Hippocratic Medicine and the Greek Body Image

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This study investigates the changes in the body image that occurred in the crucial cultural transformations that took place at the outset of Western rational thought in the transition from Archaic age to Classical age Greece. It does so from the delimited perspective that is offered by the group of medical writings known as the Hippocratic Corpus (specifically works on prognostics, dietetics, and surgery) that were contemporary with the early Classical age, but it also suggests parallel changes occurring in other cultural realms. The body images for that period are found to be diverse but yet all colored by the general transition from a ritual and praxis based experience of the world to one tempered by contemplative and dogmatic speculation. General observations are also made upon the use of the “body image” as a means of historical analysis in periods of cultural transformation.

Background
The investigation of how the introduction of unprecedented technologies can alter basic cultural conceptions and human self-perceptions must reconcile itself to the fact that such technologies, and the scientific ideologies behind them, arise out of a preexistent cultural milieu that alone makes them possible to come to appearance as novel and even disturbing. These technologies, despite their alien appearance, are never mere foreign entities deposited in the midst of a stable cultural system. Nevertheless, their introduction has the potential for the widest ranging conceptual and pre-conceptual transformations. An example of this is provided by Wolfgang Schivelbusch in his study of the cultural changes that accompanied the introduction of the railway in the nineteenth century.1 However, such

1. These novelties included the view of transportation as a machine ensemble, the passenger identified as a commodity, the elimination of local space and time, a distancing...
studies become all the more fraught with difficulties when they focus on the cultural implications of technological introductions at the dawn of Western “rational” thinking—for here it is not a matter of such introductions imposed upon a background of an already scientifically astute culture, but rather the marking point of a transition between a world conceived mythically and experienced in ritual, and one conceived as potentially knowable from the standpoint of its own phenomenal given-ness. Admittedly, the view of cultures as accorded monolithic “mentalities” (such as the mythic or scientific mentality) has rightly come under question. But if we avoid the monolithic application of this term to whole cultures, and avoid attributing transitions in mentalities to some universal process in human cultural development, then we may be permitted to confess that there is still something quite different between a ritual-cultic experience of the cosmos (and of the body situated in that cosmos) and a contemplative, “rational,” and systematizing one. Taking an example from the Greek plastic arts, there is an undeniable difference in confronting and ritually interacting with a crude, wooden, nearly uncarved block representing the god (the Greek xoana) handed down from time immemorial versus confronting an anthropomorphic statue of the god represented in the Classical style, such as the Zeus of Pheidias at Olympia.

The present paper elects to trace out the consequences of one such conceptual and technological innovation—that supplied by Hippocratic medicine—measured by one specific cultural index, namely the body image, in the period of transition from the Archaic era to the Classical era in ancient Greece. It is this period, roughly the eighth through fifth centuries B.C.E., that saw the move from a cultural perception of the cosmos as ritually and mythically accessible, to one that envisioned the human presence as a contemplative partaking of the phenomenal cosmic order. This contemplative Greek science (or proto-science) could never be the experimental-technological science of modernity, but the latter necessarily pre-

of the traveler from the landscape, and the totally new experience of the pathologies of high speed accidents that led to conceptual changes that would prepare the way for nonfunctional (psychologic) explanations of posttraumatic illness. See Schivelbusch (1986).

2. The insufficiency of this conception concerning the transition from pre-scientific to scientific thought in ancient Greece is the main theme of G.E.R. Lloyd’s Demystifying Mentalities (1990, Introduction). A major part of his thesis is that this transition betrays more of what is common between them than any radical difference, and that this difference was more the product of rhetorical needs of self-definition on the part of rising science.

3. Admittedly, the xoana were preserved well into Classical times alongside classical statuary as objects of special veneration; conversely, bodily images in the Classical style were obviously unknown in the Archaic age. The idea that they represent different forms of human experience of the body (different “mentalities”) does not preclude their simultaneous historical existence.
supposes the contemplative stance provided by its predecessor. Furthermore, Hippocratic medicine will here be taken in three of its (many) aspects: prognostics, dietetics, and surgery. All three of these offer a fruitful area for a study of historical transitions in body image since they share features of a continuous tradition of practices going back to the Bronze age and before (divination, purity taboos, and care of battle wounds, respectively) which survived in a transformed way in Hippocratic medicine.

The “body image” has been chosen as an index of cultural transformation here with the full realization that it is something that is not easily “pictured”—that is, not easily objectified in a conceptual image, because it is something that is primarily experienced, or is the locus for any possible experience. The body as locus of human experience of the world contrasts with the body as the object of theoretical reflection. The body as locus of all experience (even for a theoretical one) produces its own geography and spatial cartography, its own “body image,” even before it can be made the object of theoretical reflection. In this way, the body image links up with fundamental structures of human experience, structures that are of course historically and culturally defined. If Hippocratic medicine, as a body of theoretical debates and technical practices, influenced or reflected changes in the image of the body that occurred in the transition from the Archaic to the Classical era of Greece, then it can be expected that it was participating in a change in the way the body was experienced even on a preconceptual level. It is on this level that it may link up with parallel transitions in other areas of culture, such as that of artistic representation, religious sensibility, and economic and legal institutions. Understandably, there is no claim being made here that there was any unitary body image for Greek culture (urban, rural, mainland, colonial, elite, popular?) for the time frame in question.

Besides the contrast between the theoretical and the experiencing (preconceptual) body, there exists also that between the body as popularly conceived (that implied in everyday language and custom) and the body as the domain of professional expertise (philosophical, medical, artistic). The Hippocratic writings show accommodation to both of these. But as liter-
ary (hence urban) products, these writings took shape upon a background of rural and popular beliefs that are little accessible to the modern scholar. Hence the present study will necessarily depend upon literary products which only indirectly suggest preconceptual and everyday views of the body.

The notion of the “body image” is of multidisciplinary parentage. This notion, along with “body schema,” entered scientific parlance in the early part of the twentieth century in the realm of psychology and neuroscience as the “picture of our own body” given in an individual psychological experience.\(^7\) The psychoanalytic literature (as opposed to that of neurophysiology) would see this image as fluid and in constant need of reconstruction. Clinical psychiatry claims to have discovered pathologies in body image perception, particularly in the case of anorexia nervosa and obesity.\(^8\) Social psychologists and historians have tended to see in these not so much an individual pathology but a tension induced by culturally imposed body images.\(^9\) Anthropology, as exemplified in the writings of Mary Douglas, has often viewed body structures or their margins as delineating social interrelationships or tensions. Others, such as Victor Turner (1987, p. 74), see the body as performing on a social stage that is temporal and indeterminate—suggesting that the body image would be processual and defined by its dramatic presentation.

Outside the field of art history and its studies of body representation, it has been recent sociology that has most aggressively attached itself to the issue of the body as locus of social interaction. This area was opened up particularly by Bryan Turner’s *The Body and Society* (1984), which following the lead of the work of Foucault, sought to address the problem of social order as inclusive of the elements of regulation of population reproduction and of population distribution in space, restraint of desire, and the representation of bodies in social space.\(^10\)

A palpable defect of the above approaches is that most tend to be historically insensitive, seeing the body image as either psychologically timeless or as embedded in some one fixed cultural setting. Sociology does at times come close to the historical sensitivity required of any investiga-
tion of a body image that is in historical flux, and it generally focuses on culturally generated frames of meaning, not on private (or even pathological) intuitions of the body image. But the “body image” as germane to the present study need not be strictly speaking a “representation”—not a projection brought before the theoretical subject. Our approach must rather preserve the phenomenological insight that the body belongs to the very event whereby beings come to light or show themselves. In other words, the body and its image may in its most significant sense be a pretheoretical and preconceptual structure. Sociology, however, tends to reify social forces and hence reifies the body as defined in the nexus of such forces. In addition we cannot assume that concerns of social order will exhaust the potentialities of the body image, especially when we address historical epochs where such a sociological vocabulary would find no native expression (as in Archaic Greece). For this reason, we must also borrow from the approach of the phenomenology of religion (here conceived not as a mere appendage of the issue of social order), as exemplified in the work of Gerardus van der Leeuw and Mircea Eliade. This at least puts it in line with the ancient frames of meaning wherein the body was often viewed as defined by the intersection of sacrificial and everyday forces. The modern, purely sociological approach tends to see in the body, even where it is given a sacrificial guise, a submerged frame of meaning giving expression to socioeconomic forces in conflict. Consequently we will begin with a conception of the body image in the Archaic age of Greece as one embedded in dishomogeneous social-cosmic space and time. That is, the body was at that time experienced not in a neutral space-time nexus of four dimensions, but in a ritual and mythic space that had strong intensities of the sacred intertwined with the structures of everyday life. A precedent for this has been set in the study Inca Cosmology and the Human Body by Constance Classen (1993), where the body formation of Pre-Colombian Inca culture is worked out along mythic and ritual lines. In the Western world as well, long before the body could be a neutral field for “natural” processes it defined itself within a sacrificial-cosmic landscape, suspended between the poles of the everyday and forces of the extra-everyday. The body there took on various shapes to the degree that it diffused or concentrated the sacred, and to the degree to which it distanced or internalized it. The Hippocratics will be found to have preserved certain elements of sacrificial space and time while yet ushering in a view of the body as located in a field of “natural” (kata phisin), hence dependable, processes.

