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NATURE AND POWER

**A Study of the Social Construction of Nature in Eurasia
from the Stone Age to the Hellenistic Times**

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**A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfilment of the requirements of the Degree of Sociology**

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Abstract

Human society comes in contact with the physical environment in two ways: Through economic appropriation of physical resources and through the symbolic appropriation of nature. The two 'ways' interact via the various interpreters of nature, who as they define nature create cognitive means for the appropriation of physical resources.

Using the theory of social networks of power the thesis examines the above interplay of economic appropriation and symbolic manipulation of the physical environment from the Stone Age to the Hellenistic times in a series of civilisations in Eurasia. It reasons that as we move from the Stone Age to pristine civilisations we encounter two phenomena: first, a process of variation in nature's interpretation due to social stratification. Second, interpretation of nature becomes the subject matter of elite groups, the literati, firmly attached to political elites. Yet, with the advent of the Axial Age nature's interpreters become increasingly autonomous and use metaphors of nature as means to reflect on political and social issues of the day. In turn, as we can see in the case of ancient Greece, various political elites start to use particular readings of nature to consolidate their ideological position vis-à-vis their rivals. Thus, Axial Age ideologies about nature move from passive interpreters of what exists to dynamic advocates of what should exist.

Thus, the wisdom of the major schools of political ecology is contested in four major issues: First, there has never been a single reading of nature, but many co-existing in geographical and social proximity. Secondly, there is no specific time when nature lost its sacredness. Instead, we detect a steady withdrawal of the divine from the physical environment starting with the emergence of reflecting thinking. Thirdly, the development of nature's symbolic attributes lies not only in its relationship to politics, but also on the internal dynamics, strength and weakness, of the discourse in itself as well as on the organisational capabilities of particular schools of thought. Lastly, economic exploitation as such does not depend

on specific readings of nature. Rather, it depends on technological advances, the nexus of political and ideological social networks of power.

Résumé

Les sociétés humaines viennent en contact avec l'environnement physique selon deux voies différentes: à travers l'appropriation économique des ressources physiques, et à travers l'appropriation symbolique de la nature. Ces deux voies interagissent via les différents interprètes de la nature, qui, en la définissant, créent les moyens cognitifs nécessaires à l'appropriation de ses ressources physiques.

En utilisant la théorie des réseaux sociaux de pouvoir, cette thèse examine les interactions entre l'appropriation économique et la manipulation symbolique de l'environnement physique, de l'Âge de Pierre à la période Hellénique, dans une série de civilisations eurasiennes. En passant de l'Âge de Pierre à des civilisations primitives, nous rencontrons deux phénomènes. Premièrement, il y a un processus de variation dans l'interprétation de la nature, qui est dû à la stratification sociale. Deuxièmement, l'interprétation de la nature devient le domaine des élites et des lettrés, qui sont étroitement liés aux élites politiques. Cependant, avec la venue de l'Âge Axial, les interprètes de la nature deviennent de plus en plus autonomes, et utilisent des métaphores de la nature comme outil de réflexion sur les problématiques politiques et sociales de l'époque. Par la suite, comme nous pouvons le voir dans le cas de la Grèce Antique, diverses élites politiques commencent à utiliser des interprétations particulières de la nature pour consolider leurs positions idéologiques face à leurs rivaux. Ainsi, les idéologues de la nature de l'Âge Axial passent d'interprètes passifs de ce qui existe à des promoteurs dynamiques de ce qui devrait exister.

Ainsi, le savoir des principales écoles d'idéologie politique est contesté sur quatre points importants. Premièrement, il n'y a jamais eu une interprétation unique de la nature, mais plutôt une pluralité d'interprétations, co-existant dans une certaine proximité géographique et sociale. Deuxièmement, il n'y a pas de période spécifique pendant laquelle la nature aurait perdu sa sacralité. Au lieu de cela, nous pouvons détecter un retrait graduel du divin de l'environnement physique, et cela depuis l'émergence de la pensée réflexive. Troisièmement, le développement des attributs symboliques de la nature se retrouve non seulement dans sa relation avec la politique, mais aussi dans la dynamique interne du

discours lui-même, ses forces et ses faiblesses, ainsi que dans les capacités organisationnelles des différentes écoles de pensée dont il origine. Enfin, l'exploitation économique en tant que telle ne dépend pas d'interprétations spécifiques de la nature. Elle dépend plutôt des avances technologiques, qui constituent le nexus des réseaux sociaux de pouvoir, tant politique qu'idéologique.

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To my father Vangelis Marangudakis who did not live long enough to see the fruits of a long separation.

INTRODUCTION

The subject of 'nature' is one of the most complex and polemically ridden topics that one could face. It spreads from the science of ecology to philosophical concerns about human substance, purpose, and nature; from political philosophy to political economy; and from matters of social structure and organisation to those of ethology and human biology. Inquiry into the 'nature of things' is not usually a value free enterprise. It constitutes the foundation of any political, moral, and social discourse, the subconscious or intentional infrastructure of any argument for maintaining or changing society. The history of the use or abuse of 'nature' for political purposes is as old as humanity itself.¹ Recently, the term has once again been mobilised, this time by the ecological movement, in a powerful way to promote particular modes of political ideas and actions. Nature is once again examined, and the 'natural way' is once again sought to save us from the sins of capitalism, patriarchy, political oppression, or even civilisation.²

The use, or abuse, of 'nature' by political ecology has triggered the following historical investigation of the social construction of nature. The purpose of the study is to identify its historical roots, and delineate the social and environmental significance of this construction. What is the mechanism that triggers specific images of nature? How is a particular image, or understanding, of nature linked to social action and treatment of the physical environment? Are ecologists right to identify notions of nature with environmental attitudes? Are they right to identify ecologically sound practices with egalitarian societies? As the study wishes to explore the mechanisms by which social structures incorporate and give meaning to the physical environment, the adopted methodology will follow the path of

¹ Serpell, James 1986. *In the Company of Animals*, London, Blackwell Press.

historical sociology recently suggested by John Hall (1985) and Michael Mann (1986). As such, the study aspires to be aware of social theory, yet to remain historically informed. It will trace the development of the concept and the treatment of the physical environment in selected Eurasian civilisations from the Stone Age to the Hellenistic period, distinguishing in the process general social patterns from the historical contingencies. The argument the study will advance in the following pages is that above anything else, *nature is a moral category providing guidance for social behaviour and environmental contact*. In respect to 'social behaviour', it will be argued that 'nature' shapes normative standards and categories. In particular, it will be contended that nature reflects authoritative patterns of social behaviour, and that with the advent of social stratification the moral tone of nature becomes the means by which different social elites try to control the high ground in matters of ultimate truth and authority. In respect to 'environmental contact', it will be argued that, in the process of defining social reality, the physical environment provides us with tools used for symbolic communication as well as the cognitive means to interfere with the physical environment for the acquisition of wealth, status, and power.

The argument needs further clarification. Nature serves as a heuristic concept, as a normative lens informing us of what is the proper social behaviour. As Kant noted, and the Gestalt psychologists later demonstrated, understanding and acting upon the world is impossible by sense perception alone. Human communication depends on shared *meaning*, and control over meaning creates a set of acceptable and unacceptable rules of social action and order. We could hardly find in our history any social system which, consciously or not, does not assume to be a reflection of 'naturalness'. The reason is generic to all societies. Societies are constructions of individuals who share long-term bonds, established and maintained by symbolic communication. Thoughts and actions take place in particular 'symbolic universes'. By definition, these symbolic universes dictate unreflexive social

² See Chapter 1.

interaction, while by default they distinguish as 'obviously' correct and natural, or as deviant. 'Natural' behaviour, as we understand it today, is behaviour that follows implicit rules, regulations, and cognitive paths of a particular symbolic universe. It provides normative guidance as to how people should act toward each other, largely dictating what is, or should be, aesthetically pleasing and desirable, thus delineating the boundaries of morality.

Morality is embedded in, yet is not exhausted by matters of social behaviour. It also embraces the natural environment. The reason is that 'what really exists' (the ontological question), always takes into account the physical environment since the social self is shaped not only by the human environment but also by the physical one.³ Ontology is manifested in particular world-views, or Cosmic Orders. A Cosmic Order is the perceptual-moral arrangement of the physical and social environments which corresponds to a given understanding of reality. Thus, a Cosmic Order is a symbolic universe that has incorporated the natural environment. Yet, there is a qualitative difference between the moral character of the social and the moral character of the natural environment that most theories of political ecology tend to ignore. On the one hand, the social environment is made up of human beings, cognisant subjects who take an active part in the construction of the social self. On the other hand, the physical environment is composed of passive objects which do not take an active part in the above process. Instead, they are just tools of symbolic communication, infrastructure of social organisation, and the means to sustain and promote our physical well-being. Thus, symbolic interaction with the physical environment is neither genuine, nor complete. Instead, it stands mute on the border-line between symbolism and appropriation. The ambivalence is clearly seen in its Durkheimian treatment as a source of symbolic communication taking place inside the social domain, manifested in rituals, ceremonies, and myths. By

³ It may well be the case that the quest is more concerned with the physical rather than the social environment, as all cosmologies stand witness.

and large these matters are reflected in particular world-views, images of Cosmic Order and notions of Wilderness or Otherness. Nevertheless, the priority of the social over the physical environment does not mean that the 'ecological factor' is utterly insignificant. Life in a river valley, in a desert, on rough mountains, on an island, in an urban centre, or a village, as well as the fauna and flora humans come in contact with and manipulate, have a direct effect on the way people perceive nature, and themselves. My intention is not to suggest a geographical theory à la Montesquieu, but to remain aware of the fact that elements of a discourse about nature could be influenced by the spatial and climatic landscape which people come into contact with.

The connection between 'social behaviour' and 'environmental contact', between symbolism and economic appropriation of natural resources can be found in the support that social actors offer to particular discourses about nature. In some cases there is social consensus. This is especially true for small, pre-literate, egalitarian groups. It is not so in highly stratified, complex societies where interests and convictions are numerous and, in most cases, conflicting. In the latter case, the dominant discourse is assaulted by alternative arguments, supported by alternative alliances, proposing alternative kinds of contact. In other words, there are specific *social sources* of nature as a normative discourse. In primitive egalitarian bands of hunter-gatherers, the group itself is the source, with the shaman organising and controlling this discourse in practical, or ritualistic matters. This also holds true for the ranked, Neolithic societies, but not for stratified ones. In stratified, city based, societies, literati, first bureaucrats, later on poets, theologians, moralists, philosophers, and more recently, scientists, are usually the ones mostly preoccupied with what constitutes truth. In such stratified societies the positing of a normative thesis entails particular understanding and special interests. Special interests necessarily invite special social images of nature, since they represent a socially biased reality. Furthermore, the images of nature they produce are usually polemical, challenging other images which represent the reality and interests of other

groups. The more interest is based on persuasion, and the less it is based on force, the more sophisticated and internally coherent the discourse will be. Whenever a given culture achieves a high level of cognitive elaboration with the aid of literacy, the discourse becomes an *ideology of nature*, a more coherent body of beliefs organised around a few central values, quite different from the unwritten, flexible, open view of physical matter, oral communities tend to hold. Ability to formulate a thesis on nature also entails a privileged position. The privilege is situated in the ability to influence opinions and modes of action; the ability to justify or discredit a particular *status quo* on the basis of its being in harmony or disharmony with the 'nature of things'. This ability shapes the balance of power between competing elites groups in a society. Thus, *any discourse of nature has social consequences through the support it renders to particular social actors*. We will observe that in some stratified societies, notably in Archaic and Classical Greece, those involved in discourses of nature start competing for authority and for privileged access to other power networks and rewards (political, economic, and ideological). Yet, nature's ideologues are unable to affect the social arrangements by themselves since any discourse on nature needs social interpretation. Rather, they do so by interacting with other social classes, allying to compete, sometimes quite arbitrarily, against others in an endless pursuit of power. Thus, *the degree to which ideologies of nature affect the pursuit of power depends on the ability of nature's ideologues to ally with other social actors*.

The above statements might give the impression that the fate of nature's discourses is an arbitrary enterprise, open to all kinds of possibilities, restricted only by the outer limits of our imagination and the ability to find social support. This impression could be reinforced by the fact that nature is an idea, and as such the study is by definition an exploration of an arbitrary social mechanism which constructs various meanings. Yet, this 'idealistic' concession will be checked by two Weberian prepositional arguments. Firstly, that there is an 'elective affinity' between one's social situation and the belief one holds. It follows that there should be a similarity of perception of what

constitutes 'nature' within each and every stage of social development we will examine. Secondly, once the high ground of the conceptual apparatus has been reached by someone, others have to take it into consideration, and by doing so, 'nature' must follow certain cognitive paths. This is to say that to some extent cognitive schemes are tools used for persuasion, conversion, and submission. Thus, for example, the Platonic form Christianity adopted to combat Platonism in the second and third centuries, stands as a witness to the power of words. This is also true of other moments in history when elaborated ideologies forced other, less elaborated ideologies, to adopt similar forms, to become marginalised, or to disappear into oblivion.

A central feature of 'environmental contact' is the physical environment as a source of material resources, as the physical means to sustain and promote our well-being. In each and every period of our history, material resources might be limited by knowledge, tools, and customs, but they are rarely rejected when available. Adam Smith might not have been entirely right when he stated that social evolution is driven by our motive to better our material conditions, but he was correct to point out the almost universal desire for prosperity.⁴ This desire to prosper, in a given cultural framework, is the constant in the equation that this study suggests as a way to decipher the social construction of nature. However, it is restricted by the previously mentioned moral prerequisites. Matters such as the quality and quantity of natural exploitation and its social appropriation are not determined by the desire to prosper; this would constitute a crude version of Classical Economics. Yet, within its restricted boundaries, exploitation possesses its own logic, the logic of enforced adaptation. Accumulation of knowledge about material resources, along with the invention and elaboration of technological tools, and the development of skills and practices increase

⁴ As the major exception to this rule stands the multitude of 'axial age' priesthood who practice and preach the denouncement of material wealth as a means to achieve after-life bliss. Nevertheless, their message could not claim any long-term success. Increased material prosperity is the historical rule.

specialisation and social complexity, open new avenues for accumulation of wealth and power, become matters of 'international' rivalry, and more recently have led to an all-out race for possession of crucial knowledge. The nexus of available technology and economic practices plays a distinct role in shaping both environmental and social behaviour. These presuppositions suggest that there is an historical pattern, a certain logic of development that the concept of nature follows, though one that is quite different from the evolutionary schemes that Comte or Marx thought society would necessarily follow. While belief systems are imaginative, they are also adaptable, flexible, and purposive. Their purpose is not just to make sense of the world, but to do so in a convincing way. In proving the superiority of an 'ontological' message, the superiority of a certain proper social contact, of a desirable social organisation, is also proven simultaneously. The degree to which this statement is verified in history varies, yet morality and social organisation are hardly indifferent to one another. Their affinity situates discourses of nature in the endless pursuit of power, which among other preconditions, requires ideological superiority, achieved by elaboration, internal cohesion, and persuasion. Thus, we can trace the development of the concept by applying sociological analysis, specifically the identification of power in social arrangements.

It is the intention of this study to examine the social construction of nature by following the presuppositions of neo-Weberianism as it has been delineated by John Hall (1985) and by Michael Mann in his theory of the 'social networks of power' (Mann, 1986). Mann's theory suggests that 'societies' do not exist as bounded and enduring entities. Instead, there are alliances of human beings, organisations which pursue power (the ability to attain goals through mastery of one's environment) by mobilising and organising the sources of power which are fourfold; *ideological* (control of meaning, norms, rituals), *military* (control of life), *economic* (control of extraction, transformation, distribution, and consumption of natural resources), and *political* (centralised control of territories). The organisations

which are formed to attain power have two basic features: Firstly, they constitute *networks of power*, wider than any single locally situated social group, a 'society'. Secondly, they are *promiscuously* related to the sources of power, i.e. an economic enterprise can have military functions as well as political ones, and an army can have ideological functions as well as political ones, and so on. In other words, Mann suggests that every individual belongs to a variety of networks that usually overlap only partially. There are multiple organisations controlling different sources of power that cannot be reduced to a single, monistic, base-superstructure social model. The more overlapping the networks of power, the more unitary social organisation will be, resembling the ideal form of clearly bounded society, such as the almost isolated ancient Egypt. Yet, Mann reckons that most of our history is made of open-ended, only partially overlapping networks. Some of the networks became able to achieve higher rates of social mobilisation, that is, higher mobilisation of collective and distributive power advancing from egalitarian, to ranked, to stratified social organisation and so on. The advancement of civilisation, from Mesopotamia and Egypt to the modern West is the result of particular, even accidental, 'conjunctures' of the four networks of power in fewer and fewer places around the globe.

This is to say that there is a limit to the logic of social 'evolution' as well as to our abilities to predict future developments. In recent years research has made it increasingly obvious that history is made of comprehensible accidents, geographical, as well as social.⁵ In some cases social accidents prove to be heuristic, altering the balance of power and forcing others, under the dictum 'adapt or perish', to catch up. This is the only 'law' that could tentatively claim general validity. It does so because it recognises the unpredictability of change as well as the possibility of failure; a notion that most of the 19th century evolutionary theories could not live with. Using this method of historical sociology, we can make sense of these accidents under

⁵ For the significance of geography in shaping social structures in history see Diamond (1997).

the morally neutral logic of 'networks of power'. Certainly, we make sense of history in a limited, *post facto* fashion ('nature' itself is a quite recent concept), and even then, necessarily favouring the general trend over variations and individual exceptions. Yet, the pay-off could be rewarding if a pattern is exposed, contributing to our own awareness of the social construction of nature, as well as suggesting appropriate future environmental behaviour. The theoretical structure of the study could be summarised in the following diagram.

NATURE

SOURCES	MEANS	ENDS
<u>SOCIAL NETWORKS</u> • Political • Economic • Ideological • Military/Diplomatic	MORAL SOCIAL BEHAVIOUR	SOCIAL-POLITICAL RELATIONS COSMIC ORDER (WILD-TAMED)
<u>ECOLOGICAL CONDITIONS</u> Climate, land features, degree of environmental circumscription	ENVIRONMENTAL CONTACT	MATERIAL RESOURCES-WEALTH

In the following chapters we will trace the history of the material appropriation of the environment in conjunction with the belief systems that were formed around the concept that today we recognise as 'nature'. We will speculate on how environmental practices and beliefs were shaped by the social organisation human communities developed over long periods of time. Following this logic, the factors that are involved in shaping the relation between humans and the physical environment will be identified and analysed, and different environmental practices will be compared and

evaluated. The inquiry will concentrate precisely on 'different practices'; why do people perceive and behave towards nature differently? Why did some civilisations deplete the natural resources they were depending on (e.g., Pleistocene bands, ancient Greeks), while others did not (e.g., Egypt)?

Those sociological theories that have already addressed the topic have followed different paths. New Left, Feminist, Transcendental, and Marxist traditions, provide alternative explanations of our relationship to the environment to the one posited here, and they constitute the point of departure for this study.

CHAPTER 1

Nature According to Political Ecology

The Question of Environment and Nature

The decades of 1970s and 1980s saw a novel political power emerging in contemporary western politics: the Greens. As a new phenomenon, it caught the imagination of the mass media, political analysts, and a public which, to some extent, was tired of traditional parties, methods, and political discourses. The message of the Greens, or the 'ecologists' as they are often called, remains an amalgam of leftist political proposals and environmental practices for the survival of the planet and an adequate social organisation to accompany them. The Green movement gave impetus to previously marginal theories of political ecology, which challenge humanist morality, liberal politics, or taken-for-granted economic practices. In the aftermath of the explosive expansion of Green politics four major trends of political ecology are clearly identified: Social Ecology, Deep Ecology, Ecofeminism, and Eco-socialism. Though they do share many common features, they constitute distinctive theoretical entities since they tend to stress different aspects of a central theme: freedom.

1. Social Ecology

Social Ecology derives from the communitarian-anarchic tradition and its re-orientation to ecological issues. On the question 'who is responsible' for the deterioration of the natural environment, but also of the cities and civil life in general, Social Ecology pinpoints the various forms of hierarchy defined as the 'cultural, traditional and psychological systems of obedience and command' (Bookchin 1982). These systems are found in any society, even before classes are formed. Only the early hunting and gathering societies were truly egalitarian. Egalitarianism firstly lost ground and was

then destroyed by population pressure and technological innovations, but most of all by an increased manipulation by elders, shamans, patriarchs, and warriors (Bookchin 1987). These first specialists became 'mediators' of human relationships by defining and ordering proper modes of behaviour and action, and established the formal conditions for hierarchy. Since their maintenance was based on resources produced by the rest of the community (i.e., surplus) exploitation became a second component to, and reinforced hierarchy.

Psychological hierarchy imposed on the level of consciousness is coupled with material hierarchy. Repression if it is to persist has to become legitimate in the eyes of the oppressed and this was achieved by moral teachings imposed by the oppressors on the community. These different forms of hierarchical mentalities achieved one basic goal: They turned social interaction into a zero-sum game by imposing the idea of superiority and inferiority of individuals vis-à-vis each other. If someone wanted to achieve a better position in the social pyramid he or she had to become involved in a struggle. Thus, rivalry became a constant in human affairs.

The history of hierarchies is the history of the impersonal institutionalisation of such 'primitive' networks of face-to-face relationships. The final step of the evolution of hierarchies is the modern State and its oppressive mechanisms. The functions of the State as a political body of supreme power are accompanied by the Market system, which, according to Bookchin, has imposed the mentality of 'control' over resources, which by definition are denied to the rest, that is private property (Bookchin, 1982:80).

The justice system operates on the same 'liberal' principles of 'inequality of equals'. This modern principle contrasts the justice system of primitive, 'organic' communities, which operate unconsciously on the lines of 'equality of unequals' and everyone has access to the resources of the community regardless of who contributed to their production. Everyone in primitive societies is guaranteed an 'irreducible minimum' (ibid.: 144). Such a benevolent system was annihilated by the introduction of private property.

Permanent insecurity guaranteed a limitless desire to accumulate as much power as possible through property acquisition. Thus, the liberal, capitalist system is based on the belief that security of high levels of living could be only ensured by a steady economic growth at the expense of ecological balance. This belief is not shared by the Social Ecologists. On the contrary, they argue that the roots of scarcity lie in a false perception of desirability promoted by the system itself. What is *really* necessary for our well-being and what is not is blurred under the economic doctrine of individuals' limitless needs and the endless promotion of goods whose utility is at least questionable. 'Just as capitalism leads to production for the sake of production, so too it leads to consumption for the sake of consumption' (ibid. :68).

Personal relationships are constantly affected by the capitalist mentality. What once was natural social reciprocity, unquestioned and unconscious of itself, now is a conscious choice of actions aiming to maximise economic, political, or ideological benefits. Personal relationships became impersonal, always mediated by instruments of power and rivalry, or by bureaucratic agents who substitute for family, neighbourhood, and town. The combination of capitalism and bureaucracy has dehumanised mankind and turned the world around us into a collection of soulless objects.

The ecological crisis is intrinsically related to our social hierarchies and domination. The dominant system is not only wrong, but self-destructive as well. It is irrational for the following reasons:

- 1) It is impossible to enjoy continuing economic growth in a world of finite resources.
- 2) It is impossible for a Western-type economy to successfully face the social and environmental costs of such a growth.
- 3) Economic and technological development takes place in a Linear way antithetical to the cyclical functions of nature.

4) The economic and technological imperialism of the rich countries over the third world leads to increasing levels of inequality, international conflicts, and feeds population growth (Karasmanis, 1990).

A permanent solution to environmental and social degradation is connected with a radical reconstitution of our social relations. To achieve such a goal rationality should be employed not only as an instrument to achieve our ends, but as an instrument to define our ends as well. Until now we have failed to achieve the latter, but old, organic societies show us the way to do so. Classical *techne* was 'conceived holistically, in the sense that we today describe an ecosystem. Skills, devices, and raw materials were inter-linked in varying degrees with the rational, ethical, and institutional ensemble that underpins a society... All were regarded as an integrated whole' (Bookchin 1982:223). Thus, 'the technical imagination of organic society... exhibited an enchanted synthesis of creative activity. No subject and object were placed in opposition to each other' (ibid. :231). It is not by accident that organic societies existed in an animistic world. There, nature was treated reciprocally *because* human relations were reciprocal. In the realm of production, 'both labour and the materials on which it worked were *coequally* creative, innovative, and most assuredly artistic (ibid. :233). In such a world nature is rational, not just an orderly system of soulless objects, and as such it is purposeful, conscious, intentional, subjective. In other words, it is as meaningful as humanity' (ibid. :273).

The sense of incompleteness that we feel will be overcome only if we acknowledge nature as rational, as of the same matrix as humanity, and thus approach her as a source of ethics. What does nature teach us? It teaches us the mechanism of evolution, 'some kind of directionality toward even greater differentiation of wholeness in so far as potentiality is realised in its full actuality' (Bookchin 1990:30). This Hegelian reading of nature provides Social Ecologists with *objective* criteria for a moral society: by whether it has fulfilled its potentialities for a free society. John Clark summarises this 'naturalist Hegelianism' as: 'Social ecology, a form of dialectical

naturalism... is dialectical because it sees all of reality as being a continual process of self-development and self-transformation, and because it interprets phenomena in terms of their mutual determination as inseparable parts of larger wholes. It is naturalism because it takes reality to be nature and sees all beings as natural beings. It takes as its ontological and epistemological starting point our perspective as nature knowing itself, of 'nature rendered self-conscious' (Clark, 1992:49).

The theoretical implication of such a thesis is that the 'domination of nature' and 'social domination' are not two separate entities. If this were the case, domination of nature would end *after* the termination of social domination. But dialectical naturalism, and thus Social Ecology, refuses to separate human society from nature because we *are* nature, and interaction amongst ourselves is interaction within nature. 'If and when human society is transformed by ecological consciousness and practice, humanity's interaction with the *rest* of nature will at the same time be transformed' (emphasis added, Clark, *ibid.*). An ecological society will be open, un-alienated, and creative. It will be a society characterised by pleasure rather than happiness. Happiness, the mere satisfaction of needs, could not be enough. In contrast, it is in pleasure, the satisfaction of desires, 'that humanity begins to gain its most sparkling glimpse of emancipation' (Bookchin 1982, in diZerega:1992). The possibility of pleasure is portrayed in the history of utopianism, from the Arcadian Myth, to ancient, medieval, and modern uprisings against the State, as well as in the writings of Fourier, Proudhon, Kropotkin, etc.

The rational and moral communities of the future, as the Social Ecologists visualise them, will be ordered both internally and externally along the principles of organic societies. Politically, the communities will be structured around general assemblies where the decisions would be made. The representatives of the assemblies would not have any kind of power other than implementing the decisions of the citizens, and transmitting their will to the confederation of the communities. The economy of the community would be based on the productive activities of its members who will freely choose

their occupation and their training. To avoid inequality (since some jobs hold more prestige than others) jobs would be readily rotated and a mechanism of redistribution of wealth would guarantee the provision of an irreducible minimum of material goods (Fotopoulos, 1993).

In all of this speculation, there seems to be one model to which social ecologists look for inspiration: the city-state of Athens. The general assembly (*ekklesia*) of the citizens will follow the same pattern, as will the debating and voting practices. Their vision of economic decentralisation and redistribution also follows the teachings of the Athenian State. As for culture, the aspiration is to reach the same heights of art, political and philosophical reflection, and passion with the human spirit and body.

Critique and Evaluation:

Social ecologists have offered us a fresh blueprint for survival, and to their credit, they have renewed the leftist discourse by providing it with ecological insights. Their argument is based on three major foundations: (1) the realisation that we are privileged members of the planet's ecology; (2) ecological awareness will reveal the benevolence of human nature and lead us to benevolent forms of 'self-organisation', the latter crystallised in (3) small communities with their ever-lasting virtues.

The first point is basically correct: we are members of the life network affecting the physical environment with our acts, and being affected by it in return. In addition, ethologists for some time now have pointed to the fact that humans are not so unique, and that behavioural patterns between ourselves and non-human species, as well as our genetic material compared to theirs are not so distant as it once appeared (Masters 1989). Furthermore, it would be no major problem to accept that indeed, we are privileged, due to our intellect, at least in some respects; in others, we are not (Rodman, 1977).

Nevertheless, the reading of these ethological and biological similarities is highly biased, and the reason lies in the fact that the social ecological ethology is based exclusively on the work of Peter Kropotkin.

Kropotkin wrote his book as a response to Huxley's *Struggle for Existence Manifesto* (c.1888), a radical defence of Social-Darwinism and of capitalist competition. Kropotkin, in a typical counter-conceptual mode, rejected any significance of intra-group competition (that is competition among members of the same species) arguing that the latter took place only among members of different species. Yet, this picture is not correct. Modern ethology argues with certainty that competition and co-operation are inter-linked in the ultimate goal of promoting the chances of the organism to remain alive, produce offspring, and of trying to keep these offspring alive for as long as they are infants (Masters, 1989).

Social ecologists recognise competition in their future ecological communities taking place only on the level of the general assembly, and then it is not a competition of persons, but of ideas. This is an idealistic world of coldly rational individuals with no passions, affinities, or personal ambitions. It is not a world of empathy and creativity, but a colourless world made of a series of computer like functions. Social ecologists are certain that competition is not a part of our nature, or at least of our *true* nature. But all the evidence, biological or sociological, points to the fact that competition, far from occurring only over material resources, takes place under any social arrangement for reasons of prestige, the yearn to control, and manipulation of others (Lukes, 1974). As we will see in the following chapters, no society escapes this 'law' of social organisation, even those 'primitive' ones that social ecologists appreciate so much - and certainly not the Athenian world.

For the moment, we will examine the virtues of small societies, the core of future civic life according to the vision of social ecologists. There is no doubt that small, organic communities where face-to-face interaction is the rule, every member of the community is familiar with the rest, and mutual aid is a common practice, hold virtuous qualities, that are indeed absent from modern, cosmopolitan life. Nevertheless, if someone spends time in such a community with all the mentioned virtues, let us say in a small village as the author did years ago, he or she would realise that those qualities are counter-

balanced by a strong sense of conformity reinforced by intense gossip, petty but long lasting feuds between kin, sectarianism, and suspiciousness that easily turns to hostility toward strangers. This is a bleak picture, and there is in reality a certain degree of intensity to these negative characteristics according to the productive practices of the community. It is likely to be more intense in farming communities rather than in hunting and gathering ones. But as social practices they are constant, emerging as the dark side of reciprocity (diZerega, *ibid.*).

Social ecologists argue that the negative side of reciprocity would be absent from an ecological community due to the new ethos and the economic 'equality of unequals'. But to implement such a community, its members ought, by definition, to conform to that ethos and accept the economic programme - a new kind of traditional conformity. If so, the community (due to the absence of 'guards') would have to keep an eye for possible rebels, and the way to do that is through gossip. Everything suggests that the evils of the pre-modern community will be repeated.

Social ecology suggests a new ideology and social values, but it fails to articulate an equivalent set of personal values and behavioural models. How will we behave toward each other? How would personal feuds be solved? It is a common historical experience that successful political movements that failed to articulate the micro aspects of values, including the equality-seeking French, Soviet, and Chinese revolutions, soon mutated into despotism. Social Ecology belongs in this category.

2. Deep Ecology

Deep Ecology originated in the work of the Norwegian philosopher and activist Arne Naess (1973). His contribution is the articulation of the distinction between 'shallow ecology', and 'deep ecology'. Shallow ecology, according to Naess, is centred to the fight against pollution and resource depletion, and its central objective is the protection of health and affluence of people in the developed countries (Naess, 1973:97). In contrast, Deep

Ecology aims at the redefinition of human existence by turning our perception from anthropocentric (human-centred) to ecocentric.

Anthropocentrism, the belief that humans are the centre of the universe, is intrinsically connected with the arrogance of the concept of 'superiority'. To be superior means to be better, and this is tested through competition, rivalry, aggressiveness, and domination. This kind of behaviour characterises not only the modern, capitalist world, but the whole of humanity for thousands of years, with a few exceptions such as the societies of Native North Americans. This intra-human aggressiveness is projected onto our relation to nature. Today, this anthropocentrism realises that its interests are hurt due to ecological destruction, and indeed, people who share such a world-view try to halt it. But this action is not honest; it aims to protect humans' interests rather than to achieve a true renewal of nature. If we really want to become benevolent to nature, and to discover our own true selves we have to change our values, abandon competition, and develop an ecocentric world-view.

Ecocentrism is composed of two components. Firstly, the recognition that humans are a 'part of the web of life' rather than 'on the top of life' - that we do not hold any particularly important position in creation. The second component is the realisation that human realisation and maturity is not self-developed but instead arises from our awareness of being in, and identifying with nature, and thus developing a solidarity with nature (being in a forest, becoming a part of the forest, understanding the forest, speaking for the forest).

Arne Naess reasons that an anthropocentric world-view promotes any kind of action to protect present and future generations of humans, while an ecocentric world-view promotes action which guarantees the future well-being of all living beings as well as ecosystems such as rivers or forests. Thus, the ethics of deep ecology suggest a way of life, which causes the least possible harm to the surroundings. Vital human needs permit some

interference, but the integrity, beauty, and stability of ecosystems are protected and maintained (Devall, 1992).

Deep ecologists have produced eight general statements about humans, nature and their interaction. These are viewed more as starting points for discussion than parts of a doctrine (Devall and Sessions, 1985). They are the following:

(1) The well-being and flourishing of human and non-human life on Earth have value in themselves. These values are independent of the usefulness of the non-human world for human purposes.

(2) Richness and diversity of life-forms contribute to the realisation of these values and are also values in themselves.

(3) Humans have no right to reduce this richness and diversity except to satisfy human needs.

(4) The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.

(5) Present human interference with the non-human world is excessive, and the situation is rapidly worsening.

(6) Policies must therefore be changed. The changes will affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.

(7) The ideological change is mainly that of appreciating life quality (inherently worthy situations) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.

(8) Those who subscribe to the forgoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes (Devall and Sessions, 1985; in Devall 1992, and Fox, 1990).

The shift from anthropocentrism to ecocentrism must take place on the level of the individual. Change of life-style including green consumerism, simplicity of habits, attachment to nature, and acceptance of bio-regionalism

(a community which includes humans and non-humans as equal partners) will be the point of departure. The reason why deep ecologists avoid macro-sociological arguments, or structural blue-prints for the reorganisation of society (as the rest of the theories we examine also do), is its experiential aspect in combination with the view that nature possesses value independently of our attitudes toward it (Fox, 1990). As diZerega puts it, 'no one who believes that nature has intrinsic value came to that conclusion through being persuaded by an argument... my arguments are after-the-fact' (diZerega, 1992:331).

The major problem this approach faces is the judgement of this intrinsic value. 'If we were not appreciating nature, by not being alive as a species, no value would exist'. Appreciation in other words is a subjective feeling, without a universal or solid foundation. A deep ecologist would answer such an aphorism by arguing that a proposition (in this instance concerning the intrinsic value of nature) could be proved not only positively, but also by default. In our case 'by default' would be for nature, or aspects of nature, *not* to have any instrumental value, as our western philosophy would presume. Take for example a sunset. It is beautiful, and there is nothing that can be done about it; we cannot change it, or influence it.

To the argument that it could be a part of our genetic heritage, diZerega points out that there are aspects of our behavioural repertoire that do not make sense if survival were the only mechanism and purpose of our evolution. Take, for example, someone gazing at the sunset: it is more likely to harm the individual prone to gazing since we are less aware of possible dangers during that time. It would be more likely that someone less receptive of the sunset's beauty would survive rather than someone who was mesmerised by it. When we are in such a condition, captivated by a sunset, we do not judge, we do not order, we do not examine - we have transcended these things. This is the way in which deep ecologists present the intrinsic value of nature.

The rejection of the western rational model of civilisation on the grounds that it is destructive follows suit. The West is responsible for turning nature into soulless 'things', of commodifying ecosystems, and ourselves. Christianity, and the doctrine of human superiority, Newtonian physics and its universal clock-like mechanism, and the Enlightenment and its rationalisation of human life and nature, are the major enemies of the planet's ecosystem, and of humans as an integrated part of nature. Answers, other than those of the main-stream Deep Ecology are sought in the minority philosophical traditions of the pre-Socratics, St. Francis, Spinoza, de Chardin, Thoreau, Leopold, Heidegger, and Gandhi, or in non-European life-styles, particularly those of India and pre-Colombian Northern America (Fox, 1990).

All of the above world-views point to the mystical connection of humans to nature in a more or less pantheistic perspective. Yet, we have to be careful to realise that this 'nature' is of a particular kind - wilderness: the forest, the mountain, the desert, the river. We find our true selves, we 'become' in the Heideggerian sense of the word, when we experience life in such places. Becoming is self-realisation, and 'the higher the Self-realisation attained by anyone, the broader and deeper the identification with others' (Naess; in Fox, 1990). This 'others' does not refer just to humans but to other species as well, for according to Spinoza's metaphysics 'we are united to the whole since there is ultimately only one *substance*; reality is a unity, which we may refer to as God or Nature' (Spinoza; in Fox, *ibid.*). Being is awareness, the ability to empathise with life as a whole, and through this process to become 'self-realised'. Self-awareness allows all entities the 'freedom to unfold in their own way unhindered by the various forms of human domination' (Fox, *ibid.*:116). Morality, under this reasoning, is expanded to include not just humans, but all the species and ecosystems and it is the morality of be-and-let-be, what deep ecologists otherwise call 'biocentric', or 'ecocentric egalitarianism'.

Today, humans live in an artificial world, which can sustain neither humanity's, nor nature's well being. Unless we return back to nature, become

a part of the web of life, not above the other species, not below them, but just another part of nature, living in small, self-consciously 'primitive' communities, and consuming as few resources as possible, life will never become 'self-realised'.

Critique and Evaluation:

If we had to pick up the major insight Deep Ecology provides western thought, this would certainly be the argument concerning the integrity and value of non-human life forms (in the broader sense) in disregard of humanity's standards and rules. This thesis broadens our perspective, enriches our experience, and in a sense provides us with an existential deliverance from a cold, dead universe. Nevertheless, it is exactly this point of Deep Ecology's strength which also constitutes its major weakness, defining strict, radical and unconditional life-styles antithetical not only to the western, but to most other world cultures as well. As Maness has blandly stated '...the problem goes deeper than the monolithic and destructive technologies of industrialism. Civilisation itself seems to be the problem' (1990:228). The radical changes some deep ecologists advocate, such as drastic population decrease, retreat of civilisation from large parts of the earth which are to be 'given back' to mixed human-animal communities, and the celebration of primitive life-styles, are simply unrealistic, condemning deep ecology to an ever-lasting marginal position in contemporary western thought and the practices of social movements.

Nevertheless, a school of thought cannot be judged merely by its degree of compatibility with the dominant social system. As previously with social ecology, we have to examine deep ecology's internal logic, its coherence, and the accuracy of its approach in general.

Firstly, is the extension of our notion of morality and aesthetics to include nature necessary? The dominant notion of morality deals with human relations. The same is true about aesthetics. Nature is not intrinsically beautiful or ugly, and certainly not good or evil. It is human products that

become subjects of such judgements and they constitute moral living and art (Karasmanis, 1990). Animals and plants are not good or bad - there are no standards to judge them, because we recognise that they do not possess 'free will' - an indisputable thesis, implicitly accepted even by deep ecologists. A river does not have free will either; will we call it 'evil' when it overflows and drowns people?

Consider altruism. Naess does not use the word, but his saying 'being is awareness, ability to *empathise* with life as a whole' (emphasis added), refers directly to the concept. Yet, altruism is much valued by humans because it is considered as a conscious decision for self-sacrifice. As far as altruistic behaviour is explained in terms of genetic material, as part of someone's 'hardware' (van den Berghe 1995), the value of the act is diminished. We do not expect a bear to be consciously altruistic, but we do expect humans to be so. The same holds true for our intervention in nature, the 'virgin' lands, as deep ecologists call them. By which standards is a man who logs in the forest evil, while a beaver who builds a dam is innocent? A man could be labelled evil as far as his actions hurt other humans directly, or indirectly, but beavers are never blamed for being evil individuals.

As Karasmanis (op.cit.) notices, during the last few years in the west we have experienced a growing movement for the protection of animals against human cruelty. Perhaps this is a sign that our moral standards are changing and nature eventually will be included in the sphere of human morality. But, is this necessary? Certainly, it is not. We could change our behaviour towards nature without extending our morality at the same time. Yet, deep ecologists would say that this is not enough, because if we do not change our moral standards radically, if we do not allow other forms of life equal rights for vital space, self-realisation will never occur. But then perhaps, many of us would decide that it is better not to reach this point.

A second point for debate is the 'holistic' approach deep ecologists advocate, which most of the time takes the form of a mystical orientation to achieve insight and wisdom. By default, this approach means the

abandonment of rationality and the celebration of the irrational, of the spontaneous. But a 'holistic' approach does not necessarily mean the abandonment of rationality. On the contrary, it could mean inter-disciplinary research to achieve multi-faceted knowledge, which includes as a first step, inductive research and knowledge. Holistic knowledge without rationality could lead to fanaticism, and the Deep Ecology movement is not innocent of this kind of behaviour (Maness, 1990).

A third point is the absence of any historical evaluation of the destruction different civilisations have inflicted on the planet, from which not even Native Americans can escape responsibility (Ponting 1991). In principle, everyone is equally responsible, which suggests that humans are qualitatively different from other species, intruders in the most intrinsic sense of the word.

Finally, an articulate and valid social ideology and values do not accompany the Deep Ecology's propositions of personal morality and behaviour change. In this respect it remind us of the Christian movement which after it became the dominant belief system in Europe found itself without a blue-print for governing, and was obliged to adopt and follow centralised political models, more or less incompatible with the message of universal brotherhood (Chadwick, 1993). Deep Ecology has not bothered to develop a blue-print for politics. It is quite impossible for such a movement and thought to achieve any kind of success other than among intellectuals and hikers.

3. Ecofeminism

The ecofeminist discourse is also concerned with how the destruction of nature is intrinsically linked to concepts of hierarchies and materialism, as well as practices of modern militarism, and capitalism. Nevertheless, Ecofeminism alters the substance of Social, and Deep Ecology arguments by suggesting that the source of the global environmental problem lies in the domineering and destructive values that men have imposed on both women

and nature, subjecting them to a common exploitation and deprivation.⁶ There are roughly six different interpretations provided by the ecofeminist camp on how this domination took place, and how it operates: the 'scientific', the 'religious', the 'evolutionary', the 'metaphoric', the 'psychological', and the 'economic'. The variety of opinions among them is considerable, asking for a detailed investigation. We will examine each interpretation in turn.

The scientific interpretation is based on the argument that the development of western science and capitalism destroyed the traditional link between civilisation and nature. The rupture took place in the 17th and 18th centuries under the aegis of Descartes, Bacon, and Newton and was adopted by the new capitalist class who conceptualised nature as dead matter, extraneous of ethical value and consideration (Gaard and Gruen, 1993). While the traditional, organic concept was that nature and humans were inter-linked and depended on each other, that humankind was the steward of a living nature, the new concept gave permission specifically to men to exploit natural habitats and ecosystems. Since nature was always connected to the 'feminine' (Merchant, 1980:1-41), this departure affected the concept of women, turning them into irrational and unpredictable creatures that were less human than the fully cultural and rational men. To add to this drama, the newly articulated 'sphere of production' taking place away from the household economy resulted in the gradual loss of the active economic role and the independence that middle and upper class women traditionally enjoyed. Women became not just irrational but also immature creatures that should be controlled and guided by men.

