpired if egalitarian policies had full play in the early 19th C. The idea that somehow those discoveries and inventions were inevitable is a catastrophic misinterpretation of history. In their absence we might still have been living in Dickensian times. But there is an even greater revelation here. The Reformation initiated two unanticipated parallel but complementary events: (1) it set the West on the path toward technical progress as mankind was gradually able to implement its collective genius, and (2) by freeing up mankind’s ability to freely consult its collective conscience, it directed that path toward a secular Eden, a free and prosperous society. Unfortunately, the march of events in modern times indicates that path to be less and less likely to be travelled for long.

¹³ The cause of the “healthful longevity” is due, of course, not just to medical diagnosis and treatment, but also to biological knowledge and supportive sciences upon which rest disease prevention, sanitation, epidemiology, nutrition, food supply, workplace safety, and veterinary services, among many others. The success of medicine is but a marker for the status of progress on many fronts within a population.

been the rule of the jungle or the mob, *i.e.*, to take from or to control others, that has consistently delayed the establishment, or speeded the demise, of that principle of genius.

Briefly put, the broad-based success we enjoy in the West today, especially in healthful longevity, has been acquired in little more than two or three centuries. The road map for that success has been identified: in history and prehistory the course of *the natural state of medical practice* coincides with the course of liberty of the individual. That liberty allows expression of the innate genius of our species as magnified through various human agencies. But present success is sporadic and human history suggests it is not permanent, for the unceasing authoritarian quest for control over, and uniformity of, every human endeavor using all necessary means of coercion remains today an increasingly threatening presence at home and globally. As we look about us today and witness the massive influx of foreign populations into Western democracies, an influx variously attributed to seeking asylum, fleeing poverty, and evading humanitarian disasters, what we are seeing is nothing more than an escape from egalitarianism and its consequences, the principal difference today being both the magnitude of the problem and the frantic efforts being made by egalitarian's emigrant who now knows, by virtue of modern communication, that he or she need not chance survival alone in the jungle or on the savannah when they leave their kinship or comradeship, but that in that country just across the border there is a better life, liberty, and the possibility of happiness. More than just medical practice is in the balance.