The Hippocratics

The Hippocratic writings are a diverse group of texts collected about the name of Hippocrates (c. 460–370 B.C.E.), a member of a family of
Asclepiads (hereditary guild of healers with the titular divinity, or demi-god, Asclepias) who established a teaching center on the island of Kos, off Asia Minor. These writings were composed over several centuries by diverse hands, some possibly by Hippocrates himself. The question of these “genuine” writings, known as the “Hippocratic question,” need not directly concern us. However, because our interest is with the introduction of novel Hippocratic techniques and conceptions, we will attempt here to concentrate on writings deemed to be of the earliest strata. The literary genres of the works are likewise diverse; included among them are notebooks of pathological observations, polemics against other forms of healing (especially against “magical” healing) and against other medical dogmas, textbooks on surgical techniques, collections of aphorisms, and works of a philosophic nature relating medical theories to natural philosophy.

It should be noted that these writings belonged to a tradition of natural philosophy and cosmology that developed in colonized Ionia, independent of classical Athenian philosophy and presumably in closer connection with “oriental” influences. Their writings number among the first technical prose writings in Western literature, along with the histories of Herodotus (also from Asia Minor and writing in Ionic). The transition from an oral to a written culture that was taking place here in full swing in the mid fifth century must be counted as an essential element in any inquiry into transformations of body image. Oral culture is primarily transmitted in verse forms with their oracular tone, while prose writing introduces the possibility of new ways of organizing transmitted cultural products: in lists and schemes of classification that are amenable to visual organization. The introduction of writing into Greek culture alone may account for a change from an Archaic age body image that concentrates on the numinous power of the name, on the body as the place of epiphany of sacral forces, and on the body as a reflection of social interactions, into a body image that represents a catalogue of “parts” that are leveled out in the very process of cataloguing and made interchangeable with the “parts” of the enveloping cosmos.

11. For a discussion of the current state of debate on Hippocratic authorship, see Lloyd (1975, pp. 171–192). We will also not concern ourselves with the difficult scholarly issue of trying to divide the writings into various “schools,” notably the Coan and Cnidian schools.

12. Louis Bourgey, in his important Observation et expérience chez les médecins de la Collection hippocratique (1953, pp. 47–56), had divided these writings into those of “theoretical physicians,” “empirical physicians,” and “rational physicians.” However, the imposition of these modern categories probably creates a somewhat artificial division.

13. Walter Burkert (1992, Chapter 2) discusses this oriental influence on medicine and divination.

14. See Goody (1977, Chapters 3–4) for a discussion on these effects of literacy.

15. Treatment of the impact of literacy on Hippocratic medicine is given by Iain Lonie
Hippocratic medicine has been characterized more by the fact that it was secular (making no appeal to “supernatural” or daimonic forces), and less by the fact that it provided any more efficacious healing than its traditional competitors. Indeed, Hippocratic medicine developed upon a background of religious healing and temple medicine that if anything grew in popularity in the ensuing Hellenistic and Roman eras. The measure of its success could hardly consist in any statistical superiority (a concept obviously anachronistic in this era) in its efficaciousness, rather, it was a result of its general appeal to a “rational” and dogmatizing approach that was paralleled in other cultural trends (philosophy, law, and historiography), and of the charisma of certain of its individual healers. The coexistence of these forms of healing argues for the fact that the fifth century did not witness a monolithic transformation in mentality (or in body image) from a mythico-religious culture to a secular one, but that Hippocratic medicine and natural philosophy offered a departmental addition to what would be a complex amalgam of cultural perceptions and body images.

What sort of contrasting body images may have confronted rising Hippocratic medicine? The tendency may be to appeal prematurely to the pictorial and plastic arts to render the body image as a specifically visual representation. In that case one would have to situate the views of late fifth century natural philosophers and physicians within a history of pictorial images of the body that began with the Geometric period (c. eighth and seventh centuries, although the human body appears here only late) with its jointed and aggregate bodies, and following through to the kouroi statues of male athletes (seventh and sixth centuries) with their almost Egyptian frontality and rigidity, and leading to the Classical era that ultimately informed the body with a mathematical perfection of symmetria and rhythmos that was also exhibited in architecture and in the ideal realm of Plato’s philosophy. But the Hippocratic writers rarely conceived of the body as a pictorial totality, nor did they apply to it the mathematical canon of the sculptors. For the Hippocratics (unlike for artists and philosophers), the body was not an object of contemplation, but the site of practical manipulation and of bodily signs used to guide such therapy. In this respect, they were closer to the approach of religious or cultic ritual—with a dynamic body experienced in gestures, rite, and cosmic interac-
tions—and to the poets who celebrated the athletic or warring body in the luminosity of its deeds.

It would be impossible to extract any exact body image for medical or healing practices in Greece prior to the Hippocratics, since so little evidence remains of those practices outside of scattered literary references (as in Homer). In general, however, visual representations of the body from the Bronze Age Minoan and Mycenaean cultures emphasize the cultic-ritual engagement of the body—even where it is the body of a divinity that is depicted. Figurines and relief work of the Mycenaean era (mainland Greece and Crete), where the divine body is anthropomorphic and is identified only by gestures of epiphany or by accompanying supernatural figures, often depict the (seated) deity approached by a retinue of worshipers bearing gifts or cult objects.18 The following Geometric period of art (ninth and eighth centuries) that corresponded to the rise of Homeric epic poetry, and the later Classical era, would preserve the image of the divine body in human form without specific common traits to distinguish divine status. This indistinction allowed for a more general commerce in sacral forces between mortal (especially the hero or athletic victor) and immortal bodies. Writings of the poets, starting with eighth century epic and then seventh and sixth century lyric, would indicate that the mortal body is distinguished from the immortal merely by its decay and lack of brilliance.19 Some time ago Bruno Snell made the observation that Homeric epic (like the contemporaneous Geometric vase painting) envisioned the body as an aggregate: of limbs, joints, and distinct physical and intellectual functions. Each of these parts could be the vehicle of sacral forces, as seen in the case of the brilliance of Achilles’ shield, or in the frenzy imparted to the breast of the warrior. The flowering of epic poetry in the ninth and eighth centuries added to the older Aegean visual images a narrative depiction of the body—the body engaged in the stories of myth and warfare.20 The lyric poets, such as Pindar (518–438 B.C.E.), who sang the fame of the athletic victors would continue to perceive in them the glow of the divine, although it was now becoming spread out through the genealogical lines to which the athlete belonged.21 By the time of early Classical sculpture (mid fifth century), the era roughly contemporaneous with the first medical writings, sculptors and natural philosophers became increasingly interested in viewing the externalia of the body as signs of internal animating forces. Guy P. R. Métraux has suggested that it was

21. Erich Thummer (1957, pp. 65 ff.) discusses the divine forces carried down through genealogical lines.
this concern that dictated the body configuration in Classical art, rather than any singular drive toward “naturalism.”

Thus in the whole sweep of artistic tradition from the Bronze age to the Classical age, there is an abiding concern with the ritual and functional aspects of the body, the body engaged in performance and activated by internal sacral forces or elemental powers (dynamais). Conversely, fifth century Ionian natural philosophers and the later Classical Athenian philosophers would come to situate the body as a member of an overarching cosmic order accessible to theoretical contemplation. We will need to see how the Hippocratics related themselves to these two contrasting currents.