Without denying the role of the scientific and economic developments of the 17th century, feminists who advocate an interpretation based on religion argue that domination over nature and women started long before the modern times, and specifically with the emergence of male deities

⁶"The environmental issues are feminist because it is women and children that first suffer the consequence of injustice and environmental destruction' (Gaard and Gruen, 1993).

who replaced the female ones around the 5th millennium (Gimbutas, 1982). The major dissimilarity between female and male deities is related to how they perceive fertility: feminine religions associated with hunting and gathering recognised female fertility, crediting women and nature with a privileged status over men; on the other hand male, patriarchal religions associated more with agricultural practices and associated fertility with the seed that fertilises a passive nature thus acknowledging higher status to male contribution. Nature and women were placed in an inferior role with a male God above female nature, and males above females in human societies in general (Plant, 1989).

As Gaard and Gruen (1993) admit this change did not happen overnight. Nevertheless, by the time Jewish and Greek philosophy made their appearance the transition was well in place. In the Judeo-Christian tradition a hierarchical chain of being was put to work with Yahweh on the top, Adam his primary creation, Eve made of Adam's flesh, and the animals and plants given names, and thus defined, by Adam. When the couple left Paradise Yahweh ordered them to 'conquer' the Earth, and allocated the world of production to Adam and the world of reproduction to Eve; thus opening the door to nature's and female's exploitation (White, 1967). As for the Greek world, Zeus replaced Gaia, he and his brothers Pluto and Poseidon divided the Cosmos into spheres of influence, and the female deities of the Greek Dodecatheon (the twelve Olympian Gods and Goddesses) became Zeus' subjects. Males were responsible for the world, and according to the legend, males who did not perform well in this life were reborn in the next life as women.

This transformation went deeper than in modernity, since it portrays the difference between sexes as being rooted in the metaphysical essence of the world rather than in some unintended consequence of natural science and economic production that could change in the next step of social evolution. The religious transformation, still alive in the post-industrial world, means

that the masculine is the reflection of completeness, while the feminine reflects a hopelessly deficient existence.

A third trend locates the roots of patriarchy in times even more primeval than agriculture, that is in the locus of hunting and gathering human groups. According to anthropological studies (Fisher 1979; Haraway 1989; Collard and Contrucci 1988), an important evolutionary transformation took place two hundred thousand years ago when males 'adopted' behavioural traits to fit their hunting activities. The violent and competitive behaviour of the hunter toward his prey was the element that dissociated him from the rest of the natural world and yielded the sense of hierarchy (better-worse, superior-inferior). Women could not participate in this activity since they were weaker than men and usually engaged with their infants. In addition, women, due to their reproductive nature and preoccupation with how to sustain life are intrinsically antithetical to activities oriented to violence and death. Civilisation, as a matter of fact is oriented toward violence and death, and this is the reason why women and nature were perceived as inferior to men who created civilisation (Gaard and Gruen, op.cit.).

Men, under this reasoning, are hopelessly violent and prone to destructive and domineering practices. It is not significant any more, as with the previous theories, how we conceptualise the world due to our material conditioning and cultural tradition - subject to conscious or unintentional change; what matters is our biological heritage. The message is that men have to be stripped of their power and put under surveillance as a natural enemy of the biosphere. Perhaps in the future men's biological baggage will change and they will find their lost link with nature again. Until then, women should take control of social organisation and activities.

The ecofeminists who use **metaphoric** interpretations to explain the rupture between civilisation and nature examine the way patriarchal civilisation describes the world by distinguishing between the 'I' and the 'other' (Gaard and Gruen, (ibid.)). Here, the significant element in shaping the identity of the world is not economic, scientific, or evolutionary, but purely

cognitive, namely Straussian binary oppositions. These dyadisms enclose value-added meanings, with the 'I', or 'us' always holding a superior value vis-à-vis the 'other'. The 'I'-other' opposition adopts different forms such as human-animal, civilised-primitive, heterosexual-homosexual, or any other symbolically significant category (Gaard and Gruen, 1993; Gray, 1981; Griffin, 1978). Since the privileged 'I' is always masculine, the underprivileged Other becomes by definition feminine. Nature and women share a common status as the Other and they are always treated as inferior. This relationship can be identified by the fact that, whenever the strong, masculine 'I' wants to dominate someone, his first action is to 'feminise', 'naturalise', and 'animalise' it. This interrelationship becomes apparent when men refer to the 'rape of the wild', 'mother nature', and 'virgin lands', or when they identify women as 'pussy-cat', 'bitch', 'chick', etc. Females are animalised, and nature feminised. They are not seen as themselves, but as something other, inferior and thus rightfully subject to domination (Gaard and Gruen, *ibid.*).

The psychological interpretation is based on the psychoanalytical work of Gilligan (1982) and Chodorow (1978). Chodorow has shown that the male psyche differs considerably from the female one in the way men identify themselves. The male identity highlights his differences from the other, tends to develop an identity of 'uniqueness', refuses to connect himself to others, and shows an affinity for abstraction. In contrast, women tend to be contextual, connected to others, with a tendency to focus on the concrete. This affinity for abstraction is further elaborated in Gilligan's work which deals with the value systems the two sexes prefer to use. Males are characterised by a morality based on rights; women by a morality based on obligations. According to Gilligan the identity of men is shaped by the emotional crisis which takes place as they move away from their mother's tenderness as young adolescents, while young women avoid such a 'tragic' experience due to the resemblance their new role as mothers has with that of their own mothers. This sense of continuity creates a feeling of inwardness

and attachment to the social condition rather than a feeling of discontinuity which would evolve in a highly abstract moral system of behavioural norms - in other words, a system unrelated to the immediate experience. When men make moral decisions, Gilligan continues, they tend to deal with those who are affected by their decisions as remote entities, and so make those decisions according to abstract rules and 'laws'. Women on the other hand tend to examine the consequences of their decisions, to weigh the specific factors involved in each case and to make their decisions accordingly. Each case is unique as far as the conditions that created it are also unique. Gilligan argues that while both kinds of reasoning are available to the sexes, the different choices that are finally preferred are determined by which line individuals find more attractive, on which line they 'focus'.

The fact that men obey the abstract rather than to the concrete is a sign (according to these ecofeminists) of the apparent dissociation between culture and nature, between men's and women's worlds. Men are unable to recognise, or choose to ignore how abstract rules affect particular people, and in the case of the environment, how rules affect particular ecosystems. If economic growth is 'good' in the abstract, then it is good for everyone, no matter whether traditional ways of life or wild life are destroyed. Women, on the other hand, are able, due to their different psychological experience, to recognise the particular and to make decisions according to individual situations. Women could never destroy the world for precisely this reason. Men have done so.

Yet, this does not hold true for all ecofeminists. For the trend of ecofeminism that is inspired by Marxist theories of **underdevelopment** not all men are equally responsible for the destruction of nature and the ensuing dichotomy between culture and nature. Most of the traditional societies, these theorists argue, were following a sustainable level of subsistence, allowing space for other forms of life, and respecting the diversity of the local ecosystems (Rodney, 1981). Instead, it was the white man and his colonial expansion that brought destruction to the land and poverty to the people. The

native people were enslaved, and a 'systematic underdevelopment' took place (Shiva, 1988). Those colonialists destroyed the structure of native societies, employed men as cheap labour and women as serving personnel, and built a heavy industry infrastructure which depleted natural resources, and with the aid of industrial technology brought high levels of pollution. Monocultivation destroyed the soil, and 'where once there was enough food for everyone, today you find poverty and a huge deficit to colonial lenders (Gaard and Gruen, op.cit.).

Critique and Evaluation:

Ecofeminism is the amalgam of feminism and environmentalism. It is not the intention of the present essay to evaluate the first component in depth. In general, there is no doubt that women until recently had largely been denied access to the public sphere of social life. Nevertheless, ecofeminists' purpose is not to introduce women to public and private life as autonomous and full participants, but to re-examine the categories of culture and gender through the prism of the interaction of the genders with nature.

Common to all of the above arguments is the alleged connection between women and nature and the certainty that women and nature have to confront western culture, that women have the monopoly over sensitivity and care for children, and they possess the unique ability to appreciate the interconnection between humans and nature (Biehl, 1993). But what kind of connection is this? Is it objectively real (due to a biological resemblance), or is it culturally produced by men to downgrade women?

Closer to the first assumption lay the evolutionary, the psychological, and the religion trends: women's biology is closer to nature than men's. The reason lies in the reproductive abilities and activities of women. As Collard reasons '...nothing connects the human species with nature as deeply as the reproductive system of the woman that allows her to share with the rest of the living world the experience of creation... for this women are real children of nature' (Collard and Contrucci, 1988). This approach could follow two

logical courses. The first argues that women can produce civilisation albeit radically different from the civilisation produced by men. This is the argument followed by Gimbutas (1982) who developed the theory of 'Old Europe', a matriarchal, pacifist, civilisation which was destroyed by patriarchal hordes at 3,5000 BC. Alternatively, it could follow the theory of Simon de Beauvoir (1988), who argued that men produced culture and civilisation because they were unable to reproduce as women could.

The ecofeminists of this inclination clearly and without hesitation illustrate their sexism. The important issue that faces us here is not if sexism is an acceptable theoretical position, but if it is a historically accurate one; clearly it is not. Gimbutas' theory while warmly accepted by feminists, has been strongly criticised among her fellow archaeologists. Thus, Gimbutas has been accused of a totally intuitive interpretation of murals (e.g., spirals and vortices were interpreted as symbols of life and death), biased use of data (e.g., omission of fortifications), and unacceptable oversimplifications such as the presumably Arcadian character of Old Europe (Meskell, 1995; in Roder-Staub 1998). There is more than enough evidence, and it will be presented as the essay unfolds, that women are subject to historical circumstances and social structures as much as men are and they can be equally benevolent or destructive to the environment (Jackson, 1993). Indeed, the feminine principle holds a distinct role in human symbolism, yet it functions next to the masculine principle as part of a single bipolarity. There is no doubt that in the long history of our species there is a constant symbolic projection of human features onto the natural world. Yet, this symbolic projection is not exhausted by the symbolic resemblance between nature and women. On the contrary, symbolism incorporates masculine (e.g., 'stag', 'old man river'), as well as neutral gender images (in the western tradition awls symbolise wisdom, snakes dishonesty, etc). Furthermore, there is no evidence that women's psychology is alien to men's psychology. If it were, we would have experienced a profound transformation of attitudes towards the physical environment due to women's recent ascent to western power centres. Lastly,

there is no evidence that this projection determines the fate of the environment or women. If this were the case then the current success of the feminist movement in the west would have triggered a benign treatment of nature, which clearly is not the case. But even if their thesis were correct, it would justify the social practices which tend to keep women on the margins; as de Beauvoir argues '...this new femininity upgrades the traditional female values... constricting women to their traditional role' (in Biehl, 1993).

Closer to 'cultural ecofeminism' lie the scientific and the metaphoric trends. The theorists located here claim that the connection of women with nature is a male product. Yet, their arguments are extremely paradoxical and confusing since they never mention what was, is, or will be the 'real' (if they could define it) nature of women in contrast to the distorted one in which they are located today. Instead, whenever they refer to the 'female' they use metaphors, which traditionally were invented and used by men. Thus, Merchant praises the past times where nature was portrayed as a fecund woman and humans were living in 'organic' communities and gives us the impression that it would be better for those past metaphors to come back to life. Griffin finds something problematic in male psyche -not in the female one, but still praises the fact that women are 'closer' to nature.

In between these positions and unable to make up their minds lie the religious and the economic trends. While they both accept some kind of historicity even though fragmented, they are unable to define culture, nature, or even women's 'real' nature. Everything is questioned in a fog of subjectivity and personal preferences. Thus women continue to be nicer than men because they 'nurture the world' (Mellor, 1993), or because of 'the biological differences on aggression' (Delphy, 1984). Following such a course, they continually fall into the familiar trap of benevolent "women's values" and 'benign communities' which were destroyed by farmers or the white man.

The central, and stubbornly all-present problem with cultural ecofeminism in all its variations is the question of woman's true nature,

which every writer assumes but equally universally fails to define clearly. How can we explain such a basic failure? There must be some kind of ideal type of true woman that the theories could use as a guide. For as long as they do not, the whole discussion is in danger of falling into a never-ending discourse of objectless protest. I am afraid that the reason for the failure to meet such a basic request lies in the intrinsic paradox the cultural camp faces in general: Women are nicer (i.e., closer to nature) than men, and men are responsible for this.

4. Eco-socialism

There are two reasons that should make socialism and ecology uneasy friends: One is theoretical, the other is historical. In theory, socialism declared through the writings of Marx and the political programs of the Internationals, that it would realise the formal demands of capitalism for a society based on equality, liberty and fraternity (in other words, the promise of Enlightenment). It also promised the realisation of material abundance for everyone through the rationalisation and the evolution of productive forces with no account of the environment or nature's economy. These commitments place Marxian socialism both in the anthropocentric as well as in the materialistic camp, which, by definition, constitute the declared enemies of ecology. An ecological reading of *Das Capital* could perceive it as a promise for an equal partnership in the domination of nature (Hayward, 1994).

On the other hand, Marxian socialism as a practice, as it has been experienced in the Eastern Bloc, N. Korea and China, has been proven a disaster both as a program to implement socialist promises and for the environment as well. In these cases a civil society experienced a firm subordination to the Party and its bureaucratic apparatus, social life was deformed by state supervision, material abundance turned into a dream, and ecosystems experienced phenomenal levels of depletion and degradation. All these have turned Marxian socialism into not just a failed experiment but an

unethical project. Apparently, any affinity between socialism and ecology would be surprising.

Nevertheless, a consistent characteristic of theory is its ability for modification, and this is evident in the case of Marxism vis-à-vis ecology, or as O'Connor frames it 'if the traditional conception of socialism is flawed, it might be that the way we think about socialism is also flawed' (1992a:125). The 'flaw' in our case is that whenever traditional Marxists analyse social labour they exclude both culture and nature, focusing on the economic aspect of it, i.e., the division of labour. Thus, they ignore the fact that productive forces are social and that particular cultural norms and values of co-operation cannot be excluded. They also ignore the fact that productive forces are natural, that they take place in particular ecological settings where the nature of particular materials (location, quality, range, span) impose their terms on labour (e.g., mining, fishery, or logging encourage dissimilar forms of labour process) restricting man-as-creator. The reason for such apparent mistakes was Marx's intention to prove that capitalism is not a 'natural' but a social practice determined by the social relationships found in a given society. Focusing on the claim that material life is socially organised, and arguing that for this reason the social relationships of production determine consciousness, he neglected the fact that natural relationships (the interaction between humanity and nature) also determine consciousness.

This is the argument of Marxists with an ecological perspective. Still, these 'corrections' cannot stand secure in the Marxist theory as long as the latter is (a) preoccupied with economic determination of human consciousness (and thus culture), and (b) ignores the specific ability of nature to shape culture and economic activities altogether. As long as economic production is confined to forces and relations, the ecological element cannot be protected. To achieve this objective, eco-Marxists developed a third factor, namely *conditions* of production (or, 'social reproductive conditions'), a term referring to 'external physical conditions', 'labour-power', and 'urban infrastructure and space', which includes the adequacy of the ecosystem, the

physical and social well-being of the workers, and the social infrastructure and space facilities (O'Connor, 1992b).

These 'conditions of production' do not serve solely as a defensive mechanism to 'upgrade' Marxism to avoid being placed in the museum of ideas. Instead, it has been proven a fertile concept capable of altering traditional Marxism in significant ways, *and* of offering explanations of ecological destruction that are different (and more fruitful they would add) from the other ecological trends. In his critique of capitalism and the inevitable evolution of society to more humane forms, Marx focused on the contradictions between relations and forces of production. He stressed that the forces of production under capitalism do not allow the further evolution of production relations. Eco-socialists argue that this analysis is not enough; that we cannot understand the state of the capitalist world-economy nor is it possible to change capitalism itself, without engaging the cultural and ecological conditions that maintain capitalism in being. Simply enough, traditional Marxism forgot that the material and human resources used by capitalism are finite entities, and that their recruitment involves a necessary cost which by definition is correlated to the rate of their exploitation. The fact that they are finite resources implies an inevitable supply scarcity which in periods of crisis could lead to *under*-production. This realisation has a serious implication for Marxist theory proper: Capitalism faces not just one, but two contradictions: over-production, due to productive forces and under-production, due to scarcity of resources. The trade-off between them works for the benefit of capitalism. Over-production is matched by under-production postponing the final capitalist crisis.

After W.W.II capitalism maintained its dynamism by externalising the social and ecological cost of its production. The 70s crisis brought a slow rate of growth, and consequentially capitalist enterprises found it increasingly difficult to defend or restore profits by expanding their activities into new markets. The only way to secure their existence was by cutting spending, thus intensifying the exploitation of labour and of material resources.

According to eco-socialists, this intensification had two side-effects. Firstly, the apparent global environmental crisis, and secondly, the emergence of the New Social Movements. The second side-effect needs further clarification: The conditions of production are not produced capitalistically (as Karl Polanyi has indicated), though they are bought and sold as commodities in the capitalist markets. In addition, the market mechanisms cannot decide the quantity, quality, or the time and place where these conditions will be utilised. If there is any institution responsible for the quality and quantity of the conditions of production, this is the State and its mechanisms, in other words, the modern welfare State. As time goes by, and the supply of the conditions of production to the markets become more and more problematic, more state agencies are created and more domains of the civil society come under the supervision of the State in order to regulate and distribute them. The State mediates between production conditions and the market, thus it is the State that becomes the target of dissatisfied citizens in situations where the quality of their life and their environment is affected. The New Social Movements reflect this dissatisfaction, but also perform another, more important function: they accelerate the process of bringing capitalism to its final crisis (O'Connor, 1993).

The message of Eco-socialism is that poverty, violence, urban degradation, and unemployment go hand to hand with toxification of ecosystems, the greenhouse effect, and the withering away of rain-forests and wildlife. The ecological, economic, and cultural crises we face today have one source, capitalism, and since capitalism is international, the solution has to be international too, a global movement with the fusion of the labour, peasant, and Green movements of the North and South (O'Connor, 1992b).

Critique and Evaluation:

The historical analysis of O'Connor, who seems to be the major figure in this trend and the motivating factor behind the journal of eco-socialism *Capitalism, Nature, Socialism*, holds certain theoretical advantages

vis-à-vis traditional Marxism and other ecological trends, a fact that will keep the theory alive in the future in spite the minimal social support it enjoys today. One reason is that Marxism proper faces serious problems in incorporating environmental issues and the new social movements in its analysis as far as it remains loyal to traditional economic explanations and depends upon an increasingly conformist labour movement. It looks almost inevitable that sooner or later traditional Marxism will be forced to incorporate the novel third factor of production and in this respect be greatly influenced by Eco-socialism. A second reason is that Eco-socialism alone among the other ecological theories takes account of historical developments. It stresses the role of productive activities, and distinguishes between personal beliefs and structural developments. In other words, it asserts the futility of personal wishes as long as economic structures remain trapped in capitalist production.

Nevertheless, it is one thing to argue that market economy is the primary villain of the ecological crisis, and another to claim that there is something intrinsically evil about the market mechanism itself that inevitably will lead it to its termination. Eco-socialism claims the latter, but in order to prove it the following propositions would have to be valid:

- 1) Capitalist crises lead to acceleration of ecological destruction.
- 2) Capitalism is inevitably and intrinsically linked to ecological destruction.
- 3) Capitalism is *solely* responsible for the ecological degradation.

None of these propositions constitutes a clear case. And while only an essay by itself would be adequate to fully analyse the grounds of refutation, for our purposes a brief critique will be sufficient. Firstly, the connection between capitalist crises and conditions of production and exploitation is far from being clear. Capitalism has experienced a few serious crises in the past (1870s, 1930s, 1970s) without any observable accumulative increase of human, natural, and cultural exploitation vis-à-vis the periods of economic growth. As a matter of fact it is more suggestive to look at state reactions to economic crisis rather than at market mechanisms alone. For example, it was

the American government and not the bourgeoisie that decided to start wilderness 'development' to deal with the 1930s crisis, while in Germany, which at that time was facing the same problem of massive unemployment, no such project materialised with natural resources remaining intact. In any case only the 1970s crisis could be associated with extensive environmental exploitation, but still, only in a loose way. And this because exploitation of the environment had started much earlier, during the Old Stone Age (Yearly, 1991; McNeill, 1991; Rees, 1988; Carson, 1965).

Secondly, it is not clear if capitalism leads inevitably to environmental destruction. The Green enterprises that have flourished recently indicate that market mechanisms are at least capable of incorporating conservation and recycling practices with no particular difficulty, which acts in a sense as a balancing mechanism to polluting, heavy industries. There is no doubt that finite resources constitute a barrier to the markets which appropriate finite resources (mining, petrochemicals, market-oriented farming etc.), but technology becomes increasingly skilful in adapting new, long-life, materials into industrial use (ceramics, plastics, glass, sunlight, hybrid crops). Even more important is the fact that capitalism does not depend on non-renewable resources to survive as a system. Its focus on telecommunications, information processing systems, and generally its expansion on the tertiary sector of the economy is able to compensate for any short-term loss of particular enterprises. Energy sources are not as easily altered, yet, the newly discovered Siberian gas and Central Asian oil deposits, and new wind, solar, and chemical technologies, push the possibility of an 'end to growth' into a distant future.

However, the most serious problem Eco-socialism faces is the question whether market economy is the sole cause of ecological destruction. If it is not, and if other systems of production and distribution also cause such problems, then the cause could be found among common properties, a fact that would render the theory more or less invalid. There is no doubt that Eco-socialists recognise the destructive presence of the Socialist countries and

they also acknowledge cases of pre-capitalist ecological deterioration. Yet, they explain these cases away by arguing that the Socialist Bloc was never socialist but an authoritarian system which oppressed civil society, and that ecological destruction before the era of capitalism was, in their terminology, 'incidental', while today it is 'systematic' (Hayward, 1994).

In fact the major factors in common between the Western and Eastern system were industrialism and the state. Taking into account the fact that ecological destruction is much more devastating in the East than in the West, and that in the East the centralised state dominated civil society, we come to a preliminary conclusion that political pressure external to the State, and flexible economic structures can modify environmental damage caused by industrial activities, and sometimes even alter ecological degradation. This suggests that the less authoritarian the state, and the stronger the civil society, the more secure the environment, leading us to suspect a centralised, and industrialised state as the cause of the problem. Adding to this rough equation the fact that systematic environmental alteration and destruction took place before the rise of any state (Ponting, 1992), we are left with a puzzle which refuses to surrender to any simple explanation.

Conclusions

We examined four political theories which respectively stress hierarchies, speciesism, gender-sex, and economic exploitation as the roots of the problem. Each one of them brings forward aspects of the equation that the rest tend to ignore, or even to refute: Social Ecology the uniqueness of our species that places on us the burden of responsibility for the well-being of the planet as a whole; Deep Ecology, the intrinsic value of ecosystems; Eco-feminism, the fact that men and the political organisation they instituted are primarily responsible for the bleak state of the planet; Eco-socialism, the central role production activities play in depleting non-renewable resources. Nevertheless, much of the explanatory value of those insights is lost by being located in theories built on weak foundations.

Their weakness is embedded in three issues: (a) The elision of symbolic appropriation with economic exploitation of the physical environment; (b) the reliance on monist explanations; and (c) the equating of social hierarchies with environmental exploitation. On the first issue, they collapse Cosmic Orders into economic practices. On the second issue, the identified cause of the problem is oppression in different forms: oppression of labourers, oppression of women, oppression of non-humans, oppression of humans. On the third, and most important, issue, oppression of one social group by another is seen as automatically resulting in the 'oppression' of nature.

These are assumptions that should not be taken at face-value since the presumptions they are based on are far from being self-evident. Thus, the term 'oppression', so central in all arguments, is used out of any social, psychological or environmental context. Indeed, there is hardly any social activity, either among human or non-human groups, that does not include some manifestation of influence, coercion, authority or conformity. It may be visible, but it may also be covert, or even latent (Lukes 1974), especially among small communities where pressure for social conformity is strong. Which of these arrangements we will call 'oppressive' and which we will call 'necessary arrangements for co-operation', is a value judgement, a political statement far from being objective or universally accepted. To use Lukes' (op.cit.) typology, all four schools of thought condemn visible oppression but they envisage a society based on absolute, internalised conformity, that is absolute latent oppression (a case where visible oppression is unnecessary). This is why Eco-feminism despises the 'hero' (Hartsock 1989) - the hero escapes conformity to perform an exceptional act; this is also why Eco-socialism, Deep Ecology, and Social Ecology do not mention any mechanisms to defend the future eco-societies - it is unnecessary when everyone conforms to political eco-values.⁷

⁷In some cases this authoritarianism takes ludicrous forms. For example, Gaard and Gruen in their synopsis of ecofeminist discourse on vegetarianism

Furthermore, the connection of social oppression to oppression of nature is problematic. Firstly, oppression is a concept describing social relations of power, and remains meaningful as long as the reversal of these relations is a possibility. The interaction between humans and nature constitutes a relation between cognisant agents and incognisant objects. The use of 'oppression' in this case is utterly meaningless. Secondly, even if we accept for a moment the ecologists' notion of oppression, political oppression in human history does not always correspond to levels of environmental exploitation. An extreme case is the politics of Nazi Germany: The Third Reich performed domineering, oppressive practices on a wide scale and in a celebratory way, but it also prohibited laboratory experiments on animals (Jews, homosexuals, and gypsies replaced animals in experiments as of lesser value), and initiated a large-scale ecological program for the protection of nature (Bramwell, 1991). Hinduism advances a Cosmic Order of deified nature while via the caste system it promotes social inequality and domination of the Brahmins and other castes. Neither the Yanomamo nor the !Kung tribes harm the environment, but the first is highly militaristic and patriarchal while the second is pacifist and egalitarian.

Furthermore, all four theories focus on the distributive aspect of social organisation, that is, the ability of a social actor within a social relationship to carry out his or her own will despite resistance. They fail to recognise that social relationship entails a second, collective, aspect of power, and that, even when hierarchical, a social organisation enhances joint power over third parties and nature. The collective aspect of power suggests that the social construction of nature is affected not just by the few but by the many, not just by the social elites who control distribution, but also by the wider social groups who constitute the whole of social organisation. However, it is historically confirmed that social arrangements do involve specific views of

write: 'Recently, ecofeminists [started to] support a moral vegetarianism, which nevertheless will be subjective, and while it will recognize the

nature, and they do reflect political authority of specific social groups over others. Perhaps not in the naive fashion eco-theorists want to believe, but nevertheless they do. What we still have to find is if there is any pattern between political authority, Cosmic Order (particularly the degree of nature's divine character), and the degree of nature's exploitation. With these questions in mind we embark on our quest.

injustice connected to industrial cattle-breeding, it will *allow the moral justification of the traditional diet of the native*" (emphasis added) (ibid.:39).

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CHAPTER 2

The Stone Age

The 'Primitives' Question

The pre-historic world of hunters and gatherers, the 'primitive' or primordial world of our species, is of unique importance and interest to sociology as well as to this study for two reasons. Firstly, it is the period when long-lasting behavioural patterns, social as well as environmental, first made their appearance. The second reason is related to the persisting and often celebrated story of the 'noble savage'. Since Rousseau introduced it as a political alternative, in contrast to Hobbes' idea of primitive life being 'nasty, brutish, and short' (a description of the Western Dark Ages rather than of the Stone Age), a number of western thinkers have perceived primitivism as a state of 'harmony' in the social and the ecological realms. The absence of private property, the predominance of egalitarianism and group values, the ritualistic and bloodless attitudes toward warfare, and the apparent political equality between sexes and individuals are attractive cultural properties - an alternative to the evils of our hierarchical, patriarchal, and technological civilisation.

Today this sympathy is reinforced by the ecologically sound practices of some, but not all, remaining tribes of hunters and gatherers (Desveaux, 1995). They suggest that whenever naturalist belief systems merge with communal property, egalitarianism and respect for the natural surroundings prosper (Morgan, in Krader 1979; Wall, 1994). Furthermore, in contrast to popular 19th century beliefs, this ecological and social egalitarianism does not seem to derive from, or to depend upon, harshness (Chagnon, 1992; Lee, 1984). Instead, the deep knowledge these bands have about their local ecosystems allows them an easy and, as Sahlins calls it, an 'affluent' life

based on the demand, rather than the supply, of goods (Sahlins, 1972). In other words, affluence is achieved not by producing more, but by wanting less. The message behind these arguments is that hunters and gatherers live a good life because they live *in* nature rather than above and against nature as the modern world does. No doubt, primitivism's advocates do not overlook their material constraints, but still the impression remains that we are wrong and they were/are right.

The essential thesis that a foraging society lives a natural life is reinforced by the hunters and gatherers' practices of population control in agreement with the current teachings of biology. Specifically, biology teaches us that nature in its ecological manifestations is flexible and dynamic with species in constant flux both in numbers and location. Nevertheless, there is an iron rule: the higher an animal is in the food chain, the rarer it will be. The rule is based on the assumption that every step up the food chain is further removed from photosynthesisers and thus it is less energy efficient (Ponting, 1992). Humans are usually considered to be at the top of the chain, and the most energy demanding of all species. Our numbers should be, ecologically speaking, quite small. The numbers of hunters and gatherers satisfied this principle.

Does this mean that the fatal mistake occurred when humanity (or a part of it) escaped this 'law'? Does it mean that the original sin, to use Rousseau's phrasing, took place the moment the gatherer and the hunter, for any possible reason, became a farmer and started the Neolithic 'revolution'? The admirers of the Palaeolithic era would probably give an affirmative answer. Goldsmith (1988) says exactly this when he questions the modern social institutions of the family, economy and health while he praises the golden Palaeolithic society. Marx (1848; 1954), influenced by the work of the anthropologist Lewis Morgan looked for a second coming of that 'primitive communism' without its material constraints; if they could have read Sahlins, they would have rethought the problem of 'constraints' altogether. In the 1940s Horkheimer and Adorno (1972) used primitive mythology to enrich the

otherwise poor Marxian metaphysics. Gimbutas (1991) as an eco-feminist recollects the Palaeolithic society as egalitarian, pacifist, matriarchal, and deeply 'ecological'. We must also mention Levis Strauss' (1966) admiration for the social structures of the South American horticultural bands, or even the later empathy of the western world for the life and struggle of North American Indians and for the Yanomamo tribe's struggle against the ruthlessness of modernity. The argument advanced here is clear: primitive, Palaeolithic bands were and still are considered as a 'paradise lost' by many. The ancient ones had achieved a social and ecological harmony, a harmony which we, their descendants, desperately need.

Yet, the Palaeolithic condition could hardly be called harmonious. In the following pages it will be demonstrated that harmony between prehistoric humans and their environment was from the very beginning precarious - both in biological and symbolic terms. It will also be shown that where social harmony meant the absence of friction and discrimination among the members of a community, our Stone Age ancestors discriminated against other significant groups - as much as their small numbers and consequently low complexity subsistence economy and social organisation allowed. There is no doubt that hard evidence is meager since only scattered and confusing material remnants of their lives can ever be found. Nevertheless, they do point to elementary forms of binary oppositions and to the desire for domination.

The investigation of the Palaeolithic period will start with two simple variables as axiomatically given: human biology, and the small number of humans located on an apparently vast planet. The questions follow: What kind of world-view, what kind of Cosmic Order, could be developed? What kind of political organisation? What kind of economy? Lastly, what could be the relationship between economy, politics, and perception of the environment? Apparently, all three subject matters were interconnected to some degree since they are part of the same social milieu. Yet, which one of them controls the rest? Our investigation will show that none of them had the

power to control the rest. Instead, the key point of the relationship was the small human population itself.

1. The Palaeolithic Period

For most of our existence on the planet we were indeed a small community. Until 5000 BC the human population numbered approximately five to ten million, which counts for two million years, or 99.6% of the life time of the species. For most of this time humans lived as wanderers, as gatherers, hunters or scavengers. This kind of life enabled the species to spread around the continents, and to learn to survive not only in favorable areas but also under the harsh conditions of the desert, the steppe, the tundra, and the pole. Cultural adaptation meant that the first human communities had developed a variety of diverse social practices and technologies. Yet, we became distinct as one species, and different from all other species by a series of unique biological and technological features that *homo erectus* had already mastered in limited, yet, certain ways: Uprightness, tools, and the domestication of fire.

Uprightness (3.5 million years ago) combined with frontal vision invites a spatial organisation in a structure prohibited to other mammals: in four horizontal directions radiating from an up-down vertical axis. The experience of feeling oneself 'thrown' into the middle of an apparently limitless and threatening extension, the vertigo of disorientation, invited methods of orientation and space organisation around a center, the original one being the human body itself. Distributions of territories, agglomerations, habitations and their cosmological symbolism derive from this principle (Eliade, 1987:3; Mithen, 1996:235).

Use of tools and domestication of fire came after bipedalism, almost 1.5 million years ago (Fagan, 1993:81). The first tools served as extensions of our body. Cutting stones, the earliest-known worked stones, or the later bow and arrow tips do not resemble any part of mammal anatomy, as for example does the long stick used by chimps as an extension of their fingers. These

tools represented both manipulation of the natural environment (e.g. stone, animal, gravity), and innovation. The effort embedded in the task signified an all-present creativity that humans had to employ vis-à-vis the behaviour of animals. Secondly, the domestication of fire (c. 700,000 BC), i.e., its production, preservation, and transportation. Fire did not only allow night sociability, and movement of humans into harsh climates (Clark and Harris, 1985; in Simmons, 1993), but also had its symbolic value which was first appreciated at around 40,000 BC. Fire could perform peculiar, yet vital tasks for the survival of the band, such as keeping predators away, altering substances by cooking, as well as altering the appearance of the natural surroundings. It became the spatial focus of the social group, perhaps even the first sign of the Culture vs. Wild perceptual dichotomy which will be further developed in the Upper Palaeolithic period (Goudsblom, 1992).

These abilities were qualitatively different from the ones other species possessed in that they were specific expressions of 'general intelligence' which could be informed by trial and error, and which could make generalisations based on experience. Yet, there was something peculiar to these abilities; they were compartmentalised (Mithen, 1996). The reason is that this general intelligence was slow in acquiring and processing new knowledge. Further acquisition of knowledge needed specialised intelligences, or specialised programs. Social intelligence was one of the new programs needed to understand social hierarchies, as well as to empathise with members of the social group. Social intelligence made the group more cohesive (emotional bonds) and effective (organisational efficiency). The second program was that of natural history. It facilitated expansion of our observation of the surroundings, and effective orientation. Natural history intelligence made hunting and gathering more efficient, while it allowed our ancestors to explore and inhabit a vast variety of geographical settings. The third specialised program was technical intelligence. It enabled humanoids to fashion tools and use them in complex ways. To these three intelligences was added linguistic intelligence (2 million years ago). Peer communication did

not have to remain visual and tactile any more. Mithen reasons that it was linguistic intelligence that probably forced all four separated programs to merge together at around 40,000 BC and created modern humans. This new integrated intelligence precipitated the ability of the individual and the group to manipulate social and physical environments and enlarged the material and symbolic gap between humans and non-humans. Yet, the specific form this distinction took was a product of social organisation and its efforts to adapt to specific environmental conditions.

1.a. The Social Organisation

There is general agreement that the first fully human communities of hunters and gatherers (40,000 BC) that will be the subject of this chapter, were confined to small, egalitarian, mobile groups of about 250-300 people. As mentioned before, unlike the popular belief in the harshness of conditions, current anthropological studies have shown that successful bands enjoyed a long-term nutritionally adequate diet, and an easy life with most of their time devoted to leisure and social activities rather than to economic ones, accompanied by a certain freedom with respect to the kind and span of social attachments. Making tools and providing shelter required low levels of labor investment and effort. Furthermore, material resources (wood, stone, food) were found 'outside' the socially controlled environment (where some kind of individual or kin power differentiation might occur). Internally, any serious dispute could end with an 'exit' of the aggrieved side from the group (Woodburn, 1982). The 'immediate' return of the labor investment (killing an animal, gathering fruits) reinforced the ease of the exit strategy. Cooperation was based on choice and on the ability of the individuals to provide for themselves. This loose formation meant an egalitarian and loose social structure. What kind of world-view did this social organisation invite?

1.b. The Mechanism of Building a Cosmic Order

In *sui generis* social groups, such as the Palaeolithic ones, all kinds of world-view are potentially possible as long as they satisfy one condition: to help the group stay alive. Since social animals are able to stay alive only by cooperation, the world-view must help establish social cohesion. Thus, we could start with a simple model of natural selection: Our ancestors possessed four elementary drives (fighting, fleeing, food, sex), sociability-empathy, and high cognitive fluidity which incorporates Mithen's five specialised intelligences (Masters, 1982). The drives are intrinsically individualistic, thus their value for group survival is extremely limited. Sociability and empathy promote cooperation, but cooperation for what? Cognition is crucial to channel action toward the environment and, consequently, to give rise to a cultural and symbolic domain facilitating both drives and empathy. But cognition, under the authority of *homo sapiens sapiens*' cognitive fluidity, became plastic. Yet, we could ask, plastic enough to become what? Apart from fallible sensory observation situated in the natural history module, there is no secure way of knowing the external environment. Now we can elaborate on Mithen's scheme by introducing a sociology of symbolism based upon Ingold's (1986) analysis of what he termed *affordances, or sets of possibilities*. Affordance allows the choice of what the function of an object will be. Will the stone be used as a landmark or as a weapon? Will the tree possess a protecting spirit or will it be recognised as fire-wood? The raw materials, have to be organised in accordance with a scheme, economic and spiritual, of our own device. Sociologists who have studied how environment is 'invented' among small groups today can inform us of how possibilities turn to a set of social realities (Greider and Garkovich, 1994). The key mechanism is hidden in both brain structure and social empathy. The integration of social and natural history intelligence (50,000 - 30,000 BC) created a propensity to develop 'social relationships' with plants and animals, structurally similar to those developed by people. Yet, it was social interaction and empathy which gave specific shape to this uniquely human ability for boundless imagination. Empathy allows negotiation through

symbolic interaction. It is reasonable to believe that the same mechanism was in use thirty thousand years ago. The external environment was negotiated among members of the tribe who shared a common living, common hopes and fears, and then re-negotiated by other bands with equal power of conviction to arrive at a common world-view shared by distinct cultures such as Mousterian, Auringnagian, Gravettian, etc.

Here we can detect how social structures specify what biological propensities allow for flexible boundaries, absence of formal political hierarchy and minimum specialisation could not allow knowledge to turn into an individual's cultural prerogative or political asset. Absence of social caging and lack of writing guaranteed the inability of collective representation to move beyond the oral-vernacular level. The world-view could not be systematised and transferred as written 'law', 'dogma', or 'theory'. Mary Douglas mentions that a Boushong person developed a cosmological scheme understood by no one else but himself (1988:90). This is exactly the point: cognitive representation had to be simple and socially effective; or else, it remained private and useless.

1.c. The Formation of a World-View

If empathic negotiation among equally powerful band-members were the mechanism of creating a Palaeolithic world-view, a social life based on movement, low levels of specialisation, contextual experience, observational learning, and probably, conformity, shaped a particular world-view. Hallpike (1979) has called it 'preoperational', firmly situated in the concrete, the immediate, and the tangible, void of reflection, abstraction, and objectivity. The primitive humans were 'conceptual realists' ascribing objectivity to their dreams, and believing that the name of a thing is attached to the thing itself (Hallpike, 1979:31). Douglas (1988), following similar lines of reasoning called it, in a rather misleading way, 'pre-Copernican', meaning pre-scientific. A first condition of the Palaeolithic Cosmic Order is that the world evolved around the subjective condition of its observer. *The person could not*

differentiate the object from the subject, the observer from the observed. In this case the external environment is not definite. Causality is recognised as forces of humans, animals, vegetables and minerals acting upon, and affecting other beings. Furthermore, *'self' and 'agent' did not coincide*. An individual could be made of multiple personalities, or of agents other than himself. Spirits, bad fortune, or other amoral agents could easily take the responsibility for what had occurred in his life. Lastly, *intelligence was attributable to any constituent*. This could be a tree, an accident, a disease, or a limp. Any action toward it would involve the same process as communicating with another human being. In other words, symbolic communication was unitary.

The last characteristic was that the 'universe', as it was revealed in cognitive constituents could discern and *make moral judgments* concerning social affairs. Yet the universe did not have a clear moral law. It is not that there was no 'Good Book', but that there was no potential one to be written. The universe itself was amoral; it had authority because it possessed forces that affected human life. Humans could affect parts of the universe as well. Then the humans acted upon the universe to reverse its effect. In this manner hunters and gatherers regarded animals as similar to humans. Eliade, summarising ethnographic studies, notes: 'They believe that a man can change into an animal and vice versa; that the souls of the dead can enter animals; finally, that mysterious relations exist between a certain person and a certain animal... As for the supernatural beings documented in the religions of hunting peoples, we find that... (they) protect both the game and the hunters; spirits of the bush; and spirits of the different species of animals' (Eliade, 1978:7).

On the other hand, a social life based on free movement and loose attachments abhors *nomos*, a dogmatic, definite, and authoritarian approach to the order and meaning of the world. The profane and the sacred could not be clearly distinct in this case. In a wandering hunting and gathering society the order and meaning of the world necessarily became diffused with the

physical environment. The symbolic world of hunters and gatherers, the social and natural domains as we would call them today, was mythopoeic, it included stories of creatures not clearly separated from either the natural world or human beings. Some religions merged a human clan, natural phenomena like rocks and birds, and mythical ancestral persons in totemic classification. Since social and natural surroundings were symbolically a single domain, 'religious' action was participation in the world, not action upon it.

Spatially, the world was perceived as a homogenous, undifferentiated maze, void of vertical and horizontal order, with no preference for a right-angled frame of composition (Laing and Laing, 1993). In Palaeolithic cave art the subjects do not have to take a vertical posture with their feet pointing to the lower side. Instead they are depicted as flowing into space free from gravity or any landscape features (see figures in Ucko and Rosenfeld, 1967). Following causality and space, time was also blurred. Hunting and oral communication facilitates a life based on 'tactics' rather than on 'strategy'. It depends on short term decisions based on the movement of the herd on which the band depends for its existence. Such conditions did not allow an elaborated distinction of past, present and future or the qualities that follow from this distinction. Primitive time was specialised and bound-up with particular events and thus highly heterogeneous. Acknowledging the intermediate links in a chain of events was very difficult, even unnecessary. Concrete operations lacked the sense of simultaneity and obstructed the coordination of duration and succession.⁸

1.d. Technology and Environmental Degradation

Such a diffusion between the human and non-human world could invite the suggestion that the Palaeolithic world-view was ecocentric, morally and symbolically diffused around space rather than focused on the social

⁸ For a series of examples of heterogeneous and contextual perception of time see Hallpike, 1979:280-340.

domain. Yet, certain archaeological and ethnographic evidence suggests that humans treated nature in opportunistic terms, and that pre-scientific thought did not prevent the utilitarian appropriation of resources.

The subject-matters that could inform us about the way humans treated the physical environment are technology, and the environmental consequences of human action as a whole. Firstly, technology. The passage from Middle (100,000 - 33,000 BC) to the Upper Palaeolithic times (c. 33,000 - 10,000 BC), corresponds to the merging of the four compartmentalised intelligences to one supra-intelligence (Mithen, op. cit.), the demise of *homo sapiens neanderthalensis* and the appearance of *homo sapiens sapiens*. This transformation of the human brain corresponds to archaeological evidence which speaks of rapid expansion and elaboration of previously known technological skills, sites of 'central place foraging' with a wide radius of territorial appropriation, increased levels of social cooperation, and a subsistence economy relying heavily on hunting rather than on gathering (Fagan, 1995; Foley, 1991). The precipitation of cultural evolution is intensified as we move closer to the end of the last Ice-Age (10,000 BC). The people who lived in central and eastern Europe had constructed the bow and arrow, and developed specialised weapons and tools. In just one of their camps, 1,000 skeletons of mammoths were discovered. The cultural evolution in Europe continued later on with the Solutrean (c. 23,000 BC), and Magdalenian cultures (c. 15,000 BC) with a further specialisation of tools and weapons. The common aspect of these 'advanced' Palaeolithic cultures was their dynamic character as it is reflected on the level of their technological innovations; the discovered tools from this era are much more complex and specialised than their predecessors. Instead of one of a kind, now there is a series of axes, spears, hooks, and arrows, made of bone, ivory, horn, wood, or flint to be used on different occasions and for different food species. The construction of the spear-thrower and the perfection of the bow were the most significant of these developments. In functional terms they meant more successful hunting. Advanced stone technology and population growth

combined with global warming (c. 10,000 BC) put serious pressure on the environment. Though the significance of each factor is disputed, the end-result was the vast alteration of the global ecosystem (Simmons, 1993).

The most impressive alteration is the massive extinction of large mammals between 12,000 - 10,000 BC, also known as 'Pleistocene overkill' (Martin, 1987). It corresponds with the end of the Ice-Age and the colonisation of northern Europe and the Americas by invading bands of hunters and gatherers. The fact that the extinction of most of the lost large mammals (200 genera of herbivores with an adult weight of >50 kg) was rapid in places recently colonised by humans, suggests that human incursions did not allow the herbivores any chance of natural adaptation (Simmons, 1993:3-9). As far as gathering is concerned, the key development in this new post-glacial era was to facilitate the growth of edible crops and their fertilisation. Fire, flint axes and ring barking were used to promote some plants over others, thus disturbing the food-chain of large herbivores, and the 'naturalness' of the ecosystem in general on a global scale. Forest clearing also occurred in many isolated places to facilitate the hunt for specific species (such as the red deer in Britain). We cannot ignore some positive interference such as irrigation to improve the productivity of the land. Yet, this was the exception rather than the rule. The relatively high mobility of the band did not allow heavy investment of a local character.⁹ Nevertheless, the most serious impact occurred on the animal population. A good reason for this is that '...it is much easier to damage this part of an ecosystem because the numbers are smaller and populations, particularly of larger animals or carnivores at the top of the food chain, usually take a long time to recover from any over-hunting. Although there is some evidence of attempts by groups not to over-hunt, there is far more of uncontrolled hunting and even the extinction of species' (Ponting, 1991:33).

⁹As soon as the land lost its strength, the band moved to adjacent territory. Clark and Piggot state that a camp was used for 50 years at most, to be re-used 400-500 years later.

Tannahill, speculating on the amount of meat necessary to keep an average band of forty people alive writes, '...at least two pounds of boneless meat per adult per day must have been needed, and by that reckoning a mature modern bull - weighing something like three-quarters of a ton on the hoof - would have supplied enough to feed the group for about ten days. His wild ancestor, very much smaller and bonier, may have provided enough for only three or four days' (Tannahill, 1973:8). If we consider the small chances a hunter, or a group of hunters had to be successful (at this point Sahlins regains his credibility!) then it is not surprising how seriously the hunting was taken. Indeed, most of the depicted animals in caves are ruminants, from mammoths and deer, to wild goats. What are absent in almost all cases are plants; gathering, as among modern hunters and gatherers, was played down.

This behaviour could hardly be called 'ecocentric', as we understand it today, since no particular respect or consideration was shown for other species. Nor could it be called anthropocentric, since no clear concept of humanity or its supreme destiny could exist in such a social environment. As Simmons (1993) argues, respect for nature was opportunistic. Desveaux (1995) reasons that this opportunism was deeply embedded in the domain of social organisation of predation and reciprocity. At times of scarcity the bands were careful not to deplete the few available resources, only to forget their sensitivities in times of abundance. The world, for mobile people, would have certainly appeared limitless, with a virtually unlimited supply of food - much the same attitude industrialised nations employed even in the 1950s with respect to available natural resources or the earth's ability to absorb industrial waste.

Coming back to the character of the Palaeolithic world-view, it is reasonable to speculate that a mobile band who entered a new environment (as in the case of post-glacial colonisation of N. Europe and the Americas) were informed by their own past experience. Furthermore, their symbolic knowledge plausibly proceeded from the microcosm to the macrocosm, from the social situation to the delineation of the whole environment. It would be

better to call this world-view person-centric, or, to follow the accustomed usage of Greek words, 'prosopo-centric'. The members of the band recognised themselves as being made of, and surrounded by personalities - that is, entities with a character, specific psychological features and patterns of behaviour.

1.e. The Cultural Manipulation of Natural Resources and Surroundings

We have seen how bipedalism, advanced brain structure, the domestication of fire, technology, and speech, were *de facto* distinctions between the species *homo* and the rest of the living organisms. The brain enlargement and the changes in the mouth cavity that follows our evolution from *homo erectus* to *homo sapiens neanderthalensis*, and changes in brain structures which lead to *homo sapiens sapiens* increased our ability for communication, consciousness and representation. When the specialised intelligences finally merged, abstraction and imagination became the rulers of the human brain. Thus, an object, such as a cutting tool, could also potentially stand as a symbol for its function, such as 'killing', 'strength', and so on. Since some functions were perceived as more valuable than others (evidence of which is the elaboration, or the stylistic and aesthetic emphasis on a selected few of them, such as axes and cutting stones), objects could objectify the desire for social prestige (Hodder, 1990; Laing and Laing, 1993).

Though Upper Stone Age language was too crude, too contextual to abstract symbols from their material or situational context, the act of shaping material, such as a stone, into a cultural form was probably enough to create an embryonic, contextual, binary opposition. While this opposition itself cannot be easily disputed, its meaning and use is a matter of speculation. Hodder (1990) for example argues that prestige derived from a manipulation of the wild (e.g., hearths in caves, burial sites, elaborate hunting points), brought forward a *sui generis* cultural order against the wild, against the natural domain. But his suggestion for a Culture vs. Wilderness polemic

brought forward a *sui generis* cultural order against the wild, against the natural domain. But his suggestion for a Culture vs. Wilderness polemic interaction is not plausible in a prosopocentrically unified and contextual world incapable of uttering 'culture' or 'nature'.

Yet, if we bypass this programmatic part of the argument, we could acknowledge the social significance of the cultural manipulation of natural objects. The order created by manipulation could indeed be used socially and functionally to remove fears and satisfy needs, and it could also be used to create respect for domination and social hierarchies (Sieber, 1966). Indeed, there is evidence that with the rise of *homo sapiens sapiens* 40,000 years ago, social competition among bands, clans, and families for prestige and higher status via gift exchange, redistribution of group-resources, luxury goods, and acquisition of wives was intensified (Bender, 1978). As long as authority was vernacular, the control of natural objects and their symbolism, whatever this might be, could become a playground where various social elites could compete for, and manifest their equally contextual and immediate, uncertain supremacy.

This cultural space became the available playground for the development of symbolic bipolarity between the sexes. There is evidence (Foley, 1991) that during the Upper Palaeolithic (hereinafter Palaeolithic, 40,000 - 10,000 BC) extensive dependency upon large mammal resources (e.g., mammoth) invited intensive male cooperation and facilitated male provisioning. On the other hand, the abundance of meat that hunters brought back from their expeditions allowed them to provide for females and youngsters, and thus reduce the energetic demands of reproduction for the benefit of mothers and infants. Male provisioning increased paternal investment and husbandry, leading to patrilinearity and exclusive male privileges.¹⁰

¹⁰ In a less plausible scenario, if the camp were sedentary and male hunting or warfare exhibitions were long, matrilinearity could be the dominant social organisation (offspring and property being under the authority of the sister)

(increasingly important in the presence of diverse gender behaviour), marriage and death, intensified and polarised the biological differences of the sexes through gender-specific rituals (Helskog, 1995). Again, elements of the natural environment played a central role in the drama of symbolic social order. Initiation into adulthood usually included a journey into the wild, and identification of the initiate with the forces of wilderness. Natural elements such as the sun and the moon, and a series of animals were symbolically manipulated (like the Lascaux horse-bison bipolarity) and quite possibly politically loaded. The location of parietal Palaeolithic art provides us with an example: While part of it was exposed to everyone by being located close to the opening of the caves, and thus near habitation, another part is far down in the most remote, darkest parts of the caves and in no way associated with habitation. Such location by definition prohibits access but to a few, privileged, ones (Ucko and Rosenfeld, 1967:112). The way this privilege was used is unknown. Yet, we can suggest that the energy consumed to culturally shape and access this spot would not have a trivial purpose.

Durkheim (1915), and Rappaport (1971) more recently, have suggested that human organisation is impossible without the presence of ritualistic sacred propositions since they alone can guarantee sincere communication, undisputed organisation, and emotional bondage. Rituals sanctified social interaction, but they also sanctified the pursuit of prestige in the form of feasting and gift exchange which multiplied during the Upper Pleistocene. We end up with the sanctification of the environment (natural and social) in a sexually divided, yet not very cohesive and not very systematic, world-view, informed by implicit knowledge, immediate experience, and restricted cognitive abilities.

1.f. Harmony and Tension

As a general statement, prosopocentrism facilitated respect for the natural environment, even the wilderness. Yet, this respect was situated in the Cosmic Order scheme of things, and it was a matter of symbolism. Symbolic

fraternisation with nature did not necessarily translate into a harmonic relation with the natural environment. Mithen offers an example of the relationship between an Inuit hunter and a polar bear. 'This animal is thought of as a fellow kinsman, but it is also killed and eaten with delight. This combination of a deep respect for the animals they hunt, often expressed in terms of social relationships, and the lack of any qualms about actually killing them appears to be universal among hunter-gatherers' (op. cit.: 216). He proceeds to explain this apparent contradictory behaviour in terms of brain structure: Two different cognitive domains, namely natural history (seeking food), and social intelligence (social bonds), operate independently from one another to produce two contradictory attitudes towards the same subject matter. We can explain the same kind of ancient hunter-gatherers' behaviour employing sociological concepts. While the social organisation/space nexus was organised around natural objects and 'supernatural' forces (e.g., bears and spirits) to produce a moral Cosmic Order, the vernacular economic culture of hunters and gatherers was, and still is, opportunistically driven by the all-pervasive struggle for survival and affected by population pressures and ecological fragility. We do know that hunters and gatherers possessed a great deal of knowledge about their environment, particularly if they settled in a specific area for a long period of time (Fagan, 1995:155-173). They knew the best kind of location for hunting, how to approach the animals, where to look for vegetables, shells, birds' nests, etc. Due to brain development, *homo sapiens sapiens* also developed a series of tools which made them much more successful hunters than their predecessors. Yet, climatic changes and low but steady population pressure kept the bands mobile. This would have facilitated opportunism rather than long term conservation strategies. Furthermore, the limits of oral communication, and the inability to systematise knowledge beyond interpersonal and immediate communication meant a static attitude toward the environment inapplicable to a novel climatic/ecological situation. We find evidence for such an attitude on two occasions: Firstly, when the band specialised in hunting one type of animal until its numerical exhaustion.

Secondly, when hunters entered virgin lands ecological degradation followed. Lack of knowledge about specific ecological conditions usually led to ecological disasters.

There were two chances for hunters and gatherers to live 'in harmony' with the environment. Firstly, when a band lived in a place for a long period of time, it was possible to develop a systematic knowledge of the environment which could lead to 'conservation practices' (Simmons, 1993:57). Secondly, certain places did not allow their exploitation, such as coastal, tropical, polar, tundra, or desert areas. Coastal areas became the first spots to be inhabited by sedentary hunter and gatherer bands. Such marginal places are still the locations where hunting and gathering remains alive today (e.g., Siberia, central Australia, the Amazon). Permanence invited proto-ecological awareness. Yet, while permanence-in-harshness was a stable condition, permanence-in-abundance was not. Abundance of resources led to higher than usual population pressure, and 'environmental circumscription' (Carneiro, 1970). Concentration of resources in specific areas led to new developments in technology and complex forms of organisation which eventually unsettled the balance of the ecosystem. The balance was kept in the extreme environments. The Australian Aborigines for example, show full knowledge of their natural environment. Their seasonal movement into vast geographical areas follows the life cycle of the plants and animals they depend on. Their hunting and gathering skills are unsurpassed. Yet, this was achieved with an immense loss of fauna which included most of the large ruminants (Clark and Piggot, 1980:130). Some of them can be seen painted on interiors of caves - their current inhabitants are unable to identify them. After an over-kill, fauna and flora move closer to less 'expensive' forms of life (closer to photosynthesisers) and an ecological balance is easier to maintain. To put it as an aphorism, hunters and gatherers can wipe out the mammoths but not the lizards. This is one of the major reasons to be cautious when we use modern hunters and gatherers as a role model to reflect on people who lived 15,000 years ago. True as it is that many current bands of

hunters and gatherers were forced by farmers to move into marginal lands, others live in a stabilised environment because they have already depleted the depletable. They live with the rest. In these cases structures and action appear as 'natural' because they have become so environmentally constrained. Thus, what appears to be a choice of living in harmony with nature is the result of either extreme environmental restrictions or of wrong environmental practices.

Back in Palaeolithic times social stability was maintained by splitting the group, female infanticide, and rituals. The first two kept the numbers low, the latter guaranteed the group cohesion on which group cooperation and the survival of the band depended. Nevertheless, in the long run, population-control practices and ritualistic camaraderie failed to solve the basic problems of population pressure and insecurity about food. These cultural forms might seem to be stable for a long period of time, but the hunters and gatherers were gaining time spreading into still virgin lands. Homeostasis could not be achieved; the human-environment relation, in the long term, was not harmonic. A better way to describe it is 'opportunistically stable'. The development of technology and knowledge of the environment had one common denominator: to increase the control of food resources. Since the Palaeolithic people were inventive, the limits of their ability to extract and appropriate resources must be ecological.

We have arrived at some tentative conclusions. Empathic and vocal negotiation among individuals with equal power, elementary (i.e., family or kin) social organisation, and group mobility created a prosopocentric world-view. It allowed for opportunistic economic tactics and facilitated the symbolic blending of the natural and social domains. This allowed the entrance of natural elements into the cultural domain and vice versa. Natural elements were culturally appropriated and turned into symbols of prestige and status. Competition over these natural and, after their transformation, cultural resources constituted the arena where proto-elites could strive for social control. Political competition over meaning and symbolic representation of

social order became more certain and bounded with sedentism and agriculture. This started in some areas during the 10th millennium BC. It became a general practice four to six millennia later, during the Neolithic era.

2. The Mesolithic Transformation

The Ice Age ended about 10,000 BC bringing major changes in climate, and vegetation, the expansion of forests and contraction of tundra in sub-polar areas, and the spread of grass, e.g., wild cereals, farther south. With the extinction of large mammal species, due to a combination of human action and environmental change, hunter-gatherer societies developed highly localised adaptations to new and less predictable environmental conditions. Between the 10th and 3rd millennia BC, more complex forms of social organisation gradually arose with permanent or semi-permanent settlements flourishing across the world, from Mesopotamia and the Yellow river to Mesoamerica (Fagan, 1993). In those settlements people started to experiment with systematic cultivation of the land and to attach animals to their camps while they still depended on hunting and gathering. This period in human adaptation is called the Mesolithic, heralding the passage from nomadism to sedentism.

Sedentary hunter-gatherer societies were another aspect of the long history of *homo sapiens*' efforts to adapt to novel ecological realities. They were developed as a response to two factors. Firstly, a certain locality now offered an abundance and predictability of resources due to the recent retreat of the steppes in the north and forests in the south. Secondly, nomadic movement was limited by adjacent bands (social circumscription) and/or geographical obstacles (environmental circumscription). Environmental circumscription was not a novel geological development. Instead, it was the predictability of *new* resources, especially of cereals, nuts, and stationary game (e.g., forest deer), and *social* circumscription that were new phenomena. By 15,000 years ago the world's population was approaching 10

predictability of *new* resources, especially of cereals, nuts, and stationary game (e.g., forest deer), and *social* circumscription that were new phenomena. By 15,000 years ago the world's population was approaching 10 million people, the maximum number that could be supported as hunters and gatherers.

Abundance and diversity of *stationary* resources allowed a more elaborate and sophisticated environmental knowledge and appropriation of resources. This in turn allowed an increase of population numbers until the resources-population balance reached a critical point of food shortage. Social re-organisation was a logical step to deal with the problem. Indeed, in these sedentary hunter-gatherer settlements there is evidence of intensification of food movement and technological innovation that could only be mastered by few individuals (e.g., canoe building, navigation). But it also meant a parallel 'intensification' in the social domain, reflected in increased exchange of goods and materials with adjacent bands and long-distance cultures, and clear signs of increased social complexity and differentiation (Fagan, 1995:167). These social phenomena became more prominent, stable, and universal as fully sedentary bands started cultivating the land.

3. The Neolithic Period

3.a. Theories of Agriculture

Between the eighth and the fourth millennium BC many of the hunter-gatherer communities had become farmers and pastoralists. The reason for such a cultural shift is not yet entirely understood. The most widely accepted group of models, which are ecological in nature, points to different combinations of climatic, psychological, economic and social factors which attached people to some territories even before they thought of a sedentary life (Fagan, op. cit.:228-230). Some resources were seen as attractive. People started using them in increasingly systematic and habitual ways until both the resources and themselves became domesticated. Such could be the case of domestication of wild cereals or the herding of animals. The mellowing of the climate after 12,000 BC facilitated the spread and maturation of fast-growing plants. This opened new opportunities for humans, but also created a lot of hard work. For example, the nature of wild grain did not allow any time wasting. It had to be gathered as soon as it reached maturity or it would be lost in less than a week. This problem had far reaching consequences. People had to be on the spot at the right time. Semi-permanent camps became the rule of appropriation. Threshing and winnowing also kept people busy and immobile for some weeks after the harvest. More time was spent moving some of the produce to the home base leaving the rest in some temporary cache (Tannahill, 1973 :21). This process was satisfactory as long as the area was not crowded. But population growth brought some changes. The most significant was that the bands began to move their dwellings to the food and stay there for fear of losing the fertile land and its produce to other bands.

The transformation was slow. In the beginning it was just another economic activity, probably accomplished by the women of the band while the men dealt with hunting. The nutritional poverty of the first harvests did not encourage more effort or attention. Yet, humans altered the genetic make-

up of the cereals by selective planting. Only when harvesting provided an adequate source of food did agriculture become the central economic activity.

The domestication of animals came either simultaneously or soon after. Humans were aware of animals' potential for domestication for a long time. The 'germ' was already there - the idea that humans could manipulate animals for their own benefit. This potential was now exploited with large scale selective reproduction of docile animals. Animals were first domesticated for meat; later on they were used for wool, traction, milk, etc (Sherratt, 1997). For the people who implemented domestication, it meant a very close and sharp observation of the life cycle of the herds, and a very acute, scientific approach to the quality of the animals. Deliberate selective reproduction indicates that those people understood that phenotypic and genotypical aspects of the individual animal are determined by heredity. Apparently, they also understood that they could control the process. Wild goats and sheep were the first animals to be domesticated, about 8500 BC (Fagan, 1995:237).

3.b. Social Fixity and Demographic Changes

A mixed economy did more than address the late Palaeolithic problem of food. As a process, it was characterised by what Woodburn (1982) calls 'delayed return of the investment'. Management of labor, protection of investment, and the nature of the tools of production of the Neolithic economy meant territorial and social *fixity* (Mann, 1986). Increasing commitment to the land, normative solidarity, and immobile and relatively expensive tools, fixed people territorially and socially to a group of households committed to the land. We could call it a 'side effect' since it was not planned, but its effects changed the social structure of the Palaeolithic society with far reaching consequences. The first of these consequences was a population boom. The second was a new Cosmic Order. The third was the firm establishment of social inequality.

Agriculture and food production did not give a straight and final solution to the 'short and brutish' life of the people, nor did they solve the problem of surplus population. Instead, due to the low nutritional quality of cereals, agriculture decreased the standard of living, and created new demographic problems, such as epidemics and famine. Yet, predictability of resources and some surplus production brought population growth. A central cause was that children moved from being burdens to being economic and social assets. Infant mortality rates were high, but large families became the rule, or at least the target. Thus, while a Middle Palaeolithic band numbered roughly fifty members and an Upper Palaeolithic band two to three hundred, horticultural communities counted 2,000 to 3,000 inhabitants, and in a few cases such as Jericho or the Iroquois settlements even more (Lenski, 1966; Ucko and Rosenfeld, 1967).

3.c. Sedentism, Agriculture, and the New Cosmic Order

We can identify two major factors shaping the Neolithic world-view: Sedentism and agriculture. The former altered perception of space; the latter affected perception of time, identity, and the supernatural.

Sedentary living slowly but surely created a perceptual distinction between the familiar landscape and what lay beyond it. On the one hand stood the domesticated, cultural space of the house, village, and cultivated fields. On the other hand stood the distant, strange and untamed. Such a visual bipolarity simplified cognition by dividing the flexible Palaeolithic world-view into fixed spatial zones. The cultural appropriation of the natural and social environment, symbolically significant to power elites, was now extended. Ancestors were buried in the domesticated zone, spirits of vegetation were invited to protect property, stone monuments stood as landmarks of a clan's domination in space, domesticated animals and plants were mystically associated with farmers (Fagan, 1993).

Immobility restricted the scope of the experienced world as a whole, while it magnified the significance of the home. Quite literally, the village

became the 'center of the world', and the opening in the roof of the house the 'Gate of the Sky' (Eliade, 1978:43). Neolithic habitats, which will be examined in the following pages, became the reflection of social structure and the arena of social conflicts. If not the center of the world, they were indeed the center of social imagination.

While sedentism established a sharp spatial division with the celebration of domesticated space, farming itself altered perception of time, identity, and the supernatural. By becoming producers of their own food, humans had to make their plans several months before they were to be implemented. They had to perform a series of complex activities in view of a distant and uncertain harvest. And they had to make sense of, to symbolically appropriate, 'agriculture' - the phenomenon they had unintentionally initiated and that was increasingly becoming the focus of their social life. Economic necessity forced the Neolithic people to systematise their techniques for calculating time by developing precise solar and lunar calendars in contrast to Palaeolithic times (Hallpike, 1979). The need to make sense of the new reality forced them to reconsider their own being in relation to the world. It was not a 'scientific', but an identity exploration. As Eliade stresses, '...religious creativity was stimulated, not *by the empirical phenomenon of agriculture*, but *by the mystery of birth, death, and rebirth* identified in the rhythm of vegetation' (ibid.: 41).

In this existential quest people associated seasons, vegetation, and their own life-cycle and sex divisions in order to arrive at a mystical solidarity between themselves and domesticated vegetation. In principle, the Neolithic motif remained similar to the Palaeolithic one: The world is engaged in the all-embracing drama of life and death, growth and decay. Nevertheless, and quite understandably, attention now shifted from animals to the world of vegetation. This shift triggered an existential crisis.

Farmers in Europe and the Near East reasoned that the food plant was not a 'gift', as the animal, but a product of an abnormal and dramatic event. While the hunter may have attributed the killing to another, to a 'stranger' for

fear of the dead animal's revenge, the cultivator associated his peaceful product with a murder. The mysterious transformation of substance (dead as seeds but alive as plants) was explained as part of a divine drama where earth, or soil, was consolidated as a female and divine entity, Mother Goddess, in need of fertilisation by male Gods.¹¹ The 'marriage' of the previously parthenogenic Goddess with a male God reflected a preoccupation with the myths of creation (the making of the world) and resurrection (the annual rebirth of life). The former was preferred by pastoralists, while resurrection preoccupied the agriculturists. A mixed economy, or the invasion of nomad tribes to agricultural areas lead to friction and the eventual merger of the two myths into one fertility myth.¹²

The position of male and female deities in the fertility myth is somehow confused (Tannahill, 1973). Aggressive pastoralists, obsessed with selective reproduction and the virility of the stag preferred male deities, creators, Gods that interfere at will and change things. Farmers depended on stable seasons and the repetition of an annual process. Interference in the weather pattern meant a bad harvest, even famine. The fertility of the soil on the other hand (a feminine metaphor) was of greater importance than the quality of the seed (a masculine metaphor). All these facilitated a preference for female deities.

¹¹Other forms of vegetation myths, connected more to the cultivation of cereals than vegetables, feature a primordial theft. Gods guard them in the sky, a hero steals them and returns to earth and bestows them on humans. Nevertheless, in most cases domesticated vegetation (vegetable or cereal) was related to sexual union, death, and resurrection.

¹²The problematic relationship of pastoral and agricultural Gods, as well as their later merging is manifested in the Book of Genesis and in general, in the Old Testament (Wellhausen, 1878; Hupfeld, 1853; in Kordatos, 1973). There, the pastoral Gods (Eloheem) curse Cain, a farmer, for killing Abel, a herder. Immediately after this, the agricultural God (Yahweh) came to the aid of Cain. He put a sign onto his forehead, and threatened with death anyone who would hurt him with death (compare Genesis, D9-10 to Genesis, D14-15).

The focus on few natural substances and sedentism simplified the cosmic forces. The plethora of personal, *ad hoc* demons, became less important than the few, but all-important, demons of domesticated vegetation. These creatures inhabited cereals, tubers, and fruit trees. Eating them was similar to eating the substance of the divinity. Yet, their existence, their *élan-vital* could not be taken for granted. While the substance of the earth was divine, it needed the aid of humans to sustain itself. The universe was conceived as a living organism that must be renewed periodically by repetition of the primordial cosmogony. Repetition invited circular time, and circular time invited particular, mystical, notions of knowledge which could bind together the three levels of the new cosmic religion, i.e., the heavens, the earth, and the underworld.

The relative simplification of the supernatural, as well as the ordering of time, space, and economic action, allowed a first distinction between subject and object. Identification of key 'personalities' in a caging social environment allowed the formation of cults with gods as masters and people as subjects. The new social hierarchies combined with the sharp division of subject and object, and the new ancestral religious beliefs, facilitated a hierarchical communication system between gods and humans, which took the form of formalised worship and sacrifice. The immediate and diffused Palaeolithic supernatural became remote, confined, and schematic. The consequences are summarised by Bellah (1970): 'The main difference is that instead of a relatively passive identification in an all-encompassing ritual action, the sacrifice process... permits the human communicants a greater element of intentionality and entails more uncertainty relative to the divine response'.

These were largely cognitive transformations resulting from a changing landscape, intense and changed forms of social interaction, and productive activities. Collective representation under these new perceptual conditions became more social and ordered. Economic, political and military cooperation on the one hand, and the continuation of ritualistic feasting and

gift competition among clans on the other, strengthened the idea of the group as *the* point of reference. Gods lived in proximity to the community, and their habitat became the village or the town. They became caged, bounded to the village's common land, protectors of the tribe, and facilitators of inter-tribal communication. The divine, if not in essence at least in form, became sedentary.

As far as the new perception of nature in the new Cosmic Order was universally accepted, the new economic and perceptual realities opened up new possibilities for social organisation and conflict became located around the issue of control and access to the supernatural. The supernatural became chained by social and political hierarchies.

3.d. Sedentism, Ecology, and Social Hierarchies

In Neolithic times the development of social hierarchies and inequality depended on both surplus production and sedentism. The members of a nomadic band could always move away to avoid factional disputes. Farmers had to find ways to solve these disputes. In addition, farmers were faced with the threat of a bad harvest and famine. Both of these new emergencies demanded long term, normative social cooperation. For this people turned to their families. Kinship ties became an institution of paramount importance and systems of reciprocal obligation became the crucial mechanism to nourish them. Both kinship ties and reciprocal obligations were known to Palaeolithic tribes, especially during of the Upper Palaeolithic (Bender, 1978). Yet, during the Neolithic period kinship and reciprocity added a new provision to their services: The delineation of property and inheritance.

Kinship ties facilitated egalitarianism in the form of mutual support, as well as social inequality. The older and respected members of the clan became the focal point of requests, the arbitrators of family disputes, and the ceremonial representatives of the clan. Communal tombs and ancestral worshipping discovered in the first permanent settlements around the world

stand witness to the new significance of Linearity, and for the moment it was a quasi-mythical continuation between past and present. More permanent and institutionalised hierarchies were developed in particular locations, such as Polynesia, where environmental circumscription and the abundance of resources prohibited exit, and intensified clan competition in feasts and gift-exchange. Less circumscribed, and poor areas, such as New Mexico, retained egalitarianism and inter-kin social cooperation. In some areas where environmental circumscription was weak but resources plentiful, such as central Europe, group ideologies were later countered by individuality, probably derived from personal wealth and military expeditions (Shennan, 1993; in Fagan, 1995).

Still, we cannot talk about 'power' yet, in the sense of those 'special' individuals exercising coercive force. In all three cases common people possessed freedoms mainly through custom, lineage, and family alliances that the proto-elites were not unitary or strong enough to abolish (Fagan, 1995:273). The elites were in a tentative position, and the way to exercise some kind of authority was by inspiring, not by ordering. The shaman, the medium between the social and the supernatural, was always under the scrutiny of the community, facing expulsion or even death if he or she failed to protect the band from hazardous situations. On the other hand, the political authority of the big man, or the chief-warrior, was often challenged by the shaman; he could be forced to leave his office by challengers; his offspring rarely inheriting his position.

A solution to this insecurity was the combination of political and religious functions. Usually, it was the political elite who stepped into the ideological realm - not the opposite. The chief would claim divine descent, an absolute demarcation point between himself and his people. This practice is still to be found among simple horticultural communities (Lenski, *ibid.*:129). But again, in Neolithic times the chiefs could not fully exploit its potential. The community had the power to check their chiefs' ambitious imagination

by protesting or moving away (Woodburn, 1982). The claim was used to full effect later on when agricultural empires became able to close the social cage.

Even this weak and dispersed authority of kinship and *pater familias* entailed a much greater potential than any Palaeolithic group could ever exercise over its destiny. Environmental and social fixity were responsible for the development of new social relations whose major characteristic was strong group identity. The latter increased the inclusion/exclusion nexus reinforcing both the collective and the distributive aspects of power, i.e., the power to organise the collectivity for the benefit of the whole, or the benefit of the few. Group leaders could organise people to work together for both utilitarian and symbolic purposes for the benefit of the group and of themselves. While utilitarian projects served the physiological well-being of the group, projects of symbolic significance, such as ceremonial buildings, played a key role as visual markers of dominance and hegemony vis-à-vis other groups (Kirch, 1990).

Ritualistic rivalry was the direct outcome of a set of factors contingent to sedentary life and factors associated with it: Long-term kinship, sedentism, residential contiguity of related lineage, protection of land use rights, profitable alliance-making, and trade-exchange affairs. Manipulation of the above institutions and practices by individuals and kin groups brought them prestige (Bonanno and others, 1990). In some extreme cases, a few individuals achieved such a privileged status that they claimed direct links with the divine and exclusive access to them. Yet, this power had to be materially manifested and socially sanctioned.

3.e. Stone Building: The Nexus of Neolithic Cosmic Order and Social Structure

If the cave and its cultural arrangement were the Palaeolithic reflection of the social domain, stone monuments reflected the Neolithic social domain. Above all, a stone monument stood for the Neolithic world-view. In its ideal form, it was an *imago mundi*, incorporating notions of the

divine, the three levels of the world, and the delineation of space and time. Yet, its ideal function does not explain the elaborate, expensive, domineering, and exclusive features it also manifested. These features are understood in less functional and more conflictual terms, by uncovering the competitive, though implicit, symbolism: Stone or massive earth monuments, as a conception and construction, counter the ordinary desire to conserve energy. The stone monument is a comprehensive expression of conspicuous consumption, and thus, desire for power (Trigger, 1990).

Consequently, stone monuments became manifestations of the ritualistic competition of proto-elites, clans, and families for status and prestige. Quite clearly, stone monuments became the arena of social rivalries. For example, among Polynesian chiefdoms, the size and elaboration of ceremonial monuments reflect the ranking of political hierarchy. This was perpetuated by the ability of a few local chiefs to regulate the annual initiation of multiple ceremonial events at special ceremonial sites. The more stratified the society, the more elaborate was the structure of the monuments. The few very large monuments to be found are directly associated with paramount chiefs and mark central places of elite power (Kirch, 1990).

The material conditions of the Neolithic period imposed perceptual boundaries wide enough to allow particular social interpretations and expressions. Stone monuments of all kinds (temples, tombs, homes, burial sites) became the loci of evaluating cultural understandings (death, ancestors, relatives), and controlling the meaning given to certain cultural conditions such as dependency, alliances, and gift competition. Manipulation of space and time could privilege some people vis-à-vis others in terms of vision, hearing, posture, strength, bringing differential access to important social events, and an all-embracing experience of the *numinous* to the privileged participants (Thomas, 1990).

The division of habitation and symbolic representation between the two sexes is perhaps the most important and universal among Neolithic communities. As Eliade (1987) notes, the dichotomy is at once classificatory

and ritual (sky and earth, masculine and feminine) but also antagonistic. The cultivation of near-by fields and the rearing of infants by women, and the still important hunting practices and mystical initiations of men were the material aspects of the bipolarity. Yet, we do not know much about the meaning of it. Hodder, in an effort to decipher the meaning of the structure of domestic tools and utensils claims a certain association between man-wild-death-dark vs. woman-domestic-life-light (Hodder, *ibid.*:10). Even if in principle this association were correct, how could we interpret it? It could denote a claim, such as, 'feminine is domestic - masculine is wild', or a desire, such as, 'women are dangerous and should be controlled by men who already control the wild'? A gender-specific deciphering of the meaning would be arbitrary. The low level of the ability of the Neolithic people for abstraction, the most serious being the inability to distinguish between logical and narrative order (Hallpike, 1979:114) suggests that the message was not conceptualised, but firmly situated in the immediate and the contextual. Yet, since there is a general pattern which distinguishes between the two sexes and between particular tools, we cannot reject the bipolarity itself even if it is subconscious. It suggests a cultural continuity with the Palaeolithic period, and a continuous effort to control the social domain by manipulating natural objects, space, and perceptual categories of the man-made and natural environments.

In future time such concepts would evolve according to new economic practices and social imagination. Literacy provides us with indisputable evidence of some periods when men identified with the wild (e.g., Victorianism), and other periods when they identified with the tamed (e.g., Classical Greece). There are instances where the whole of social organisation was perceived as tamed or as wild, such as in the case of 'civilised' farmers defending their land from 'wild' nomadic tribes (e.g., Mesopotamia, Rome). For the moment the distinction was denied the status of ideology due to the absence of high-culture, that is, of a coherent and articulated world-view produced and disseminated by scholars and

bureaucrats, accomplished through writing. It remained entrenched in vernacular cultural expressions.

3.f. Agriculture and Physical Environment

Did the Neolithic cosmology make any difference to matters of economic appropriation? On the one hand, the intellectual preoccupation with the annual rebirth of the land did not allow a long-term identification of what can and cannot be reborn. The fertility myth instructed that what is today might not be tomorrow, and vice versa. Seed, plants, and soil as well as humans and animals were in the same category. The value of some plants (e.g., beans) to regenerate the fertility of the soil was well known and utilised, yet, since nature was understood as the domain of a Goddess, good or bad harvests were attributed to her presence or absence. Tannahill recounts the story of Inanna, a Sumerian goddess who set off to conquer the nether regions; 'while she was away the land remained infertile, but when, after many adventures she returned to earth, everything came to life again' (Tannahill, op.cit.:34). Ultimately control was in the hands of immortal, or semi-mortal gods and goddesses. The Palaeolithic cosmology was rearranged according to the new social organisation and the spirits *in* nature became gods *of* nature.

In general, Neolithic practices such as building megalithic structures, farming, and goat herding were all environmentally damaging since they all resulted in deforestation and soil erosion. A general observation is that, while in the Palaeolithic era it was the fauna that suffered the most, in the Neolithic times the burden fell on the quality of the soil and flora. Hoe-culture, as well as agriculture involved the clearing of parts of a 'natural' ecosystem at the expense of specific plants and animals. Humans were interfering with, and upsetting ecosystems without a guarantee that this re-organisation would prove sustainable. Thus, the relationship of the organisms living in that location were re-arranged and the previous balance destroyed. Forests were the first to suffer the consequences. Burning, ringing, and goat grazing were

widely used to bring forests down and to open a space for farming as well as to provide raw materials for the fast growing villages and cities and tools for the construction of the stone monuments. Clearing exposed the soil to rain during the wet season and the wind during the dry season, leading to soil erosion. Ponting records that as early as the sixth millennium BC one thousand year old villages in Jordan were being abandoned because of soil depletion. Easter Island fell into decline one thousand years after its first colonisation. Intense rivalry among clans led to a race for the construction of monuments which led to deforestation and soil erosion. Spanish slave raids and epidemics of European disease introduced by sailors completed the process of depopulation and, abandonment of the island.

Pastoralism and agriculture around the Mediterranean region meant its full ecological and aesthetic transformation. Around the fourth millennium the vegetation of the region was a mixture of oaks, beech, pines and cedars. Yet, the clearing of the forests for agricultural use, fuel, and construction of houses and ships, and the extensive goat grazing which did not allow young trees to grow, reduced vegetation to a low and inedible bush. Soil erosion, and silt completed the transformation with the formation of marshes, which then became an endless source of malaria.

Only the valleys had a longer survival span, sometimes indefinite, due to floods that compensated for the lost nutrients. The Indus valley, the Yellow River basin, and the Nile belong to this category. The Mesopotamian, Mesoamerican and much of the Far Eastern ecology does not include regular flooding; production could increase only with irrigation. There, soil erosion took longer to occur, allowing time for the development of strong civilisations and, thus, for more epic disasters (see following chapters).

The most fragile soils moved people back into less 'caging' social organisation. There is evidence that the third millennium BC in Europe was a period of evolution in reverse: Megaliths, rituals, commerce, and pottery declined. Migrations, the revitalisation of the band at the expense of the tribe, and the decline of chiefdoms are also evidence of the retreat from permanent

settlement (Friedman, 1982; Kristiansen, 1982). In some cases the reason was the failure of caging strategies; in some others the reason was the depletion of the top-soil. People did not return to a Palaeolithic state. In most cases the still small number of people retained a mixed style of economy where hunting, cultivation of the soil, fishing and animal herding coexisted. Technical knowledge and knowledge of the environment retained their value; whenever soil fertility permitted it, the band recovered its Neolithic structure which happened at the beginning of the second millennium BC. A second devolution occurred at the beginning of the first millennium BC. Only a few places of the Old and the New World were able to sustain intensive land use and the social system to exploit it. They were the places where hierarchical and centralised forms of civilisation could and did flourish. The next chapter will deal with their attitude towards the environment.

Conclusions

Perception of nature through Cosmic Order schemes and treatment of the physical environment depend upon local ecology, economic necessity, and the social arrangements of economic, political, ideological, and military power. Economic necessity is clearly manifested through the demographic pressures and climatic alteration the Palaeolithic world faced around the tenth millennium, which ultimately forced its transformation. But this alone is not very informative. The numbers of most species do fluctuate for short periods of time but they do not escape ecological constraints. Famine, or the evolution of new predators finally stabilise their numbers. The same did not happen with *homo sapiens sapiens*, at least not until today. Someone could claim that humans have escaped universal ecological constraints because of our ability to develop new technology, and defeat barriers through innovation. Yet, the fact that most of the Neolithic economic methods of appropriation were known and practiced during the Palaeolithic times, such as hoe cultivation, or the manipulation of fire, plants and animals, means that the era saw technological rearrangement rather than innovation. We have to

turn to the social aspects of life to understand the escape from ecological constraints.

The Stone Age is a unique period in which to examine the relationship between society and nature, due to its universality and relative simplicity. Everyone started as a hunter or gatherer, and everyone perceived the world as such. This is not to deny cultural variations and local inconsistencies; deviations that escape generalisations and universal truths (see Swanson, 1960). Yet, we are able to identify a minimum cultural consistency, an adequate Stone Age consensus upon which to build a theory.

During the Palaeolithic period we can detect the absence of distinct ideological, economic, or political networks. There is only one power network to which every member of the band belongs and in which everyone participates. There are neither fixed political hierarchies, economic networks, nor 'priesthood' with special interests capable of triggering particular symbolic and representational images of the cosmos. Instead, society remained egalitarian and common collective representation meant that everyone within the band and tribal areas perceived the natural environment in roughly similar ways.

We suggested that in such a *sui generis* social environment, the cognitive modeling of the universe followed social organisation and group boundaries, especially so if we consider that cultural continuation was interrupted by the birth of modern human beings. Since the economic, political, ideological, and military networks overlapped and the boundaries of the community were spatially blurred, even limitless, politics were egalitarian. Culture and what we call today nature were not clearly distinguished, constantly checked by conceptual realism, and represented by tangible objects rather than concepts (e.g., images of animals in the place of strength, female figurines instead of fertility).

Nevertheless, we should not idealise the egalitarianism of the Palaeolithic social structure. As with everything Palaeolithic, it was contextual, practiced as 'a matter of fact', rather than deriving from a

program. Let us pay attention to Woodburn once again: Egalitarianism was possible because of the ability of people to exit *uncomfortable* socialisation. Rivalry for privilege and prestige was present as much as was cooperation. And while this rule applies to every social animal, humans are exceptional for the level of imagination they employ to achieve supremacy. *Homo sapiens sapiens* appeared forty thousand years ago with revolutionary cognitive abilities, replacing our last ancestor, *homo sapiens neanderthalensis*, and accelerating artistic expression, technological innovation, and political competition. Most importantly, our ancestors blended all the above skills and abilities, mixing social, linguistic, artistic, and technical skills with the desire for political power. This is where nature enters the picture in other than functional ways. Due to superior cognitive abilities vis-à-vis the previous *homo* generi and the other primates, the pursuit of power escaped the animalistic constraints of time and space. It escaped the immediacy of the 'elephant matriarch', the 'Alpha male', or the 'leader of the pack', and embraced a milieu wider than the band itself to include the physical environment both in appropriational-economic, and symbolic-political terms. In a sense, Palaeolithic culture was an open-ended blend of imagination and hormones. As such, it was an effort to grasp the meaning of life as well as a reflection of rivalry under the veil of egalitarianism.

During Neolithic times, as the band started becoming sedentary, the four networks of power claimed some kind of autonomy. As sedentism and hierarchical organisation became an ordinary cultural practice, we find cognitive developments toward a culture-nature bipolarity based, not on linguistic, cognitive abstraction, but on contextual, spatial and social distinctions. The manipulation of the natural environment for the symbolic representation of culture was slowly becoming tangible, both perceptually and politically: spatial, residential, familiar, objective, and hierarchical.

How social competition and domination shaped the Stone Age is highly disputed (Fagan, 1995:228). Was competition an observer of changing economic practices and social developments, or did it play an active, creative

role? The widely accepted ecological models we mentioned before argue for the former, a fully unintended process of domestication, based on habit and ecological change rather than on planning and purpose. Yet, Bender (1978) and Hodder (1990), employing rather different arguments, claim that intensification of trade, richly decorated burials, and a definite structuration of space found in late pre-agricultural societies are clues for the significance of social competition as a vehicle of cultural change. Bender argues that this intensification of cultural exchange and expression could signify a parallel intensification of political alliances between neighboring groups. Social competition created new social and economic pressures to produce more for ritualistic competition, as indeed evidence from Upper Palaeolithic Europe suggests, which eventually led to food production and specialisation.

To this Hodder added social competition at the ideological level. Prestige and social control, he claims, were maintained through the ordering and embellishment of the wild (ibid. : 291). As the ecological balance changed at the expense of the large game at the end of the glacial period, new features of the natural environment, such as vegetation and small game, became part of the political game for prestige. Cereals, forests, and lakes, among others, were brought under the authority of the band to expand the symbolic power of the proto-elites. Indeed, there were socially and cognitively unintended consequences, but symbolically the shift was intended.