The Weltanschauung of the Archaic Age and its Decline

The Greek world before science and philosophy was one of hierarchies and subtle differentiations. In a polytheistic environment, one furthermore splintered into a dizzying array of local cults and legends, there was no single “grand narrative” that structured all human experience into a single order. The gods (or indefinite sacral auras) were intensely localized in geographic space, in festival times, and in concrete events. The poets would first start to “tame” and organize divinities, as in the genealogies of Hesiod and in the feudal organization of Homeric gods. The world comprised a dishomogeneous realm of beings: the Homeric-Hesiodic division of things above the earth, on the earth, and below the earth, all peopled by a lascivious mixture of living things—gods, daimons, heroes, mortals, restless dead, and animals. All could be linked by fluid lines of sacral forces, not permanent properties but fleeting presences. Gods, trees, heroes, animals, and even battlefield armor could manifest divine powers. Thus the lines between them tended to be fluid, as Homeric animal likenesses attest. Such fluidity is also suggested by Homer when he depicts martial rage on the battlefield as a sacral epiphany that links wild beasts with heroes and men. Such circumstances did not easily permit the development of the idea of a discrete “organic” body. Similar to other traditional and less differentiated societies, the Homeric and Archaic eras

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22. See Métraux (1995, pp. 91–2). In the fourth century, this would be turned into an interest in the body as external sign for internal states of the soul, initiating the Greek literary genre of “characterology.”
24. Martin Nilsson (1932) first pointed to the relation of the Greek pantheon in its feudal organization to Mycenaean and Iron age political structures.
25. The latter distinction is primarily based on the quality of perishability, itself the result of sacral and vital intensity (charis). See Vernant (1989, p. 37).
26. See Dierauer (1977, pp. 6–9).
27. This notion goes back to Bruno Snell. The concept of organon in the sense of
of Greece showed little sense of a distinct bodily aspect of individuation; somatic aspects were strongly tied to social relations whose potential flux allowed for no unitary center of the body. If anything, the “center” of one’s person drifted out into genealogy, tribal standing, and the numinous power of one’s name. The Homeric “individual” was more a loose set of powers, attributes, and functions, which would be better delineated by a characterology than by a “personality.” While the departed “shade” that left the body after death did seem to offer some unitary reflection of the person as a whole, it remained insubstantial and was clearly regarded as a lesser degree of existence than the living person. This was not the essential “soul” that defined the person in the Christian era, nor was it a unifying force for all life capacities that it would be for Aristotle. In the same respect, disease or calamity did not come upon a discrete bodily unit, but streamed out of the loose net of the body into kin, tribe, and even into the material aura that dressed each person. All of this would guarantee that, at least in the Archaic age, there could be no sharp distinction between individual and collective disease (or calamity) and consequently no sharply defined individual or privatized body to be extracted from the disease or calamity that befell a single person.

Moreover, issues of pollution and purity, known to be quite active in the Archaic age, would in themselves provide little ground for individuation. The nonspecific character of pollution as catastrophe (as in “plague” or ) or disease causes the ready melange of healing practices, catharsis of sins, and religious expiation. Some pollutions do seem to accrue to specific persons, and might be seen to contribute to the spatial concentration of the body. Such is the case with pollutions surrounding the dead body or the birthing mother. Although localized to individual bodies, a chief characteristic of these pollutions remains their infectivity, even if along circumscribed and delimited lines. So also, certain diseases of individual bodies were associated with pollutions: epilepsy, madness, skin diseases, and impotence. But like all pollutants, they did not “belong” to

organism was not developed by the Hippocratics but awaited Aristotle. See Wolf (1971, pp. 9–26).

28. This point is worked out in detail by Cazeneuve (1968). He observes that the concept of the soul is not adequate to “center” the individual in Greek thought of this period.

29. Jan Bremmer (1987, pp. 66–9) notes that in the Archaic age, the soul was dualistic: the “free soul” that leaves the body in dreams, trances, and death; and a “body soul” that is active in life and wakefulness. The soul did not become a center of consciousness and personal psychology till the late fifth century.

30. Birth pollution remained confined to those residing under the same roof and only for a delimited time, while death pollution likely spread out more intensely to kin. See Parker (1983, pp. 49, 40, respectively).
the very constitution of those bodies so as to define them. Moreover, other pollutions are more clearly communal, such as pollutions of the city requiring the remedy of a scapegoat or those disasters befalling a king.\textsuperscript{31} Where Archaic Greeks did attribute disease to divine or daimonic causes, this did not result in an accentuation of the personalities of either the god or the human sufferer. For such diseases either were a result of a formulaic breach in a cultic rite, or they were attributed to freely roaming, anonymous spirits.

Such pollution conceptions agreed well with a cosmos drawn along lines of spatially intensified sacredness. They were seen as produced by direct contact, and often associated with specific locales—for example, the intensified danger of pollutants about sacred precincts. Thus pollution issues, as they prevailed in Archaic Greece, provide a model for the indeterminateness of the individual body over against the communal one, a condition that would gradually give way in the era of the rising city-state to the discrete body of the individual citizen. The conditions for such a change arose with the breakdown of the feudal-aristocratic order and its tribal associations (with the "extensive" body image it implies) starting in the eighth century. In sixth century Athens, Cleisthenes’ reforms and the tearing down of the traditional tribes would go a long way in this direction.\textsuperscript{32} So also, the possibility of a discrete “natural” body for Ionian philosophy and for the Hippocratics could only arise with the distinct socio-political changes at the end of the Archaic age: the appearance of the new discrete citizen (\textit{politeia}) in the city-state, unmoored from the old tribal-religious associations and ripe for the positive new religious dimension of the cult of the polis. Contributing to the rise of the more concentrated self was the nuance of personal genius developing in the lyric poets, who while retaining their primordial guise as conduits of divine inspiration and enthusiasm, also adopted something of the suprahuman brightness of the heroic figures they continued to sing.\textsuperscript{33} Lyric poetry contributed to an increasing sense of individual personhood by reflecting on the private (and non-heroic) emotions and sensibilities of the poet. A city state com-

\textsuperscript{31} Parker (1983, p. 130) further notes that certain pollutions, such as murder pollution, fall in a hierarchy of intensity along lines of social status, where murder involving king or priest has community wide implications, while that of the common individual rarely does.

\textsuperscript{32} A prominent part of these reforms—that would help lead from a cult of ancestors to a cult of the polis—dealt with burial matters, but they implied as well the fixing of private property as opposed to tribal holdings. See Alexiou (1974, pp. 14–23).

\textsuperscript{33} Some of the lyric poets, notably Archilochus, also developed an intensely subjective and self-absorbed style, totally foreign to the epic. The “Lyric Age” was also preoccupied with man’s impotency in the face of more distant gods and dark fate. Even lurking behind Homer’s work there is some sense of a nostalgia for times when gods walked with men.
prised along new lines of social interrelation—of classes, craft guilds, and commercial intercourse, all bereft of the former kinship and blood religion—could envision atomic individuals with atomic diseases. Ultimately, the morbid state becomes privatized, a concern of the individual alone and the new professional physician that services him. Beyond that, it is well known that the prevailing forms of political conceptualization—rational laws in equilibrium with each other (eunomia and isonomia)—were adopted wholesale into the theories of the Hippocratics, especially those dealing with dietetics and the humoral theory. The laws applied to citizens as citizens, not as representatives of the tribe or of the communal body. The archaic idea of the inscrutable willfulness of the god (or the king-tyrant) and the wrath he sends down as plague, gives way to the reasoned democratic deliberation of the city state and the humoral theory of health maintenance as a reasoned balance of the elements of the body.

If the Hippocratic physician confronted a discrete, ill person in a privatized encounter that well accords with what will later in the West become expected of a "professional" relationship, then this was not due solely to an ethical stance adopted on their part but was already prepared for by these transitions of the extended communal body into the individualized body of the citizen of the polis. But it was not only the political development of the discrete citizen, bound to other citizens on a basis of equality under the laws and no longer by the old tribal and familial obligations, which influenced Hippocratic views on the body. It involved also a revaluation of how the person was perceived as deposited in cosmic space. Here the influence of Ionian natural philosophy (as well as Pythagorean views), contemporaneous with the early Hippocratics, would be decisive. As compared with the archaic world view of an irreducibly multifarious world shot through with sacred intensities and fleeting epiphanies, the natural philosophers, from Anaximander to Alcmaeon and Democritus, envisioned that all things were the revelation of a single law, a single order. Humans were part of that same order of the All, as microcosm to macrocosm. And even health was envisioned by the Pythagorean physician Alcmaeon as a harmony between those two orders, often expressed in numerical harmonies, as was also speculated by Empedocles. The homogeneity of this order, diffusing the sacral intensities of the Archaic age in time and space, led to the view that everything was divine, even down to the elemental, invisible moieties that make up the body as well as the cosmos. Hippocratic medicine, especially in its dietetics and its humoral views, would adopt this

34. See Kudlien (1967, p. 60).
35. See Kranz (1938, p. 434). The term kosmos itself, as revealed in its root “ked,” referred to the ordering activity of a ruler and hence to military regularity like that of rows of soldiers or oars.
Ionian cosmic space and situate the body in it. Hippocratic medicine would thus help replace the familial-social context of the diseased person by reconfiguring the body in a homogeneous cosmic space while still holding on to the newly constructed socio-political, discrete citizen. This in turn could only help reinforce a stronger sense of inside and outside in regard to the bodily boundaries that would parallel the discrete citizen in politics. As we will see, however, Hippocratic medicine would not develop that interior space of the body but would, like Classical sculptural art, conceive of the body as a body of surfaces.

**Hippocratic Prognostics and Dietetics**

Hippocratic prognostics, the search for bodily signs attendant upon disease, shares much of its procedures and format with the divination practices of the ancient Near East. But unlike them, it is guided by a context provided by Hippocratic humoral theory and dietetics. For that reason, Hippocratic prognostics and dietetics must be taken as a whole as related to their common therapeutic aim. The crystallizing individual body of the citizen of the polis now provided a more self-reflexive significance as a source for prognostic signs. What was observed on or about the body now related directly to the destiny of the bearer of the signs in a way that was not possible in archaic times when the body so easily flowed out into kin and the spirit world.

In the ancient Near East and in Archaic Greece (as also in popular understanding in all cultures), the body continued to act as a fertile source for signs of diverse types: teratologies, spontaneous bodily movements, pathologies, and signs that suggest that the body trails off indistinctly into its immediate milieu (social, environmental, and the bodily accoutrements of clothing, weapons, and ornament). How such signs were collected, given significance, and organized could very well argue for differing body formations and for differing nosologies.

The most attested Hippocratic work on the subject, the *Prognostic*, after an initial listing of mortal signs and of general posture, proceeds to a general compendium of signs that is dominated by bodily excrescences (respirations, sweats, abscesses and pus, dropsies, stools, flatulence, urine and sediment, vomitus, sputum, ulcers, and empyemas) along with the odd signs associated with sleep, fevers, localized pains (as in the bladder, head, or ears), and convulsions. They are further organized, along lines of Mesopotamian precedence, in a general head to foot manner. All of this

36. The general relation of Greek to Mesopotamian divination and prognostics is found in Sendrail (1953, pp. 30–40).
37. Lichtenthaler (1963, p. 64).
might suggest a body whose significant nodes are those that are most highly visible to gross, external observation. It is by no means an anatomical body, even one derived from the influence of a divination by inspection of internal organs of animals, but rather a body of surfaces. Or better yet, it is a body whose surfaces represent the sole meaningful ingress to its depths. In general, the Hippocratic omen collections differ little from Babylonian medical prognostic texts except that the latter add signs obtained from observations made on the way to the sick person’s house and often show a preoccupation with right/left and black/red (or green) polarities absent in the Hippocratic work. Moreover, if prognosis-divination has available to it the possibility of orienting to external signs (postures, anomalies, pathologic indices, involuntary movements) and to signs derived from the awareness of inner space (mostly signs of a provoked nature—sacrificial divination with inspection of the liver and other organs), then Hippocratic prognostics is almost wholly lacking in signs taken from bodily depths. This internal space yet formed a rich contribution to Mesopotamian divination-prognostics, even if it was not well developed in the medical realm.

Besides the Prognostic, the search for previsionary, bodily signs is a common feature of many Hippocratic writings, including Airs, Waters, Places, Regimen IV, Coan Prognoses, Prorhetics, Epidemics, and Aphorisms. This prognostic “divination” owes little to the prevailing forms of divination popular in Greece at the time: oracles and other forms of ecstatic divination that are derived from internal visions or dreams. But the careful collection of bodily omens, incorporated in tabular array with visible textual organization, must have made a strong imprint on this form of early medical science. It led to the possibility of critical comparison and imaginative rearrangement of elements in regards to the signs of disease. While collections of inductive prognostic signs in a literate format contribute to an a priori systematic schematism of the body, there was another element in Hippocratic prognostics that would tend to counterbalance this effect. A systematic retrieval of signs from the individual case leads to the issue of their possible contradiction—that they may point to incompatible conclusions. The epilogue to the Prognostic notes that the physician must “estimate the relative force (dynamias) of each one of the signs in relation to each other.” Ultimately, the individual body and its pathologic destiny are not totally accessible to the medical techné, which must content itself with a confluence of signs, often of a fully idiosyncratic nature. The disease

38. See De Jong (1959).
39. See Goody (1977, Chapter 3).
40. This notion was worked out in some detail by Charles Lichtenthaler (1963, pp. 63 ff.) and described by him as a “principe de congruence.”
event partakes something of both the determinate and of the non-predeterminate. Thus there is something about the contingent individual case presented to the physician’s practiced gaze that resists full prior conceptualization.41 In this the Hippocratics were poised between a view of the body that saw in it a regular, law-like nature (physis), one that was congruent to the cosmic order suggested by Ionian natural philosophy, and a more archaic view of the body that reflected unpredictable local influences that hark back to daimonic intervention and to inscrutable fate. It would be the latter tendency which would develop into the empiricist arm of Hippocratic medicine, one that eschewed too great a reliance on broad theoretical assumptions.

Little in this so far separates Hippocratic prognostics from other forms of divination in the ancient Middle East. But the grounding of this prognostics in Hippocratic dietetic theory entails consequences for body image and spatiality that mark it out as quite different indeed. And this would be the attitude it takes up to the “obscure” or the “inevident.” In a sense, all divination seeks a reconciliation with the obscure. Although this is usually understood in the temporal sense (the “obscure” future), it can operate within the context of various spatio-temporal configurations. Oracular divination, for example, more often concentrates on those modes of the obscure that mark out the discontinuities strewn in the path of everyday life where the diviner’s task is to point out the proper etiquette to be followed for significant events or enterprises in the face of cosmic or sacral powers. Nevertheless, the obscure can as well be a necessary element of spatiality. Topicality can be obscure in the sense that there can exist interposed or superimposed spaces—for example, the superimposed spaces of the communities of the living and the dead, or that of the macrocosmic and microcosmic. Here, the diviner would need to seek out the hidden “space” that lies behind a sign in the present and visible space—to see, for example, that a sign occurring in the world of the living really marked a significant event in the world of the dead.

The obscure for Hippocratic “divination” was something quite different from the obscure associated with divination at the oracles. A sensitivity to the “obscure” rose to the level of conscious reflection in Ionian and Pre-Socratic thought in the form of philosophical discourse over the adēla, the inevident or the not visible.42 Belonging originally to the religious domain (the obscure will of the god, the secrets of the mystery religions, or the

41. There may be some reminiscence here of Heraclitus’ “common cosmos” (koinos kosmos) as opposed to the private or individual (idios) one (frag. 89), even though the Prognostic is not especially known to be under Heraclitean influence.

42. A short history of the concept of the adēla is given by Schuhl (1953). Comments of this concept and its use in the juridical and economic realm are found in Gernet (1954).
things “in the sky or under the earth”) this concept came to represent to
the Hippocratics (see especially On Winds and The Art) the interrelations
of physical processes that are invisible to the eye, but visible to reason. This
invisibility, however, remains only a relative obscurity, for the visible
world carries the signs that can lead the prepared mind into those invisibles. As in the case of other forms of divination, the signs inspected by the
Hippocratics need have no logical or even analogical connection with their
“invisible” signifieds. The invisible processes of the cosmos—mixture,
separation, and harmonious balance of elemental moieties—could not be
immediately read off from the perceptible signs but required experiential
interpretation. So also the “obscure” here took on a constitutional nature:
no longer was this the obscurity of atopic events or monstrosities, but it
was an obscurity belonging as a global property of the cosmos: an invisible,
underlying, signified order. This suited well the view of general
microcosmic-macrocosmic parallels that was solidifying among the Ionian
naturalists and the Hippocratics.