The doubts that surround the Palaeolithic era do not disappear with the advent of the Neolithic era though evidence becomes more numerous. Hard data from this period provides anthropologists with evidence of the interplay between social competition and symbolic representation of the natural environment. Social and political groups competed with each other claiming privileged access to space, vegetation, and the supernatural. In the regions in which soil could sustain human interference for long periods of time, the symbolic framework became increasingly clear. A region could be full or void of the divine, the space could be cultivated or wild, the substance

masculine or feminine. Everyone accepted it as accommodating their existence, as reflecting their own being and place in the cosmos. Yet, it was flexible enough to allow manipulation of all of the above for some people's own benefit.

With the absence of written documents it is difficult to judge the degree of innovation social competition carried with it. Yet, even if social competition did not have a direct and critical impact on cultural evolution, Hodder and Bender remain suggestive in two ways. Firstly, they reinforce our argument by unifying the Stone Age experience with the rest of our history and by insisting that competition does not depend exclusively on a complex, hierarchical society. Instead, competition can coexist with egalitarian as well as with ranked societies. Secondly, they alert us to the fact that cognitive clarity (i.e., logical abstraction) is not a necessary precondition for action, just as knowledge of the theory of gravity is not necessary to ride a bicycle. When rivalry was present, and was expressed in rituals, the natural environment was becoming a tool, an asset, to achieve high status and prestige. The utilisation of the natural environment could be direct (economic appropriation - gift exchange), or indirect (symbolic manipulation - structuration of space).

Ability for ideological *cum* political domination between the sexes, and among kin, age-groups, or chiefdoms, led to the manipulation of the natural environment, its spatial conglomeration, its substance, its components and their relationship over long periods of time. The result was a schematic, organised, and exclusive conception of nature beyond what 'neolithism' and horticulture imposed as an economic practice. The Neolithic era heralds the beginning of nature as sexually divided, economically responsible, politically aware, and morally judgmental. Neolithic demographic pressures and especially social competition intensified the appropriation of natural resources, and environmental degradation. Sedentary life exerted pressure for the production of goods not only to feed the population but also for expensive ritualistic gift-exchange and monumental buildings. Humans could recognise

their role in creating environmental degradation. Yet, desire for social prestige proved more powerful than conservationist policies.

Concluding, we could argue that neither ideological manipulation, nor economic appropriation of the environment moved beyond the vernacular, contextual, level. Yet, as practices they are firmly situated in the long history of our species as part of the pursuit of power. For the moment political and ideological control remained weak. The Neolithic political structure was fragile; it could only control appropriation superficially. Since no formal, coercive hierarchies existed, specialisation, and the authority and prestige of the 'big men' and chiefs ceased to exist whenever the land failed to generate surplus production. In the following centuries and wherever ecology would permit, elites, and their pursuit of power would become as equally important as spatial delineation and surplus production, and even more important than kinship. We will examine how nature became implicated in pristine civilisations in the following chapter.

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CHAPTER 3

Five Pristine Civilisations in Eurasia

The Passage from Village to Statehood

If the Neolithic era heralds semi-permanent and permanent sedentary life, horticulture, conspicuous consumption, and marked social and political inequality, the first civilised centres constitute the earliest form of class-based society organised as 'states', that is, as territorially centralised, authoritative centres of political power (Trigger, 1990; Mann, 1986).

In some respects the passage from the Stone Age to civilised life was less critical than the passage from the Old to the New Stone Age. Both Neolithic and civilised life depended on surplus production, both thrived on social stratification, and in both cases people perceived themselves and their surroundings in pre-scientific, 'mythopoeic' ways (Frankfort, 1951). Yet, the two stages of social development differ in two crucial ways. Firstly, while the Stone Age was a genuine universal process, a true evolutionary step involving most of humanity, political centralisation and state formation, and institutionalised social stratification, occurred only in a few places around the globe. Five thousand years ago, in locations where the soil could sustain intense agricultural activity, farming villages were bound together in large political units. Some of these communities eventually produced 'civilisation', which Renfrew understands as *insulation from nature*: '...ceremonial centres (insulators against the unknown), writing¹³ (an insulation against time), and the city (the great container, spatially defined, the insulator against the outside)' (parenthesis in the original text, 1972:13).

¹³ Trigger (1993) correctly points out that proper writing is not a universal attribute of civilisation. The Inca in the New World, as well as the Yoruba in Africa did not develop any system to represent speech. A more proper assertion should state that all civilisations produced some kind of record keeping for administrative purposes.

Insulation does not exhaust the definition of the new situation. A second element of the civilised condition is the consolidation of social stratification and the territorially centralised and coercive power of the state, which now became independent of particular personalities, such as tribal leaders and chieftains. Thus, civilised life heralds the advent of true 'macro-actors', individuals whose actions had an impact beyond their immediate environment, transcending time and space and dependent on office and title, not their personality. Yet, the foundations of social stratification and statehood were deeply embedded in the political heritage of the Neolithic and Palaeolithic organisation of power. They derived from the apparent tendency of humans to establish exclusive and hierarchical groups as well as symbolic categories out of physical properties such as sex, age, kinship, and charisma and evaluate them in terms of superiority/inferiority.

Symbolic categorisation does more than organise observable reality. It simplifies and provides meaning to a few selected biological facts and turns them into cultural categories with emergent properties: New possibilities of social action and organisation emerge as consequences of the symbolism itself. There is evidence that in Palaeolithic times there were cults, secret societies, initiations, or exclusive access to caves which could have precipitated and channelled political competition.

In the Neolithic period the form of symbolic representation of inequality changed as a response to environmental, social, and labour fixity (e.g., dependency on soil, family, tools of production). The new social environment of restrictions, combined with the production of surplus food, facilitated social stratification in the form either of hierarchically organised households, or of chiefdoms and their leaders, the 'big-men', exceptionally productive individuals with leadership skills, and organisers of the collectivity.¹⁴

¹⁴ This assertion is primarily based on Maisels' (1990) work, which suggests that there are two paths to statehood. The first unfolds via

Then, between 3,000 and 2,000 BC, a few civilisations arose in places around the Old World. The Sumerians in Mesopotamia, the Egyptians of the Nile Valley, the Indus Valley civilisation, the people of Northern China, and Minoan Crete. The five areas in which the first states arose had a peculiar quality which was absent from other places: They offered plentiful resources to their inhabitants while they were environmentally circumscribed (Carneiro, 1970). India, Mesopotamia, and possibly China, grew out of the same West Asian Neolithic complex. Culturally similar communities expanded inside resource rich regions until they reached their boundaries, ecological zones which could not support the high standards of living offered in the valleys. As the population grew inside the zone of plenty, two scenarios guaranteed a social organisation of permanent inequality and territorial centralisation. Firstly, enemy villages defeated in battle found it more costly to emigrate to the transitory zones than pay tribute to the victors. Secondly, new tribes entering the land of plenty were immediately engaged in hierarchical relations. If they were strong enough, they became the masters of the region; if they were not, they were happy to accept some kind of subordinate status (Carneiro, 1981). Evidence from the four regions supports the argument.¹⁵ Egypt was unified by conquest, warfare was present in pre-dynastic Mesopotamian art, Shang China excavations reveal a militaristic society, and strongly fortified, destroyed, Neolithic villages have been unearthed in Indus River (Harris, 1977).

These militaristic scenarios of intentional action are complemented with the iron rule of oligarchy: The larger the organisation the greater the number of people who are required to surrender a direct role in decision making. Here, two more elements are added: population growth and

chiefdom, while the other via stratified households, avoiding chiefdoms altogether.

¹⁵ Carneiro's theory has been tested, and the results have been more on the positive rather than the negative side (Kirch 1988; Schacht, 1988; Carneiro, 1988). Crete has left us no evidence about the formation of the Minoan civilisation.

acceptance of the large society. They can both be understood as consequences of fluvial and irrigation agriculture. Agricultural production could increase by manipulating the flow of the rivers and the alluvium they were depositing on the banks. Irrigation, channel building, and distribution of water needed both social co-operation and some kind of central planning. The more successful the projects, the more caged people became, both economically and socially. Fixity strengthened authoritative kin ties and generated rank-authority irrigation management. Furthermore, fortuitous or strategic positioning of pieces of land gave an advantage to their owners (e.g., clans, communal lands administered by temples), becoming the basis for permanent inequalities. An economic system of exchange developed between the fertile land and peripheral environments, and specialists were released to manufacture products for the higher echelons of the society and adjacent peoples.

Gradually, this process intensified a territorially centralised authority. Irrigation management, defence of fixed assets, regulated exchange of production and tribute, facilitated a central authority emerging from a loose patron-client authority, forming a centralised network of tribute and tax collection, and opening the path to a redistributive state. The processes by which 'states by consensus' became authoritative regimes vary according to case. Yet, as a general rule, there are three basic conditions that favoured the transformation and its stability (Trigger, 1985). Firstly, high population densities made everyone dependent on more centralised management of production and its security. Secondly, the state was the source of material rewards for the individuals after successful military campaigns and social preferment for individuals who distinguished themselves in battle. Thirdly, the state supported kinship structures and became a source of prestige for local leaders and chiefs.

Physical coercion played a minor role in consolidating central authority. On the one hand, it did not assume control over matters that could be trusted to local, pre-state authorities. On the other, central authority was symbolically represented as a higher level of ordinary paternalism. Kinship

obligations could be used to justify the legitimacy of differential access to resources, and defend the image of the king as the 'great father - great benefactor', responsible for the well being of his people. The ideology accompanying kingship is thus essentially similar to the Neolithic ideology of power: Hierarchy embedded in a system of privilege and responsibility sanctified by the divine. Yet, the state, as a structure was immensely more powerful and efficient than a tribal village, and heightened insecurities concerning flows of resources and social stability allowed the embellishment, elaboration, and systematisation of the special position of the king vis-à-vis the more fragmented social environment in which the natural and the supernatural domains belonged at the beginning of statehood. The king became the symbol of ecological and political stability, and thus, the representative and protector of his people from aggressors and natural calamities.

In principle, kings had a special relation with the divine power, the *numinous* (Swanson, 1960), which allowed an exclusive communication with high Gods and Goddesses. This privileged relation resulted in divine attributes being ascribed to kings. The exact amount and quality varies from one civilisation to another, according to the strength of the state and the degree to which kings secluded their persons from their subjects. In the presence of the above properties kings claimed divine status; in their absence they only claimed an affinity with the gods. Their relation to the natural environment and its features was a direct consequence of their divine status. They were either commanding the elements or were asking their protector gods to do so in their name, and for the people's sake.

In many respects, the perception of the natural environment remained essentially similar to that expressed by Neolithic people. In principle, this was a direct consequence of the persistent inability of humans to comprehend and express abstract concepts. Instead, generalisations were made by associating concrete images taken directly from experience. The openness and interchangeability between the social, natural, and the supernatural domains

which the early civilisations inherited from their Stone Age past allowed them to interpret natural phenomena as purposeful actions with a definite cause, that is, phenomena caused by an intelligent will. High and low gods were personifications of the power embedded in natural and social phenomena, such as rain, or a city. And again, such a compatibility of the three domains, gave supernatural agents human qualities, such as personality, character, historicity, social relationships, and habits.

Space was similarly defined in terms of contextuality and particularism. The concept 'space' was identical to the experience 'space'. Thus, all early civilisations perceived the world as extraordinarily small, centred around their land and extended a few hundred kilometres across localities of great pragmatic importance, such as the river Nile, or the Taurus mountains. Crucial to the orientation systems of all civilisations was the trajectory of the sun, with the east or the daytime denoting life, and the west or night time denoting death. In the grand scheme of creation all civilisations felt that they were the most significant people on the earth made by the direct and intentional action of the gods, located at the centre of the universe, and their supreme temple located precisely below the heavens to guarantee easy communication with the gods. And yet, their protection was counter-balanced by doubts about the destiny of their gods, as well as of the world, their own life and destiny after death. There was a pride, at least unconscious, in the achievement of controlling the natural environment and a self-doubt about maintaining such an artificial world (e.g., Luckenbill, 1968). These were all extensions and elaborations of Stone Age thought: The spiritual power of the few, the mythopoeic logic, the appropriation of natural resources, the political manipulation of symbols, the belief in a floating supernatural energy, and the qualitative homeostasis among the social, the natural, and the supernatural domains.

Yet, the practical organisation of the state, its structures and logic of operation, as well as its development vis-à-vis other states and its surrounding periphery did not allow the stagnation of perception and treatment of the

environment for long. On the contrary, certain advances were made concerning the appropriation of natural resources and the political manipulation and symbolic representation of the natural environment. These steps were taken differently by particular civilisations - in some cases they were not taken at all if the causal, social factors were absent. The factors affecting perception of nature were ecological and structural. The structural factors concern the political organisation and size of the civilisation, that is, if they were city-state systems or territorial states (Trigger, 1985a).

Civilisations that fall into the former category were made of adjacent sovereign cities and their immediate countryside. They were what Michael Mann calls 'intensive power networks' referring to the ability to organise tightly and command a high level of mobilisation from the participants (Mann, 1986:7). While city-states tended to compete with one another to control territory and trade routes, they shared a common world-view in terms of religious beliefs, perception of themselves and the surroundings, morality, and city status. Most of the population resided in urban centres, a fact that resulted in intensification of agricultural production and technological innovations. Mesopotamia prior to the old Babylonian period, the Minoan Cretans, the Aztecs and the Mayas belong to this category.

The rest of the early civilisations were large territorial states. Egypt, Shang China, and Inca Peru, belong to this second category. They correspond to Mann's 'extensive power network' referring to the ability to organise large numbers of people over far-flung territories in order to engage in minimally stable co-operation (Mann, *ibid.*). Territorial states were formed around a hierarchy of administrative centres at the local, provincial, and national levels. In principle they could be called urban centres, but their population was small, inhabited by the representatives of the ruling class, administrators, and their dependants. Farmers tended to live in small villages scattered around the secure country-side, involved in subsistence economy and kinship-based political organisation. Yet, the power chiefs could command in their locality was under the close supervision of the central authority. The latter

remained capable of mobilising the peasantry at will for the service of the central authority.

The significance of the ecological factors on the other hand are apparent. They concern the particular geography of the place and its ecological fragility, its resources, and the degree of isolation of the place from the rest of the world. Usually these ecological factors mingle with social ones, such as the power of the central administration, the frequency of wars, and the nature of trade relations. Yet, as we shall see, in a few highly visible cases, they do have a direct effect on people's social organisation and cosmological perception. Thus, former social organisation (before statehood), absence of hinterland, insecurity about the harvest and the possibility of floods did affect people's world-view, their methods and effectiveness of economic appropriation, and the forms the political manipulation of nature took.

Keeping these general characteristics in mind, we will examine the changes that occurred in three partially representative examples of early civilisations: Mesopotamia, Egypt, and Minoan Crete. The first two civilisations represent a city-state system and a territorial state respectively. Minoan Crete stands by itself as an alternative case: probably not a truly pristine state, it gives us an example of a fairly centralised political organisation combined with matrilinearity, maritime economy, and a particularly joyful view of nature.

In the following pages we will examine how Mesopotamia, Egypt, and Crete dealt not just with their local ecology, but with three particular components of the ideology of nature as well: firstly, the movement from the deification of natural elements towards politically arranged deities, commanding natural elements; secondly, the better defined and contrasting view concerning civilised and tamed space vs. wild and barbarian space; thirdly, the perception these people held concerning the cosmos as a whole, such as their relationship with the divine, their personal security both as living and dead, and their fears and hopes concerning the present and future stability of the world. The three case-studies are historical cases, and as such they are

unique phenomena. Nevertheless, some aspects of their cultural, political and economic developments constitute general characteristics of the pristine state. We will attempt to come to some general conclusions at the end of the chapter.

1. Mesopotamia

1.a. Ecology, Demography, and Environmental Degradation

The Mesopotamian economy was primarily based on fluvial and alluvial agriculture around the Tigris and Euphrates rivers. In the beginning it was concentrated in central Mesopotamia where the soil was light, easily cultivated, and able to support a dense population. Towns in this area emerged as early as the mid-sixth millennium (such as Tell-es Sawwan), acquiring such a wealth that they soon became obliged to build protective walls. When this new surplus-producing economy could not feed all of the local population, farmers from northern and central Mesopotamia already organised in households moved down into the southern part of the valley. Here they faced a different picture: fertile lands were interrupted by the unpredictable floodwater of the rivers. In this case irrigation was practised not just to secure extra production, but to secure production itself. The canals that were built in the south were more elaborate and of greater complexity; the major ones required about five thousand hours of labour time to construct. Yet, this elaborate pattern was fully exploited only after about 3,500 BC with the emergence of large settlements which could provide the numbers of people and the social cohesion required for the construction and maintenance of complex and expensive irrigation systems.

Adams (1981) records that between about 3900 and 3400 BC half of the population in southern Mesopotamia were living in permanent settlements of about a thousand or more, concentrated in areas of at least ten hectares; the beginning of urbanisation. Urbanisation itself has been explained as the outcome of three factors: 1) the farmers who settled on the alluvium were

already organised as households; 2) there was no hinterland to the alluvium; 3) competition among households led to stratification and resulted in a system of city-states (Maisels, 1990). Later the proportion of urban dwellers increased to 80% of the total population. In general, it has been recorded that the density of the Mesopotamian population by 3500 BC was 10 persons per square kilometre, 20 by 3200 BC, and 30 by 3000 BC (Renfrew, 1972).

In the beginning agriculture resulted in the growth of several cities and numerous villages, altogether numbering a million inhabitants. This was combined with developments in technology, especially the production of copper tools. Yet, in ecological terms, cultivation of the Mesopotamian soil was a highly precarious enterprise. Ponting reasons: 'The extra water drains into the underlying water table and will, over differing lengths of time depending on local conditions, cause water levels to rise until the soil becomes waterlogged. The additional water also alters the mineral content of the soil: it increases the amount of salt, and may eventually, especially in hot areas with high evaporation rates, produce a thick layer of salt on the surface which makes agriculture impossible. The only way in which this process can be avoided is by very careful use of irrigation, not over-watering, and leaving the ground fallow for long periods' (Ponting: *op. cit.*, 68-69).

It seems quite possible that the Mesopotamians did not escape ecological degradation. Around the turn of the second millennium BC, during the Isin-Larsa era, protracted periods of famine took place. The down-fall of agricultural production continued later on under the reign of Samsuiluna and his successors. Jacobsen (1970) reasons that the cause of the ecological catastrophe was the 'final salting up of the fields cultivated over millennia', a definitive process which 'practically depopulated the South and changed it into wasteland and marshes' (Jacobsen, 1970:156), a reason perhaps for the definite shifting of political developments to northern Mesopotamia.

Obviously, an important variable in play, perhaps the most visible one, is population growth. There is no doubt that the cultivation of the soil facilitates a large family pattern since children become an asset to the farm

economy. This would mean an explosion of population growth. Population explosion did not occur because high rates of birth were checked by an increased incidence of disease. The Mesopotamians were relying on too narrow a range of foodstuffs and suffered the inevitable consequence of a diet relying heavily on cereals: deficiency diseases (Molleson, 1994). In addition, urbanisation and permanent farming settlements led to an increased incidence of infectious disease such as measles and tuberculosis causing an astonishing 75% infant mortality rate (Garraty and Gay, 1981:51). Contact with outsiders could sometimes also lead to similar results.

In spite of these biological-demographic complications, the population grew, a fact which, *ceteris paribus*, could not but have detrimental ecological consequences. Yet, population does not grow in vacuum. It grows because of social developments, which consequentially alter the relation of a society to the natural environment as well as its perception of nature. Thus, we should be careful not to put the blame on an irresistible ecological process. Though evidence does point to de-population and salinisation of the soil, intensification of production for display rather than subsistence use, political instability, warfare, and heavy taxation, though less tangible, could have been equally responsible for the apparent catastrophe. Social upheavals might have resulted in negligence, disorganisation, or destruction of canals. In any case, we cannot explain famine by ignoring the social factors. Only social factors could explain the persistence of economic practices in spite of ecological tensions. A growing population of producers, bureaucrats, merchants, and soldiers was in need of grain, both for immediate consumption and trading purposes. The surplus production that Kristiansen (1982) calculates increased by 10 percent in two millennia was used to sustain the irrigation system, the luxurious life-style of the elites which facilitated much of the trade with the periphery, and the building and maintenance of houses and monuments, which we first encountered in Neolithic times.

In any case there is a certain vagueness in the causality of the matter; we are faced with a mixture of demographic, stratificational, and political factors which led to environmental degradation. Ecological catastrophes occurred not just because the population grew, but because of the political, economic, military, and ideological factors which gave rise to the Mesopotamian social systems.

1.b. The Latent Objectification of the Natural Environment

If for some reason no social developments had occurred between the first farming activities (5th millennium) and the critical salinisation of the soil (1st millennium), we could imagine the same cyclical process occurring as in so many other areas around the world: competition between villages, internal struggle for political power, growth and decay of communities resulting in occasional immigration, and so forth. Irrigation would have remained a minor practice and none of the major canals that were built after 3500 BC would have been present. Thus soil fertility would have remained substantially unharmed, and the overall number of inhabitants would never have crossed a probable limit of two hundred thousand.

Nevertheless, population reached much larger numbers (around one million) because of the social co-operation and organisation the Mesopotamian stratified society managed to develop. We have already mentioned that surplus production was the rule of Mesopotamian agricultural economy. The surplus was used to obtain trade goods from the periphery and to support specialised crafts. Yet, surplus production was not created equally by all families. Land closer to the river, or located at strategic junctions between land adjacent to the river and the hinterland (thus controlling the trade routes) created more surplus than others. This surplus differentiation created social inequalities. Mann reckons: 'As the surplus grew, some of the core, propertied, irrigating families or villages withdrew either wholly or partially from direct production into crafts, trade, and official positions, being replaced predominantly by "dependent labourers" receiving land and rations,

probably recruited from the people of the adjacent areas, and secondly, but much less importantly, by slaves...' (op. cit.:84).

People fell into a permanent stratification scheme because they became territorially, economically and socially caged; moving away from the cage was an 'expensive' endeavour. There was no fertile land outside the socially stratified space. Migrating to the hinterland would mean a return to a slash-and-burn horticulture, or a shift to pastoralism; a change of life-style and perhaps a decrease of the standard of living not acceptable to many. Hard labour and long-term investment would also have to be abandoned. And finally, to leave behind the social group with which people were by now identifying themselves was not attractive.

These were the constraints on liberty that Mesopotamian economy had in the long run. They were stronger than those slash-and-burn horticulture could ever establish, since Mesopotamia imposed on its inhabitants two variables largely unavailable in other ecosystems: an uneven proximity to fertilised soil resulting in major differences in productivity (Flannery, 1974), and a few strategic positions at the point of contact between agricultural and pastoral exchange (Gibson, 1976). The juxtaposition of these two factors created a ranked authority more rigid and fixed than the Neolithic one we encountered in the last chapter. In the former, inequality was largely based on 'favours' that could not be returned. In the latter, we encounter a territorially centralised authority, that is the state. Its functional role is clear in its obligations: managing irrigation projects, regulating exchange between the four stratified social levels, securing certain urban materials and dealing with the defence of the city.

In a sense, there was a trade-off between privilege and obligations and privilege does not seem to have been particularly coercive, at least not until the Akkadians under Sargon I from Agade imposed a centralised, despotic authority over the Sumerians. In those early times the authority of a ruler could not reach far beyond his own city because of the absence of a standing army. Furthermore, it seems that this first permanent political form

of governing was made up of large parts of the population of the upper echelons; an 'upper house, of elders and a 'lower house' of freemen (Jacobsen, 1957). Ancient myths suggest that in the preliterate period Mesopotamian society was governed by a general assembly of citizens. Irrigation was initiated by decentralised households, later by city-states. Environmental exploitation was a product of the extended family's economic activities. In a sense, it was a Neolithic power structure of kin and local tribal relations adapted to the particular geography of lower Mesopotamia.

Following Maisels (1990), households were augmented and stratified, self-contained landed organisations. They were either 'private' or 'public'. The private households formed around descent groups together with dependent non-kin. The public households formed around temples with their institutional structures. The temple households brought together cultic performance, social storage and economic co-ordination, and temple lands were a 'community reserve' worked by community members. The ceremonial centre, the temple, and the priesthood came to play a central role in these decentralised economic and political realms. The priests were central functionaries of social and economic administration who redistributed wealth, they were irrigation managers, and diplomats. The fact that temples became the centres of the production and redistribution cycles and that priests were cataloguing goods even more than cosmogonies and epic stories, testifies to the social and worldly significance of the normative solidarity priests were exercising (Steward, 1963). This normative solidarity was expressed through a common Sumerian pantheon, cosmogony, and epic stories which were reflecting a very distinct idea of the cosmological position of humans in the world and their relation to the divine. But religion was exercising decentralised authority with each city-state worshipping its own resident deity as the owner of the city and protector of the city-dwellers. In such instances when divine authority overlapped with territorial control (Adams suggests a radius of about seven to ten kilometres around the major cities) the influence of the priesthood was weak. Thus, at this stage Sumerian religion is

significantly free of any particular elite's influence. In fact, the Sumerian pantheon was first systematised by the Akkadians, conquerors of Sumer under Sargon I, who were much keener on subjects of authoritative control and despotic domination. But before we focus on the Akkadians and 3rd millennium developments, we will examine the religion of the Sumerians in the 4th millennium.

At this period, and until the beginning of the third millennium, the major religious metaphor in the surviving texts could be understood as 'élan vital'. It centred on 'worship of powers in natural and other phenomena essential for economic survival, personified in the myths of the era as the dying god' (Jacobsen, 1976:21). There is a tendency to experience divinity, the 'numinous', as a force *immanent*, embedded in some specific feature, a revelation of indwelling spirit, and as 'power at the centre of something that caused it to be and thrive' (ibid.:6). It is a Neolithic attitude to attribute command of a natural phenomenon to an intelligent, objectified spirit. It gives impetus to differentiation. Since many phenomena are practically irreducible to one principal cause, they should be triggered by equally as many indwelling spirits. Apparently, the Sumerians had developed such a pantheon, and were worshipping these divinities in common before settling (c. 5,000 BC) in lower Mesopotamia (Eliade, 1978:391; Jacobsen, 1970:104-131). Along with them there was a myriad of lesser supernatural forces, not real gods but nameless demons, ghosts of the 'netherworld' and spirits of illness. These were not worshipped but incantations and prayers were employed to keep them away or to ensure their presence according to their conduct. Their action could affect both humans and gods, but they were ruled by and received orders from a commanding god; for example, to pursue and hurt another god or human. This reveals a certain cosmic hierarchy, but at the beginning it was not rigid or fixed. There was a certain reciprocity between humans and gods based on two principles: transformation of substance and the cosmic order.

Transformation of substance meant the ability of a Sumerian to incarnate a god or a goddess. Since the divine was immanent, bound up with a specific natural phenomenon, bringing the phenomenon into being meant bringing up its *élan-vital*, its divinity. This was reinforced by the creation of the 'outer form', the 'external habitation' which invited the presence of the god or goddess. Thus, in the ritual of the 'sacred marriage' taking place during the celebration of the New Year, the divine bridegroom, Dumuzi-Amaushumganna, was represented by the king Iddin-Dagan in a fashion implying identity of the two, while the high priestess played the role of the goddess Innana in the same fashion (second part of the poem):

The king goes with lifted head to the holy loins,
goes with lifted head to the loins of Innana,
Amaushumgalanna goes to bed with her.

.....
Verily I will be a constant prolonger of Iddin-
Dagan's days (of life)!

(quoted in Jacobsen, 1976:39)

We have to stress that the king and the high priestess, or the *hierodoule*, did not have an infinite control over the *élan-vital* of the elements, they were becoming gods only 'momentarily' (Eliade, *ibid.*:61). As soon as the ritual ended, guaranteeing a good harvest, they became human beings again. Kings, or priests, did not claim divine status at this period, only the ability to manipulate the *élan-vital*. During the rest of the year the ruler 'represented the community before the deity, but not the deity before the community' (Garraty and Gay, 1981:59). The ritual was connected with the notion of Cosmic Order for which the gods were responsible. It determined the destiny of the world and of human society. This cosmic order was continually troubled by Tiamat, who was threatening to reduce the world to chaos, and then by humans' crimes, faults and errors. The festival of the New Year was an effort to avert a final destruction, but constant toil, warfare, and natural calamities, did not allow the Mesopotamians to develop an optimistic world-view. Even their gods could fall sick, die, or decide to destroy a city.

Nevertheless, humans were not perceived as mere subjects of an unfortunate destiny, but as active agents. The Sumerian cosmogony guaranteed a share of divine substance to humans: Enki's breath to vitalise the human race and the blood of the lagma gods that gave life to the first man. Humans could participate in the cosmic order, and they did so above all during the New Year festivals when rituals performed by mere people guaranteed the presence of gods, the purification of the world from the last year's crimes, and the renewal of the land's vitality.

As urbanisation developed, each city focused on one divine patron. They usually lived in the sky, but when rituals were performed in their temple they became immanent in cult images. For example Enlil became the god of Nippur, Enki the god of Eridu, and Inanna the goddess of Ur. The city gods at this period represented the basic economic features of their region. For example, Eridu was a city located in the south marshes; its God Enki, is the élan-vital of fresh water and marsh animal and plant life. In Uruk, a shepherders' city, the chief deity is Dumuzi the shepherd, and his bride Inanna. Nippur, a city of farmers, worshiped Enlil, wind god, and god of the hoe, and his son Ninutra, god of the thundershowers and the plough.

The gods do not act during this period; they do not order, or demand. They are personifications of the élan-vital: Wherever they go, their power (for good or for evil) is revealed. Thus, Dumuzi the god of fertility comes into being in the spring, and dies in the fall. Nidaba, the goddess of grain, is where and when the grain is, and she is not when it is not. A hymn to her describes this tendency:

...lady, whose approaching a place sets creation going.
Nidaba, you are having people wash their heads
and hands for you, you are treated right.
Milady, you are the one who sets her hand
to the well-made writing tablets of the land

.....
Nibada, where you are not heaped up
people are not settled, cities not built,
no palace is built, no link is raised to office
.....

Nidaba, where you are not near
 no cattle pen is built, no sheepfold constructed,
 and the shepherd soothes not the heart with his reed pipe.

(quoted in Jacobsen
 1976:10)

This passivity reflects one prominent, though not the only, character of the Mesopotamian religion in the fourth millennium: the worship of forces *in* nature. Though a Neolithic belief, yet, with an important element of deviation: the natural powers that were worshipped are those important for human survival, central to the early economies. Later on, during the Early Dynastic times, we discover a progressive humanisation of deities, a growing anthropomorphism both in form and style: gods are members of a family, they have an occupation, and individual life cycles. The pattern is what Jacobsen calls sociomorphic, reflecting both the social pattern of the period and the growing belief that humans and gods share some common ground. This is triggered by two tendencies: firstly, the growing centrality of the mysteries of life/death, cosmos/chaos, fertility/sterility, which apparently affect both gods and humans. Secondly, the growing control of natural resources and the immediate environment by the aid of accumulated experience and technological innovation. This human-led control of the environment was combined with the gradual (but not complete) anthropomorphisation and thus 'objectification', and spatial restriction of the forces that *give* life to nature.

The passive, 'economic' existence of gods changed at the beginning of the **third millennium**. This is a period of warfare between about twelve principal Sumerian cities for meadows and pastoral lands, probably triggered by the growing infertility of the land, population growth, and the intensification of production for prestige-exchange between the Mesopotamian kings and the periphery (Edens, 1992). Lagash and Umma fought a war for a hundred and fifty years over a dispute about fields along their boundaries. In any case it is certain that wars like this became endemic, considerably intensifying social stratification and the state. Defence became

critical and led (c. 2700 BC) to the disappearance of the small, open village, the concentration of the population in the larger cities of the region, and the construction of massive city walls around them, like the ones at Uruk which were six meters thick and had a circumference of about 10 kilometres. The pattern of life changed. Famine was no longer the major fear of the population since irrigation had reduced the risks of drought. Violent death became at least as feared as starvation. Leaders at this stage became warriors, glorious commanders of armies in battle, and consolidated their temporary authority into proper kingship. Alternatively, war leaders began to concentrate the power previously dispersed among elite groups (e.g., elders, councils, temples). A poem from this period signifies this change:

The city Uruk, handiwork of the gods
and its temple Eanna, temple descended from heaven...
It is the great gods themselves who made their
component parts!
As the great wall that the former is -
a stormcloud lying on the horizon -
and as the august abode that the latter is -
one founded by An -
Uruk and Eanna are both entrusted unto thee,
thou are the king and defender!
The cracker of heads, the prince beloved by An,
O! how he inspired fear after he had come!
(quoted in Jacobsen, *ibid.*:79)

Gradually the king and the palace became prominent over the temple, and the institution of kingship itself was deified, believed to have been 'lowered from the sky' together with its emblems, the throne, mace, and tiara (Frankfort, *Kingship and the Gods*). The art changed, and ritual motifs were replaced by depictions of war and victory.

In terms of cosmic order, there were a few major developments. One, was the emergence of the Hero, the ruler who achieves, or tries to achieve, extraordinary deeds that escape the obligations of social norms. Prowess and cleverness (two chief characteristics of the extra-normative) are celebrated in the newly developed epic stories, and the hero's might rises to the point of

challenging the cosmic order, that is the gods' authority. Gilgamesh is the hero *par excellence* by challenging Innana and Enlil, as well as looking for the secret of immortality against the impossible odds the gods imposed on him (Eliade, *ibid.*:77).

It could be the decreasing quality of the soil, or the need for new lands to support a growing population, in any case, at the beginning of the third millennium warfare among the cities became a familiar practice. The kings became the central figure of the society, its hope for survival and domination, and the concentration of power they achieved brought novel concepts into play, such as 'ruler', 'majesty' and 'grandeur'. These provided new cognitive grounds on which to speculate about and experience the divine: The mere feeling of their existence with the aid of these new metaphors turned to the 'awe' and 'energy' they start to radiate. The central metaphor that emerged out of this cognitive shift was 'ruler'. Kings ruled people, and they did so with the aid, and in the name of their city-gods. Obviously, gods could not remain passive residents of their temples manifested through a natural feature or phenomenon. Nor they could remain administrators of dull, repetitive economic activities, guarantors of good harvests, or proper social contact. Gods changed roles, and new functions were added to the old ones: they became rulers, active in both the economic and the political spheres; powerful allies of armies and cities, as well as owners of estates, productive activities, and natural phenomena.

The Mesopotamian gods became politically organised, and their assembly decided on matters of justice for both humans and gods. The object of punishment could be a king, a god, or a city. The law, understood as in a Cosmic Order framework, applied to 'heaven and earth'; everyone, and everything in existence was under the same law, connected by the same substance. Thus, when Ur was destroyed by wild mountaineers from the East, the texts described it as a god's decree carried out by Enlil's destructive forces. There is a passage in the 'Lament for Ur' that deserves our attention. It is the moment of destruction:

Enlil called the storm.
 The people mourn.
 Winds of abundance he took from the land.
 The people mourn.
 Good winds he took away from Sumer.
 The people mourn.
 Deputed evil winds.

(Jacobsen, *ibid.*: 88)

Here, Enlil is no longer the personification of the winds. In fact, Enlil after receiving orders from An (the supreme god of the Gods' Assembly), 'called', 'took', 'deputed' the winds, to fall over the city. He is no longer the spirit of life *in* the winds, but the commander *of* the winds. Similar stories are encountered in abundance in records of the period, as Jacobsen's lists reveal. Ningirsu, once the power in the spring thunderstorms, now commands spring-time fertility, and by doing so he fulfils his duties in a cosmic office. Enki, once the spirit of fresh water in rivers and marshes becomes an official charged by An to 'clear the mouths of the Tigris', to 'make dense the clouds', or to 'make pasture abundant' (*ibid.*:85). Though these kind of divine actions do not replace their older attributes, they mark a new perception of the numinous in nature: gods, at least the high ones, take a distance from and become rulers of natural phenomena.

Was this transformation of the gods political manipulation by the elites? In the late fourth millennium we could say with relative certainty that power was held by councils, communities of free landowners and elders, and a managerial priesthood. In the third millennium kingship made its presence in a weak fashion. The name kingship (*nam-lugal* in Sumerian) originally meant leadership in war. Jacobsen's suggestion is that kings were leaders of an army (not a standing one) that was very rarely in action. Only in the very few instances in which an attack had a realistic possibility of victory was a young member of a strong family chosen to lead the troops. When the threat was over, the army disbanded and the authority was given back to the assembly and temple to continue their governing and managing duties. It can be assumed that any opportunity for the enhancement of the royal power and

influence would be welcomed by these temporary kings. This opportunity was offered to them by the third millennium wars. Warfare was the facilitator, but they did not attain power as victorious warriors: Standing armies did not yet exist and thus no troops were available to cross the Rubicon. The ground on which they built their authority was the normative realm: They became judges in the name of the ruling city-gods, and incarnations of their god-protectors.

The development of the relations between priesthood and kingship in Mesopotamia does not follow one route. On some occasions at least, priests and kings clashed over the issue of authority. Should it be a clash of elites competing for control of resources, or a growing need to integrate more complex polities, the balance of power between them shifted against the priesthood. In the fourth millennium long stretches of peace and managing functions of the temple guaranteed the primacy of the priesthood and political decentralisation. In the third millennium, friction and warfare gave ideological primacy to the kingship and strengthened the state. Jacobsen insists that these changes do not hide a crude political legitimisation but constitute a sincere intellectual effort to understand the cosmos, and thus the position of the community and the individual in the world. We cannot entirely dismiss this thesis, since the kings did not have the tools to force their predominance - the conviction about the kings' special status was probably widely accepted. Furthermore, we do not see kings actively, and radically changing the Sumerian ideological landscape. None of them claimed divinity (aristocracy of substance) or distinctive relations to past generations (aristocracy of blood).

Yet, on the other hand, we cannot ignore the fact that the role of the warrior-king and the mediator-priest did merge when accommodated by the strengthening of the state; that the power of the kings as individuals, and the aura of kingship as an institution were intensified. And though we cannot argue for a brutal manipulation of ideology, it made a difference, both in the political and the cognitive realms with manipulatory effects since the king

could now enforce his will on the people by claiming special communication with the gods. This power of manipulation was further utilised in the next period of the Mesopotamian civilisation.

It was around 2300 BC, that the Sumerian cities yield to the mighty army of Sargon of Akkad (a land loosely located in central Mesopotamia) who also brought under his authority the lands around Mesopotamia founding the first known empire of domination. He created the first professional standing army of 5,400 soldiers and ruled by personal domination over clients. Neither Sargon himself, nor the Akkadians (their culture already absorbed by the Sumerian one) could really change the framework of the Sumerian civilisation. The latter preserved all of its structures with the only change concerning the kings of the temple-cities. They acknowledged themselves to be tributaries to the Akkadian conqueror, his capital-city Akkad and the city-god Enlil. Sargon's extra-ordinary deeds meant a new investment in the concept of 'king'. Divine connotations were added to the 'leader at war' one. Nevertheless it was too early even for Sargon to make the bold claim of divine status. Culturally he was a Sumerian, and his actions in Sumer show a respect for its norms - the cities (and only the Sumerian cities) were spared destruction.

The privilege of such a claim was left to his grandson, Naramsin of Agade who became the first to claim divine status as well as the title 'The Mighty, king of the four corners of the world'. Yet, his title did not become a rule for the following kings. The constant shifting of political fortunes, ecological uncertainty which at any time could challenge god-like abilities, and close proximity and interaction of the royal house with its subjects could all be possible reasons for it. Yet, the perception of the divine was changing. Aggressive expansionism and total war demanded the full subjugation of the enemy, both at physical as well as at the symbolic level. The relocation of the defeated peoples was accomplishing the former, the subjugation of the defeated gods was accomplishing the latter. Warfare 'necessitated' the spatial confinement of gods as symbols of political supremacy. Numerous texts

reporting Assyrian kings' deeds confirm the spatial restriction and material immanence of divinity at that later period. Gods are 'captured', 'carried off', and 'invited' to dwell in new locations:

...Ashdod, Gath, Asdudimmu, I besieged, I captured; his gods, his wife, his sons, his daughters, the property, goods and treasures of his palace, together with the people of his land I counted as spoil (Reign of Sargon II, cited in Luckenbill, 1968:32).

... At the command of Assur, my lord, I marched victoriously into its midst. Eight kings of that province I slew. Their gods, their goods and possessions, as well as their people, I carried off to Assyria (Reign of Esarhaddon, cited in Luckenbill, *ibid.*:214).

...After I had brought to an end the work of my royal palace, had widened the squares, made bright the avenues and streets and caused them to shine like the day, I invited Assur, the great lord, the gods and goddesses who dwell in Assyria, into its midst (Reign of Sennacherib, cited in Luckenbill, *ibid.*:163).

Sargon's empire did not last for long. The Gutians, a tribe from the periphery imposed their own rule on the land for a century to be followed by the highly centralised authority of the third dynasty of Ur (c. 2050 - 1950 BC). This last Sumerian empire fell to harassment by raiders and for the next two centuries Mesopotamia remained divided into several states. One of them became Babylon, and in 1700 BC Hamurambi, its Amorite sovereign succeeded in imposing unity over the area.

Babylonian religion manipulated old Mesopotamian myths to stress the importance of its own gods, as well as to reinforce the new law and order. Thus, in the old Mesopotamian creation myth Enuma-Elish, Enlil, the most clever and creative god of the pantheon, fights and defeats the old primordial forces of chaos and inertia, becomes the leader of the new gods, and creates the historic world. The motto of his shield was 'Safety and Obedience'. Under the Babylonian rule, the story changed. Marduk, the high god of the

city of Babylon, takes the place of Enlil in the battle, it is he who becomes the supreme god of the Sumerian pantheon, and his motto is 'Benefits and Obedience' reflecting the way the Babylonians managed to establish order in Mesopotamia: By stabilising 'heroic' and erratic militarism into a centralised, imperial regime.

The Babylonian supremacy gave way to another rule by a peripheral tribe, the Kassites who triumphed over Mesopotamia in 1525 BC and reigned for the following four centuries. In this period religion became stabilised and conservative. Religious texts developed a canonical form, and myths became pessimistic and individualistic as the three existential myths of the time indicate: In the 'Story of Atrahasis' the gods, in full control of the natural environment, create humans to serve gods, they show themselves unfriendly, they bring epidemics, famines, and cataclysms just because humans make 'too much noise'. In the 'Epic of Gilgamesh' human potential is portrayed as real but limited, able to fight against the gods, but unable to achieve immortality. In the third myth 'Enuma elish' rulership is embraced unquestioningly and it is seen as the unifying and ordering principle by way of which existence may be understood. But the myths do not bring endless grief. There are still ways to ease the burden of life by increased devotion, the massing of offerings and services in the hope that the worshippers can achieve the protection of a god and good luck in their endeavours. Accordingly, the gods became increasingly cultural. Innana becomes the goddess of love affairs as well as of the storehouse; Utu, is called the god of justice as well as of the daylight, and so on. Gods might still be city-protectors, but each one of them also became a moral agent, an upholder of righteous behaviour. Gods, usually lesser ones, became protectors of individuals, and receivers of fears and anxieties. The individual emerged out of the community with his own voice, albeit a weak one.

Ishtar, who but you can clear a path for him?
Hear his entreaties!
He has turned to you and seeks you,

Your servant who has sinned, have mercy on him!
 He has bowed down and loudly implored you,
 For the wrongs he committed he shouts a psalm of penance,
 In full he counts up the benefactions of Ishtar,
 What he remembers - and what he has forgotten...
 He has sinned, all his conduct he lays open,
 The weariness with which he wearied himself he recounts:
 I have done wrong! [...]
 (Old Babylonian lamentation, cited by Jacobsen, 1970:45)

In the above text there are no natural elements involved at all. Nor are political attributes given to the goddess. Ishtar is a moral agent, though a precarious one since there is no precise moral code for her to guarantee. Control of natural phenomena had become just another among her many features, and not a particularly prominent one.