From the legal and rhetorical realm, the Hippocratic writers adopted
the term tekwmion, the evident sign, which had advanced beyond the more
primitive sense of juridical proof by ordeal to enter the rhetoric of rational
inference in the debate of the assembly. Oracular divination, with its
intuitive-ecstatic character implying a direct “message” from the divinity,
presupposes a specific mode of interaction with the sacred, one along
anthropomorphic and social lines of communication: the god “hears” the
inquiry and responds either directly or in an encrypted “obscure” form. At
the Delphic Oracle, for example, a petitioner submits a question to the
god and a priestess “interprets” the god’s response, formulating it often in
a statement or riddle that is itself ambiguous and hence “obscure.” How-
ever, Hippocratic tekwmia or bodily signs imply not such a direct address
of the divine but an interconnectedness of macrocosm-microcosm that
marks out causal lines based on homology/analogy (not a linear temporal
causal chain) whereby cosmic forces “speak” but no longer by means of
modes of human social communication. They thus interpose a distance
between such forces and the humanly conditioned needs for supplication
and direct address.

Gernet notes the oscillation in Greek thinking whereby the “invisible” sometimes repre-
sents veritable reality, sometimes only obfuscating knowledge that should be dismissed.

43. That the Hippocratics were not reverting to typical analogical forms of reasoning
here is discussed by Diller (1932).

44. Oracular responses come across most readily as “messages” from the beyond. Bodily
omen signs, on the other hand, have more of the potential to be seen as in themselves causal
or efficient, perhaps no longer in the primordial sense of the “efficacious word,” but via
analogical causality (the humors in the body are “like” the primordial cosmic elements and
produce analogous effects due to their shared properties).
The proper application of Hippocratic prognostics informed by the humoral theory had now both a temporal and a spatial orientation. It retained the traditional temporally obscure (what is going to happen based on the present signs) but now projected it into the immediately incipient event—the pathologic event—in the form of humoral disequilibrium, which the physician must anticipate (prodiagnôsis) in its invisible, microcosmic inciency. It was not so much a future event that the Hippocratic physician was predicting, but an event that had already begun in an incipient, invisible fashion—an event on the level of a humoral disequilibrium already ongoing in the body. At the same time, it indicated an obscurity on the spatial level; for the visible signs would inevitably lead into the adêla, the “interior” and invisible humoral processes that were the rational foundation for disease and pathology. In general, Hippocratic prognostics downplays the temporally obscure future to the extent that it is only interested primarily in a binary outcome (favorable, unfavorable) and not specifically in the temporal progression of the disease (as would be the case, however, for those works focusing on critical days where the life course of the disease was scrutinized).

Yet Hippocratic spatialization of the body, and how it is localized in its macrocosmic environment, hardly presents a single unified vision. The Prognostic (II,190,2) suggests that bodily signs of disease are geographically universal and hence have autonomous validity in a homogeneous space, while works like Airs, Waters, Places hold on to geographic and climatic localizations that would add a further degree of complexity or indeterminateness to the interpretation of signs. For example, a sign taken from a city that faces a dry southern wind at one time of the year will have a different interpretation than if obtained in a city with no southern exposure. All of this could magnify the interpretation of signs into a near infinite complexity. On the other hand, the intuitive-ecstatic divination widely attested in Archaic Greece, with its concentration on atopic and monstrous events or signs, would tend to support such an image of cosmic space full of topographic sacral intensifications, that is, a dishomogeneous space. But in general the inductive divination that makes its first strong historical appearance in Greece with the Hippocratics provides a context for the homogeneous space of microcosmic-macrocosmic parallelism that was introduced by the Ionian natural philosophers.

Dietetics, the counterpoised partner of Hippocratic prognostics, can be seen to offer support for this homogeneous cosmic space in which the body was situated. Such dietetics, the knowledge of how to regulate everyday life (in particular, the balance of nutrition, activity, and rest) so as to be productive of health, had a legendary founder in the figure of the fifth century Herodikos of Selymbria. What seemed to distinguish his approach
was the view of the healthy body as a product of the correct ordering of daily regimen, rather than a result of the archaic medical therapies of incantation, potions, and surgery. There is nothing particularly novel about the idea of the regulation of daily regimen so as to achieve material or moral success, or to avoid hapless evils—it was part of the common stock of ancient Near Eastern wisdom traditions that the prudent man sought a practical mastery over life via wisdom, often involving a bodily moderation and restraint. As in the Biblical book of Proverbs, desired success in life often blended a moral and bodily vocabulary. So also dietetics represented a continuous tradition in that it went back to ritual and cultic preparation and purification of the body which linked up to a whole complex of social representations, from issues of social standing in its outward indices, to the pressures for religious purity and the warding off of daimonic forces. These issues relate well to the archaic lack of distinction between the communal and the individual body as can be seen in the relatively fluid division between poorly localized, impersonal pollution (miasma) versus a calamity that is the localized result of the anger of a distinct deity or breach of a cultic prescription. What was novel with Hippocratic dietetics, however, would be the attempt to give a daily regimen based on a systematic comprehension of how the body obeys regular laws that connect it with the ordered macrocosmos. In this, a law-like configuration was sought between life style, bodily environment, and cosmos. It would no longer be a simple concern over purity and pollution issues that help protect against arbitrary incursions of the daimonic or provide the etiquette for unpredictable epiphanies of sacred forces or gods.

The notion that a specific regimen must be followed in each disease, with attention to be paid to its every vicissitude, is widespread in the Hippocratic writings, explicitly in Regimen, Regimen in Acute Diseases, and Regimen in Health. All of these works—with varying degrees of emphasis—concentrate on the proper relation of various foodstuffs (with their primary qualities and powers or dynamis) to bodily exertions at different stages of disease and health, with consideration additionally given to climatic and seasonal conditions. While these works do not elaborate the traditional theory of four humors (it is presented fully only in the work Nature of

46. See Zimmerli (1976, pp. 198–9).
47. Dietetics too, as Georg Wöhle observed (1990, p. 11), had a dual aspect of providing for basic bodily necessities and health as well as being a meaningful activity at the intersection of a system of social values.
48. This distinction is elaborated (loosely, by the Greek terms miasma versus agos) by Parker (1983, pp. 8–9).
they are certainly animated by a like spirit, one which establishes a theoretical basis for dietetics in the balance (krasis) between opposite elements (fire and water) or qualities (hot and cold, dry and moist). If this approach marks out the beginnings of “scientific” and “rational” medicine, as has been so often reported, we must then be quite cautious about what is meant by these terms. If “rational” here means a search after a delimited number of regular laws to provide a comprehensive account of observable phenomena, then it must be stressed that the Hippocratics found themselves (as did all Classical Greek philosophy) always poised between the irreducible flux of things and the order they insisted must lie behind it. There could never be any satisfactory “account” of the disorder of that flux—phenomena always retained a certain recalcitrance and unpredictabilness that called up daimonic resonances from the archaic age. Alternatively, if “rational” here means an account that brackets all consideration of the “supernatural” (a term that was clearly anachronistic to that era), then we must be careful to see to what degree the Hippocratics, while avoiding a vocabulary that referred to traditional views of the religious causation of disease, might still have availed themselves of vitalistic concepts that were not far removed from the older religious or daimonic sphere. One such concept that bears further scrutiny is that of dynamis, a concept that was of critical importance to dietetic theory and which translators usually render by the neutral terms “quality,” “nature,” or “property,” although originally it meant something more like “force” or “capability.”

Already in Homeric Greek the term dynamis and its cognates marked out one among a rich store of terms to express “power” or “force.” It generally meant the physical power of the warrior or his weapons, but could also mean the more abstract “capacity to.” In this context it refers to physical capacities (strength, cunning, battlefield rage) which are only loosely tied to the integral body of the warrior and which derive from a mysterious inward source—a source without a clear distinction between material bodily function versus sacral epiphany. But even in Homer the term has no specifically religious connotation. Still the term is in keeping

49. A comprehensive summary of the approaches of these three dietetic works is given by Robert Joly (1966, Chapter III).
50. A typical example of this claim is given by Roy Porter (1998, p. 56): “Appeal to reason, rather than to rules or to supernatural forces, gives Hippocratic medicine its distinctiveness.”
51. The work Regimen, in debt to the views of Heraclitus, saw the cosmos as in constant flux, and hence sought to find a physis or nature of man in its relation to such flux.
52. These terms are discussed by Hubert Schrade (1952, p.106).
with the loose, dynamic boundaries of the archaic body—its alliances with
sacral forces and with kinship lines—where weapons and accoutrements
could well belong to the aura of the body and partake or contribute to its
vitality. The primary sense of the term to the late fifth century historian
Thucydides was that of the military-political or even moral authority of a
general, or collectively of a city-state. One of the ways in which these
“powers” would become conceptualized in Pre-Socratic philosophy would
be in the principle of the attraction of like for like, a principle that is
almost certainly an anthropomorphic one tied to the deep appreciation of
the sympathetic ties that bind kin and community together and which by
extension would be seen to operate in all aspects of the cosmos. In
Hippocratic thought this “power” would make its terminological appear-
ance in the form of the dynamis or “natural” force with which disease
phenomena could be seen to overmaster the life forces of the individual
sufferer. An example of this can be found in the Hippocratic Prognostic,
XXV, where it is stated that the practitioner who wishes to rightly predict
the ones who will recover and the ones who will not must be able to detect
all the signs and be able to reckon the power (dynamis) of each in relation
to the others. More generally, the term is used in the Hippocratic writings
to refer to the elemental forces, now given a more clear material sense as
humors or elemental moieties, that reside within and without the body
and are tied together by the attraction of like for like. A further example is
found in the preamble to Regimen which observes that dietetics must begin
with a knowledge of the controlling element (to epikrateon) in the body,
which is to be further supplemented by an awareness of all the dynamis of
foods and drinks (elaborated in the whole of Regimen II). The dynamis of
the elemental moieties (or “humors”) of the body often operate as opposed
to one another, yet it is their harmony and balance that give health to the
body. It is this opposition that provided an unstable flux, always threat-
ening new disequilibrium that requires of the diligent dietician constant
attention to the daily regimen. This opposition also recalls the more
archaic ambivalence of sacral or numinous powers—they can operate
equally in the direction of malignancy or benignity, as Apollo was seen as
both the healing god and the sender of plagues. So also, the foodstuffs and
pharmacologicals with their separate “powers” or dynamis will be applied
both in the way of “similars to similars” and “contraries to contraries.” In

54. See Bar-Hen (1975, pp. 73–82).
56. Regimen I, 2.18 ff.
57. It is this all-consuming attention that made dietetics a whole lifestyle appropriate
only for those who were the leisured elite, a lifestyle that Plato would attack in the Republic
406c.
addition, their separate potencies often run in opposing directions—beneficial or harmful depending on the measure of other countervailing elements.58

Despite Hippocratic medicine's pull away from the ancient daimonic and ontological interpretation of disease, there persists in its “dynamic” and hence vitalistic view of disease a remnant of the older view. But what marks the critical break with the older views is that these powers are now to be dealt with by reckoning and discriminating (krinein)—even if not yet rendered quantitatively—instead of by traditional means of propitiation or sacrifice. In addition, this dynamic conception of elemental forces suggests that the prognostic signs and symptoms reckoned by the physician must be taken, to some degree, as “causal” signs (direct manifestations or “epiphanies” of elemental causal forces) and not as mere signals or messages of an impending future—yet there will always remain here an ambiguity between the sign as omen signifying a force hidden to perception, and the sign as itself a direct message about a coming event.

The Archaic age and its more rural folk religion peopled with often anonymous spirits and daimons would become a social threat to the institutions of the rising city-states. These earlier forms of daimonic power and the dynamis they implied would become tamed for city life, and the natural philosophers and physicians would help displace and tame them inside the “natural” body of the citizen of the city-state. Such “wild” forces would no longer need to be addressed by the traditional means of purity laws and religious propitiation, but would become the domain of the professional physician and dietician with their capacity to measure such forces and bring them into equilibrium.

Furthermore, the thrust of dietetics and humoral views was to lead to a relative lack of internal (or “anatomic”) space in the Hippocratic body other than as the unobserved or invisible locus of humoral equilibrium. A well-defined spatial structuring of the body into internal space, surface, and space proximate to the body—in which alone the internal space could receive full independent attention—did not develop here. This was not a structured or anatomical internal space, but rather a “theoretical” space as a stage for physiological or humoral processes. For the construction of this space it made use of internal organs known from everyday experience in the realm of animal sacrifice (or butchering) and battlefield wounds. Internal organs tended here to be defined as the internal receptacles (chôrai tou sômatos) in which humoral or elemental alembics took place (as described in Diseases IV). Indeed, the Hippocratics did not come to any well-developed

58. For the pharmaka, see Arlett (1968, p. 56). For “polyvalency,” see Joly (1966, p. 130).
sense of “organ” or *organon*, a development which was to await Aristotle. The work *On Places in the Body* (VI, 276) would go so far with this micro-macrocosmic parallelism, derived from Anaxagoras, that it would grant no defined beginning or end to the body and would see each part as possessed of each element in mutual interaction.

Consequently, Hippocratic dietetics with its application of elemental moieties inherited in part from Ionian natural philosophy produced a degree of pan-sacralization of cosmic space where each possible locus in such space took on the property of a regularized and law-like “physis” or nature. *On the Sacred Disease* notes that all diseases (not just epilepsy) and implicitly all bodily natures (*physeis*) are divine. The divine here was being redrawn in the mode of dependability and regularity. Formerly cultic procedures too had their own form of dependability, but they were often performed in the wake of unpredictable and inscrutable divine events, whereas dietetics was preventive and previsionary in regards to predictable occurrences. In such a framework, the body was no longer the locus of epiphanies serving as opportunities for divine-human contact along lines analogous to human social interaction (propitiation, homage, exchange). Rather, every body was now a continuous epiphany of invisible elemental forces (whether two, a few, or innumerable ones) no longer approachable along those lines of social intercourse, but rather via calculative reckoning and estimation of their relative powers.

It would be wrong, nevertheless, to infer that Hippocratic dietetics presented one monolithic cosmic or bodily conception. There was already within it a tension between the Ionian view of an ordered, regularized cosmos, and the (equally Ionian) empirical and anti-theoretical stance taken by Greek medicine (a view well known in *On Ancient Medicine*) that began with the mass of local circumstances surrounding the disease event, a mass which could be so overwhelming as to threaten the very conception of homogeneous regularized space.

**The Surgical Body**

Dietetics inherited the title of medicine dedicated to the “internal diseases,” the latter domain having already been marked out in Homeric epic as one addressing afflictions of obscure (hence divine or daimonic) causation in comparison to external battle wounds amenable to surgery. Although success in battle (or in the games) often implicated the intervention of a deity, the whole process was above board and resulted in no aetiological perplexity. Indeed, it has been noted that most traditional and

60. See Kudlien (1967, pp. 48–52).
“primitive” cultures recognize an everyday form of medical disturbance that is so self-evident as to call for no special magico-religious or speculative treatment.61 Into such a classification falls much of Hippocratic surgery, which consequently ranks among the least speculative and novel of the medical writings. The evident nature of battlefield or gymnastic injuries necessarily implicated a body image different from those derived from other aspects of Hippocratic medicine and one that was, at least in part, of great antiquity. Surprisingly, this surgical body also remained one primarily of surfaces; it was not an anatomical body in the modern surgical sense.

In fact, the “surgical” works handed down to us with the greatest likelihood of genuineness and belonging to the earliest tradition (On Wounds in the Head, On Fractures, and On Joints) provide a range of materials that must give us pause in applying the modern term “surgery.” It is clear enough that they concern themselves with some of the most common traumatic injuries likely to be found in any society, especially ones oriented about warfare, hunting, and sports. Battlefield and hunting injuries will involve all parts of the body, as Homer attests, yet no treatises dealing explicitly with wounds of the chest or abdomen are found in the Hippocratic writings. The latter may have been treated generically as instances of “hemorrhage,” but in this case no specific morphology of abdominal or chest organs would arise from the surgical standpoint. Still, cases of fracture, dislocation, and head injury would loom large among the cases presented to a healer in any culture, and these were addressed by the Hippocratics.

If a specific “surgical” body is to be extracted out of the Hippocratic writings, it could not have been formulated out of a specialized and autonomous discipline falling outside the purview of the medical healer or iatroi. No such professional specialization between medicine and surgery had occurred in any radical sense.62 But these Hippocratic surgical writings did mark out a special case where the main concern was to codify surgical practices of much greater antiquity and to cast them in a “rational” form consistent with other Hippocratic views.63 Such is the case with trephination, which is known from osteological evidence to have been practiced for the treatment of head wounds already in Mycenaean Greece.