After the fall of the Kassites, there followed a period of turbulence and fighting. Out of this military anarchy emerged the Assyrian dominance. They ruled mainly through their army and less with the aid of conquered elites. With them came the nationalisation of religion. The Assyrians, according to the records, were the first people in Mesopotamia who followed a policy of assimilation (Saggs, 1984). Their god, Assur, was a national god, satisfied when booty, new lands, and new people were coming under his authority. Assur, like the rest of the high gods at this period dealt less with natural phenomena and more with politics, embodying the interests of their cities and nations. In fact, in the texts of this period Assur does not mingle with natural phenomena. His only concern is the defeat of the Assyrian enemies, the assimilation of defeated peoples, and the volume of the booty brought back by the Assyrian king (Luckenbill, 1968). Finally, Assyria fell to a combined force of Medes and Babylonians in 608 BC. Soon after, Mesopotamia became part of the Persian Empire sharing a different concept of nature.

The paradox of Mesopotamian religions is that the more transcendental they were becoming in form (the gods increasingly moving

away from being the essence of natural phenomena) the more immanent and compartmentalised they were becoming in social matters, and less able to unite people under one ideological project. During the fourth millennium there was probably a small surplus production, low numbers of people, a spontaneous division of labour, recognised family-property, and a decentralised political system. In this social context, ideology, embedded in religious beliefs, was diffused, unifying people. As the stakes became higher with surplus production, specialisation, and increasing numbers of people, political decentralisation became unable to cope with a more aggressive 'international' environment. Defence of the cities made warfare paramount and religion, corresponding to the new circumstances, became elitist, more immanent, closer to, and confined within the state. This occurred in two ways: Firstly, the king-warriors became privileged vis-à-vis the gods; secondly, religion became more political than it was before, with gods personifying the struggle of cities and people for power and survival.

Yet, while anthropomorphic gods moved closer to the palace, the role of the people in political matters became more passive. Order was not derived from their actions, but from centralised political authority. True, the reflection of the divine power in centralised authority made sense of the new economic, military, diplomatic, and political realities. But how were the ordinary people shaped cognitively by this new, politicised religion? Oppenheim (1977) argues that, since the beginning of extended warfare between the Mesopotamian cities, religion became particularistic and fragmented, so that no religion of the civilisation as a whole existed. The mysteries of the high, official religion were performed away from public view, in the privacy of the temple or of the palace, satisfying the psychological urge of rulers and courts wishing to make sense of their new responsibilities and might. On the other hand, there is evidence of another religion at the fringes of Mesopotamia, which rejected the cosmic order that the palaces and the temples were advocating. In this cosmic order we find non-anthropomorphic gods, magical practices, and fertility rituals of the Neolithic kind, and pre-deistic concepts of

life in which luck, demons, and the dead rule (Oppenheim: 204). They resemble the same natural forces of inertia and stasis as those of Tiamat and Apsu that we encountered in the cosmogonic poem *Enuma-Elish*. In this cultural context nature remained alive in a primitive sense, since objects and subjects (i.e. a rock and its resident spirit) were indistinguishable.

To put the argument in a political context, the state did not make a comprehensive effort to bring its subjects into an ideological sphere of influence, and religion was not, at that point, a major source of the state's power over its subjects. Its primary role was to make the universe comprehensible to the rulers and to bind together the otherwise weakly linked ruling class. Yet, such an encapsulation could not be absolute. Empires need legitimisation and they can achieve this by claiming cosmic centrality (Weber, 1968). The Mesopotamian empires of Assyria and Babylon did not escape from this rule. But communication obstacles and effective control of territories through loyal representatives made propaganda a less attractive tool for manipulation. Far more attractive, and effective, was the military route. A garrison stationed in towns helped the commander to collect taxes and keep order in the area.

Yet, between the small rural communities of farmers and the elites lay the numerous city-dwellers. Inhabitants of Uruk, Babylon, Kish, Lagash, or Assur were in close proximity to the political praxis of kingdoms. Living in the cities, they were directly influenced by the primary tools of imperial propaganda, such as public religious celebrations (New Year's Festival), and after Ur III the depiction of kings on coins and epigraphs, and monumental houses of the gods (Ziggurats). There is some evidence that the city dwellers were not just passively, but also actively, sharing the elites' cultural identity. Some of them, depending who the rulers were, were enjoying special benefits such as tax immunities, military relief, and could even successfully protest to the king about unjust behaviour toward them (Oppenheim: 102-103). A third route to share the elites' world-view was peculiar to a city-dweller's psychology. Living and operating in an urban environment, surrounded by

gardens and farmland, they could not be affected by the amorphic and pre-deistic supernatural forces of growth and decay. The cities were nurturing personal life and personal affairs and the city-dweller was asking for a personal relation to the gods in order to obtain guidance and aid that only specific and morphic gods could provide.

The spatial confinement of the high gods, deities of action, free-will, and history, was a process brought about mainly by political and military developments affecting the vast majority of the Sumerian, and later on, the whole of the Mesopotamian peoples. It certainly affected the perception of the natural environment, since it took some élan-vital out of trees, rocks, and cereals, making them more passive than they had been at the beginning of the process. This was the unintended consequence of the attention people paid to military action and agents of political change. The perceptual changes that accommodated the political developments did not exhaust the subject of nature. We can grasp two further and clearer aspects of nature-as-morality constructed as more direct outcomes of the interplay between social organisation and physical environment.

1.c. Morality and the Symbolism of Struggle

Morality deals with the delineation of social behaviour, cognitive categories, and perception of the world. It is a certain sense of the world and in Mesopotamia it was informed by the gradual hierarchisation and specialisation of social organisation, as well as by the confrontation between the natural environment and the will of the Sumerians. We have already referred to the socialisation of the divine, the reflection of Mesopotamian social organisation in the myths of Cosmogony, the Pantheon, and the Land. Attention has also been paid to the confinement of the numinous in anthropomorphic, or semi-anthropomorphic, gods, whose 'morality' resembled the behavioural standards set by kings and their courts.

Irrigation in Mesopotamia from the beginning of the fourth millennium BC, until its collapse during the first millennium BC, remained a

painful enterprise, involving long-term planning, hard labour, and constant effort to maintain the canals and keep them free of salt, which could have a devastating effect on the fertility of the soil. This hard and constant labour, doubled by the unpredictability of the rivers, and inter-city warfare which could disturb the people's well-being both by reducing them to serfs or slaves and by disturbing the management of the canals, greatly affected the way Mesopotamians perceived the world, its meaning, and the essence of things. True, absence of 'second-order' thinking, of advanced self-reflection (we will consider this topic extensively in the fourth chapter), necessitated 'mythopoeic', indirect, ontological statements about what truly existed. Thus, we turn to their cosmogonic-theogonic, Enuma-Elish, a text dealing with the essence and quality of the world.

In the beginning there was chaos in which the powers of the underground fresh waters (the god Apsu), and the powers of the salty waters (the monster Tiamat) mingled. There was no form, no shape, no place; only confusion. Then new gods appeared, engendered by Apsu and born of Tiamat, standing for silt, land, horizon, heaven-earth, and the storm. The god Enlil (later on replaced by Marduk), god of action, enterprise, and innovation slew Tiamat, the primeval monster of inertia and chaos, and created the present world out of her severed body. The message might be clear, that enterprise and action, properties of the laborious Mesopotamians, are necessary to create order and wealth out of a poor land, but the full message was delivered only by taking into consideration the myth that defines the purpose human beings serve in the world. This is found in the *Poem of the Supersage* (in Akkadian: *Atrahasis*), the oldest known description of the ideas humans have developed with regards to their origins and purpose of existence. After the Flood, which signals the end of mythological time and the beginning of historical time, the period in which things functioned according to their established purpose, there were no human beings, only gods. That society was made of consumer-gods, called Anunnaki, and producer-gods, called Igigu.

When the gods (acted like) men,
 they did the work and laboured.
 Their labour was enormous,
 the corvee too hard, their work too long,
 because the great Anunnaku made the Igigu
 carry the workload sevenfold

(in Bottero, 1992:222)

Finally, the Igigu revolted against Enlil and went on strike. Since they were gods themselves, they shared the destiny of the Anunnaki and they should not work. A plenary session of the assembly was convened to decide on the matter. There, the Anunnaki decided to create a new kind of creature to replace the Igigu. They should be devoted and clever enough, but inferior to the gods so that they may never complain or revolt. Thus mankind was born, intelligent and energetic, but mortal; their role to toil instead of gods, and their spirits destined to inhabit a bleak, dark, underworld.

Action, hardship, and the struggle to control natural elements was a rewarding enterprise only temporarily. It was a necessary battle against the primordial chaos that humans had to fight, a clash equally important to that against the barbarians. Mesopotamian kings were listing the construction of new canals along with plaques commemorating the defeat of enemies in battle as the major events of their regnal years (Hughes, 1975:32). The nature of things, the meaning of social life, and the meaning of the physical environment overlapped in a constant and hopeless struggle against chaos.

1.d. Morality as Culture vs. Wilderness

The first aspect of nature-as-morality derives from the perceptual contrast between the tamed and the wild, the civilised and the barbarian. We have already touched on the issue and the suggestive ways in which settlement, or human space, had created *ad hoc* cultural dichotomies between culture and wilderness. But, while there is no written Stone Age document to substantiate the suggestion, the Mesopotamian literature offers tangible evidence for a meaningful distinction that Mesopotamians were drawing

between their agricultural and urban life and the life of mountain dwelling herders or other foreign peoples.

It is well documented how central the Sumerian urban centres and the cultivated land around them were for the self-image and identity of the Sumerians (Kramer, 1963). The Sumerian gods were city-rooted. The political leaders of southern Mesopotamia, Sumerians and Babylonians, were always marking their importance by calling themselves kings and rulers of Sumerian cities. Their civilisation had been created by a direct confrontation with natural forces, and as an end-product it was coming into sharp contrast with the surrounding environment. They were not constrained by ecological forces any longer, or at least not as much as their Stone Age ancestors had been:

After An, Enki, and Ningursag
 Had fashioned the black-headed people (i.e., the proper people, the Sumerians)
 Vegetation luxuriated from the earth,
 Animals, four-legged (creatures) of the plain were
 brought artfully into existence.
 (Flood Myth, in Kramer 1963)

Whatever lay beyond the cultured space, vegetation, animals, and people, were of another quality, strange, and rough. Their image is constructed in ways that reinforce this difference and inferiority.

A tent-dweller [buffeted (?)] by the wind and rain...
 prayers...
 Dwelling on the mountain...
 The one who digs up mushrooms at the foot of the
 mountain, who does not know how to bend the knee;
 Who eats uncooked meat;
 Who in his lifetime does not have a house;
 Who on the day of his death will not be buried.
 (From 'The marriage of god Martu', End of
 the 3rd millennium, Machinist, 1986:188)

The Gutians, nomads who often invaded Mesopotamia, are described as part of the wilderness, or uncultured, category rather than as proper humans:

Not classed among people,
not reckoned as part of the land;
Gutium, a people who know no inhibitions,
with human instincts
but canine intelligence and monkey features.
(Early second millennium, Machinist, *ibid.*)

The abhorrence Mesopotamians felt toward the peoples and lands of the periphery was not restricted to the southern Mesopotamians alone. Sargon II, king of Assyria, talks about a route in Babylon in the following way:

...not open, (its r)oad was not passable. The country had been deserted from time immemorial... (In) the inaccessible tracts, thorns, thistles, and forests predominated over them; dogs and jackals gathered inside of them, and huddled together (?) like lambs. In that desert country, Aramaean -Sutu, tent-dwellers, fugitives, treacherous ones, a race of plunderers, had pitched their dwellings, and stopped passage across it. (There were) settlements among them which had fallen into ruin for many days past. Over their cultivated ground, channel and furrow did not exist, (but) it was woven with spiders' webs.

(Eighth century, 'The mountainous Mannaeans',
Machinist, *ibid.*)

Indeed, the Assyrians went even further along the path from Stone Age, or even alluvial civilisation, in two ways. Firstly, while the Sumerians remained loyal to the idea that the gods had established a never-changing world, with never-changing social functions always to be performed in the blessed land, the Assyrians, with a much more flexible, mixed, economy, less circumscribed territory, and a standing, professional army, perceived the world as entailing a potential, and assumed that there was a plan in the large schema of things waiting to be accomplished: the Assyrianisation of the world for the glory of the national god Assur. This invited Assyrians to move outwards from their borders and assimilate/acculturate the world. Thus, while the Sumerians were content to speak with contempt about foreign peoples

and uncultivated lands, the Assyrians were ready to reach out and acculturate them by assimilation.

This is the second, culturally important difference between the two people. The military inventions (technological and organisational) which took place in the crucial intersections of alluvial and hinterland cultures, gave the Assyrians an organisational and logistical capacity unknown to the Mesopotamians before them (Mann, 1986:174). Assyrian emperors could mobilise an army and keep it on the move for long periods allowing them to wage protracted campaigns at long distances from their original base. Thus, while the Sumerians became caged in their cultivated land, the Assyrians, due to their military expeditions, confronted a much wider range of lands in contrast with their own cultured space. During the expeditions, the army was experiencing a variety of dissimilar landscapes:

...I smashed all enemy lands like pots, and cast bonds upon the four regions (of the earth). I opened up mighty mountains whose passes were difficult and countless, and I spied out their trails. By main force I advanced over inaccessible paths (in) steep and terrifying places, I crossed all sorts of plains. In the might and power of the great gods, my lords, who sent forth my weapons, I cut down all my foes from Iatnana (i.e., Cyprus)... (Sargon II; cited in Luckenbill, 1968:25-26)

The harsh lands Sargon encounters are seen in functional terms and treated with contempt and the same militaristic spirit employed against foreign armies. There is no presence of demons, spirits, or gods who dwell or protect the site:

... With the quick and keen understanding with which Ea and Belit-ilani have endowed me... I had (my men) carry mighty bronze pickaxes in my equipment, and they shattered the side of the high mountain as (one does in breaking) blocks of building stone, making a good road. I kept at the head of my army and made my chariots, cavalry and infantry fly over that (peak) like fierce (brave) eagles (ibid.:75).

The contrast with the Assyrian sense of wild and cultured space becomes obvious if we compare the previous text's description of wilderness

with the following passages which describe tamed land. Striking in the text is the pride that Sennacherib derived from mastering the natural environment, building walls and canals so that people will not have to 'turn their eyes heavenward for showers of rain':

... The sagacious king, full of kindness (words of grace), who gave his thought to the restoration of (towns) that had fallen to ruins, to bringing fields under cultivation, to the planting of orchards, who set his mind on raising crops on steep (high) slopes whereon no vegetation had flourished since the days of old... (Sargon II; *ibid.*:74).

... At that time I greatly enlarged the site of Nineveh. Its walls, and the outer wall thereof, which had not existed before, I built anew, and raised its mountain high. Its fields, which through lack of water had fallen into ruin and came to look like a pitch, so that its people did not know any water for watering, but turned their eyes heavenward for showers of rain, - (these fields) I watered...' to continue '...Gardens, vineyards, all kinds of.... products of all the mountains, the fruits of all lands,.... I planted(?), (field), [and reviving] its vegetation, damaged(? By drought)¹⁶.... of all the orchards, at the entrance... above (the city) and below(?).... from the midst of the town of Tarbisi to Nineveh, providing, for all time, water for the planting of grain and sesame... (Sennacherib; *ibid.*:149-150).

Foreign customs, life-styles, habits, and even board games were adopted by the court. Wild life stood as a symbol of foreign lands and as such it was welcomed as tribute next to captured slaves and booty (Saggs, 1984:63). Treatment by association made wild life stand as a symbol of the untamed itself: It was concentrated into special places to be seen, hunted, multiplied, and admired. King Sargon II writes:

... At that time, with the labour of the enemy peoples my hands had captured, I built a city at the foot of Mount Musri above Nineveh, according to the command of god and the prompting of my heart, and called its name Dur-Sharrukin. A park like unto Mount Amanus, in which were set out every

¹⁶ Interestingly enough the drought is not credited to any divine action, or absence. Instead, a natural cause is assumed.

tree of the Hittite-land, the plants (fruit-trees) of every mountain, I laid out by its side (ibid.:42).

In the same fashion Ashurnasir-pal writes:

I caught animals alive. I collected in my city Calah herds of wild oxen, elephants, lions, ostriches, male and female monkeys, wild asses, gazelles, deer, bears, panthers... all the beasts of plain and mountain, and displayed them to all the people of my land (Ninth century, in Saggs, ibid.: 267).

Later on, king Sennacherib (704-681 BC) set up a wild life park around Nineveh. The wild was brought into the cultured place, a confirmation of culture's authority. Nevertheless, the park was not intended to be a place where animals suffered as were Rome's arenas. Instead, it was a place of confinement where life would go on as usual. There, 'the cane-brakes developed rapidly; the birds of heaven ...built their nest; the wild pigs and beasts of the forest brought forth young in abundance' (in Saggs, ibid.). Contra to political ecological theories, subjugation did not necessarily mean destruction, but control.

2. Egypt

2.a. The Exceptional Valley

The first settled communities emerged in the Nile valley in around 5500 BC. Their production was based upon the annual inundation of the river which would flood its lower valley (3 - 20 km wide, 1100 km long) depositing silt and covering it with a layer of fertile mud. Deposits of silt in the valley began long before the advent of agriculture and the amount depended on the volume of the Blue Nile. Yet, as Ponting (ibid.: 85) indicates, the Egyptians of this historical period might have been the beneficiaries of their neighbour's environmental problems as well: much of the heavy silt may have been a result of the deforestation and subsequent soil

erosion in Ethiopia. The floods themselves were remarkably well timed. They would begin in September and ended in November, a perfect time for the sowing of autumn crops.¹⁷

Along this thin fertile line dense agricultural communities numbering 2-4.5 million people flourished. They were using the hoe and later on a light plough drawn by cattle, but their agricultural technology remained far more elementary than in Mesopotamia. Evidence from the predynastic period suggest a decentralised, ranked society, with a flexible and mild hierarchical structure, involved in a wide network of organised trade which linked Egypt with Mesopotamia and Nubia. Social stratification intensified as egalitarian, yet settled, villages sought to gain dominion over their neighbours. It is interesting to follow the argument of a major Egyptologist about how egalitarian communities turned into stratified societies:

The dynamic for the growth of the state seems in many instances to lie inherent within the very fact of settled agriculture... The essential factor is psychological. Permanent occupation and working of the same tract of land give rise to a powerful sense of territorial rights which come to be expressed in mystic, symbolic terms which in turn create a peculiar sense of self-confidence within the community concerned... It awakens in some a competitive urge, and they see the possibility of obtaining an agricultural surplus, and thus a more satisfactory life, not through extra agricultural work on their own part, but by purchasing it or coercing it from others. It wrought a once-and-for-all-times change in the nature of society. From essentially leaderless aggregations of farmers, communities arose in which a few were leaders and the majority were led (Kemp, 1989: 32).

Probably in such fashion local chiefs emerged as key players in their vicinity and some villages became political centres. By 3800 BC there are definite signs of social stratification. About 3500 BC the fragile ecological

¹⁷ In Mesopotamia the flood occurred in the spring which was harvest time; the evaporation of the water occurred in summer. If the fields were not properly cared for, as in times of political turbulence, it could quite easily lead to salinisation of the soil.

balance of desert and grassland at the fringes of the valley collapsed, perhaps as a result of overgrazing, pushing settlers closer to the river and the control of the new elites (Hoffman, 1979). Increased population density increased agricultural surpluses, which in turn increased foreign trade, as well as the 'conspicuous consumption' of erecting public monuments. During the late Predynastic Period Upper Egypt was divided into three proto-states: The Kingdom of This, the Kingdom of Nagada, and the Kingdom of Hierakonpolis (Kemp, *ibid.*). Egypt was finally unified at around 2900 BC.

2.b. The Exceptional Conservatism

Egypt was to remain largely unchanged in its economic, political, and ideological structures for almost three millennia. With the exception of three intermediate periods of instability and political change, it remained a conservative civilisation with many of the artistic, religious and technological features of its early period surviving intact into Roman times (Fagan, *op. cit.*). Perhaps one of the most important changes concerning the official perception of nature occurred at the beginning of Egypt's unification. According to Kemp (*op. cit.*), the ideology of the new state was based on three pillars: (a) the local ideological traditions of towns and villages dating from the Predynastic Period; (b) architecture as a statement of political might; and (c) the containment of 'unrule'. The latter refers to symbolic representation of conflict and might as depicted in motifs of that period. One of the most striking aspects of this was the use of animals in violent scenes. The use of animals is a common theme that was made use of in a variety of civilisations in order to express the untamed, wild force of raw nature. As always, the Egyptian depiction of violence had a political message. What is of particular interest is the comparison of the depictions of wild animals in the late Predynastic Period, with those of the Early Dynastic one, the period of the Pharaohs.

Motifs of the late Predynastic Period, such as the Narmer palette, depict animals standing balanced on two legs, suggesting that the intention of

the artist was to create a harmonious framework which could depict a turbulent world as opposites reconciled. The same message of harmony is sometimes portrayed by peaceful processions of animals arranged in horizontal rows. Pictorial representations of the hunt and battle show two equal groups of warriors. They probably symbolise, or at least they are influenced by, the balance of power held among city-states. Yet, this cosmic balance was not in line with the Pharaonic pretensions of Dynastic Egypt. Harmony within the state resulted from the rule of the Pharaoh himself, flowing down to the commoners through royal officials. The king was the source of order, which included justice as well as the subjugation of the wild. The Hierakonpolis motifs (Decorated Tomb) stand witness to the monarchical perception of nature, in the manner in which two paired lions are confidently held apart by a central human figure, the ruler. Other pictorial representations depict a giant single-handedly destroying an enemy, taming wild animals, or building a canal. Balance was replaced by a single source of order and might.

In Egypt the ideal of the pharaoh remained unchallenged, allowing him to make divine claims with salvationist overtones¹⁸, and to boast of a high status in the hierarchy of Cosmic Order and the divine control of the environment. It is in this environment that the figure of king-god found its purest expression. If Mendelsohn (1974) is correct, the construction of the pyramids was a practical administrative device designed to organise and legitimise the state by trading food for labour. The pyramids became the ultimate symbol of the state's and pharaoh's power over the natural environment and proof of his divine status. Most of the time the pharaohs claimed the status of a true god - not god's chosen representative on earth, but Horus the son of Re, the sun god. A Twelfth Dynasty pharaoh claimed: 'I was one who cultivated grain, and worshipped the Harvest God. The Nile greeted

¹⁸The pharaoh had eternal life because his office was divine. The rest of the people had to prove that they deserved it. They were in need of the pharaoh and the god Anubis to obtain eternal life.

me in every valley. None were hungry in my time, none was thirsty then. All dwelt in content through which I did' (quoted in Murray, 1977:136). If pharaoh's pretensions were also shared by the commoners, he alone could guarantee eternal salvation, since the offerings without which the deceased could not exist were officially his gifts. And yet, these claims were not the outcome of brutal, coercive power, of absolute control over the farming communities or the local aristocracy. This is suggested by the absence of a large standing army and no evidence of a militarised society, or a slave-based economy, at least until the first millennium BC (Trigger, 1985). Rather, pharaoh's power rested on the fact that Egypt (particularly Upper Egypt) was more ecologically caged than any other civilisation and overwhelmingly depended on the Nile's floods, and on the pharaoh's central managerial organisation for survival. Though redistribution might have been a rare phenomenon, the organisational and distributive ability of the centralised authorities were proven twice, during the almost catastrophic drought cycle between 3000 and 2800 BC.

This ecological fact was socially translated as a combination of three factors enhancing the state's authority: (1) the state could, and was, exercising geopolitical control over the single communication route in the valley by controlling the river itself; (2) the state was the only institution able to perform military expeditions to acquire essential metals lacking in the alluvial valley itself (Garraty and Gay, *ibid.*: 69-71); and (3) the state could appropriate resources, and thus fund state monumental projects. In some cases stored food proved to be important for the survival of the peasant communities.

Like every other pristine civilisation, Egypt evolved an elite moral ideal about proper social conduct and cosmic reality, both reflected in religion. Though in Mesopotamia, China, India, or Greece this ideal was shared by the population in some degree, in Egypt it enjoyed widespread popularity. Because the population was confined along the river banks, isolated from external influences, and content in its ecology, Egypt enjoyed

an unprecedented cognitive cohesion for an unprecedented period of time. The values of the bureaucracy, of efficiency, manners, and service were elevated to an ideal for living.

The pantheon, made of local divinities, was systematised and organised with the unification of the country in the late fourth millennium. After that time different gods assumed political supremacy, depending on the importance that different god-centred towns acquired during these centuries. Yet, the essence of the Egyptian world-view remained intact. Furthermore, warfare, barbarian raids, and ecological harshness remained exceptional (e.g., First and Second Intermediate Periods). Peace, stability, and prosperity facilitated a relatively optimistic world-view. Humans, though inferior to gods ('the cattle of god'), held a special position in the world, having been 'well provided for'. Humans constituted the tears of Re, sharing his divine essence. Re created the cosmos for them: the sky, the earth, the air, the plants and animals, because they were his images (Eliade, 1979: 89). However, they were not to forget their position as 'cattle'; when Re discovered that humans were plotting against him, he punished them severely.

Optimism was justified partly by the political stability that was the rule, rather than the exception, in Egypt (in antithesis to the Mesopotamian situation). But it was also inspired by the benevolence of their ecological setting. True, hard work and some luck were necessary, but the Nile was predictable and the flood and silt were guaranteed to occur annually. It is not a coincidence that art found in tombs and temples depicts an ideal world, sober and dignified, in which the real and the imagined, the social, natural, and supernatural were drawn together in a harmonious composition from which struggle, effort, and turbulence are absent.

Symbolic harmony did not necessarily mean harmonious relationship of the Egyptians with their environment. Much of the Nile's wildlife was wiped out by hunting and irrigation projects. The grasslands on the fringes of desert were devastated by grazing. As in other cases, the economic appropriation of the physical environment was not checked by naturalistic

reverence or ecological sensitivities. The falcon, the jackal, the papyrus, and the beetle-scarab, might be revered as alter egos of gods, but this was done in the symbolic universe of social interaction - not at the economic nexus of resource appropriation. Otherwise, the Egyptians showed an acute interest and artistic joy in nature, plants, and animals. Hughes (1975) reports that well-to-do Egyptians loved gardens, that they planned them carefully with symmetrical beds of flowers and shallow pools of water, and that they collected vegetables, herbs, vines, fruit and shade trees to plant in them. This dual attitude toward the non-human world, attraction to the cultivated and confrontation with the wild, also found expression in the symbolic and ideological domain. Let us first consider a passage quoted in Frankfort (1946:46), referring to Egypt and to adjacent lands:

Thou makest the Nile in the lower world
and bringest it wither thou wilt
in order to sustain mankind,
even as thou has made them

.....

Thou makest that whereon all distant countries live
Thou hast put (another) Nile in the sky
so that it may come down for them...
the Nile in the sky, thou appointest it
for the foreign people and all the beasts of the highland
which walk upon feet, whereas the (real) Nile
comes from the lower world for Egypt.

There are two points of interest in this passage. Firstly, Egypt is portrayed as the archetypal, the correct land, where the real Nile runs. Secondly foreign people and animals are put together in one category. Furthermore, Egypt, as land and as a people, is portrayed as flat (---), while 'foreign countries', 'desert', 'highland' and 'mountain' are depicted as (-^ -). Egyptians then, like most historical peoples identified human beings with the land, projecting the character of the land onto the character of its inhabitants. Foreigners were lesser people because they lived in rough, mountainous, less valuable lands. It is not an accident then that universal order and chaos were in proportion to the confinement of the Egyptian land. The Egyptian universe

was a small island of orderly activity, guaranteed by the gods, in an ocean of endless disorder.

This identification of people and land corresponds to the firm belief, stronger than in Mesopotamia, that there is no difference in the essence of social, natural, and supernatural elements. Gods could enter the body of an animal, a man, or a house. The universe was full of demons, spirits, and high gods who could work for the benefit or the detriment of human beings. Deities, even the higher ones, were blurred, never acquiring clearly defined personalities (Morentz, 1973; in Trigger, 1993). Furthermore, lesser gods were treated as attributes of a small number of major creator gods (Amon, Re, Ptah). The Egyptians believed in the 'principle' of free substitution, interchange, and representation of one element by another. This Neolithic belief remained alive even after the territorial centralisation of Egypt and complemented the supreme and divine power of the Egyptian pharaohs, a sign of the power of tradition.

Thus, Egyptian gods are quasi-anthropomorphic, transcendent forms of the numinous, dwelling in nature, entering into 'every kind of plant, every kind of stone, every kind of clay, into everything that sprouts on earth's surface and by which they can manifest themselves'. Gods were affiliated with a resurrectionist cosmology that was still strong in the chronologically advanced Middle Kingdom. Here, murdered and resurrected Osiris, the increasingly popular god of the period asserts:

Whether I live or die, I am Osiris; I enter in and reappear through you... the gods are living in me, for I live and grow in the corn that sustains the Honoured Ones. I cover the earth; whether I live or die I am Barley. I am not destroyed... (Early Dynastic Hymn).

During the Early Dynastic and Old Kingdom periods (3100 - 2130 BC) Egypt was characterised by dynamism and optimism. The gods were responsible for the wonder and security of the world (i.e., the Nile valley and its surroundings), but they were still remote as if people did not really need them for intense guidance or worship. Egypt was the purest place on earth,

where the Nile ran its natural course (downstream), and the water did not fall from the sky (a second-order Nile), but rose out of the earth itself in predictable and beneficial ways (Wilson, 1946). The Pharaoh had undisputed authority, and was a god himself, who alone had a privileged fate after death, taking his place among the immortal deities. The priesthood was weak, a part-time occupation, bound to the service of the king like all other officials (Trigger, 1993).

The pharaoh, sole ruler of the land, being of divine essence, obtained eternal life as his right. Yet, this exclusive right was qualified by the diffusion of the divine among the living, the dead, and the gods. All three substances were of the same divine essence. The king was not qualitatively different from the commoners. This is why he needed spells and charms to accompany him in his grave. They made their first appearance in the middle of the twenty-third century BC. Eventually, all who could obtain these ritual texts (Coffin Texts) could also obtain the same immortality as the gods.

2.c. Social Change and Nature

Social changes during the Middle and the New Kingdom, rather than changing the Egyptian world-view, were a development of what was already there. From the beginning of the second millennium and the Middle Kingdom (2130 - 1750 BC), every person affluent enough to obtain the advantages of mummification bought the Coffin Texts, and became identified with the ruler of the under-world, Osiris. It was a period of opportunity and vertical mobility for men with talent, as the economy demanded more bureaucrats. Scribes became overseers of workers in the field, and with this improvement in status they considered themselves demigods next to their god, the pharaoh. There were other changes as well. The founders of the Middle Kingdom preferred to be called 'benevolent' rather than 'mighty' gods, and chose names that expressed personal piety. The royal pictorial style also became more emphatic, stressing piety, truth, worry, all the signs of a good and concerned king. Yet, cognitive categories and the perception of nature did not

change. The local Theban god Amun came to prominence and united with Ra.

Imperial expansion and growing technological complexity during the New Kingdom were accompanied by a greatly enhanced division of labour, which involved professional soldiers, priests, scribes, and increased urbanisation. Economic and social developments permitted more vertical mobility and a growing number of career options for individuals. This was accompanied by an increased emphasis on a more direct contact between individuals and high gods than in the past, and a diffusion of piety to broader social strata. Temples continued, as during the Old Kingdom, to be built near or even inside towns, while elaborate processions of portable sacred barques became the new means by which the pharaoh and the bureaucrats/priests communicated the state ideology to the commoners.

Yet, in spite of these changes the basic cognitive categories which dealt with political institutions, religion, and relations with the physical environment remained largely unchanged until the advent of Christianity. Politics, cosmology, and technological-economic appropriation were shaped by the same moral denominator. This denominator was still mute, unregistered, and implicit in a revered and ancient tradition. As long as the upper echelons of Egyptian society were content with traditional moral categories, and were sheltered under the state apparatus, there would be no cognitive break-through.

3. Early India – The Harappa Civilisation

The evidence from the earliest period of Indian civilisation (3000 - 2000 BC) is too slim to allow any firm theorising on the interaction between notions of nature and social developments. Nevertheless, available material suggests that the Harappa civilisation did not involve any decisive centralisation of political or military power. This is 'negative' evidence, which under a comparative perspective constitutes an interesting case to test

the significance of centralised power and militarism in affecting environmental degradation as well as the perception of nature.

We do know that farming was practised before 6000 BC and that animals were first domesticated in the second half of the fifth millennium (Fagan, 1995). Civilisation, the emergence of urban and ceremonial centres, was developed at about 3,000 BC. It was fully developed five hundred years later, expressed as a network of numerous villages, towns, and cities. The cultivation of cotton, wheat, and barley was based on the annual resource of silt deposited on the banks of the Indus River. This allowed for fast population growth, that facilitated large-scale irrigation constructions similar to Mesopotamia. As in all other cases, food surplus allowed the maintenance of non-producers and the emergence of a stratified society.

Yet, the formation of a stratified society was not a slow, long-term process of social development, such as in the other cases we are examining. Instead, the transition from egalitarianism to stratification took place in less than two hundred years (2700-2500 BC; Possehl, 1986). It would not be an exaggeration to argue that the civilisation expanded rapidly when it became a branch of the international trade network, involving the Myceneans, the Mesopotamians, the tribes of the Iranian plateau, and the Harappans of northern India. Yet, social hierarchies were not as pronounced as those of Egypt or late Mesopotamia. The reason the Harappa civilisation remained largely decentralised and only mildly stratified might be that the area was not as circumscribed as Egypt and Mesopotamia. There was a constant and fluid movement of people and commodities from highland to lowland, and from the dominant rural periphery to the few towns and cities. The symbiosis of the two regions created a diffused economic network based on the exchange of lowland grain for timber, precious stones, and metals from the highlands, all exported to Sumer (Possehl, 1993).

It allowed the development of central granaries, along with organised long-distance trade and the development of the 'sister-cities' Harappa and Mohenjo-daro with 40,000 inhabitants each. These were defended with

citadels 400 metres long and 200 metres wide. It is almost certain that this early civilisation was culturally heterogeneous, a 'confederation' of municipalities, towns, and villages, extending for 1,000 square miles; its political structure even at its peak, remaining federal. The rulers remained anonymous, neither bombastic, nor glorified. The warlike remains are few, and burials do not reveal any excessive status differentiation. Fagan, summarising the available evidence, reasons that rulers were probably merchants, ritual specialists, or people who controlled key resources or large areas of land (Fagan, 1995:416).

The function of the priesthood strongly resembles the Mesopotamian case, being centred on storehousing keeping. The secular character of the priesthood was accompanied by some religious performance, as the Great Bath at Mohenjo-daro indicates (Eliade, 1979). The specific structure of the two cities suggests that they were ceremonial centres, at least in the first stages, centred around sanctuaries, *imagi mundi*, or 'centres of the world', as in the cases of Egypt and Sumer. Here, the large bath (60 by 33 metres) and the foot basin located inside the citadel have been interpreted as evidence of a stress on ritual purity for the priests (Garraty and Gay, 1972). In all, we are dealing with a peculiar case of a civilisation precipitated by local and international trade, rather than the long-term 'laws' of circumscription. The relatively low levels of social hierarchies, and apparent absence of militarist aggression, create an interesting case in the search for the treatment and perception of the environment.

Even though the puzzle of the Harappan language does not allow us to reach definite conclusions, the few urban centres, the vastness of the rural periphery, and the cultural heterogeneity and fluidity indicate the absence of an elaborated pantheon. Only two major divine figures have been identified, a Mother Goddess and a Great God, along with a few lesser gods which Eliade relates to Mesopotamian figures such as Enkidu. Next to these personified divinities stand various tree spirits to which sacrifices were being brought (Eliade, *ibid.*: 127). It would be prudent to imagine an attitude

toward nature similar to the first Mesopotamian period. The Harappans probably believed that they lived in the valley to serve the gods who were the cause of fertility and to whom cults devoted their rituals (Fagan, *op. cit.*). Yet, there is little evidence of high gods and an elaborate pantheon similar to Egypt or Sumer. Furthermore, many fertility figurines, male and female, direct descendants of the Neolithic statues, were found at the excavation sites of the Mother Goddess and the Great God. This combination suggests that Neolithic beliefs and rituals had remained intact as more elaborate and centralised forms of the numinous became available to the elites. Religion remained socially diffused and perceptually embedded in nature, and was not concentrated in the substance of a few anthropomorphic gods.

Yet, absence of militarism and wide social hierarchies did not affect environmental treatment in any peculiar way. Indeed, we find a pattern similar to other civilisations, namely, alteration of fauna and flora to serve the needs of farmers and herders, and subsequent environmental degradation, mainly due to deforestation. Carter explains: 'As the foothills of the Hindu Kush and Himalayan Mountains were deforested, floods and siltation increased, so that silt in the irrigation waters and canals must have become a terrific problem. Archaeological findings show that some of the ancient cities were temporarily abandoned on account of floods at least twice before their downfall' (Carter, 1974:197). To this Fagan adds: 'Deprived of natural controls, the rising floodwaters swept over the plains, carrying everything with them' (*op. cit.*: 411). At around 2000 BC, due to major ecological catastrophes and/or collapse of the trade network, the Harappan civilisation came to an end. This was followed by an invasion of Aryan nomadic tribes from the north (c. 1750 BC). A certain synthesis of the Harappan and the Aryan culture, Hinduism, replaced the Neolithic set of Harappan beliefs.

4. Shang China

The ecological cradle of the Chinese civilisation was the Huanghe (Yellow) River. The river carries alluvial silt enriched with a second

fertiliser, loess. It is rich in minerals and able to generate large cereal yields. Farmers started to cultivate the area in about 5,000 BC and by 2,500 BC they began to establish permanent, walled, settlements. The major feature of social organisation was kinship ties and loyalty, and the extended family was the all-important political unit.

The Neolithic culture that developed out of these settlements appears to have been an autonomous development. The social structure of the farming communities was egalitarian and their world-view was focused on reinforcing and controlling the social cohesion on which their survival depended. Thus, the religious beliefs of this period were concerned with sacred space, fertility and death, and above all the worship of ancestors, a world-view similar to other Neolithic civilisations. As in Mesopotamia we find a myth of primordial chaos, Earth and Heaven being formed out of a dismembered anthropomorphic being (P'an-ku), and of paradise being lost when heaven separated from earth.

Egalitarianism did not prevent ecological disasters. As Ponting argues:

Although the soil was rich it was very easily eroded once the natural grass cover had been removed in order to make way for fields of millet. Very rapidly huge gullies and canyons developed as the soil was blown away by the wind or washed away by the rain. At the same time hillsides were cleared of trees for fuel and construction. Steadily the deforested area increased until, by about two hundred years ago, nearly all the original forests of China had been cleared. The wholesale loss of trees in the highlands of China was one of the main causes of the often disastrous flooding of the Yellow river (so-called because of the amount of soil it carried from erosion upstream), which regularly resulted in major changes of course by the river in the lowlands and huge loss of life (Ponting, 1991:74).

Two beliefs of this period played a particularly important role in shaping the Chinese cognitive universe. The first was that ancestors were a source of power in affecting and controlling natural elements and people. This cult was an outcome of the agricultural, immobile, and decentralised

social life, in conjunction with the patriarchal arrangements of family structure. Second, was the 'conjunction of contraries', connected to the mythology of the 'cosmic cycle' (Eliade, 1982: 4-7). It is also found in other Neolithic cultures, but in the Chinese civilisation, anthropomorphic depiction of male and female deities remained too abstract to 'humanise' the universe. The cognitive categories were expressed as 'elements' rather than persons, manifested in dualities, such as bright-dark, male-female, and hot-cold. When they were organised and systematised in later times, they produced the ideal of the unity/totality of cosmic life.¹⁹

During the beginning of the fourth millennium, these agricultural communities became interlinked with a wide network of trade over long distances, triggering developments in technology as well as a more complex social structure. In contrast to the Harappa civilisation, trade was combined with warfare, and widespread violence became endemic to China for a protracted period of time. It is quite probable that the highly stratified society that emerged was a result of militarism, which precipitated the social inequalities of wealth caused by trade. Even more intriguing is the way the natural environment was used to legitimise sharp social stratification. Powerful, new rituals emerged, among them the most important being a cosmology based on animals and birds and the use of divination to communicate with the ancestors. Divination became a crucial means of communication with ancestors, spirits, and gods, as well as for consolidating the power of those who performed the ritual. As Fagan notes, 'a skilful diviner could control the extent and the direction of the cracks. Thus, divination provided an authoritative leader with a useful and highly effective way of giving advice; a leader could regard disagreement as treason (Fagan, *op. cit.*:434).

¹⁹ A possible reason for this 'stagnation' even in later periods could be the relative lack of urbanisation and dispersed settlement which left a large part of the population unaffected by city-led hierarchical political organisation.

By 2500 BC social differentiation and stratification had turned the decentralised and diffused political network of villages into small rival political units, as warlords turned specific villages into political and ceremonial provincial centres. By default, the same individuals became all-powerful ancestral spirits, creating a similar other-worldly hierarchy of spirits linking the living with the dead and the gods. All official divinations were addressed to the royal ancestors who acted as intermediaries between the community and the ultimate ancestor, the ruler of creation, Shang Di. In a nutshell, the cultural imperative was kinship ties in a cognitive framework of abstract opposites which guaranteed cosmic well-being. Such an infrastructure supported the pretensions of the king as the 'father of all people'. Since he was also the son of the supreme god Shang Di, the Chinese people turned into a single imagined family superior to others by the grace of their divine lineage.

The Shang kings of the first Chinese civilisation, were warlords who achieved prominence after generations of bitter strife with their neighbours (Chang, 1986). The Shang dynasty dominated China from 1766 to 1122 BC. From its first stages the Shang civilisation incorporated high degrees of inequality, as indicated by the presence of a military aristocracy, imperial central rule, royal tombs, large palaces and ceremonial centres. Administrative centres were fortified with massive walls, and warfare and ritualistic human sacrifice were intensified. As militarism became pronounced, the Shang dynasty forced the inhabitants of large areas to acknowledge their authority though politically they may have remained autonomous. Stratification and coercion developed quickly, and the monarchy soon felt confident enough to make divine claims (Chang, *ibid.*).

In this early period Chinese civilisation was expansive in a culturally homogenous rural space. It was the great openness of the terrain (not circumscribed as sharply as in Egypt, or Mesopotamia), and the great similarity of the activities of the inhabitants that accommodated a dual religion, one for the agrarian masses, and one more confined to the

homogenous Chinese ruling-class. Thus, the Neolithic cosmic cycle remained alive and focused on the periodic renewal of time (as in the Sumerian New Year rituals) and spiritual regeneration. The pre-deistic belief-system, incorporated a pre-eminent supreme celestial god, Ti (Lord) or Shang Ti (The Lord of High). As Eliade notes, Ti commanded the cosmic rhythms and natural phenomena (rain, wind, drought, etc.); he granted the king victory and insured the abundance of crops; but he also brought disasters, sickness and death (Eliade, *ibid.*: 7). This was a segmented, militaristic religion, in which the Neolithic elements were still alive. Ti was offered two kinds of sacrifices: those in the open and those in the ancestors' sanctuary. Interestingly enough, he was less active than the ancestors of the royal lineage, and was offered fewer sacrifices. Yet, he was the supreme Lord of the universe and the only authority in matters of war and rain, the sovereign's two major preoccupations. The king himself held a special position among men toward the divine. He was the only one able to communicate with his ancestors while his ancestors were the only ones able to intercede with Ti. As Keightley (1978) remarks, the king strengthened his authority by means of the widely used ancestral cult. By identifying his own ancestors as being directly descended from Ti, he was granting himself absolute authority vis-à-vis other strong families and individuals.