61. See Ackerknecht (1971, pp. 135–141).
62. A separate profession of gymnastic trainer or paidotrib did develop which must have been conversant with sports and orthopedic injuries. In the Archaic age, another distinction, later pressed home by the Hippocratics, arose between the successors of the valued specialists in (battlefield) wounds versus wandering purifiers and ecstatics. That no hard and fast professional boundary can be made between aristocratic “amateur” healers and professional wage-earning demosurges has been maintained by Kudlien (1986, pp. 129–145).
63. This view is maintained by Grmek (1983, pp. 285–95).
The conservatory nature of the Hippocratic surgical writings is also evidenced by the fact that they adopted an anatomical vocabulary for body parts and organs from everyday speech, which had primarily developed from the specialized concerns of animal sacrifice and divination. From them arose the specific terms for internal organs such as the heart, liver, and spleen. Their further development of such an anatomy, as we will see, was directed to functional-pragmatic ends. The relatively non-innovative approach of the surgical works is possibly also tied to the level of technological advance in surgical instruments and therapeutic devices, of which early Hippocratic medicine made relatively sparse use. The first chapter of *On Fractures* takes a stance against the speculators (sophizomenoi) in the field and against that which is novel and outlandish (xenoprepes) in comparison to that which is customary therapy. The full flowering of ancient surgery occurred with the development of more specialized surgical devices and with the practice of human dissection that was its prerequisite, both of which were products of the Hellenistic era after the third century.

Although it is impossible to say with assurance what specific body image was implied by pre-Hippocratic Greek surgery, if we assume some degree of continuity of these surgical practices with those of the Hippocratics there does arise an outline of such a body image in the functionalist approach taken by the latter. Both *On Fractures* and *On Joints* adopt a functional view of anatomy oriented to the natural (kata physin) position and interrelation of body parts. This functional view is quite understandable and straightforward in the case of the therapy of fractures and dislocations: a proper alignment is necessary for consolidation of fractured bone and for the later functional use of the limb. A rather elaborate anatomical knowledge can be in this way built up through age-long experience in reduction and fixation of fractures and dislocations and with their ultimate functional outcomes. Consistent with true Hippocratic methodology, *On Fractures* realizes the existence of a possible multiplicity of “natural” joint and bony positions as determined by the constraints of the various crafts or technai for their practitioners, a multiplicity tied to the "nomos"-like or "artificial" quality of the crafts. But it argues instead for a self-contained unitary nature (physis) of the human body in part determined by the painlessness in the return to the “natural” position of the

66. Ludwig Edelstein (1967, pp. 247–301) would add to this the collapse of religious taboos about tampering with the dead body partly occasioned by Platonic philosophy and its disregard of the body as the seat of the reality of the person.
bone or joint and the tendency to seek this configuration when bandaging forces an incorrect position. So also, On Joints presents a diversity of means to reduce the dislocated shoulder because individual anatomical divergences (such as the shape of the glenoid rim) will necessitate an individual approach in each case. The unitary physis of the body at the same time threatens to be dispersed into the indefinite (apeiron) in terms of individual or case differences.  

Nevertheless, the surgical writings will hold fast to this unitary physis of the body as the only possible basis for a rational yet empirical therapeutics. However, what is critical to note here is that this form of anatomical knowledge is not derived from a direct inspection of internal bodily parts taken as objects of disinterested study, but rather the morphology of internal “parts” takes shape according to the functional demands of how to best reduce and fix bony injuries along lines customarily given by the art. The “significant” anatomy of the shoulder joint, for example as it is given in the opening chapters of On Joints, revolves about the fact that it tends to dislocate “into the armpit” and that the head of the humerus projects forward in a way that causes many practitioners to err in thinking there is such a thing as a forward dislocation. Not a complete stereoscopic or anatomic model of the humeral bone, but rather a projection of what the head of the humerus must be like in order to be able to so readily deceive practitioners is what is of concern here. This is not to say that such functional anatomic knowledge does not approximate to “true” anatomic structure, but rather that it defines the nodes of “significant” anatomy according to a long empirical tradition in the treatment of bony injury. Even the “thought experiment” given in On Joints I that imagines a look inside the shoulder joint (it is given in a conditional clause) is likely based on such knowledge, not on dissection.  

This general functional approach is replicated in On Wounds in the Head, where the significant anatomy of the skull revolves about the disposition of suture lines (because they are so easily mistaken for the linear fractures that are of key therapeutic significance in this work) and with the thickness and porosity of various areas of the skull, again because of their implications involving bony injury. It is this skull anatomy that occupies attention (not the anatomy of the deeper intracranial contents), and this suits the treatise’s specific therapeutic approach: the care of bony and soft tissue injuries.
as centered on trephining and on the prognostic and mortal signs offered by the varying bony injuries and their suppurations.

But *On Wounds in the Head* offers a perspective not well developed in the other surgical works: it promotes the direct observation of internal structures, albeit via an opening already provided in part by the wound itself. It recommends that all wounds should be incised if not already laid open so as to directly inspect the damage to the bone (chapters XII–XIV, III, 222, 1 to 242, 9). The impetus for this lies in the fact that bony injuries (fractures, contusion, and *bedrai*) may or may not be manifest (*phaneras*). The invident or "obscure," already noted in the case of dietetics, receives here a new complexion; it now becomes accessible to surgical incision that newly opens up a dimension of bodily "depth."69 Despite this, a true anatomy of internal bodily space would not develop here because the concentration remains on opening up the internal space in a search for prognostic signs and signs relevant for therapeutic protocols (to trephine or not, for example). This would not suffice for a full blown anatomical pathology or even morphology. Implicit in the surgical works, especially the orthopedic ones, is the notion not just of a return to health as the therapeutic goal, but of a return to functional normalcy. Fractures must be allowed, for example, to consolidate without abnormal rotation so as to ensure proper future use of the limb. *On Joints* gives considerable attention to chronic unreduced dislocations of the various joints as admonitory examples of dysfunctional results that are no longer curable. This functional normalcy is of a socially undifferentiated sort—it does not consider possible anatomic functions peculiar to distinct occupations. This is in keeping with the guiding theme in the work of the unitary *phyisis* of the human body. It is the *phyisis* of the socially undifferentiated citizen of the city-state, not that specifically of athlete, warrior, or craftsman.

Paralleling tendencies seen in other areas of Hippocratic medicine, the surgical body, in becoming a "natural" (cosmic) body, became distracted from certain aesthetic, moral-political, and social class associations, so that the restored body could return indifferently to any role it might occupy in the city-state.70 This indifference would ultimately lead toward a weakening of the capacity of the body to be spatially situated in terms of sacral

69. The idea of body interiority had been suggested already by spiritual exercises of "remémoration" from Orphic and Pythagorean sources and Empedocles, where the dispersed soul could be concentrated within. See Vernant (1959).

70. Hippocratic dietetics also pursued this "democratic" course—it envisioned a "natural body" and not a socially specified one, hence it never developed an occupational medicine. The latter would be a major aspect of dietetics in the Hellenistic and Roman periods however. See Harig (1971, pp. 15–20).
geography, kinship lines, or even within a hierarchy of the beautiful (noble) and the base. The political ideology of the “atomic citizen” of the city-state, equal to any other member and all falling under the rule of law, would tend to strongly center the body as a political unit. On the other hand, the nature of the body as it was expounded by Ionian philosophy and the Hippocratics, where it was in complete flux with the surrounding cosmos and where it was in constant interchange with it via its elemental parts, tended to diffuse the body and call into question any radical “centering” of the body in cosmic space. Still, dietetics would carry some traces of the older aristocratic body, for dietetics became, like philosophy, the prerogative of the leisureed citizen who alone had the time to attempt to meet the greedy demands of a day fully given over to regimen.

Conclusion

Hippocratic medicine arose, in the late fifth century, toward the end of a period that had seen widespread socio-cultural transformations that would have considerable implications for the body image. There were the changes from a feudal agrarian society with strong tribal lines of association into a society dominated by the city-state with its ideology (especially in Athens) of discrete citizens all equally accounted under the laws; in the religious realm there was a move from localized cult and agricultural festivals to a cult of the city-state, each with its own appropriate manners of envisioning the body and presence of the gods; and mythic and epic poetry, with its narrative experience of the cosmos that centered around human-divine deeds and around feudal social obligations, made way for philosophic prose that allowed for a synoptic “picture” of the cosmos whose primary mode of access was contemplative vision. None of these transitions could be said to be absolute—after all, religion in the city-state remained to some degree cultic and tied to ancient agrarian rhythms, and the “picture” of the cosmos of the philosophers hardly touched more than a narrow segment of the populous, for whom everyday life and politics remained intensely practical and observant of custom. What can be said is that these transitions added new complexions to the way in which life could be experienced, and new possibilities for contradictions to arise between them. If the Archaic age (like the ages before it) relied primarily on a ritual-mythic experience, then the coming of a contemplative, synoptic view of the cosmos certainly did not submerge the former but it did most likely make it impossible to revert to it in any naive or straightforward way.