When the Zhou, a western tribe, deposed the last Shang ruler and founded their own dynasty (c. 1028), their Lord justified his action by arguing that he was ordered by Ti to put an end to a corrupt domination. This reveals the strength and the homogeneity, as well as of the assimilation capacities, of Chinese culture. During the Zhou dynasty (1028 - 256 BC) Ti, or T'ien (Heaven), became clearly anthropomorphic and more of a personal God. He resided in the Great Bear; he observed everything; he was clairvoyant and omniscient; his decrees were infallible; and he was invoked in agreements and contracts. Most of all, he was the protector of the dynasty. The king was the 'son of T'ien', and the 'regent of Shang Ti'. Due to his special relation with the divine, the king was exclusively responsible for the cosmic order in

the world. In case of disaster he subjected himself to expiatory rites, and during the essential moments of the agrarian cycle the king represented T'ien (Eliade, *ibid.*: 9-11).

T'ien was not the only god: There were many others, gods of the soil, organised around the political hierarchy of the time. For our purposes there is no need to concentrate on the considerable number of local peculiarities. Instead, there is one major observation that we should mention: the enduring 'cosmic cycle' scheme. The endurance and stability of the Chinese bureaucracy, and the vastness of the Chinese lands guaranteed the uninterrupted continuation of the primeval Chinese world-view to later times. During the first millennium it remained powerful and, with further elaboration which took place in the following millennium it integrated the macrocosm-microcosm scheme into the highly sophisticated scheme of the antagonistic but complementary principles of Yin and Yang. Paradoxically, the most spiritual of all pre-axial religions, constantly renowned by modern ecologists and spiritualists, was founded by the most militaristic social environment of antiquity.

5. The Minoan Aegeans

The Minoan civilisation, centred on the island of Crete, represents the achievements of the Aegean islands people of the Bronze Age (3000-1000 BC). That was preceded by three millennia of small but cumulative Neolithic advances in agriculture and animal husbandry without the use of metal. These achievements in farming contributed to the material, consuming and trading foundations of the Aegean economy: an ecologically durable polyculture of olives, vines, and wheat (the so called 'Mediterranean triad') accompanied by herds of goats and lambs.

Towns were built in Crete and in some other Aegean islands at about 2500 BC and palaces started to emerge six hundred years later, reaching a high level of development by 1500 BC. Literacy was also developed and evolved three scripts: Pictograms (3000-1700 BC), Linear A (1700-1500 BC;

still undeciphered), and Linear B, a Greek script brought by settlers (invaders?) of the island of Crete. Because archaeologists are unable to decipher pictograms and the Linear A script (the latter corresponding to the Minoan high culture era), and are faced with apparently sudden environmental disasters in Crete and the island of Thera, they cannot be certain about the social, ideological, or political arrangements of Minoan culture. To compensate for such misfortunes, they have focused on architectural, sculptural and decorative features.

Based on suggestive, rather than authoritative, evidence, archaeologists have suggested three trends on which the Minoan social fabric depended (Warren, 1994:49). The first trend is the establishment of closely knit, densely populated, agricultural settlements. The honeycomb-like architecture of these villages reveals a communal life in which ties were close and social ranking minimal. The second trend, which developed out of this communal life, was the extended family, a sub-unit on which a later, 'classic' ranking was based (1900-1500 BC). The third trend was the establishment of territories for the use of particular settlements, limited by the distance a farmer could travel on foot to the fields and back every day. Ecological variations made some settlements more important than others. A few of them grew large enough to become trade and cultural centres of territories larger than an ordinary settlement could command. However, the lack of fortifications around these new redistributive centres strongly suggests that they were built and functioned with the collective acceptance of the community (Warren, *ibid.*). Lack of fortifications in Crete or elsewhere in the Aegean sea still remains the primary evidence for the unusually peaceful character of the Minoan civilisation, though the issue is far from settled.²⁰

²⁰ Archaeologists have recently discovered 70-80 watch-towers in the interior of Crete which suggest militaristic activity either among city-states (e.g., Knossos, Phaistos, Gortys), or between city-states and bandits (Newspaper *To Vema*, 16/5/95). In any case, there is also no depiction of such themes among the Incas or in Shang China, though both were militaristic states.

Further analysis of the palatial and town structures reveals that though population numbers, economic surplus, and political influence increased, social stratification in Crete, Thera, Melos, and Cythera remained relatively low: The political and religious authorities (when present) were not insulated from the town dwellers who continued living in close proximity to the palace and were still organised in communities (Marinatos, 1984:6); there are no depictions of rulers commanding armies, accepting tribute, or communicating with their divine ancestors; there is no evidence of a standing army; no clear evidence of warfare between the four major economic centres in Crete; no evidence of slaves in sufficient numbers to make them an economically significant class; and towns under the economic rule of a palace could still keep their political autonomy (e.g., Arkhanes town vis-à-vis Knossos palace or Hagia Triada vis-à-vis Phaistos). Indeed, in one known case, a minor town, Zakros, in western Crete kept both its political and economic autonomy.

All these do not mean the total absence of warfare. Piracy was prominent as the five kilometer distance the large cities kept from the sea manifests, and a large part of the surplus resources were used to maintain a fleet capable of countering this menace, and in some cases for fortifying commercial posts and towns (e.g., Ayia Irini on the island of Kea). This meant that warfare was not a long-term strategy for the economic and political strength of the palace(s) and its leaders. Even in the later, New Palace Period (1700-1450 BC), when the king strengthened his position vis-à-vis the priesthood, warfare remained peripheral to the Minoan pattern. It would be prudent to assume that the role of the king was as important as in early Mesopotamia: he was responsible for the concentration and co-ordination of resources in moments of crises. The priesthood, probably consisting of females, would remain in charge for the rest of the time. And, as in Mesopotamia, their responsibilities were considered prestigious rather than powerful.

The lack of strict hierarchy and the involvement of men in maritime ventures for long periods of time had an impact on gender roles. The dominance of goddesses in religion, indications of matrilineal rather than patrilineal lines of succession, and ample depictions of Minoan (upper-class?) women taking part in public life and participating in religious festivals clearly indicate that women enjoyed more freedom and respect than in other places (Hood, 1971: 118). We do not know if they were enjoying absolute equality to males, or if there was any status differentiation in the productive and reproductive roles of males and females. Since the priests were derived from the nobility (Marinatos, *ibid.*: 26), which enjoyed a luxuriant life anyway, it is difficult to distinguish gender from class. Still little is known about the lower classes and the position of males vis-à-vis the females among the farming communities where harsher conditions were at work. To make things more complex, there seems to have been a distinction between festivals for male or female participants only, each with clear role distinctions (Marinatos, *ibid.*: 52). Nevertheless, the most comprehensive and fascinating aspect of female status on the Aegean islands comes from religion itself: the chief deity worshipped was a goddess or a group of goddesses with different names but basically similar characteristics (Nilsson, 1950). She was probably accompanied by a young, mortal god, such as Zeus, who was mortal before the coming of the mainland Greeks who turned him into a god. Yet, the essence of the supernatural, the organisation of cults, and the mythology and cosmology related to them remain a puzzle. We do know that there were certain Egyptian and Mesopotamian influences in matters such as the organisation of the temples and the subjects of frescos. But in such a dissimilar social and ecological environment imported concepts were quickly absorbed into local themes and traditions; we could not reliably interpret them.

Thus, basic subjects such as deities' affiliations, the appropriate ways to approach them, and the evolution of their features (personality, form) are still unsolved issues. According to one theory, for example, while gods might

be represented in pictures, no cult statues of them were made in Crete before the arrival of mainland Greeks. Another one insists that the famous snake-entwined figurine from Knossos has the aspect of a goddess rather than of a priestess, and looks as if it was intended for cult use (Hood, 1971: 132). In addition, we do know of the existence of (lesser?) theriomorphic figures, the most famous being Minotaurs, and others having Egyptian characteristics but we do not know the framework of their veneration.

Such obstacles prevent us from tracking the development of the way nature was perceived from Neolithic times on. But they do not prevent us from grasping, though on broad lines, the way nature was perceived at particular Palatial times (1900-1500 BC). Firstly, the fact that religious beliefs had not yet fixed on anthropomorphic divinities (the above mentioned goddess would be an exemption to the rule) strongly indicates a cognitive framework, a world-view, not far away from what is generally recognised as Neolithic. Cotterell goes so far as to argue that '[T]he ancient Cretan saw spirits everywhere... the universe lived' (Cotterell, 1979: 161). It is not easy to substantiate such a claim, but a certain 'Neolithicity' is suggested by the location of the shrines and sanctuaries, the places where divinity was located and worshipped. Yet, it could simply suggest that the palace did not enjoy a monopoly of worshipping rather than the existence of animism.

Indeed, most of the shrines were located in the countryside, on the top of hills and mountains, and in caves such as the one the legendary king Minos visited every nine years to speak with, or be advised, by his father Zeus. Nevertheless, the worshipping of the fig tree, wooden columns, and natural concretions of stone, as representatives of the divine is common to the hierarchical Mycenaeans as well (see next chapter). The divine was portrayed basically in two postures vis-à-vis the worshippers: She either keeps some distance from them, as in the seal impression which shows a goddess on a mountain with a worshipper on the plateau, or she is portrayed standing among them receiving their offerings (Hood, *ibid.*: 135). It is not certain if the

same goddess is depicted, but in both cases the goddess(-es) remains associated with a natural element such as the mountain and/or the tree.

The most notable aspect of the Aegean view of nature was the connection of the divinity to the landscape and in the final analysis the solid inter-connection of the divine figure to the natural setting which, in the eyes of the beholder, she represents. In the shrines found on Crete, Thera, Melos, and the other Minoan islands, divine figures are always portrayed in the midst of remarkably vivid landscapes full of lilies, crocus flowers, animals, and fish. This stands in almost complete contrast to other contemporary cultures, such as the Mycenaean or the Assyrian ones, which use landscapes and features to indicate location, and in which nature was assigned only a subordinate role (Marinatos, *ibid.*: 85).

This (literal) openness of their view of nature, the fusion of the human with the non-human, the celebration of fertility as a mother-earth figure, and the impressive familiarity the worshippers show toward the divine perfectly corresponds to the open-cage political and environmental conditions of the Aegean. The genuine beauty of the landscape, the fragmented but not abruptly discontinuous landscape, the multi-culture of grain, oil, fish, vineyards, trade, and rain-watered agriculture all played a role in establishing this exceptional world-view. There were no abrupt cultural discontinuities, no prohibitive ecological barriers. The geography of the Aegean would have had a strong impact to the psychology of the Aegeans, perhaps stronger than it does today. Furthermore, the Aegean ecology and geography did not allow centralisation of production, but only of distribution and this with the consent of the producers who left their personal marking-shields on olive-oil jars found in the palaces. The large mountains of Crete and the lack of any important amount of arable soil in the rest of the tiny Aegean islands created further obstacles to centralisation and stratification. There was enough food for everyone, and when the population strains were becoming serious, expeditions to nearby islands (such as Thera) functioned as a safety valve. Military power always meant naval power, but as later on in Britain, it was

enough to rule the waves if it could not rule the corridors of power²¹. Its basic function was not to 'rule' but to allow free communication and transportation. As Thucydides wrote one millennium later:

Still more addicted to piracy were the islanders... But when the navy of Minos had been established, navigation between various peoples became safer - for the evildoers of the islands were expelled by him and he proceeded to colonise most of them - and the dwellers of the sea-coast now began to acquire property more than before, and to become more settled in their homes, and some seeing that they were growing richer than before also to put walls round their cities... (quoted in Cotterell, *ibid.*: 123).

Even in this apparently idyllic picture there was a slow, though definite movement toward caging, both of the divine and of the social apparati. This can be spotted even from the Old Palace Period (1900-1700 BC): there are few divinities which are depicted in anthropomorphic forms, and as urbanisation and urban-centred life increased²², the divine itself was gradually locked into urban shrines where the depiction of natural scenes became more formalistic. Intensification of warfare, on the other hand, during the New Palace Period (triggered perhaps by the desire of peripheral peoples to control the increased amount of surplus production) gave kings some additional power and they succeeded to consolidate their authority in the political, economic, and ideological spheres by combining both roles. But their ability to impose their will, at least in matters of culture, remained limited. The king, or a god of warfare, did not become objects of reverence

²¹The poverty of military power became clearly manifested when Minos and his army made an expedition to locate Daedalus the architect of the Labyrinth. While in Sicily Minos was poisoned and died. After their leader's death his army, though more numerous, could not resist the natives' onslaught. This story suggests that the Minoan army was organised on tribal lines with no internal organisation other than one resting on the prestige of the leader.

²²Knossos during the late Palace Period (1600 BC) probably contained 5,000 inhabitants supported by an agricultural population of 50,000. The total population of Crete at that time was 250,000.

and the female goddesses of fertility and wilderness kept their supremacy. Perhaps the task of imposing a centralised command on the Aegean sea was too expensive, or the process was still in the making, when the Thera volcano erupted putting an end to the Minoan supremacy. In both hypotheses, the Aegean world remained a fairly decentralised community of towns and commercial out-posts.

Nevertheless, even this political decentralisation and cultural affection for the natural world did not prevent a major ecological break-down which occurred around the 15th century BC, before the eruption of the Thera volcano. Carter (1974) argues that:

The only feasible answer seems to be that the Minoans despoiled their homeland to such an extent that it would no longer support a prosperous and progressive civilisation. During the last two centuries, 1600 to 1400 BC, they depended to a large extent on imported food, sea power, colonies, and commerce to support their luxurious civilisation on Crete. When their domination of the sea was destroyed, they did not have the resources to stage a comeback and consequently became dependent on such favours as the colonies were willing to grant. The result was a gradual but fairly rapid decline. Within a few generations, they were wholly dependent on the resources of the island of Crete, and these resources were capable of supporting only a meager civilisation. (Carter, 1974:67).

Crete is one more example of the relative autonomy of culture from the impact economic practices have on ecology. Yet, in this case, culture, in the forms of political organisation and religion, is affiliated with economic practices in a capricious way. The reason Cretans remained politically decentralised, and retained a naturalist world-view, is the rough and mountainous hinterland. Yet, Mediterranean mountains and hillsides are the natural habitat of sheep and goats, notorious for their ecologically destructive eating habits, which apparently resulted in the fall of Cretan civilisation. This incident suggests that the ontological link between society and nature that political ecologists try to promote is highly problematic. While ecological

disasters caused in Mesopotamia, China, and the Indus Valley do fit this theory, political hierarchy and ecological fragility are not close aficionados.

Conclusions

'Domination of Nature', as it is used by political ecologists, is not a heuristic concept; it is an unqualified term since it tends to afford either an affirmative or a negative response. As a political-moral term, it suggests that someone either 'dominates nature', which is regarded as evil, or lives 'in harmony with nature' which is seen as intrinsically good. It actually elides two interacting, yet analytically distinct categories: social behaviour and environmental contact. Social behaviour entails the cognitive recognition of appropriate social relations, accepted frameworks of social organisation and political authority. In all it is the social *modus vivendi*, the 'immanent ideology', extensive and diffused (Mann, 1986:24). Environmental contact contains two subjects. Firstly, symbolic usage of natural features and identification of Cosmos, the meaningful universe, and secondly, appropriation of material resources. Social and environmental morality, as well as symbolic and actual environmental contact, are different affairs, and in the societies we have just observed they are only partially overlapping.

Let us first consider environmental contact. The manipulation of the environment, in the long run, is an cumulative process. The Palaeolithic people were the first contributors: lighting fire and cooking were rude manipulations of substance. Hunting and gathering as a whole was based on the comprehension (even a limited one) of ecological patterns of flora and behavioural patterns of fauna. The use of the bow and arrow was a practical manipulation of space, gravity, and aerodynamics. With this knowledge the Neolithic people elaborated on the manipulation of the soil, mechanisms of growth, and fertilisation; with navigation they furthered the manipulation of gravity and aerodynamics and added the manipulation of hydraulics and the usage of star-patterns; with herding and pastoralism they exploited behavioural and biological mechanisms of heredity. The first intensive

agrarian societies, such as the Harappa Indians, the Chinese, the Mesopotamians, the Aegeans, and the Egyptians, exploited the potential of soil growth and fertilisation, and elaborated on the management of water flow to produce hydraulic systems. Intensification of cereal production was based on the control of the ecological and biological mechanisms of soil and flora. The development of metallurgy was a further step towards manipulation of substance. Nevertheless, the additions the agrarian societies offered were *specialised* (with the exception perhaps of cereal production): irrigation management encouraged a central authority (though it was not as crucial as Wittfogel [1957] reasoned), while metallurgy, astrology, and mathematics were clearly specialised occupations. Metallurgy remained a dark, mysterious endeavour of altering the substance of 'rocks', resulting in the partial pariahisation of the metalsmith (Eliade, 1979: 52-55). Astrology, an apparently prestigious study, was performed by the high priesthood, the mediums between natural and supernatural, irrigation inspectors, and diplomats. By engaging astrology they did not just advance their functional role of managing farming, but elaborated on the social environment they were living in, unifying the social and environmental moralities under the common denominator of Cosmic Order.

In matters of symbolism and reasoning about Cosmic Order, we also encounter developments closely associated with the process of political centralisation that state formation necessitated. Astrology, magnificently developed at this period to regulate environmental patterns and the sense of order, and based on knowledge of space and star-patterns, ordered the universe in hierarchical patterns of political authority. Astronomical objects, such as the sun, constellations of stars, planets and comets, became linked with rulers. Ecological catastrophes and cornucopias, bad and good harvests, were attributed to effective or incompetent kings, and the order of the universe reflected the order of the state. Natural elements and animals, real or imagined, were used extensively to symbolise or reflect the divine, the ordered, and the disordered.

The description of the universe in terms of Cosmic Order was the means to articulate the proper status of human beings in this world, their role, and their destiny. An assessment of all the pristine states would lead to the conclusion that uncertainty about the future of the world was a major preoccupation (Trigger, 1993). There is a certain materialist explanation for this fear, that is, uncertainty about harvests and the prospect of famine (Jacobsen, 1970; Frankfort et al. 1949). In pristine states degrees of environmental predictability could explain the optimism of the Egyptians, the pessimism of Mesopotamians, and the joyfulness of the Aegeans. Nevertheless, anxiety about the prospect of cosmic disaster and a happy after-life does not correspond so closely to degrees of environmental predictability if we take into account the rest of the pristine states of the New World (Aztecs, Mayas, Incas). The fact that city-states (Mesopotamia, as well as the Mayas and the Aztecs) are more pessimistic than territorial states (Egypt, China, and the Incas) suggests a combination of environmental *cum* political explanation rather than an exclusively environmental one (for the political aspect of pessimism see Trigger, 1993).²³ Warfare, not just practice but mostly an institutional and organisational means to achieve wealth and political power, became a key component in nature's discourses. In a sense, pessimism was prominent where political power was most decentralised. Pessimism did not bring an other-worldly attitude to life. The proximity of the divine and the mythopoeic understanding of the world brought those people to a perception of themselves as vital components of the cosmic order. Their actions in rituals and ceremonies were a means to perpetuate stability and order on a universal level, and to feed the gods, so that they would bring fecundity to earth and feed their people.

The double 'appropriation' of nature as symbols as well as resources appears as a paradox and leads many current theorists to a distorted image of

²³ Crete's economy was based on maritime activities rather than intensive agricultural production. Moreover, the fragmented landscape, the low

those societies as 'worshipping nature' (Gottlieb, 1996). What these authors fail to see is that worshipping nature did not necessarily mean respect for the physical environment. On the one hand lay a reverence for a social order reflected in nature much in line with Durkheim's thesis; on the other hand lay the exploitation of available resources. These are different domains of social action although both are informed by the new power relations of civilised life, that is, of statehood. At the beginning of the stratification process we find chiefdoms, households, and in some cases, such as Mesopotamia, an influential, but not yet powerful, priesthood. As the central political authority strengthened its position (mainly through militarism), the king increased his permanent authority, and in a few cases (e.g., Egypt) he became directly responsible for the Cosmic Order, the ruler of Nature - a function the priest never appropriated to the same degree. The king usually held the title of the High Priest. Stratification and specialisation of occupation in circumscribed environmental zones created a social geography of unequal proximity to political, economic, and ideological resources. As Maisels (1990:17) points out, such societies created social categories with different relations to the environment creating specialised niches of environmental exploitation (farmers, loggers, stonemasons etc).

Concentration of political power in the hands of the few (the King in Mesopotamia, or the Pharaoh in Egypt) allowed political elites to monopolise what were considered to be the most prestigious rites (the universal and environmental ones), and perform them for the sake of their people. As Trigger summarises '... kings played an essential role in the sacrificial rituals that were regarded as essential for sustaining the supernatural. Thus, whether they were considered mortal, divine, or something in between, kings were a pivotal element in the process by which human beings sustained the gods and the gods in turn sustained the natural order on which all human beings depended for their survival' (Trigger, *ibid.*:102). The performance of such

population density, and movable pastoralism did not occasion conflicts over 'vital space' as in the rest of the city-state political systems.

important rites was simultaneously the justification of their status and a source of its consolidation.

Nevertheless, kingship and priesthood were concentrated in the cities where the palace and temple, the house of the god, rested. In city-states the urban centres concentrated most of the population, but not in territorial states. There, in the villages, life still followed Neolithic patterns - politically and economically. Religiosity was less potent and pre-deistic concepts were still alive. The village was and remained the domain of the shaman and magic. It manifested a social divide in nature, which under new developments is still with us. The village became a part of the larger economic network joining the urban centre to the agricultural periphery and, through a local representative of the king, part of an empire. But its local structure remained largely intact. In the territorial states the administrative centre did not have the infrastructural means to bring the periphery under its immediate control and influence.

Part of the Cosmic Order jigsaw was the political hierarchisation of the divine. It occurred in all pristine civilisations regardless of whether they had been developed from chiefdoms or households. While hierarchisation of the divine accompanied social stratification and was found in pre-state organisations, in the era of statehood it was ritually and organisationally elaborated to serve the ideology of the state by deifying state power. In territorial states with an effective communication system, such as Egypt and the Inca empire, the king became not only the ruler of people but a god himself and, as such commander of natural elements. Mesopotamia is a peculiar case, since Sumerian and later Assyrian deities were not just politically arranged but also developed strongly anthropomorphic features and distinct personalities. As we argued above, the spatial restriction of the divine created *by consequence* a natural environment potentially void of divine substance.²⁴ Jacobsen (op. cit.) reasons that the cause of such a development

²⁴ 'Substance' should not be confused with 'essence'. The latter denotes the constitutional element of a given object. The former denotes its

lies with the militarisation of society. Militarism strengthened the power of the central authority and thus the special relations of the political elite with the numinous, but its lasting effects on the perception of nature were the mobility and sense of intentional action and creativity it gave to the divine. This is a problematic correlation since other militarised pristine city-states such as the Aztecs and the Maya did not develop anthropomorphic, spatially restricted, deities (Conrad and Demarest, 1988; Hammond, 1982). A possible explanation is cultural differences. The American way of experiencing the 'numinous' was radically different from the Middle-Eastern or the Chinese ones. To quote Conrad and Demarest, the American (pre-Colombian) pantheon '...was a personification of specific segments or nodes in the sacred cosmic order, the continuum of time and space itself' (op. cit.: 18). Cultural heritage in other words is important in that it restricts the possible routes a world-view will follow. It is not as tangible as ideology and it seldom becomes a tool for the pursuit of power as we have defined it. Yet, as 'the agreed but not stated' it is omni-present, penetrating behavioural patterns, and shaping cognitive paths for long stretches of time.

The special relations the political elite claimed they enjoyed with both the divine and the natural elements, as well as the degree of 'freedom' of natural elements from the numinous, did not bring everlasting perceptual changes. The symbolic use of nature to achieve political control, underdeveloped and confined to the palace, disappeared as soon as the Imperium broke down under external pressures brought by invaders. What was left behind were more decentralised forms of Cosmic Order such as witchcraft and spirits-in-nature. These were the views of nature of small-scale communities with autonomous forms of political organisation and absence of formal social contact (Hammond, op. cit., Swanson, op. cit.).

character, its particular appearance. Using these definitions, we could argue that the physical environment was still divine in essence while void of divinity in substance. The anachronistic use of these concepts is necessary to state the cognitive development which characterises the first centres of civilisation.

Lastly, the wilderness-culture dichotomy. All the pristine states, with the possible exception of Crete, had a strong sense of moral superiority toward the people and places located outside their cultured space. In the case of Mesopotamia it was strongly felt during the Assyrian era, due to the constant military expeditions of the Assyrian kings to their periphery for booty, slaves, and space. Interestingly enough, plants, animals, humans, and gods were treated in a similar fashion. They were all brought to Assyria proper where they were confined, and exposed as symbols of Assyrian supremacy. Here we can see the results of aggressive culture, i.e., a high culture in a militaristic form.

In all, the state accomplished two tasks. Firstly, it elaborated the moral unity of society and nature by connecting wealth and happiness with proper social contact. Secondly, it exploited the latent components of Cosmic Order, the four domains with unequal emergent powers: the 'universal', the 'social', the 'environmental', and the 'physiological' by institutionalising public rituals under its authority. Moral unity and hierarchisation of the Cosmic Order can be depicted as follows:

COSMIC ORDER

Domain	Means	Ends
<u>Universal</u> (Rites of the New Year)		Universal Order
<u>Environmental</u> (Rites of Fertility)		Fecundity
	elan-vital	
<u>Social</u> (Rites of Sanction)		Social Contact
<u>Physiological</u> (Medical Rites)		Personal Health

In general then, the cognitive developments related to nature and the treatment of the natural environment which took place in the pristine states we have examined are not equally stable or indomitable. The treatment of the environment, that is biological and ecological alterations, was much more irreversible than the cultural appropriation of nature, while the hierarchisation of the divine was as stable as the institution of kingship. As for the spatial confinement of the divine, it did not have the ability to trigger an investigation of situations other than in mythopoeic ways. Thus, while archaic thought remains mythopoeic, it is far from true to claim that nature was perceived in a monolithic way, or that it was 'deified', or 'personified' as such. The economic activities of the inhabitants of the first civilisations were checked not by reverence for the natural environment, but by the social habits of reciprocity that have been expounded by Karl Polanyi. The billions of cubic metres of stone extracted and used for the construction of monuments,

the alteration of the landscape that these projects necessitated, domestication of species and manipulation of their hereditary features, even irrigation channels, do not suggest 'reverence' or 'respect' for Mother Nature as Merchant argues, but rather exploitation. Reverence for the environment was a feature of social morality reflected in Cosmic Order, a symbol of proper human relations that was utilised in social relations and confirmed by the rate of successful cultivation of the wilderness.

The above discussion leaves one point unanswered. Why do these pristine, stratified states appear to be monolithic in their reflections of Cosmic Order and symbolic appropriation of nature? How should we explain the absence of competing ideologies, of competing Cosmic Orders, and of competing symbolic appropriations of nature, so common in later periods of history? The answer is to be found in the condition of the literati class. As stated in the introduction, articulation of ideas is a form of ideological power. Those who controlled articulation controlled conviction. In pristine states articulation of Cosmic Order was monopolised (visually and conceptually) by bureaucrats and priests. As long as they remained united and loyal to the central political authority, as long as the ideological network of power overlapped with the centralised political-bureaucratic network, Cosmic Order remained unchallenged. No one could challenge it, because no one had the cognitive means to do so. This was bound to change during the axial age when ideological elites broke loose from established political authorities.

For the moment let us bear in mind that all pristine civilisations brought about everlasting ecological alterations, and most of them ecological disasters. In Mesopotamia salinisation degraded top-soil quality and cultivation became increasingly problematic. China suffered from soil erosion caused by deforestation and the clearing of natural grasses to allow the cultivation of millet. Crete also suffered from soil erosion due to overgrazing. The Indus valley suffered from deforestation, loss of top-soil, and floods. Egypt also experienced significant ecological alterations, though they did not become dangerous to human ecology. Population growth, a strain

exaggerated by specialisation and the demands of centralised bureaucracy, remained for the moment the major problem. Efforts were made to alter the situation, especially among the Mayas, Aztecs, and the Incas, but in the long run they proved futile (Pournara, 1981; Hammond, 1982; Jacobsen, 1970). Symbolic appropriation guaranteed reverence for the Cosmos, while the actual use of nature was becoming increasingly exploitative. It is now time to shift our attention to Greece, where the symbolic appropriation of nature and the economic appropriation of the physical environment developed along very different lines.

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CHAPTER 4

The Greek World

A Few Constant Features of the Greek World

During the last millennium before Christ, the lands surrounding the Aegean sea became the site of a unique social development. Political, military, economic, and ideological innovations that took place among Greek communities affected the world-view of the Mediterranean and European civilisations and shaped the issues related to the concept of nature for generations to come. It is crucial that before we embark on deciphering the social developments that led to new conceptions of the nature of things and the physical environment (which are direct antecedents of our current debates and understanding of the subject), we should delineate a few geographical as well as cultural features of the Greek world that shaped social developments from the time of Homer to Epicurus.

The developments took place around the Aegean Sea, a geographical setting very different from Egypt, Mesopotamia, China, and India. It is an archipelago of small, dry, islands, in close proximity to one another. On the western shores lay mainland Greece proper - a land of limestone mountains, narrow valleys (less fertile than many European areas), long gulfs, and a few rivers that turn to streams, or dry up altogether, in the summer. On the eastern

side of the Aegean Sea lay the shores of Asia Minor, Ionia - marginally more fertile but still the same sort of terrain as the western coasts. Its significance owes less to its fertility and more to its *proximity* to the Asian centres of civilisation, most importantly that of Persia.

The relative infertility of the land was, and still is, accompanied by a predictable climatic variety. Hot and dry in the summer, mild and wet in the winter. Tree crops like olive and the vines grow well, but grass is not abundant and hay is scarce. Mediterranean and sub-Alpine conditions exist in the close proximity of only a few miles. Fertile valleys inhabited by farmers are enclosed by mountains where shepherds dwelled. Since most of these small valleys were coastal, people such as fishermen and sailors, who could transcend local barriers, were, from the beginning, an integral part of the local Greek communities.

Under these land and sea conditions, the Greek economy was always a mixture of horticulture, light agriculture, fishing, manufacturing, trading, and mining. Such a variety of geography, climate, and production made local self-sufficiency possible, yet kept surplus production low. It was a flexible and frugal economy that allowed the growth of interlocking specialised activities. On the other hand, it allowed neither the concentration of productive activities, nor a catastrophic ecological breakdown. Centralisation of social life in strictly hierarchical structures was virtually impossible. Social stratification was fluid and multifaceted, and for reasons we will examine later, the social group that held the high ground at a given time could be challenged by another in a matter of decades, rather than centuries. The social fluidity, the combination of Aegean shores and Alpine mountains, coupled with a few crucial ecological and military upheavals, ensured that authoritarian power institutions - political, military, ideological, or economic - remained precarious, weak, and uncertain. This self-sufficiency and plurality of power centres and power-networks took place in ecologically semi-circumscribed sites. As will be repeatedly stressed, this circumscription was strong enough to consolidate small residential communities as the central

points of cultural and political reference, but soft enough to allow 'exit' and communication among Greek as well as between Greek and alien localities.

We have already seen how in the pristine states the moral understanding of nature was shaped into two forms, i.e., the Cosmic Order and the Wild vs. Tamed confrontation. It has also been shown how both forms stand crucially at the cognitive centre of social developments. In the form of Cosmic Order 'nature' functioned as a political tool to justify the maintenance of social order, or, potentially, to suggest social change. In the confrontational form of Wild vs. Tamed, social actors created a borderline between two imaginary spaces. On the one hand stood docile political behaviour, the hierarchical social practices, and man-made landscapes; on the other hand, the unbroken tribes, foreign peoples and lands, in a word, Otherness. Cosmic Order brought together in an orderly fashion what the confrontational Otherness divided. Neither Cosmic Order nor Otherness were monolithic world-views. Yet, in all particular cases we detect a dominant world-view, the world-view of the palace and the temple, whose ability to affect public perception depended on the logistical abilities of the administrative centre to penetrate and impose its will on the periphery.

In Greece, especially from the seventh century BC on, which is the era that we have information for, there was no such domination. Due to the inability of any particular power network to impose its will and fully control the Aegean archipelago, we detect three alternative nature-views, which are equally accessible, and equally meaningful: Salvationist Orphism, the Olympian pantheon, and rational-secular inquiries. Thus, in Greece, the solitary paradox of Cosmic Order and Otherness was multiplied to become a complex kaleidoscope of passions, of demons, of arguments, that resisted Linear delineation.

If we follow Havelock, next to the social praxis stands the uniqueness of the Greek alphabet. It allowed the full and precise expression of thoughts on paper, and acted as a catalyst for the development of all three world-views,

all three nature-views. The precision of the written word allowed²⁵ for the development of abstract thought and the invention of 'topics' and 'themes' derived, and then separated, from concrete and immediate knowledge (Havelock 1982). The human condition, the relationship between society and the environment, the nature of the individual, truth in religion and philosophy, all found new, fixed, detached, and 'objective' meanings, and conflicting arguments turned into rival ideologies.

The *polis* life, the social debates, and the sophistication of literate speech did not resolve the tension between the three contestants, perpetuating *polis* life as the political battle ground par excellence. Yet, geopolitical developments ran ahead of cognitive developments. After the battle of Cheroneia (338 BC), when the army of the city-states were crushed by Philip II and Alexander, philosophy, Orphism, and the Olympian pantheon became residents of empires instead of city-states, a fact that altered their orientation and their objectives for centuries to come. But we run slightly ahead of the period that we will be examining. The beginning of Greek history is much simpler than the previous pages suggest. Let us examine the developments from the beginning.

1. Mycenaean Greece - The Homeric World (11th - 8th Centuries)

The history of the Mycenaean Greece of the Bronze Age that collapsed during the twelfth century BC is partly known to us through archaeological discoveries in Crete, Peloponnese, and Thebes. They reveal a history of kingdoms, small-scale compared to those in the Near East, yet larger than the later city-states. They were centralised and bureaucratic. Their political, cultural, and economic centre was the palace, residence of the royal

²⁵ It was not the Greek alphabet that caused the growth of abstract thought; similar developments in Egypt and Mesopotamia (c. 2500 BC) did not lead to developments similar to Greece. The primal cause of Greek abstract thought was the alphabet's wide use. Still, it is very difficult to imagine such cognitive developments taking place using hieroglyphic or syllabic writing systems.

family and the site where surplus production and gifts were stored. The monarchs controlled redistributive economies, in which surplus production was redistributed throughout their territory on a predetermined scheme rather than through markets (Thucydides 1.9.ff).

The aristocratic character of the Mycenaean world is apparent in the militaristic character of art. It is certain that these aristocrats were breeding horses, leading armies into battle, and fighting duels like their early Near East counterparts. The accumulation of wealth in the Mycenaean sites was remarkable by Greek standards. It substantiated aristocratic predominance and came primarily from trade: in the second millennium Greece became heavily involved as an intermediary in trade between Europe and the Levant (Garraty and Gay, 1972).

The disturbance of the trade routes during the invasions by the 'sea-peoples'²⁶ of the Middle East brought an end to this role and the decline of the Greek kingdoms. The damage done to Greek society by the dissolution of the palace economies took centuries to repair. At the start of the first millennium BC many Greeks were uprooted, wandering in search of new territory to settle (Herodotus 1.146.1, Thuc. 1.12.4). This mobility is a clear demonstration of the uncertainty that characterised Greek aristocracy and social structures from the beginning.

Information about this period is to be found in the Homeric Epics, the *Iliad*, and the *Odyssey*. Both of these epics claim to recapitulate the Mycenaean period, but the social conditions they describe better reflect the Dark Age (11th - 9th centuries BC) which succeeded the collapse of the Bronze-Age Mycenaean kingdoms (c. 1200 BC).²⁷ We will start with the

²⁶ 'Sea-people' is the name traditionally used to describe the nomadic peoples who invaded and disturbed the ancient kingdoms of Egypt, Asia Minor, and Greece during the 12th century BC.

²⁷ Certainly, the historical period Homer's evidence refers to, and the identity of Homer himself, are subjects of an on-going controversy (the so-called Homeric Problem). Is Homer a historical figure, or the joint ingenuity of many poets? Is it the Mycenaean world that his/their poems describe? Is it the 'Dark Ages' that followed the collapse of those kingdoms (12th - 9th

social conditions Homer describes; then, focus on the way those Greeks were dealing with the natural environment, and how they conceived it. The description of the period will be based primarily on the *Odyssey*, since it gives the most detailed picture of the ordinary society and individuals, and the economic practices they followed in the ranked societies which succeeded the Mycenaean kingdoms. The *Iliad* is more concerned with the aristocracy in an environment of warfare, and thus more limited in scope. Hesiod's writings, *Theogony* and *Works and Days* are almost contemporary to those of Homer. They do not pretend reference to a past time, but to the present time (8th century BC). We will deal with them extensively at a later point. For the moment, we will mention and use them only when they come close to Homer's world and serve as a complement to Homer's cultural context.

centuries)? Or, is it the world in which Homer himself lived (8th century)? The most probable answer is that Homer 'echoes' the Bronze Age, while the main body of his universe belongs to the ninth and eighth centuries. As for the number of poets who wrote the epics, there is no definite answer. Thus, we will refer to the creator(s) of the epics in the singular, in the traditional fashion (Austin and Vidal-Naquet [1972:27]).

1.a. The Social Setting

The central institution of the Homeric world was the paternalistic, aristocratic household, *oikos* (Austin and Vidal-Naquet, 1971). It was a unit of production and consumption, its size affected by natural barriers and the proximity of other *oikoi*. It included not just the nuclear family group, but also the people, animals, and land that built up the wealth and strength of the head of the *oikos* - usually a male. Its ideal condition was self-sufficiency (*autarkia*). The variety of *oikos*' agricultural production definitively ensured autarky, and whenever this was not possible, booty from war, trade, and gifts (and counter-gifts) from other noble houses supplemented production.

The aristocratic *oikos* produced the religious, political, and military leaders of the community, such as Odysseus, Achilles, and Agamemnon, and endowed them with traditional authority. The supremacy of the nobility derived from military, economic, and ideological sources. In battle, aristocrats were supreme: their armour was made of bronze, they were mounted and protected by their dependants, while the peasants fought as a chaotic mass, armed with wooden clubs and protected by goat skins. But the nobles were also thriving landowners, not so much owners of estates (50-100 hectares was the usual extent of an *oikos*) but of herds of sheep, goats, pigs, and, if the land permitted, of cows and horses. As in other hierarchical societies, the nobility claimed descent from gods, or demi-gods, a sign of exceptional origin justifying the privilege of jurisdiction over the community. Under these conditions their privileged position was secured, though not undisputed.

The dominance of the Homeric *oikos* did not go unchallenged. To start with, the *oikos* was a perpetually weak institution since its property was not fixed - sons divided their father's property and started their own households (Od. xiv, 208-209). A second challenge to the supremacy of the *oikos* were the freemen with no *oikos* allegiances, who could be wealthy as well. The village communities of the Greeks, composed of these freemen, were able to check the power of the *oikos* and the political supremacy of its rulers. As the second rhapsody of the Odyssey makes clear, for anyone to

become a ruler, that is a 'basileus', these freemen had to consent. Thus, the *basileis* enjoyed ample power only for as long as they did not challenge the customary rights of 'the many' (*hoi polloi*). Assemblies of the common or noble men occurred sporadically for political, religious, and other purposes as depicted on Achilles' shield (Il. xix, 490). Aristocrats and commoners were all descendants of heroes such as Iapetos and Deucalion. They spoke the same language and participated in communally held rituals and every day, face to face interaction. Gods could, and did, visit any human being - not just the aristocrats. And they all believed in autarky.

Homer is aware of the social restrictions on Greek nobility, as well as alternatives to it. Four examples, two in the *Iliad*, and two in the *Odyssey* are suggestive (Sinclair, 1967): In the island of Scheria, on the fringes of the Greek world, live the Phaeaceans, a mythological people. Alcinoos is their king but his rule depends on the goodwill of the nobles. He is truly a *primus inter pares*. Yet this ideally aristocratic structure is mythological - it is located outside the borders of humanity: 'In relation to the gods', says Alcinoos, 'we are relatives, together with the Cyclopes and the wild tribes of Giants' (Od. ix, 205-6). The Phaeaceans ignore struggle both physical and political.

Odysseus' home, the island of Ithaca, is firmly situated in the human universe. The island is located in Greece, its climate changes according to the seasons (thus, is not mythological), and its *agora* is a place of public meetings and debate (Vidal-Naquet, 1980). While Odysseus is absent, lesser nobles try to succeed him by marrying Penelope. Meanwhile, his father Laertis has retired from rulership, which he cannot retrieve, and Telemachus, his son, though eager to gain the throne, knows that his claim, a claim of heredity, does not confer on him any absolute right and he tries to achieve consent from the agora itself (Od. x, 394).

As for the Greek kingdoms, their functions are reflected by king Agamemnon. He is the strongest among the Greek kings, the leader of the Troy expedition; yet, his rule rests more on kingship than on the demands of the military campaign. He is the 'constitutional' leader, because his domain is

larger and stronger than that of the rest of the Greek kings who participate in the expedition. Among the aristocracy he was highly respected, and aristocrats were bound by allegiance to aid him in war; disobedience from their side invited a fine which Agamemnon could enforce because of his might (Thucydides, *Histories* 1.9.1ff). Yet, he was not always obeyed: In the *Iliad*, the feud between Agamemnon and Achilles over Brysieda is revealing: Agamemnon can force Achilles to hand over the young woman, but is unable to order Achilles' return to battle, from which the latter had withdrawn in retaliation. Instead, Agamemnon employed persuasion to bring Achilles back into battle. Secondly, Agamemnon's speeches to the army before battle are not a single person affair: others are invited to express their opinion, nobles and commoners, that is, freemen who do not belong to a particular *oikos*.

Only in Troy, the last kind of kingdoms described in detail by Homer, is Priam the absolute king (no nobles or active citizens appear there). But Troy serves as the exception that proves the rule: as an eastern kingdom, it was prone to absolutism.

The Homeric political structures of the tenth and ninth centuries were composed of a local assembly of free males, subordinated to a council of nobles, and led by a *primus inter pares* with traditional, religious, and military authority. Both equality and authority were inherent in these chiefdoms, posing a constant tension in social organisation. This tension was much stronger in Mycenaean Greece than in other Bronze Age civilisations due to the absence of extended clan systems and a centrally managed surplus production, which could regulate and fix social hierarchies.

We can suppose that for the time being social tensions between the aristocracy and freemen were kept low - for wealth was derived overwhelmingly from nobility-controlled agricultural surpluses. Nobles were also in control of religious ceremonies, held in palaces. But even at this time their position was insecure. Pastoral lands were mountainous, and therefore out of aristocratic control; they belonged to people who lived in the hinterland. Aristocrats had no secure source of military domination since

horses were too few. After the introduction of iron weapons, they also lost their monopoly of armour. Most important, the aristocracy had no strong religious sanction. In other civilisations the priesthood was part of the state bureaucracy; not in Greece. The Homeric poems were not written by priests but by troubadours, who wandered from *oikos* to *oikos* pleasing the lords with heroic stories. The ideological network of power was diffused, not concentrated in any particular locality or site such as an oracle, a temple, or a fortress. The diffusion of the ideological networks is vividly illustrated when we look at the ontology and cosmology of the epics. Here, we find a binary opposition of civilisation vs. wilderness situated in the colourful world-view of an animated, basically Neolithic, universe. The cosmic hierarchy was uncertain, depending more on a balance of power than on eternal divine plans. The aristocracy could not guarantee the safety of society from cosmic forces, as it did in Egypt, Sumer, or even Crete. Let us examine this in detail.