Nor do the results of this study suggest that there was any unitary body image that can be extracted from the Hippocratic writings, diverse as they
The various strands of Hippocratic medicine examined in the present study contributed diverse aspects to the homogenized space of Ionian philosophy. Medicine’s concentration on the privatized discrete body of the citizen replaced an original socio-familial context of the body with a climatic-geographic one that had the effect of dissolving sacred space into cosmic space. Prognostics, while preparing for a morphological and visual (eidetic) division of body parts through its schematic collections of signs, nevertheless used them as ingress into a field of invisible physiological processes that linked the body microcosm to the macrocosmos. Dietetics in turn structured body spaces along lines dictated by the containment of humors and contributed to the pan-sacralization of space, to the detriment of social space and the ancient sacral space that belonged to cults and sacred precincts. Hippocratic surgery, with its conservative and functional nature, contributed little to the construction of cosmic space but did focus on the socially undifferentiated body. In resisting the tide of cultural forces that was pushing forward a contemplative stance toward the body (in art and in natural philosophy) its functionalism precluded the development of an anatomy of internal bodily spaces built up by visible morphology.

All in all, the Hippocratic writings adopted and advanced the Ionian picture of the cosmos, one that envisioned a (relatively) homogenous space common to the body and its surrounding cosmos—homogeneous at least in the sense that it lacked the sacral intensities that belonged to the archaic world of sacred times and places and which instead opted for semi-divine powers (dynamis) suffused throughout the whole in the form of elemental moieties. This cosmos was regarded as put in order by a delimited set of regularities and common elements (as in the basic humors or qualities) that “tamed” the ancient, unpredictable daimonic and godly powers. Such “powers” were now addressed not with the traditional and socially defined religious means of sacrifice, propitiation, and purity laws, but by the newly advanced means of discrimination and calculation that were a product of a new technical expertise and the contemplative (theoretical) view of Greek natural science. The body became the locus for this calculation and discrimination. But if this method of the Hippocrates was in part a result of the contemplative viewpoint, the Hippocrates could yet not be said to have attained a fully contemplative view of the body in the fashion that was possible to Athenian philosophy or even to the plastic or pictorial arts. Hippocratic medicine blended something of that contemplative view with the older praxis-based approach to the body. From the contemplative body, based as it is on a visually derived form or eidos, it adopted its own notion

71. This is suggested as well by the diversity of pathological and physiological theories presented in them; see Lloyd (1975, pp. 179, 183–189).
of a universal human bodily \textit{physis} or nature. But the Hippocratics could
never make this into the timeless, defined, spatial topicality that it would
be for the eidetically oriented philosophers. This is particularly evident in
the case of Hippocratic surgery with its functional approach to the form
and anatomy of the body. So also it goes back to the roots of the healing
craft, which always remains a “work of the hands” (\textit{cheirourgus}) in interaction
with the sick body.\footnote{Ludwig Edelstein (1967, pp. 247–301) noted that the Hippocratics did not attain
such a contemplative view of the body in regards to surgery.} This praxis-based approach to the body is not
something that is unknown to ritual and cult. On the other hand, Hippo-
cratic medicine in its praxis-based approach to the body cannot be iden-
tified with the mythico-cultic world of the Archaic age. The indwelling
\textit{“physis”}\footnote{A faint remnant of this ritual life may be suggested in the \textit{therapeia} or regimen that
was a part of the close, daily attention to one’s body that belonged to dietetics.} of the body for them did not well circumscribe the specific roles,
gestures, social status, or communal body that belonged to the archaic
world. To that latter world the body took shape in the form of its lived
interactions with sacral forces, with its kin, with peers and underlings—it
was a “form” that was more energetic, pragmatic, and endowed with vital
force. But it was precisely in that vital force (the \textit{dynamis} of the moieties)
that the Hippocratics retained some connection (even if tenuous) to the
archaic age, for they too saw in the elemental moieties of the body and of
the cosmos a divine power, but now one which was calculable and predict-
able and which made ritual action irrelevant to human contact with these
powers.\footnote{See Schefold (1975, pp. 43–52). He points out that it is a mistake to overlook the
numinous in the Homeric gods, and that their beauty is tied to their terror-laden aspect.}

Furthermore, it may be suggested that in this blend of a contemplative-
theoretical and a praxis-based experience of the body, Hippocratic medi-
cine shared something with the plastic and pictorial arts of the time. The
latter also demonstrated an increasingly contemplative approach to the
body that replaced the more undifferentiated numinous aura of the sacred
that can be seen in the shapeless \textit{xoana} representations of the gods or with
the solemn descriptions of the god’s entrance that is seen in epic poetry,
where the focus is not so much on the god’s form but on the effect that it
has on those present.\footnote{Certainly in the move from the Archaic to the
Classical age, the plastic forms of the gods with their anthropomorphic
bodies were moving toward visual contemplation and away from cultic
interaction (although the latter could never be said to be eliminated with-
out the statue becoming a merely artistic, and no longer a religious,
object). As Guy P. R. Métraux has noted, the Greek physicians and sculp-
tors shared an approach to the body that sought to see in its external
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visible features the signs of internal dynamism and motivating forces. All of this brings up the important question of what role this body image had to play in the Greek “condensation” of the individual body and its unitary “personality.” This process had begun far ahead of the fifth century, and early traces of it can be seen in the narrative demands of epic poetry with its solidification of the specific attributes of the Olympian gods into definite personalities. The total fifth century contribution to this process in the form of its contribution to the development of the discrete body, and ultimately to the rise of the “individual” in the West, would make for an important future study.

Concluding more generally and returning to issues raised at the outset of the paper, it is clear both that ancient Greek medical literature (leaving aside popular or rural culture) presented a multitude of departmental constructions of the body image, and that despite their divergences they all exhibited a degree of distance from a body image articulated primarily by ritual practice, kinship ties, and a sacred topography. We have suggested parallel moves in the body images extracted from the pictorial arts, poetry, political organization, and Classical philosophy. So that despite grave reservations about any unitary change in “mentalities” in the transition from Archaic age to Classical age Greece, it remains difficult to avoid the conclusion that this transition embodied some form of historical novelty, a way of bodily experience and behavior towards the world that seems to have had little historical precedence. Thus we have found a diversity of body images, but ones whose “family resemblances” suggest that they were all animated by the same cultural transformations that distanced them from the Archaic (and presumably Bronze age) era.

In one sense, we can see that the choice of “body image” to delineate the cultural transformations of this period was fraught with difficulty; primarily this is due to the fact that late Archaic and early Classical writers were the first to reflect on, dogmatize about, and consequently write down their views of the body, and we presume earlier Archaic age Greeks or their contemporaries did not do so. This reflects our dependency on textual sources in such an historical study. But we can further assume that all cultures have a “body image” that is pre-conceptual and pre-reflective: one that maps out (often unconsciously or as embedded in everyday activities or even in the grammar of the language) the experiencing and experienced body. Unfortunately, this “lived” body image is least susceptible to historical analysis precisely because it is pre-conceptual and rarely receives explicit attention even in philosophical or technical writings (past or present). Moreover, it should also be clear that any talk of a unitary body image for any particular place or people is likely to be misbegotten. Our
researches have shown the diversity of such images in one small realm of literate culture in one area of colonial ancient Greece, and we have suggested a diversity of body images in other cultural arenas of that time. Beyond that, we know precious little of the body experiences of rural Greeks, of women, or of other social classes such as merchants or artisans. All of these formed the undifferentiated background out of which a literate culture could propound an outline of new ways of imaging the body.

On the other hand, the ubiquity and necessity for a lived body image for humans make it an effective tool for analysis precisely in those historical transformations where far-ranging conceptual or paradigmatic innovations are at hand. As a pre-reflective aspect of human action it is inherently conservative and resists efforts at drastic conceptual change and provides undercurrents of stability where other socio-economic forces are on the move. Here the difficulty abides in teasing out a lived body image from the mere hints and adumbrations offered by textual sources, artistic representations, or archaeological evidence. The evidence from the Hippocratic sources shows that despite the radical novelty of the cultural changes in the transition from Archaic age to early Classical Greece, the inherently conservative properties of a lived body image did not allow it to suffer any complete disruption and the Hippocratic writings themselves demonstrate the tensions between archaic and more contemporary lived experience. This could only be expected in a realm of human activity, namely the healing craft and medicine, which unlike philosophy or speculative cosmology, has deep roots in human praxis and ritual.

References