1.b. The Essence of the Universe - The Cosmic Order

Homeric Greece knew little about its neighbours. The information that the troubadours brought together in the *Iliad* and the *Odyssey* was for land-owners and aristocratic warriors, rather than craftsmen and traders. Greece, according to Homer, is situated at the centre of the universe - it is the 'proper' land, *both* culturally and geographically. It is the proper land for humans to live in, the land standing in the middle of the universe, the land where opposite elements are balanced. There is no differentiation of natural environment and culture. The farther someone moves away from it, the farther he moves to extreme situations away from human civilisation, to brutal or divine ways of living. Thus, on the northern fringes of the flat Earth live the Cimmerians; their land is dark, wet, and cold. They do not know the sun, and this is enough to exclude them from humanity (*Od.* i, 14-19). On the periphery also lie the lands of cannibal Laestrigonians and the solitary Cyclopes; the house of Circe where animals and humans intermingle; and the land of the incestuous family of Aeolus. To the south, beyond the land of the

Egyptians, is the hot, dry, land of Ethiopia. There live the 'sinless' Ethiopians whom the gods like to visit in order to share the sacrifices (Od. i, 196-7). Between them lie the lands of the Mediterranean sea, balanced lands of both (climatic) change and (divine) existence. Above is the world of heavenly gods, below the underworld, the *Tartara*.

What holds gods and humans together is a shared code of communication, an acknowledgement of status, and an interest in human praxis. Gods, goddesses, and other non-human beings have an invested interest in human society. As was the case with the Sumerian gods, they are anthropomorphic and spatially confined, their existence intrinsically linked to the well-being of humans; it is a co-existence of give-and-take. These beings demand respect, and become objects of worship, because of the benefits that humans expect, and get, from them. In a sense, the order among humans, gods, and other beings is a contract among free individuals, constantly renewed.

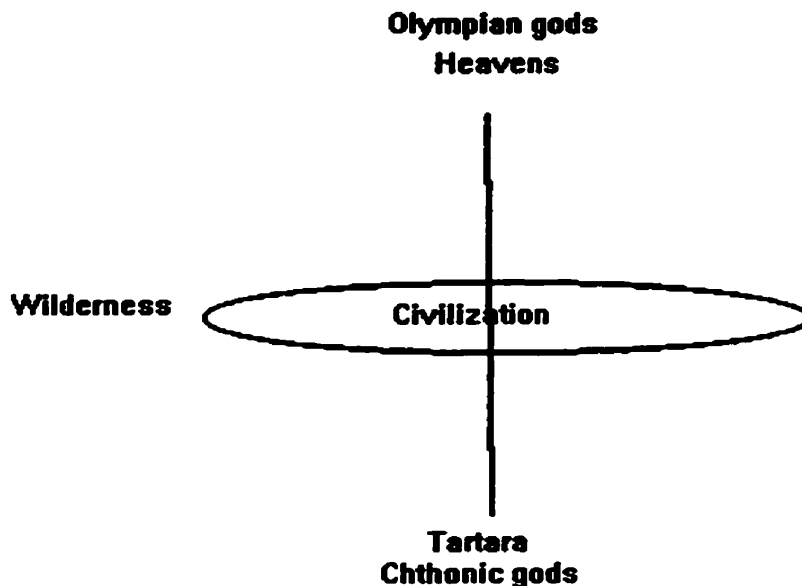
Most importantly, gods are not superior to man in any intrinsic way: they can be cheated, and beaten both directly, and indirectly (with the aid of another divinity, or by a trick). If they are wiser, it is because they live longer. They come equipped with some knowledge or technique which can be passed to and understood by mortals, and in some occasions can be matched by human ingenuity (Odysseus is 'polymechanus'). The fundamental force which commands the universe is Fate, 'the sum of the rules who command the development of any being, humans, objects, gods' (Miraux, *ibid.*: 20).

Both gods and humans stand defenceless vis-à-vis Fate. She distributes among people their status and function in the society; she makes them peasants, warriors, or artisans. She determines once and for all the mode of human life, its growth from birth to death. The fate of Achilles is to die young and glorious. More important, his mother Thetis, a goddess herself, though she is aware of Achilles' destiny, can do nothing about it. Even Zeus, the supreme god, cannot save Sarpidon, his son, from death.

Fate commands the world of gods, physical environment, and humans. She is the Order that guarantees the movement of the heavenly objects, as well as the routine of the peasant's life. In this sense, she is quite different from the Natural Laws we acknowledge today: she cannot be manipulated; she is not impersonal; two gods, or two rocks, could have a completely different destiny. Yet, her rule is not absolute. How exactly the destiny of any particular individual existence will be fulfilled is a matter of choice, chance, and of the gods themselves (*Iliad*, xxiv, 527). In a nut-shell, Fate is the general direction in which history develops, rather than the specifics of life itself.

1.c. The Two Axi Mundi: Cosmic Order - Culture and Wilderness

Agriculture, for both Homer and Hesiod, was the primary source of wealth. Farming, and especially ploughing, situated humankind in hardship. In the Iron Age, everyone had to work for a living, in contrast to the people of the Golden Age - a lost epoch of infinite joy and boundless wealth that the land itself produced. (Hesiod, *Works and Days* 90-93). The passage to sedentism and agriculture brought the universe under a hierarchical scheme: On the one hand there was the vertical axis composed of the Olympian gods, the demi-gods, the human world, the gods of the underworld (Cthonic gods; see scheme 1). Obviously, the economy of the hierarchy was fixed to serve the Olympians. Zeus, the leader of the Gods was the ruler of Heaven, his brothers Poseidon and Pluto were the rulers of the sea, and of the underworld respectively. Earth, the locus of human beings, was left aside as a common, neutral ground. On the other hand, the horizontal axis depicted the space of civilisation. Civilisation is the domain of ordered life. Those humans who became farmers ceased to be savages; agriculture was the precondition to rise above animals: 'This is the rule Zeus defined among humans; fish, beasts, and birds eat each other because there is no justice among them' (Hesiod, *Works and Days* 276-78).



Civilisation included metropolitan Greece, Asia Minor, the Aegean Sea, the Levant, and Egypt. Beyond civilisation lay Wilderness. It was disordered, passionate, and incomprehensible. The Olympian gods did not accept products of the wild for their sacrifices. Only the older gods, and 'chthonic' gods of the under-world, such as Cronus, Gaia, and Pluto, accepted them. Odysseus identified the non-civilised people by their non-human habits: They were vegetarians (*Lotofagoi*) or cannibals (*Cyclopes*, *Laistrygones*); they did not eat cooked, domesticated, animals; they did not sacrifice animals to their gods; they did not know the function of the plough; they did not eat bread; and they did not live in communities, but followed a solitary life. Wilderness stood on the fringes of Greece, dangerous and unpredictable. It disturbed and distracted Odysseus' journey back home. The structure of the civilised world served lawful men and women sanctioned by the Olympian gods.²⁸ The harsh conditions of humanity was preferred by Odysseus to staying on a mythical island with Calypso for ever (Od. v, 121-135). In the Odyssey, the pleasures of a Cronian, abundant land and eternal

²⁸When social order is disturbed, sacrifices to the gods do not take place any longer (Od. s 153-156, 414-428).

youth which is the world of Calypso, were defeated by the morally conditioned world of the Olympians and the social life of the *oikos*. The new world had defeated the old even in mythological terms.

Yet, the new world was not over-loaded with religious connotations such as the ones dominating the first pristine states we visited in the previous chapter. The Olympian gods fitted the human scale remarkably well. They looked like and behaved as ordinary human beings; they did not aid humans in a regular way but only incidentally; they did not uphold any 'moral' standards but were as opportunistic as any human beings. They were not creators but appropriators. As Russell summarised their social identity, '...the Homeric gods were the gods of a conquering aristocracy' (1946, 1979:32). These gods, organised hierarchically and residing in the natural environment, like the Assyro-Babylonian gods, did not constitute the only manifestation of the numinous. Next to them we find a variety of 'living creatures' that brought the physical environment to life (Miraux, 1971). In both the *Iliad* and the *Odyssey* we are confronted by echoes of this unnamed 'naturalist' religion. Central to it was the fig-tree, the sacred tree of life (ἐρινεός), and the worshipping of figures related to this tree on the top of hills.²⁹ Scattered evidence suggests that these figures represented the Mistress of the Beasts (Πορνεία Θηρῶν) and a hermaphrodite being, probably Dionysus. This religion, still alive in the 8th century BC, might derive from an older, animistic world-view which embraced both the large, almost mythical, natural elements, such as the Heavens and the Ocean, as well as smaller objects, such as islands, rivers, or rocks. To be alive did not necessarily mean to be immortal, but it did signify personality, emotions, volition. These objects found their way into the same society which gods and humans are part of. It was only potentially an orderly society, since strife and conflict among these animated objects, gods, and humans was the rule rather than the exception.

²⁹ See also the incident of Zeus' cheating (*Iliad*, xx, 150-200).

There is no certainty about the relationship of the Olympian with the animistic 'religion'; whether they were complementary or competitive world-views. Yet, the *locus* of the Olympian and the animistic religions suggests the social structures of the day. The corner-stone of the Olympian religion was the worshipping of ancestral, heroic figures, inside the palace walls. Yet, the worshipping of the Great Being, the Mistress of the Beasts, took place in open-air settings, in caves, traces of which are later to be found in Arcadia associated with the name Dionysus. The fact that worshipping took place in the open air, and that it was centred around sacred trees (Vallas, 1993), suggests that social stratification was not sharply defined, that part of the population and the priesthood were not bound to the centralised political authorities. The existence of a double understanding of the numinous, the Olympian and the Dionysian, one aristocratic, and the other without a hint of its social source, almost silent, suggests both social and cognitive fluidity. The boundaries of these world-views overlapped, confusing the social sources of animism.

Wandering bards could easily blend the beliefs, and myths of different cultures and social strata, and they probably did so. But it is not only the bards who thrived on fluidity. The whole of the Greek world enters its most crucial stage, that of the Archaic period (8th - 6th centuries BC) without dominant institutions, political, ideological, military, or economic, other than a strong sense of political freedoms of the *polloi* vis-à-vis the aristocracy, and of the aristocracy vis-à-vis the *basileis*. Indeed, it is the weakness of particular institutions, such as clan loyalties, institutionalised religion, centralised political authority, that in Greece become crucial elements of radical social development.

An alliance of aristocratic and intellectual institutions, common to centralised civilisations, is conspicuously absent. As was tentatively mentioned before, the Homeric literati, i.e., the bards, were structurally separated from the aristocratic *oikos* (Humphreys, 1975). Since the *oikos* was too small to accommodate them, they wandered freely around Greece in

search of an audience. They were neither aristocrats nor commoners (*demotes*). They were socially situated between the two classes and thus became mediators, communicators, both in terms of space and in terms of class interests. They were free to innovate and criticise, and they could even make fun of the Olympian aristocracy, as in the scene where Hephaestus tied up his adulterous wife Aphrodite, and Ares, her impatient lover with golden nets, and invited the rest of the Olympians to take a look at them.

In Homeric times bards were careful not to upset their clients by taking the side of the *demotes*. They were the public image-makers of their time rather than reflective intellectuals, at least not as we understand the term today. They served the nobility through the Olympian framework of heroism and military authority. They were responsible for tightening up the cultural entity 'Hellas'. Partly because of the bards, Hellas stood as a cohesive cultural net. The net imposed the soft cultural barrier Hellas raised toward its barbarous neighbours. Inside the maze the loose social divisions, the tradition of the freemen, and the diffused social networks, made institutions and world-views open-ended entities.

The gap between the aristocracy and the bards-literati meant a perpetual lack of high morality, of guaranteed, institutionalised order and a soothing interpretation of the world. The Olympic pantheon was constituted of super-humans who acted on nature. The mystical pre-Olympian, 'hidden', religion incorporated the older animistic perceptions, and focused on initiation rituals.³⁰ Fate was arbitrary, and gods' quarrels hurt every mortal. Order was not stated, but was read between the lines, it was vernacularly understood as deriving from a political balance of powers. Since there was no pharaoh to claim responsibility for stability, the balance of power was to remain the outcome of opposite forces.

³⁰ There is a communication between the two systems, from Olympian to animistic, but quite often it is a barren one: Apollo turns Daphne into the laurel tree, and Zeus his lover Halkyon to a bird, but afterwards the laurel tree and Halkyon cease to take part in divine or human action.

The Advent of Axial Thought

The Archaic Period (8th - 6th Centuries)

The Archaic period signified the beginning of the *polis*, the essential framework in which southern Greece resided for several centuries.³¹ In its ideal form a *polis* was a self-governing, territorial state consisting of an urban centre and its agricultural hinterland, in which all adult males born there possessed freedom and citizenship. The two fundamental notions that arose with the *polis* were loyalty to the territory rather than to aristocratic families and political equality among peasants.

How the *polis* emerged as the central Greek residential institution is not clear. The geographical fragmentation of the Aegean area cannot in itself explain the time of the emergence, nor the absence of local variations of the new institution (Austin, Vidal-Naquet, 1977:49-53). Yet, chronologically we can follow the conditions that accompanied the transformation, and thus detect the foundations on which the *polis* rested. Firstly, the economy of the iron plough slowly came into being, starting from the 9th century BC. Where previously the availability of bronze had been limited by shortages of imported tin, iron ores existed in many areas and could be utilised for more ordinary purposes (Hesiod, *Works and Days* 387; *Theogony* 862). It created a similarity in circumstances from Sicily to the Aegean shores, and an increase in productivity and population density.

Secondly, better and more plentiful iron-made farming implements helped to increase not just production of food, but trade activities with Egypt and Syria as well, as burial sites of the period reveal (e.g. Athenian burial site

³¹The *poleis* flourished in southern Greece, the Aegean islands, Magna Graecia, and Asia Minor. Central and Northern Greek tribes such as the Thessalians, the Aetolians, and the Macedonians did not develop *poleis*, but they were maintained as *ethne*, that is people with few urban centers, and a hinterland wide enough to prevent face-to-face interaction among all the inhabitants.

c.850 BC). The surplus agricultural production of olive oil and wine were exchanged mostly for metals and grain. The manufacture of pottery increased tremendously, especially in commercial cities such as Corinth and Aigina. Though trade itself was not valued, except at Corinth, it did create wealth and a new class of urbane *nouveaux riches* who wished for political power (see Solon Fragment 13.43-71=23D, Murray, 1993:140).

Thirdly, the federated army of individualistic, aristocratic champions was succeeded by the collective, phalanx army of hoplites: heavily armed warriors who fought in close ranks, loyal to each other as much as to their *polis* (see Mann, 1986:199-204 for a detailed description).

Fourthly, literature became available to the majority of the Greeks. The simplicity of the alphabet, the demands of long-distance trade, the basic homogeneity of the Greek language across *poleis* boundaries, and the political demand for formal, written laws made Greece the first known literate culture in history (Murray, op. cit.).

In a nut-shell, and only in the long run, the economic and social position of the freemen improved because of the political rights gained by the egalitarian phalanx, the iron based agricultural production, the manufacturing-trade activities of territorial market-places, and the new, self-consistent, laws.

2.a. The Political Effects of the New Army and Economy

The new social conditions caused much upheaval. The pressing problem of overpopulation, which troubled Greek cities as early as the eighth century BC, found a temporary solution in a search for new land, and consequently a vast colonisation movement which lasted until the end of the sixth century. The shores of Asia Minor, the Black Sea, Eastern Sicily and Southern Italy, Spain, and France turned Greek, and trade between the colonies and the Greek metropolitan centre flourished.

Though some demographic pressure had been relieved, the colonial movement eased rather than solved the social problems of the *metropolis*,

problems of economic security and political rights. Both issues unsettled the landed aristocracy to the benefit of the peasantry and a new nobility of wealth. Trade degraded traditional social structures and militarist aristocratic morality in fundamental ways. The new, monied aristocracy challenged the privileges and prestige of the old, landed, one. Both old and new aristocrats started to vaunt their personal wealth (*aurosyne*) as a sign of status, causing an outcry among the small farmers. As Adam Smith predicted for his own society two and a half millennia later, the vanity of the aristocrats (in many respects the motivating factor for the developments of the age) curtailed their own power.

The reaction of 'the many', with the communal ethos of the Homeric freemen, was to seek an economic, political, and moral rebirth which would include them. It brought the end of the traditional aristocratic rule and the beginning of a popular one, firstly under the aegis of the tyrants (*nouveaux riches* themselves, *ad hoc* leaders of the many against the landed aristocracy), and later by the citizens themselves. The hoplite reform was central to this political shift. The reaction to *aurosyne* and the cry of the time was *eunomia*, 'good order', a combination of strong collective discipline and equality, nothing less than the political reproduction of the phalanx when in battle order. The small, yet wealthy peasants, often called the 'hoplite class' had realised their vital role in defending their country, and they were demanding a share in running the state.

The consciousness of the *polis*-community was further strengthened by the issue of coinage and the codification of new laws at the expense of custom. One of the most fascinating aspects of *polis* life and the loyalty everyone felt towards it, was that all the *polites*, aristocrats and commoners alike, invited wandering 'wise-men', sages (*sophoi*), such as Solon the poet, to provide them with 'good laws'. Thus, the norms and rules that governed the society were clearly defined and removed from the arbitrary interpretation of the aristocrats (Austin, and Vidal-Naquet, *ibid.*: 52). Mostly, the laws became a matter of public scrutiny, debated openly in the *agora*, and the civic

virtue of the citizen warrior replaced the heroic virtue of the aristocratic warrior.

The new legislation consolidated equality by lifting the status of the citizen above economic considerations (citizens' bondage and slavery were abolished), by redistributing the land, and by abolishing debts. Thus, the *polis* became firmly grounded on the loyalty of the freemen to the land of their birth. Under an *eunomia* regime, the conduct of political life continued to lie in the hands of the upper-classes, but now it was checked by laws and a watchful citizenry, often facilitated by the rule of the tyrants. The new merchants, many of them foreigners, few in numbers, arrogant in conduct, and cosmopolitan in taste, did not fit into the new state of mind of patriotism and egalitarianism easily.³² The citizen assemblies and aristocratic councils were firmly based on ownership of land. Even trading itself was not easily welcomed at the beginning. The Spartans took fright at the new coined economy, and Hesiod at overseas trade.

So, how important was trade and the social classes it created for the development of the *polis*? There is good evidence that the booming trade actually accentuated the problems of landed property vis-à-vis the peasants (Austin and Vidal-Naquet, 1977:54-56). Starr clarifies the issue: 'Greek *poleis* emerged in an era when almost all their inhabitants were farmers; political rights were often directly tied to ownership of land, and not infrequently remained so even after non-agricultural economic sectors had developed. As a result, the policies of the states were not particularly directed toward promoting trade and industry... The ideal of *polis*... was at the end one of autarkia' (Starr, 1977:34). In the archaic period trade was negligible in

³² *Polis* egalitarianism was politically actual but economically potential. In other words, the poor citizens were expecting to be compensated by the landed aristocracy for the 'injustice' they were experiencing, that aristocrats were wealthier than they were. Compensation was delivered by *leitourgies*, public projects benefiting the *hoi poloi*, funded by the aristocracy. Even political equality was frustrated by a few landed aristocrats who became leaders of public opinion in crucial matters of international affairs.

quantity but crucial to the quality of economic activity. Negligible, since it did not create a new class significant in numbers; traders remained peripheral to the *polis* life. Yet, it was crucial, for it created a political counter-pole, the *nouveaux riches*, who shook the traditional morality and political structure, and opened new routes of communication both among Greeks, as well as between Greeks and barbarians, allowing for the dissemination of new ideas and world-views.

2.b. Social Polarities and Nature-Views

The archaic times were a period of excitement and uncertainty. The suffocation of the poor farmers and peasants by the rich and powerful, the challenge of the new to the old aristocracy, the bloody violence among political factions, the over-seas emigration, the crisis of the old morality, and the precipitation of warfare among *poleis*, generated feelings of expectation, fear, and misapprehension.

There are a few distinct poles around which ideologies were built and developed. One that we have already touched upon was the landlord-peasant pole. A second one was the urban centre vs. the agricultural hinterland. Cities were becoming rich and, with the growth of trade, manufacturing, and public works, distinct from the backward countryside. The contrast between the urban and the rural was accentuated, creating tensions between city dwellers and rural communities (Vernant, 1982:73). A third polarity was between men and women, especially women from the aristocracy, a polarity clearly depicted in Sapho's cycle of female friends and lovers. During the archaic period of urbanisation, women, especially women from aristocratic families, lost much of the public significance that they held in Mycenaean times. In archaic times all women, rich or poor, aristocrats or commoners, retreated into a confined and restricting domestic role, away from the public space which was reserved for the mighty *hoplites*. These three basic polarities, probably felt by everyone, were situated in a wider cultural and geographical

context of *polis*, Hellas, and finally, the whole of humanity (Baldry, 1965). The archaic world was dynamically shaped by the issues that emerged out of the interaction of these social relationships. Social morality *cum* Cosmic Order were loosely consolidated in four distinct forms: The myths of culture vs. wild, the rationalisation of the Olympian pantheon, the salvationist (*soteriological*) cults, and naturalist (*hylozoist*) philosophy. The following sections examine these in detail.

2.b.1. Culture vs. Wilderness

The tension between the urban centre and backward, rural surroundings was expressed in the sudden growth of monsters and wild beasts in the art of the eighth and seventh centuries. In some cases, they were organically linked to the mythological past, in the adventures of heroes such as Hercules, Theseus, Perseus, and Jason. The confrontation of the wild with the domesticated became the central subject-matter of Greek mythology.

Most of the Greek heroes, such as Hercules and Theseus, save peasants or urban dwellers from wild beasts (e.g., the Mantynian Lion), monsters (Lernaia Hydra, Minotaurus, Medusa), and wild men (Prokrustes) who have upset their living. In some other cases, the depicted monsters are a-historical, unrelated to any myth. The griffins, sphinxes, and sirens, images originally imported from the Orient and depicted on vases distributed and reproduced all around Greece, do not illustrate myths, they 'simply are, and by their presence manifest a sense of unfettered powers encompassing mankind' (Starr, op. cit.: 171).

2.b.2. The Rationalisation of the Olympians

The tension between the traditional, oral code of conduct of the Dark Age and the old aristocracy and the emerging written code of the freemen, a political as well as a moral tension for good order, constitutes the foundation of the Hesiodic re-writing of the Olympian cosmology and morality.

Hesiod (8th century BC), the poet from Beotia in central Greece, accentuated the his time's concern for eunomia by introducing morality into Olympian Theogony: 'Zeus wed Themis, who gave birth to *Eunomia* (Good Order), *Dikè* (Right), and *Eirènè* (Peace), ... who take care of the work of humans' (*Theogony*, 901-903). Zeus provides and guarantees social justice. The contrast with the irresponsible Homeric Zeus is clear: 'it is', Zeus says in the *Odyssey* referring to humans, 'they who are responsible, through their own recklessness, if they have griefs beyond their shares' (Od. x, 32). Hesiod made clear that social life was based too much on violence and hubris. The old aristocracy no longer held the old virtues, and though still mighty, 'bribe devouring rulers' (referring to the custom of providing the aristocrats who presided over courts with gifts) they would be eventually punished by *Dikè*, Zeus daughter.

Hesiod combined old standards with new, original ones, with far reaching consequences for Greek thought. In his *Theogony* he rationalised the cosmological and 'theogonical' (god-created) universe of the Homeric Epics. By doing so, he succeeded in sorting out the motley mass of divinities into well defined lines of descent. Secondly, he vindicated the reigning order among the gods. As Vlastos (1970) notices, 'Hesiod's audience is now assured that each cult god has and keeps his proper province, so that each may be worshipped without risking offence to his peers and thus cause more trouble than he is worth' (ibid.:101). Thirdly, he highlighted the differences between gods and mortals. And fourthly, he rejected two essential values of the Homeric world, the significance of gifts and women in public life.

In all these innovations, he remained loyal to the eastern theogonies (god-creation myths) that were interested in the divine political structure, i.e., the sovereignty of the heavens as the necessary and sufficient condition for order, stability, and happiness on earth (Murray, 1993: 88-92; Vernant, 1982:111). Yet, while he remained loyal to the Homeric quasi-animistic view of nature and life, he added to this world-view social morality (e.g., Justice became a goddess).

However, the rationalisation of the Olympians was incomplete. He stated that there *could* be a good society, but he never stated *what* its features would be. In fact, he did not situate happiness solely in social arrangements. *Basileis* were responsible for much of the injustice, but even if this evil could be corrected the world would not change. Humankind and nature were bound to a perpetual process of decay. When the Earth was new, the original people were made of gold (the 'golden race'); they lived an easy life, and nature provided her fruits freely and abundantly (*Works and Days*, 110-20). Yet, both species and nature decay. Today we are living in the era of iron people, an era when humanity has to work hard, and physical degeneration prevails (*ibid.*: 176-81).

Hesiod put his trust for the realisation of the good society in gods, who are responsible for the fertility, and the strength, of the world (Hesiod, *Works and Days*, 225 ff). In this respect the nature-view of the archaic Greeks is similar to that of the other civilisations. The world is decaying and only the gods can save us from the final destruction. What differentiates the Greek nature-view from most of the other high civilisations is that there is no Greek institutional effort to aid the gods to renew the earth and Hesiod does not suggest any. In a sense this is a fatalistic approach to the matter. Yet, this institutional and cognitive 'vacuum' facilitated the introduction of alternative and innovating ways to perceive the world and act upon it.

2.b.3. Wilderness, Women, and Dionysus

At the other end, on the antipodes of the Olympian pantheon, stood the primordial, naturalistic, possibly animistic, religion which we have traced in the Mycenaean past. In the seventh century it flourished as the religion of Dionysus, god of farming and pastoralism. Under the authority of Dionysus the tradition attracted peripheral social groups such as pastoralists and women, and constituted a celebration of primitivism, irrationality, and the wild (Russell, *ibid.*: 33-36). Its target was the immediate and fulfilling 'return to Nature' via communion with Dionysus - an affirmation of the significance

of the Homeric binary opposites, as much as the negation of Odysseus's preference for civilised life.

The binary opposition of culture-nature among the Olympian and the Dionysian religions is portrayed in the character of Artemis, Olympian goddess of the wild, and Dionysus. I quote from Cartmill (1993:35): 'Artemis is chaste; Dionysus is dissolute. She stands for restraint; he stands for excess; she is masculinised female (real Greek women do not hunt); he is an effeminate male. Artemis directs a troop of maiden archers in an orderly program of wildlife management; Dionysus dances at the head of a column of drunken crazies who tear beasts and men apart with their bare hands. The followers of Artemis discipline the wilderness, but the followers of Dionysus participate in it'. Artemis hunts in the forest; though not a creature of the forest, she imposes her will on it as an outsider, shapes its life, and controls the intruders. Dionysus is part of the forest, he does not use weapons to hunt, in fact he does not hunt as a human being but as a beast himself. His followers are half human, half animal, *satyres* and *centaurs*.

Immediacy and spontaneity were the strength as well as the weakness of the cult. The female followers of Bacchus were 'transformed'; respected matrons and maidens were turning into frenzied Maenads, running naked in the pastoral lands, symbols of civilisation's boundaries, eating the raw flesh of their victims, to be transformed again into civilised matrons and maidens at the end of the ritual. Such behaviour was not prone to a constructive ideology. It was a means to express, even to escape the new constraints, rather than to contemplate, or even speculate.

Historians have been puzzled by the rapid spread of the cult from Thrace to Athens and beyond. Yet, it might not be the conquering march of Dionysus but simply a new look at an old religion. The fact that it 'spread' so easily suggests a long-standing familiarity with the phenomenon. What is important is the novelty of the persona, a novelty probably caused by the rapid transformation (in some places lasting less than three generations) of Greece into a land of law, male civic virtue, sober thought, and of women's

exclusion from all three. Exclusion and boredom were fought with excitement, and the more extreme the former, the more extreme the remedy, in this case, orgiastic dances under the moonlight, eating raw flesh, and sometimes even human sacrifice and cannibalism. As Orphism found its way into urban life the central features of the cult were rationalised in the Orphic transformation. Meditation, spiritualism, and a constructive cosmology (elements of which are found in Hesiod's *Theogony*), all based upon mystical but not irrational experience, were developed in the cult of Orpheus.

2.b.4. The Orderly Orphism and the Egalitarian *Polis*

The Olympian reform performed by Hesiod guaranteed little other than heavenly order and a critique of the aristocracy. The Dionysian celebration of the irrational, the passionate and boundless drive to unite with the divine *outside* the *polis* limits, in darkness and frenzy, promised and provided people with excitement. Yet, in times demanding new forms of social cohesion, as well as articulated meaning to social action, Hesiodic genealogies and Dionysian *orgia* were irrelevant to the demands of the *polis*. In this critical situation the autonomous class of sages shaped the ideological profile of the cities providing urbanites with a world-view which could render new social phenomena meaningful, guaranteeing social cohesion and instructing social action. They did so by transforming mystical, cultic religions, into the more rational 'religion of Orpheus' (Kirk and Raven, 1957). Orphism was a direct descendant of the Bacchus cult, and its main features were known to the Greeks since the Mycenaean times. Orphism was not a 'new religion' as many scholars believe; it was the mystical Dionysus of the Dark Ages in a renewed form (Vallas, 1993). In the eighth and seventh centuries BC, sages, social commentators inspired by this Dark Age mysticism, shaped it in such ways as to respond to the *polis* demands: sober, creative, egalitarian, and salvationist.

Orphic 'theology' was based on the life of Zagreus-Dionysus. He was the son of the deities Zeus and Persephone. Furious because Zeus wished to make his son ruler of the universe, Titans, cthonic deities, dismembered and devoured the young god. Athena rescued his heart and brought it back to Zeus. The latter swallowed it and gave birth to a new Dionysus. Zeus then destroyed the Titans with fire and from their ashes created the human race. Thus humans have a dual nature. Their earthly body is the heritage of the earth-born Titans. Their soul is divine, derived from Dionysus. Accordingly, people should endeavour to rid themselves of the Titanic, or evil element in their nature and should seek to preserve the Dionysian and divine nature of their being through purification and asceticism. Through a long series of reincarnations, people would prepare for the afterlife. If they had lived in evil, they would be punished, but if they had lived in holiness, their souls would be liberated from the Titanic, earthly, elements after death and reunited with the divinity.

Thus, Orphism was based on the promise of the reunification of the soul with the eternal One, from which life started at the beginning of time when the Cosmic Egg split into two parts (Lekatsas, 1978). Though it retained the feminine features of Bacchism (e.g., the predominance of the moon over the sun, the fertility rights), Orphism appealed equally to men and women, precisely because it promised not just the immediate 'sense' of the divine, but a comprehensive course of living, as well as eternal salvation from the misery of this life; a promise based on the original understanding of the soul as a small god, able to escape the torturous wheel of re-birth.

According to Burnet we cannot identify any particular social group prone to Orphism: 'the new religion made an immediate appeal to all sorts and conditions of men who could not find satisfaction in the worship of the secularised anthropomorphic gods of the poets and the state religion' (op. cit.: 82). In any case, Orphism became intrinsically and organically linked to *polis*' life. Orphism was rational and socially inclusive cutting across classes, kinship, or localities. It looked to a written revelation as the source of

religious authority; it was organised into communities not of kin, but of voluntary adhesion and initiation; rituals could be performed in the *polis* rather than in particular cult-centres. It created a dichotomy between this and other-worldly domains, and advocated a rational process of purification that would free the individual from material pains and introduce him or her to a superior, immaterial bliss. For Orphism, religion was a moral 'way of life', a process of approaching the transcendental through 'purification', rather than customary behaviour or curiosity. It advocated a world-view different from Olympian immanence, a mystical connection of natural elements, plants, animals, humans, and the cosmic forces, a potential unity which could become real only under the presence of the divine. Orpheus' song 'civilises', that is tames, the beasts which flock around him to listen to the music (Lekatsas, op. cit.: 47-60). By default, the purity of the other world turned the natural environment, as well as the ordinary, non-initiated people, into a lesser domain.

Orphism was only one, probably the most successful, of a range of the theological/soteriologic cults that flourished in Greece during the period. Musaeus, Epimenides, Onomacritus, and Pherekides were significant theologians and leading figures of the new cults (Vlastos, 1970:104). They dealt with the problem of the origin of the world, the nature of gods, and the destiny of humans. The answers given were essentially myths of sovereignty. As Vernant emphasises, they were stories of the birth, struggles, and victories of rulers-to-be, defeating chaos and bringing peace to earth and the heavens (Vernant, 1982:108). No distinction was made between the order and function of nature and society. In both cases, the proper functioning of earthly beings (fertility of the land and peace and prosperity among people) was dependant on agents, creative powers capable of promoting it. The 'ordering agent' was the central issue.

Nevertheless, there was a novel element in these cults, a moral one, quite different from the Olympian message of 'live a heroic life before it is too late'. The new message was justice and reward in the after-life (*Orphica*,

fr., Plato, Rep. 364E). It was a radically new message, quite different from the Mesopotamian or the Egyptian understanding of justice. It opened the way to an axial³³ mapping of the world as made up of two domains, a material and a superior, immaterial one, with different qualities. Pleasures and power in this world do not guarantee pleasures and power after death, but a moral life according to the cultic rules does guarantee some reward. Justice was becoming incorporeal and bliss was divorced from material pleasures.

We can explain the Greek experience of rationalisation as a combination of intensive and semi-autonomous power-networks: the freemen, the wealthy land-owners, the shepherds, and the sages. In other civilisations theology and the myths of sovereignty were focused upon and strengthened the royal palace. In Greece, Orphism and other similar cults strengthened the *polis* life. One reason was that the kingship was already obsolete when the cults emerged in the eighth and seventh centuries. There was no king in the eighth century in Greece to periodically recreate the order of the world as in Egypt or Mesopotamia. In Greece the rituals became public property, mobilising *polis*-inhabitants into active citizens by strengthening the metaphysical bond of citizenship. No particular families or individuals should be considered intrinsically superior to other *polis* inhabitants except on an *ad hoc* basis.

On the other hand, no authoritative political figures emerged from the cults. For one, the sages wandered as had the Homeric bards. Their strength was based on 'knowing through visiting'. Their thought was socially significant and successful because it had reached a level of abstraction through observation and comparison of different *poleis* problems. They were

³³ The concept 'Axial Age' was developed by Karl Jaspers, *Vom Ursprung und Ziel der Geschichte*, Teil Weltgeschichte (Zurich: 1949) to refer to the first millennium BC revolutions in the realm of ideas and their institutional bases. The revolutions have to do with the conceptualisation, and institutionalisation of a basic tension between the transcendental and mundane orders. On the social level it meant the differentiation of religious from ethnic collectivities. Conceptually it meant the distinction between 'ought' and 'is'.

acknowledged as wise because they had travelled and met other people. Secondly, the written scripts offered the 'new hope of immortality' and encouraged them to look beyond the immediate situation to the unity of all human experience (Humphreys, 1975:98). Reflexive thought had been brought forward by a diffuse network of 'intellectuals' speculating on a complex and mobile society. Thirdly, the sages were organisationally outflanked by the *polis* resources. When the Pythagoreans, whom we will soon examine, tried to take over command of some Greek colonies in Italy, they were punished and expelled altogether. The new institutions such as legislation, coinage, assemblies, and written, chisled, scripts, strengthened citizens' loyalty to their *polis* above all other possibilities, including alternative communities.

A widespread interrelation among the political reshaping of the *polis* and Orphic morality was found in legal matters. A homicide under the old regime was a kin matter. Now that the *polis* became the reference point for the Greeks, homicide turned into a matter concerning the whole community. It became a metaphysical concern, a moral-physical contamination (*miasma*), demanding not a bloody revenge but a proper religious purification. According to Orphism a sin was infectious. The reincarnated criminal soul would mingle with other animate beings and contaminate them. A plague or famine was recognised as caused by *miasma*. In such a case it was demanding purification, *katharsis* by a sage, and a sage was always available to bring *homonoia* to the city (Vernant, 1982:78). We should pay attention to the word 'homonoia', meaning concord. It crystallises the paramount strength of the *polis*. While Orphism and Hindu asceticism might look alike, in the *polis* Orphism meant not Indian remoteness but an immanent social harmony, the revitalisation of communal, political life.

Orpheus, Pherekides, and the rest of the cult initiators stand as examples of the flexibility of a system of thought. Essentially identical theologies were employed differently in the orient and in Greece; in the orient, to strengthen royalty - in Greece, to strengthen the *polis*. Yet, the same

case shows that this flexibility is not unlimited. The cults did not escape the hierarchy that the 'ordering agent' was suggesting, and though not royalist, by necessity they remained elitist. The initiators, such as Orpheus and Pherekides, were superior to the rest of the cult, since they were closer to the Supreme Agent and the 'hidden truth', and ranks among the initiators themselves doubled this effect.

The peculiar combination of other-worldliness and *polis*-life gave impetus to moral and political change. A good life should be a life free of the pleasures of the flesh. Quest for eternal life combined with civic awareness to give birth to the popular ideal of austerity, in antithesis to the growth of wealth and the display of luxuries by the strong and rich (*Orphica*, op. cit., II 363C). The ascetic element in the new cults changed the meaning of virtue from the traditional notion of high birth and courage in battle to a long and arduous ascetic discipline and resistance to the temptations of the flesh. Wealth and unlimited desire were condemned as destructive, and they were fiercely attacked by moralists such as Theognis and Solon: People should avoid hubris (the desire for unlimited wealth) and look for moderation and proportion.

This individual salvation did not lead to an individualistic social outlook. The cults had made clear that salvation was to take place *in the polis*, by implementing the new, communal, judicial system correctly. Mostly, salvation would occur when the *polis* life achieved *homonoia*, concord, among all its members. The sages thought that a *polis* was an organism analogous to the human body. The restoration of good health in the body and in the city were equally analogous. They both demanded purifying rituals to restore balance to the constituent elements.

The new public temper, the cohesive *polis*, was suggested by mystics, and by other wandering sages, such as lyric poets, whose audience was the council and the assembly, away from aristocratic clubs. It also affected the Olympians, e.g., Apollo's oracle at Delphi, who urged moderation. Yet, specific political action was demanded to end the vicious circle of dissent and

violence. The question was what kind of arrangement could guarantee the *polis*' salvation?

2.c. The Politics of Social Cohesion

The political reforms initiated by the sages in the sixth century were the logical conclusion of their message of moderation and social cohesion. Moderation was found sufficiently in the middle class of small farmers and traders. The middle class occupied the space between the rich and the poor in terms of land, wealth, and morality. The role of the middle class would be to establish a balance between the unwanted extremes, who wished to subdue the *polis* to their selfish desires: the rich to continue political and economic supremacy, the poor to establish absolute political equality and land reform (Vernant, 1982: 83-86). The sages, members of the new cults, could not accept such extremism, which they denounced as unjust.

In the quest for justice we can observe the transformation of a popular, unarticulated, 'vernacular' concept of reparations into a stated principle. In general, this new Justice was broadly understood in popular terms as respecting the nature of things (Vlastos, 1970:56). To destroy this condition would constitute violence and injustice. Destruction could be avoided by restraining the limits of every being to itself so that it could not violate neighbouring territories. Thus, Solon spoke of the sea as just when, being undisturbed by the winds, it does not disturb anyone or anything.

But what is the 'proper' place of a particular being? How could 'nature' be measured, or evaluated? The cosmic hierarchy of gods, men, animals, etc., offered a yardstick, assuming inequality in heaven and on earth. The nature of people in a given society was obviously unequal too. It would be unjust to subdue them to the wishes of a fraction. In practice, this meant that the demands of the poor for economic and political reform were legitimate up to a point, since the rich were suffocating them, but there could be no equal sharing of power.

The political reforms in Athens provide us with an example. Solon, the elegiac poet and sage, friend of Onomacritus, was asked to provide Athens with a new constitution to avoid civil war between the nobles and the many. Indeed, Solon, with the aid of Epimenides the religious reformer, provided Athens with a new constitution stressing the new civic conscience. He abolished the loans which were strangling the small farmers, prohibited loans on the security of the person, and the possibility of one Athenian becoming the slave of another one. Following Orphic teachings, he allowed the right to go to law on another's behalf, and the right of appeal to a popularly constituted court (Sinclair, 1951:23). Yet, he resisted all demands for radical political and economic reforms asked by the weaker classes, such as land reform and political equality. It would not be fair for the nobles.

The Solonian reforms were based on impartiality and sanctification. 'I wrote...', Solon said, '...the same laws for the low and for the high, setting down impartial justice for each' (Vernant, op. cit.: 85). He refused to become a tyrant because the rule, the impartial law, should remain in the middle, common to all. The new Athenian laws were written in stone and brought to the middle of the agora to be exposed to everyone and not just to the few.

Conscious efforts to restore the balance of power pushed the popular, vernacular understanding towards a more rational organisation of thought. Rationalism, along religious lines, came from the need to withstand public scrutiny. Traditional religious images were used in novel ways. Thus, for the legitimisation of the new constitution, as well as for its durability, Solon used the mythological royalties of Kratos (Rule) and Via (Force). Until then, these two goddesses were attendants of Zeus, never leaving the sides of his throne unprotected, embodiment of the irrational powers of the arbitrary ruler. Solon appointed them servants and guarantors of his laws. Eunomia (good order), the daughter of Zeus according to Hesiod, became a natural, self-regulatory agent, in line with the more abstract notion of divinity promoted by the new religions. The gods-cum-nature were becoming more rational, and society

was becoming more responsible for its fate. All of this was taking place in a world admittedly made by unequal, yet law restrained, forces.

All three established political concepts of the sixth century, that is, *metrion* (the mean), *homonoia* (concord), and *eunomia* (good order), sought to achieve balance, to be politically expressed as *isotis* (equality). 'The man who is an equal', wrote Solon, 'is incapable of starting a war' (Vernant, 1982:92). It was a peculiar kind of *isotis*, meaning proportion in the sharing of honours and offices. This was the rule Solon used when he divided the people of Athens into four classes according to their wealth, and distributed the public offices accordingly.

Rational theology, founded on a blend of Olympianism and Orphism, became a symbolic framework with wider application. For example, people of commerce understood in this an analogy between fair rule and contracts bringing unequal exchange values into mutuality: 'Rational computation puts an end to the conditions of stasis and introduces concord... it is this equality that permits business to be carried in the matters of contractual exchange. Thanks to all of this, the poor receive from the mighty, and the rich gives to those in need, all groups having the faith that by these means they will have equality' (Architas, quoted in Vernant, 1982:96). Mostly, it opened the way for social mobility. Political rule was no longer in the hands of old aristocratic families, but in the hands of wealthy individuals, nobles, or commoners. The discarding of juries composed of 'gift-devouring' nobles, and the new definition of political man, brought the end to Dark Age political institutions.

For a moment it seemed like the political problem had been solved - at least theoretically. The harmony of proportional equality, sanctified by a hierarchical universe and applied to an inferior material world seemed to be the answer to the civil disorder which the Greek *poleis* suffered. Was Solon not the one the Athenians remembered forever after as their liberator from tyranny and arbitrariness? Indeed, the Athenians did so, but soon after, both in Athens and in many other *poleis*, civil unrest not only continued but also escalated into civil war.

Commercial interests, the community consciousness, and the hoplite reform, were increasingly undermining the aristocratic concepts of rulership. The Solonian proportional democracy failed to become the dominant political system, except at Sparta. Even in Sparta it only became dominant because of fear of *Helotes*³⁴ would revolt. Oligarchies of nobles were not succeeded by proportional democracy but by the rule of powerful men, called tyrants. Tyrannies were anti-oligarchic in character and supported by the rising social classes. Tyrants put an end to the quarrels of the nobility, checked their greed, and supported the interests of the commercial and lower classes by promoting trade, public works, and colonisation projects. Tyranny was a temporary political phenomenon, the transitory stage, as it proved to be, from oligarchy to democracy. Tyranny did not have any substantial political, ideological, or long-term social support. But for the moment, it was the dominant political system in most Greek *poleis*.

The sages and religious reformers had partially failed to achieve in politics what they had already achieved in ideology. They failed to convince the people that their laws, an extension of natural order to human affairs, were enough to guarantee social prosperity. But the message that there is no intrinsic difference among the members of a natural community, such as a *polis*, an elaboration of the Homeric tradition of freemen, was well received in its new version. The tyrants did not claim any kind of supernatural powers or affiliations. They were just strong men happy on their thrones. They made the *poleis* thriving commercial and cultural centres, and they fulfilled the wishes of the lower classes.

³⁴ The *Helotes* were the inhabitants of Messenia before the coming of the Spartans. In a series of battles the Spartans conquered Messenia (8th century BC) and enslaved the *Helotes*. From that moment the latter worked the Spartan lands while the Spartans practised warfare for the fear of *Helotes*' revolt.

2.d. The Egalitarian Society, the Egalitarian Cosmos

One of the functions of cosmology is to offer a coherent perspective on social action. The dissolution of one political system by new social conditions is not replaced automatically by its counter-part as long as the cultural/cosmological system of thought is still based on old principles.³⁵ At this stage, in sixth century Greece, cosmologies were stressing just hierarchies. To break with the vocabulary and the logic of hierarchy, a new way of perceiving the world was necessary. This was the project the Ionian philosophers undertook.

Vidal-Naquet has said that 'every civilisation defines itself in relation to nature' (1983:26). We have seen how the Homeric Greeks did so in the past. It was a simple, dichotomous scheme: The space of agriculture, of *oikos*, and law, contrasted the space of wilderness, of solitary life, and ruthlessness on the other. Both spaces were alive, and ordered in an endless power game. The new social conditions complicated matters. As control of ideas and people was becoming increasingly impossible, the *locus* of those tiny city-states became the reference point for the majority of Greeks, imaginative members of Hellas, bound together by the wandering intellectuals. Acknowledging their similarities vis-à-vis the barbarous foreigners ('the non-Greek speakers'), they developed common institutions such as the Olympic Games and the Oracles. Yet again, the immigration to the east and the west of mainland Greece brought people close to foreign cultures, and soon they started to realise that the difference between a Greek and a non-Greek was not as unbridgeable as their Homeric ancestors had thought.

Not that everyone was affected equally, in the same way, or in the same time period. To begin with, the Homeric world-view found two reasons

³⁵The high culture of elaborated cosmologies and the low culture of the many do not have to overlap. In most cases we have examined, cosmologies were reaching a small minority, the nobility who were culturally isolated from the majority of the people they ruled. In Greece, this does not apply, since the *polis* life brought into alignment high culture (Olympian cosmology being a part of it) and the culture of the common people.

to stay alive for hundreds of years after it became socially obsolete: Firstly, *poleis* developed and stayed loyal to their own, personal *panthea* of Olympian patron gods and goddesses with whom they associated their pride and identity. Secondly, down to Roman times the major educational textbook for the Greek youth remained the Homeric Epics - Greeks were becoming familiar with the 8th-century heroic psychology before becoming exposed to their own society. On the other hand, geography and political circumstances made Hellas a microcosmos of quasi-distinct entities with particular world- and nature-views: The Aiolic, the Hesiodian Beotia, the Ionian, the Italian, the Sicilian, the Spartan, and the Attic. Lastly, the fringes of the *poleis*, their pastoral and wooded parts, were affected much later than the urban centres, if at all.

While metropolitan Greece was struggling to grasp social developments cognitively along theological lines, Ionian Greece, with social problems even more urgent and bloody, developed an unprecedented course of thought based on the premise of a universe without commanding cosmic agents.

2.d.1. The Ionian Thinking on Nature

In the previous pages we examined the emergence of the mystical cults from their backward, 'unspoken' (απρητη) existence, to being the major tool for social cohesion in the *polis* of the 7th and 6th centuries. Yet, the mystic cults did less well in matters of political organisation. As with all the other-worldly religions afterwards, Orphic cults faced problems in evaluating the political structures of the social domain. A transcendental world-view is restricted by the paramount importance of the ritual and the communion with the divine. It does not pay much attention to this-worldly matters since they are considered to be of less importance. Immanent world-views, that is world-views that do not recognise anything other than the world of senses, can articulate a political theory of equal access to power without land or genealogical preconditions.

An immanent world-view, which recognised only the material world as ontologically valid, was conceived in Miletus, a Greek colony on the eastern shores of the Aegean sea, a thriving commercial centre situated between the rich kingdom of Lydia (in central Asia Minor) and the Greek metropolitan area. The economic and political developments undergone by the city during the seventh and sixth centuries were similar to those of other commercial centres. As Russell notes, at first, political power was held by the land-owning oligarchy that was later replaced by a plutocracy of merchants. They were also overthrown by a tyrant who was supported by the democratic party. But this was not the end of the struggle. As the people took over power, they murdered the wives and children of the nobles; then the nobility prevailed and burned their opponents alive (Russell, 1946:44).

Such a brutal struggle was not uncommon in sixth century southern Greece. It was this political turbulence, social complexity, and mobility, that made Orphism prominent. In fact, Orphism was known to the Ionians even before it arrived in Athens. What was unique to Miletus, as well as for the rest of the Ionian cities, was the absence of old traditions, the regular contact with neighbouring oriental cultures, and a strong sense of pragmatism. Ionia had been settled by Greeks during the ninth century and, as usually happens in these cases, the colonists were taking nothing for granted and were ready to adapt to new circumstances. Practicality and open-mindedness characterised their way of living. The mountains of the interior and the poverty of the land forced them to become sailors and soon they came into contact with the Levant, as well as the Babylonian and Egyptian states. The Ionians brought back home elements of mathematics, chemistry, and astronomy, while they discarded their connection with gods and spirits. With the aid of this knowledge, and with no fear of being prosecuted for blasphemy, they developed a naturalist philosophy, the corner-stone of egalitarian thinking.

Most of the theorists we will examine were politically conscious, and all of the theories they developed had political consequences. In the battle for political power that would rage in Greece for the next four centuries, any

natural philosophy, any articulated nature-view, served either the hierarchical or the egalitarian camp; it served either those who preferred differential access to power or those who preferred an equal access to power, bounded only by gender and the borders of the *polis*.

The significance of these natural philosophies can hardly be overestimated. Political upheaval expressed itself firstly in new nature-views, such as those of Hesiod, Orpheus, Pythagoras, and the Milesian philosophers; political ideology was articulated a hundred years later by the Sophists, Thucydides, Plato, and Aristotle, and even then, it was always an extension of particular, elaborated nature-views. The 'natural' way to political organisation, implicit before the Greeks, now, under the new conditions of the *polis* life, open, public debates, and literature, had to become, not just explicit, but fully articulated and systematic.

Were all these thinkers consciously involved in the political praxis? Probably not. Some Greek intellectuals believed that the best possible life is one of remote contemplation - not of mingling in social action. Furthermore, reflection and abstraction demand a certain distance from political action. A political career does not leave space or time to be 'objective' (ἀντι-κειμαι, meaning 'standing at the other side') and reflect. Yet, we cannot but accept that Greek thinkers were affected by the social unrest. These thinkers were writing pamphlets that people were reading, and they were making speeches to which people listened. And what they had to say was meaningful for their audience, and affected their actions.

The questions the three major Milesian naturalists (Thales, Anaximander, Anaximenes) asked were not original. In fact they were similar to the questions the religious reformers had asked in mainland Greece: What is the origin of the world; what is the nature of the gods; what is the destiny of man (Vlastos, 1970:103). While most of the elements used to build up the new materialist world-view stemmed from older traditions, such as Hesiod's concern with cosmogony, the Homeric social practice of reciprocity, and the Orphic teachings of retribution, they discredited all possible accounts of a

divine drama and of primordial, personified gods. For these philosophers nothing existed outside or above the natural world. The originality lies in their perspective. Instead of looking for an ordering agent and a metaphysical reality, they looked at nature itself. They made nature an object of rational investigation and offered a comprehensive view and history of the universe as it was sensibly perceived.

According to their common and basic argument, everything in this world shares the same quality and the same vital force. The meaning and essence of life is not a mysterious process accessible only to the few, but a matter of investigation open to anyone to grasp and explain. The world is compatible with, and accessible to, human intelligence. The investigation of the past became rational and void of mystery and grandeur. The message of the Milesians was one nature, one temporality.

Thales (585 BC)³⁶, the first of the 'material monists' as Aristotle calls them, is supposed (since all information about him is from two to four centuries later) to have held that water is the original substance out of which all other beings are formed, or according to other sources, that it is the *sine qua non* of life (Kirk and Raven, 1957:89-90); and that all beings are full of gods, that is soul-possessing. This is certainly not enough to judge the man, but his deeds strongly suggest a pragmatic and politically aware personality: He was engaged in business, engineering, surveying, and he was political advisor to his fellow Milesians, suggesting to them that they should elect a council and federate with other Ionian cities (Lloyd, 1970).

Greek philosophy proper starts with the second Milesian thinker, **Anaximander** (555 BC). Anaximander's purpose was to offer a description of the inhabited earth in terms of geography, ethnology, culture, and natural evolution. His book began with a cosmogony and ended with a description of the contemporary world printed on a map. His cosmogony was nothing but

³⁶The chronologies are based on Lloyd's table (1970) and the dates are a rough guide to the *floruit* of the individual concerned, the year he is presumed to have accomplished his chief work.

revolutionary, for he replaced the gods' intervention with a mechanical model: All organic life has derived from the inorganic; the line of evolution from elemental chaos to plants, to animals, to humans is continuous; humans are alone responsible for their moral and technical achievements ([Diels-Kranz FVS6 12A30, 12C] in Havelock, 1957:104).

If Thales heralds the fusion of mystic, theological (Olympian), and oriental themes into one fully immanent theory, Anaximander introduced the debate between contemporary intellectuals. It is this 'public' dimension, the communal concern, that would push Greek philosophy to rational argumentation in a fashion similar to political debates. A thought that claimed no divine origins, no revelation, could find support only by convincing an audience. An inviting but sceptical audience made sure that the argument would be short, direct, and thought-provoking. The existence of literature ensured that a philosophical-political argument remained alive in succeeding precise mutations, instead of becoming fixed in space and time, or distorted by word of mouth. Starting with Anaximander, a philosophical argument was sharp, and its success was dependant *both* on its political significance and on its internal logic. It is important then to present these arguments both as logical entities, as well as ideological tools of power.

Anaximander held, as Thales did, that all things come from a single primary substance. Yet, he argued that this substance is neither water, nor any other known substance. It could not be so for a very good reason: If a known element, such as water, is the primary source, how could it produce its opposite? Furthermore, if this were true, how could worldly balance be maintained? On the contrary, Anaximander argued, the primary substance should be chronologically prior to the known elements, and spatially external to the world. He called the primary substance 'boundless' (*απειρον*) and defined it as infinite, eternal, and ageless. The Boundless gives rise to the world when it is transformed into the three known elements (fire, water, earth) and the world is diversified as these elements are mixed with each other in countless proportions.

What makes his theory radical, and politically informed, is not so much the notion of the Boundless, but the relationship among the elements. In a famous passage he states: 'Into that from which things take their rise they pass away once more, as is ordained, for they make reparation, and satisfaction to one another, for their injustice according to the ordering of Time' (Simplicius *Phys.* 24,13; DK12A9; in Kirk and Raven, op. cit.: 105-106)

There should be a certain proportion of fire, earth, and water in the world, but each element, dynamic as it is in itself, attempts and succeeds, obviously in turn, to enhance its domain. But the necessity of the natural law redresses the balance - it renders justice to the other elements, for example, by turning fire to ashes (i.e., earth). The equilibrium of the elements could be guaranteed in the long run only if the elements are symmetrical with each other, and the primary source is 'neutral', 'infinite, immortal, and divine, covering and governing' (Vernant, op. cit.: 122).

This constitutes a radical change in the perception of power and order. While in Hesiod order was the result of absolute and authoritarian power, for Anaximander order is the outcome of the equilibrium of opposite and equal powers. The Boundless, divine but not personal or conscious, holds power because its reign excludes the possibility of injustice, or absolute rule (Chernis, 1970:9). The Boundless guarantees the permanence of an egalitarian order not by its authority, but as a place where the elements pay reparations to *each other* (Vlastos, 'Equality...', 1970:80).

Yet, this equilibrium is different from the equilibrium of the Hesiodic, Homeric, and Orphic theologies. For Anaximander's equilibrium is made up not from the absence but the constant conflict of the constituent elements. Conflict, acknowledged by theologists (e.g., Orpheus, Pherekides) as disturbing and chaotic, and to be abolished by the ruler-god, is recognised in Anaximander as a natural phenomenon. Life exists not against, but because of conflict. Equilibrium is not static but dynamic, as each force prevails in turn, seizing power and falling back as we can observe in seasonal change,

the human body, or the political life of a *polis*. Such a notion of dynamic equilibrium through the symmetry and equality of opposite forces, changed the way the universe was viewed, and the mythical map was replaced by a geometrical one. Earth did not have to be 'supported' by anyone or anything as long as we assume that she is equidistant from all points of the universe, and the natural order excludes any miraculous intervention of gods-agents in nature.

Taking into consideration the political affiliations of the theory so far, the intention of the argument is obvious: Humans are completely safe to live on earth without the fear or need of the gods. Earthquakes, eclipses, thunder, and storms should not be interpreted as interventions in social affairs. Geocentrism, as we could call it, was based not on an ideology of superiority but on an ideology of equality. Monarchy was replaced by Symmetry, guaranteed not by the intention, but by the necessity of the Boundless.

Its political significance could hardly be over-estimated. Anaximander called his cosmic order *isonomia*, the democratic motto of the time (in contrast to the aristocratic *eunomia*), consisting of equilibrium, reciprocity, and symmetry (Vernant, 1982:118). Equilibrium was borrowed from the sages; reciprocity was used by sages. The notion of retribution is clearly Orphic, and Anaximander's Time (Χρονος) echoes the Orphic deity Cronus (Κρονος). Yet, all of these borrowed concepts radically change when placed beside 'symmetry', for symmetry implies that the constituent parts are not unequal, to be treated unequally, but rather equal to each other.

Nevertheless, the theory in all its elegance and suggestiveness faced a serious problem: How are elements formed out of the Boundless? And when they are, how do they produce the variety of forms we observe in nature? Anaximander had assumed that the elements are already present in the reservoir of the Boundless. But he could not propose any mechanism to explain change itself.

Anaximenes of Miletus (535 BC), the third of the materialists, proposed such a mechanism. Based on a simple example, simplistic by our standards, that of exhaling air, he argued that the differences we sense around us are not qualitative but quantitative in character: If we compress our lips the exhaling air is cold; if we relax them, the air becomes hot and moist. Generalising from these results, he stated that fire is rarefied air; when condensed, air becomes water first, then if further condensed earth, and finally stone. Condensation - rarefaction was the answer to the problem Anaximander faced. As for the primary force, it had to change, and the Boundless gave way to air, the fourth recently discovered element. Yet, the Anaximenean axioms, remained compatible with Anaximander's ones and equally politically informed: The constant motion and change, the singularity of the primary element, and the supremacy of the senses to understand reality.

The new possibilities opened up by the Ionians' original approach are apparent. Suddenly the universe was open to argumentation made up of logical propositions using deductive logic. Immediately nature became the focus of attention, a matter of public debate open to *dia-logue* (literary 'inter-speech') or *anti-logue* (literary, 'counter-speech'), in a fashion similar to the way laws were interpreted, and public issues were debated in the agora. Not that these Milesians had broken free from myth. This old thesis has been successfully challenged by Vlastos (1970). According to the naturalists nature *is* the divine that the religious reformers attributed to gods and goddesses. Their cosmogonies followed the same visual/conceptual schemes of attraction and strife, split and re-unification, as the sixth century Hesiodic theology.

This similarity with Olympian and Orphic struggles, and the common sense belief in retribution, could be the keys to decipher the Milesians' line of thought. Their universe obeys the same principles as the Olympian and Orphic world-views, yet it remains free of agents. It is absence of agency that allows them to break free from the political vocabulary of hierarchy and the traditional social enforcement of rituals. In other words, we could understand their thought as a product of advanced reflection, of 'second-order thinking'

(Elkana, 1986). If reflective *and* politically conscious, a naturalist would think that 'if a cosmic agent consolidates hierarchy, a non-agent cosmic force would consolidate egalitarianism'. No matter if this reflection really took place, it was not religion as such they attacked, but the religious practices of the *polis* which they rejected as false. They themselves were as religious as their contemporary sages. Vlastos ('Theology...', 1970:92) notes that few words occur more frequently in their fragments than the word 'god', and religious associations and hymnodic utterance are part of their reasoning. Yet, their divine was material in every form of being, not as individual personalities - it could not be anthropomorphic, and its actions could not be anthropocentric. What the Ionians were aiming at then (or at least what they achieved) was the rationalisation and secularisation of the public life.

The question is, what triggered such a radically different view of the world? Vernant thinks it was the new concept of the impartial rule of the law: A cosmos, a rational universe, set in order through the application of a single rule. But the common law, though necessary, could not be a sufficient factor. It had already informed the *eunomia* (good rule) of the aristocratic, proportional rule. A perceptual shift of such magnitude needed something more, a sufficient factor.

Was it a conscious effort to build up an egalitarian proto-ideology? Obviously, any political ideology likes to imagine itself as the verifying agent of truth, and the ultimate truth is the natural order and the nature of things. For those believing in aristocracy, the nature of things was unequal. The cosmic law, being external to them, was to be applied to this inequality in order to bring equilibrium and balanced reciprocity. For the Milesians, the nature of things is qualitatively identical since they all derive from the same substance, and quantitatively equal because they are symmetrical. But mostly, natural beings obey the necessity of their nature. In other words, nature and law became identical, and their relationship, tautological. Human society should comply with this law.

2.d.2. The Flux of Reality - the Achilles' Heel of Materialism

Anaximenes had demonstrated that all the diversity detected by our senses, is actually degrees of a single process. Heraclitus (500 BC), an Ionian from Ephesus, followed Anaximenes' argument to its logical conclusion: If everything is one in many forms, then what really counts is the process of change. Attention and investigation should not be focused on phenomena which pass and go, but on the meaning and essence of change itself. Change, he reasoned, occurs through conflict of opposites, Strife, and the means exchanged in conflict, is fire. But change is not anarchic. Indeed, it is confined within certain limits or 'measures' which ensure a balance among the things that interact (Lloyd, 1970:37). This balance is ensured because, through the very conflict of opposites, measure will be kept. This means that in every transformation the fire to be exchanged remains constant, and that the distribution of fire among the opposites is also constant (Vlastos, 'Equality...':67). Strife is justice and harmony simultaneously; the opposites balance by necessity.

The Milesians had justified, or supported, *isonomia* by using the idea of cosmic equality. Heraclitus' system could not do so since, in his theory, there is no substance to be measured. Instead of equality, Heraclitus recognises reciprocity, 'for everything turning one way, something else is turning the opposite way'. This reciprocity is just various modifications of one substance. This one is the 'common' thing throughout the universe, the measure of every process, the 'divine law, all-powerful, all-sufficient, all-victorious' (Vlastos, *ibid.*: 68-69). From this Oneness, Heraclitus developed the doctrine of the 'common': Truth is the common; the state is the common; the law is the common. But it could not be discovered by the use of the senses. In fact, the senses are not quite reliable since they assert that the world is a multitude of differences, while reason and intuition tell us that it is one (Chernis, 1970:14). This mistrust of the senses gave an elitist flavour to his political message, a contempt for the folly of the crowd, and a mistrust of the many. Not that his theory invited oligarchic practices. On the contrary, the

doctrine of law as 'common' to all lies in the democratic tradition. But, as Vlastos (op. cit.: 71) reasons, he probably favoured limited democracy on the lines of Solonian reforms.

Heraclitus, was a misfit in Ephesian politics. A dark figure who used an elaborate oracular style (instead of the sober Milesian prose), wrote in riddles, and ridiculed the religious beliefs of his contemporaries. There is no question that he was widely quoted and known but his awkward style of writing and socially peculiar life (according to Laertius he left Ephesus and lived a solitary life on a mountain) leave doubts about how influential he was in his *polis* and its turbulent political life. Yet, there is no doubt that Heraclitus put the whole naturalistic project in jeopardy by criticising the reliability of the senses. He constitutes the first instance of a 'dilemmatic' thinker. While his political thought was anti-aristocratic, and anti-Olympian, his philosophical thought questioned the senses, the cornerstone of egalitarianism.

2.d.3. The Wider Implications of Ionian Thought

What all four Ionian philosophers have in common is that they situated justice in this world, driven by natural laws, common to all, and made of the same substance as anything or anyone else. No longer was justice imposed by arbitrary forces or agents, but by natural necessity that could not be broken. In a period when the supreme political question was to press for a radical 'ruling in turn' democracy, or to adhere to the existing moderate aristocratic, proportional democracy, the Milesians allied strongly with the former option. Heraclitus did less so, but he left the door open for anyone to discover the truth, and attacked all the known theologians of his time, from Homer and Hesiod to Pythagoras and Hecateus, as well as their followers, including the nobility: 'Homer and Hesiod have ascribed to the gods everything that is shameful and a reproach among men, thieving, adultery and deceiving each other' (fr. 11).

As Justice was depersonalised, nature became secure and predictable by the same kind of necessity that was driving the laws. It ceased to be a kingdom ruled by an idiosyncratic ruler, a realm of static harmony at its best, of anarchy and famine at its worst (famine occurred when people were blasphemous, or the gods were at war with one another) and became a place of the dynamic harmony of forces which fight with one another, yet still bring stability and long-lasting equilibrium. Nature and human society, which were morally compatible, had become auto-nomos (literary, 'self-ruled'), and just.

2.d.4. Space and Body Under the Ionian Perspective

The new argument of structural symmetry, which the newly emerged social commentators suggested, was inspired by the social tensions of the *polis*, exposed in short and sharp abstractions, and found applications in medicine, geography, and history. In the geography of Anaximander the world is qualitatively homogenous with no monsters, or radically different life-forms. No space is reserved for Cyclops, Laistrygones, or divine Ethiops. The sharp distinction between culture and the wild was refuted. Attention should be paid to the fact that the first known map, the map of Anaximander, was not a product of necessity, but conviction. It was made not by a sailor, but by a political-naturalist commentator, who used sailors' information to achieve the task. Clearly, the objective was not to improve navigation, but to visually support a political argument.

Geometry and symmetry were applied not only to the natural environment but to the urban space as well. There is certainly some truth in Vernant's argument that the first urban planners were political theorists. The Greek city, *the* political environment, organised around a centre (the agora), reminded the citizens that when they gathered to discuss public matters, they were all equal. The city, essentially the human environment, and nature faced each other in a profound analogy. Just as the earth or the sky were no longer held up by anyone (such as the mythic giant Atlas), keeping equal distance

from all other parts of the universe, so the agora was ruled by no one citizen keeping also equal distance from all.

The perception of the human body also changed.³⁷ From being subject to supernatural intervention, spells, and purification, the human body becomes subject to natural 'powers'. It is healthy when there is an equal quantity of the four humours and sickness is the result of imbalances among them. Sickness could have external causes, even climatic ones. If the weather itself is not just, if it is too hot or too cold, then it does injustice. Which one is the perfect environment? The answer, free of Homeric divine places, was identified before being discovered by abstract, deductive logic: During the equinox, when day is equal to night, all the hours are equal to each other (Vlastos, 'Equality...', *ibid.*: 60). If the place is not at the equator, justice is not always present since day is longer than night in summer and night is longer than day in winter; in such places justice takes place in the long run as seasons rule democratically in succession, repaying the 'damage' done by their predecessor.

Nevertheless, change had been examined by Heraclitus: In the quest for a good life we should not trust the temporary authority of the ephemeral. The production of a vigorous theory, democratic or aristocratic, demanded a firm foundation of epistemology and of understanding the nature of change that the Ionians lacked. The Ionian argument was radical and popular enough to arouse a critique of what eventually proved to be of elitist character. What was initially condemned as evil was the monistic concept of nature (Vlastos, 'Theology...', 1970:113). The reaction came from Pythagoras who produced an epistemology able to counter the Ionian faith in the senses.

³⁷ Perception of the body changed much more slowly than perception of space: To become legitimate the new medical theory had to become popular by practice. This took some time; the new perception of the body was fully developed in the next century (Lloyd, 1979, Ch.1).

2.e. The Pythagorean Reaction to Matter and Senses.

If Orphism was a movement of reform in the worship of Dionysus, Pythagoras inspired a movement of reform in the worship of Orphism. His theory and social action stands on the nexus of all three contemporary world-views: The Olympian, the Orphic, and the naturalists. He is equally a mythical and historical personality. All the information about him comes from later, secondary sources that cannot be fully trusted. Yet, there is a general agreement that he was born around 570 BC in Samos where he spent his youth. A junior associate of Pherecydes (a Greek sage), he left the island in order to escape from the tyranny of Polycrates and went to Kroton, a Greek city in southern Italy (520 BC) and remained there for twenty years. When the Krotonians rose in revolt against his authority he moved to Metapontion (a neighbouring Greek city), where he retired.

In Kroton he founded an Order of disciples, a religious fraternity. In that society men and women were admitted on equal terms, property was held in common, as was the way of life. The main purpose of the Pythagorean Order was the cultivation of holiness, in line with Orphic mysticism. There he taught the transmigration of souls. Dikaiarchos says that Pythagoras taught '...first, that the soul is an immortal thing, and that it is transformed into other kinds of living things; further, that whatever comes into existence is born again in the revolutions of a certain cycle, nothing being absolutely new; and that all things that are born with life in them ought to be treated as kindred' (Cornford, *From Religion to Philosophy*: 201). The belief in the kinship of all living creatures probably led him to preach to animals (Russell, op. cit.:52).

All these were enough to place him among the other founders of religious orders and practices; the 'medicine-men' that flourished in Greece during the sixth century. Yet, Pythagoras did not base his cosmology and the rituals of purification on myth, as the theologians had done, but on mathematics; not on 'passionate sympathetic contemplation' of the dying

god, but on intellectual contemplation of numbers, their forms³⁸, expressions, and connections. To Pythagoreans mathematical knowledge appeared to be certain, exact, and applicable to the material world. Yet, it was obtained not so much by observation as by contemplation and abstract thinking. Thus, mathematics supplied an ideal that moved away from the flux of experience. While the supreme world of mathematics was clearly distinguished from the material world, the latter was nevertheless made of numbers. The famous example given was of acoustics; the qualitative differences between one musical tone and another depend on the rates of vibration, that is to say on geometric quantities. From experiments such as this, based on numbers-as-shapes, he suggested that the world is made of atoms, and of bodies built up of molecules composed of atoms arranged in various shapes. Qualitative differences in nature are based not on a difference of substance - the essence of the substance itself being irrelevant - but on differences of geometrical structure.

The genius of Pythagoras lies in the way he dealt with the quest for otherworldliness. Wishing to leave behind the uncertainty, pain, and vanity of the material world, he did not follow the Orphic way of a supernatural Eden. Instead, he connected the natural environment with mathematics, and mysticism with logic. For the Orphic the substance of this world is not questioned. The world is a lower existence, nevertheless it does exist. For Pythagoras, this world is an illusion, an expression of regular and standard numbers. The Orphic gap between immanent and transcendental was re-instated but without commanding and regulating agents. There was nothing 'divine' in nature or anywhere else, only purity and clarity.

It is not clear which social groups the fraternity appealed to. Burnet argues that it attracted the well-to-do people though not of aristocratic families; the latter were more apt to 'free thinking', playing down the

³⁸Burnet stresses the fact that Pythagorean mathematics depicted numbers not as letters, but as a series of dots which form shapes. Otherwise, the theory of forms could not have taken place (Burnet, *ibid.*:99-102).

morality and the discipline Pythagoras was demanding. Their man was Xenophanes, opponent of Pythagoras and of other moralists and religious thinkers (Burnet, *ibid.*: 90). In contrast, the 'many' of *Magna Grecia* were as religious as mainland Greeks, and Orphism was familiar to them already. For a certain time the Pythagorean Order succeeded in becoming the supreme political power in the Achaian states of *Magna Grecia*. We know that they did not support oligarchy as such, and during the next three centuries they flourished both in tyrannic and democratic *poleis*. On the other hand, the strict discipline, secretive communalism *cum* authoritarianism which characterised the fraternity, and the 'exemplary morality' of Pythagoras himself, do not provide much evidence that they sympathised with democracy.³⁹ They certainly aroused suspicion among the non-participants, and a distaste for their strict discipline. Yet, there was a deeper, more fundamental reason why Pythagoreans viewed democracy with suspicion.

Pythagoreans had developed three kinds of musical proportions: the arithmetic, the geometric, and the harmonic (Harvey, 1965). The proportion is arithmetic when there are three terms and the first exceeds the second by the same amount as the second exceeds the third (e.g. 6, 4, 2, where $6-4 = 4-2$). In this case the ratio between the larger terms is smaller than the smaller terms (i.e. 6 is one and a half times 4; but 4 is twice 2). The geometric proportion is when the first term stands in the same relation to the second term and the second to the third (e.g. 8, 4, 2). In this case the ratio between the larger terms is equal to the ratio of the smaller terms (i.e. $8:4=2$, $4:2=2$; 8 is twice 4, and 4 is twice 2). The arithmetic proportion, it was claimed, represented the ideal of democracy. Democrats praised the ideal of equal rights for all citizens, the equality of numbers standing at an equal distance from its neighbours (e.g. 8,

³⁹It is not clear if this antipathy was expressed from the beginning of the movement, that is, if Pythagoras was its primary advocate, since all the available information about him is from later sources. It does apply with certainty to the Pythagoreans of the fifth and fourth centuries, e.g. Archytas of Tarentum, as well as theorists of aristocracy such as Thucydides, Plato, and Socrates who were affected by Pythagoreanism (Harvey, *op. cit.*).

6, 4, 2). But this equality does not take into account the exact value of each number, that is of each citizen. Thus, the higher up the scale you go the smaller the ratio, that is, the better the man, the less his added worth is rewarded. On the other hand, the geometric proportion is fair. In this case the numbers might not stand at an equal distance from their neighbours (e.g. 16, 8, 4, 2) but their ratios are of equal value ($=2$). In political terms this meant that the rights of the citizens should not be equal if they were to be rewarded justly, that is, according to their merit. The Pythagorean answer to the political unrest of the sixth century was 'fairness'.

The whole line of argumentation as it was eventually elaborated in the next two centuries, is clearly on the side of the 'aristocracy', whether we refer to the powerful, the *dynatoi* (as the Pythagorean Athenagoras of Syracuse was arguing), or the virtuous citizenry, the *aristoi* (as Plato did). No wonder it was the aristocratic theorists who understood 'justice' as proper distance, and restraining limits, applicable both to human and natural affairs. Following a similar logic, Solon believed that social harmony and non-encroachment was a relationship of unequals who keep their distance, since being in distance no one can destroy the nature of anyone else. He actually made an analogy between natural and social phenomena by speaking of the sea as 'more just' when, being itself undisturbed by the winds, it does not disturb anything (Vlastos, 1970:56-7). When they asked him to reform the constitution of Athens (593 BC), a city on the verge of civil war, he abolished the possibility of personal bondage and slavery of Athenians by Athenians, but refused to add the ability of the lower classes to share political power with the aristocracy to the new constitution (see above for details). This would not be just to the nobility. The democrats never based their ideology on Pythagorean proportions (Harvey, op. cit.). Their own ideology was based on a different nature-view. The propositions that shaped the democratic logic down to the fifth century, were equilibrium, reciprocity, and symmetry in nature, all three based on the assumption that senses are reliable. And while not everyone was convinced of their arguments, conviction became a central

concern to all parties involved in the running of a city, aristocrats or democrats.

The Milesian perspective, the theoretical cornerstone of the democratic project was first undermined logically by the relativity of Anaximenes and Heracleitian minimalism, and then physically crushed by the subjugation of the Ionian cities, and the annihilation of Miletus itself by the Persians a few years later (494 BC). It was only a few years later that a full and comprehensive blow to Ionian naturalism emerged from Italy.

2.f. Commentary

The sixth century stands as a witness to the decline of oligarchic power and the rise of the tyrants in most of the leading Greek *poleis*. Tyranny itself was not sustainable as an institution. It was not embedded in the long-term social fabric of the state as the Oriental emperors were. Tyrants' rule was not traditional or constitutional (bureaucratic), but *ad hoc* and charismatic. The causes of their temporary supremacy were negative: Tyrants solved temporary social problems addressed patriotic discontent over defeat in war, and division in a *polis* resulting from oligarchic arrogance, factionalism and oppression. Their aims were defensive: To keep the power they had seized and to acquire the means for their own profit and public ostentation (Starr, 1977:180).

Yet, they did help to break traditional rules and standards, strengthened the machinery and finances of the state, and aided the urban classes and the middling farmers of the countryside. Native industries and state-led trade expanded. So did public works such as temples, walls, theatres, etc. Expanding trade with the East and the West made people more aware of economic interest and its political significance. Alcaeus wrote 'Wealth makes the man; no poor man is noble or held in honour' (Starr, op. cit.).

We have seen how these new social conditions, combined with the pre-existing network of detached 'intellectuals'; a culture of political freedom, and mentality of balance, triggered a new perspective of the world,

as well as of nature. The social complexity of the *polis*, the communication with other civilisations, and increasingly popular literature, gave impetus to new, rational, and more reflective, nature-views. In mainland Greece nature-views exemplified other-worldliness, territorial egalitarianism, and balance of honours as the corner-stones of *eunomia* (good order). In the eastern colonies, it stressed cosmic homogeneity, strife, and balance through reciprocity, pillars of *isonomia* (good order and political equality).

Nevertheless, as always, internal, social factors, operated next to the 'external', geopolitical ones that should not be neglected. The democratic project of eastern, Ionian thought was terminated by the Persian onslaught. Indeed, its significance out-lived its creators, but for the moment the conservative *eunomia*, influenced by Orphism, dominated the free Greek world. It was not so much the message itself, i.e., salvation, that was successful, but the organisational means it employed and the organisational ends it successfully targeted. It succeeded as the 'glue' of the *polis*; it failed as a Pythagorean political sect. Social cohesion could be achieved more easily than radical egalitarianism: The immediate issue was to check the boundless desires and pride of the aristocrats and acknowledge the significance of the hoplite class, by bringing them all under one community.

The endeavour enjoyed limited success. Intellectually, Ionian thought was on the boundaries of primitive tautology and reflective thought; there was too much about nature and too little about the politics of the day. Politically, it was not fully articulated. Yet, it triggered a vigorous intellectual interaction between Orphism and naturalism, between geometric and arithmetic equality, between other-worldly and material world-views. Above anything else, it provided the democratic camp with an alternative world-view, a universe without agency.

The material conditions of the Iron Age economy, the hoplite phalanx, population pressures, and booming industry and commerce did not allow the stabilisation of the materialist or the salvationist world-views on politics. Nevertheless, as might be considered a paradox, they both

precipitated the movement toward full male participation in the commons, and the social cohesion of the city-states. Before the end of the sixth century, and under continuous social pressure, eunomia gave way to the demand for isonomia, a full political equality of rights for all adult males under a lawful constitution.

3. The Classical Era (Fifth Century)

3.a. The New Political Developments

The movement toward social change did not occur with the same impetus all around Greece. Three factors were needed for a radical, democratic, isonomic (equal rule) movement to occur. Iron Age farming took place everywhere, but in places where commerce or hoplite reform did not occur (e.g., Thessaly, Macedonia, Crete), the state continued to be organised around oligarchic principles of monarchy, aristocracy, and eunomia. The latter were 'extensive' organisations of people, *ethne*, stretched over land, economically weak, preferring a policy of isolation and traditionalism. Wherever the three factors of iron-plough production, commerce, and hoplite phalanx co-existed (e.g., Athens, Chios, Mantinea, Elea), an intensive territorial *polis* was developed. There, traditions formed during pre-urban times, were questioned and scrutinised. The *polis* was more 'rational', outward looking, individualist, egalitarian, densely populated, and wealthier than an *ethnos*.

It is not an accident then that the *polis* was also the place where notions of man, nature, and their relationship found fertile ground for constant development. Being more urbanised, refined, and outward looking, the people of a *polis* were ready to listen to new theories and speculations. Being more prone to employing logic and dialogue to build up a logical-rational argument, which means, persuasive to an audience through open debate, they were ready to consider a theory according to its own merits and shortcomings. All the theories, aristocratic or democratic in character,

remained debatable and inclusive. Since the debates were an end in themselves, due to the distance intellectuals kept from political rivalries, such arguments also provided answers to the fundamental questions of what is the best life for an individual as well as the best possible constitution for a *polis*. Again, such arguments should prove their validity by offering a comprehensive world-view. This was possible by developing a theory of the human-nature relationship.

The social tensions faced by the *poleis*, the same tensions which provided fertile ground for new theories, exposed class tensions. The four major classes in the most developed *polis* of the fifth century, Athens, were the citizens, the metics (landed immigrants, most of them non-Greeks, with no political rights), the slaves, and the Athenian women. In other *poleis* the metics were less numerous. Nevertheless, what differentiated these groups was not so much economic factors. Many of the metics and the foreigners were wealthier than most of the citizens, since they controlled commerce and banking. At least some women worked outside their household, and a few others could claim wealth impossible for ordinary citizens (Lovell, 1993). Instead, the differences among these social groups were legal and cultural, crucial enough to prevent metics, foreigners, slaves, and women from becoming classes aware of their own existence and thus able to attempt political organisation. To use Marx's terminology, they were classes *in* themselves, rather than *for* themselves.

Thus, the class struggle was not between the privileged citizenry and the rest, but among the citizens themselves. The latter had been changed by the sages to imaginary communities of equals, yet, they were sharply divided by wealth and status. Wealth ordered the weaponry, and the weaponry ordered the share of power each class would enjoy.

Athens is the only *polis* about which we possess sufficient information concerning social and political developments. Athens influenced the political developments in Greece, and here, the major division was among the twelve hundred rich *hippeis* (who were able to support a battle horse), the

fifteen thousand wealthy *hoplites* (the heavily armed infantry men) and the thirty thousand *thetes* (those who could not afford the hoplite's armour). To the lower classes, this seemed to be unfair, since the status quo denied the new egalitarianism.

Social tension among rich and poor citizens turned to conflict over the constitution, and particularly over two constitutional issues: firstly their ability to defend themselves in law, and secondly to secure land and abolish debt. We have seen how the Greeks did try to solve the problem in the eighth and seventh centuries by settling disaffected Greeks abroad. By the fifth century this solution was not possible since most of the available territories were already occupied. The solution could be either to comply with the poor citizens' demands and implement constitutional changes, or to conquer foreign land and distribute it among the have-nots.

Most of the *poleis* were unwilling to yield to citizens' demands and did not have the means to implement an expansionist policy. The result was that the lower classes fought for their interests, but they never achieved an all-out victory. As Finley notes, '...in city after city there was an oscillation between oligarchy and democracy, accompanied by civil war, wholesale killing, exile and confiscation. Sometimes tyrants intervened adding another dimension to the cycle' (Finley, 1983:101). This was the case in the Greek *poleis* at the end of the fifth century, when, for a mixture of structural and idiosyncratic reasons, Athens almost escaped the vicious circle. When the mild Pisistratid tyranny fell, Cleisthenes, leader of an aristocratic faction had the people on his side and won the subsequent intra-aristocratic war. Partly obliged and partly enlightened, he refused to support an aristocratic coup-d'état against the infant democratic rule. Instead, he carried through a radical reform of the constitution by abolishing traditional clans, and giving all executive power to the general assembly of citizens (Kitto, 1951:108).

This constitutional change alone cannot explain the subsequent stability of democracy in Athens, that is, its ability to retain widespread political allegiance from its citizens. Other intensively organised *poleis* went

through democratic periods, yet, they were disturbed by violence and aristocratic rule in turn, because nobles were able to influence poor citizens. While the nobles still held key positions in Athens as leaders of the democratic or the oligarchic parties, they never broke the power of the general assembly. The causes of such stability lie in a series of happy coincidences: The victorious battle of Marathon against the invading Persians strengthened the citizens' loyalty to their *polis*, accentuating the ideology of democracy and the free-man against despotism; the discovery of the large silver mines close to Athens offered a steady flow of revenue to the state to appease the rebellious poor classes; and Themistocles persuaded the citizens to use these revenues not as a direct income to the poor (*thetes*), but to employ them in building and manning a fleet to be used against the Aiginians, a rival commercial *polis*. The same fleet was employed against the Persians a few years later.

The defeat of the Persians and their Phoenician allies in a series of battles (Marathon 490 BC, Salamis and Himera 480 BC, Plateae and Micala 479 BC) and the subsequent liberation of the Ionian cities from Persian rule consolidated Athenian naval and commercial supremacy in the eastern Mediterranean sea, and strengthened the case for other *poleis* to adopt constitutional democracy. The Delian League soon to be formed under the Athenian leadership, turned unstable oligarchies into stable democracies all over the Aegean islands and shores under Athenian protection, and a few years later, Athenian domination. It is this domination, political, ideological, military, economic, and artistic, that turned Athens into the intellectual centre of Greece, influencing the thought of generations to come by its own issues and tensions.

3.b. The Road from Parmenides to the Sophists

While these social changes were taking place, a network of fully fledged intellectuals was developing out of the sixth century network of public commentators. With reflective thought in full process, undisturbed

communication among *poleis*, and a literate public ready to receive innovative arguments about politics, the nature of the *polis*, and the nature of all things, the production of philosophical thought and rivalry among competing intellectuals, flourished. Theoretical arguments became elaborate, sophisticated, and more precise as oral debate started to lose ground to the written word. Theories were constructed and approached as ends in themselves, and speculation about reality and truth became detached from immediate political use. The significance of intra-intellectual rivalry and the employment of writing is seen in its most crucial instance in the case of Parmenides whose theory apparently decimated Ionian thought. A legislator of Elea during the high mark of Athenian influence, there is little doubt that he was a conscious democrat, or at least anti-aristocratic. Furthermore, as we will argue, his theory is essentially egalitarian. Yet, he attacked the Ionian philosophers, also anti-oligarchic, with a devastating assault on change and coming-to-be.

Parmenides argued that the senses are bad witnesses and reason alone should be trusted. Using the rules of categorical logic for the first time, he argued that coming-to-be, passing-away, and change are impossible (Lloyd, 1970:38). The essential nature of Being, the inner necessity that a thing is identical with itself, holds it fast in bondage and allows it neither to come to be nor to pass away. The law of identity makes any change impossible. Reason alone suggests that since nothing but Being can be, Being is all that is, an imperishable immobile, homogenous, and continuous unit that simply is (Fr.4, Fr.6., Fr.8, Simplicius, *Phys.* in Kirk and Raven, op. cit.). Let us examine his argument.

The connection of Parmenides' Being with the world of social affairs lies in Being's just and equal nature. Humans might be unjust, overstepping the limits of their nature, yet there can be no injustice in Being since it is perfectly confined in itself (equal to itself). Once we have found the right way to think about Being our thoughts will be constrained by the *active* force, the all-directing goddess *Ananke* (Guthrie, V2:72). For Parmenides, *Ananke*

(Necessity) is not a natural force, but a wilful personification of logical interference. She forces us to face the fact that '...it is all alike, and equal to itself at all sides, no greater or lesser, no more or less complete' (Vlastos, 'Equality...', 1970:65). This symmetrical distribution of Being leaves no scope for injustice. Since Being is internally equipoise, it guarantees equality, both physical and metaphysical (Guthrie, *ibid.*: 76). The opposites we sense in nature, such as Fire and Night, soft and hard, male and female, are reflections of the true and eternal equality of the Being.

Parmenides' goal was not to undermine the political foundations of democracy. His main target was the Pythagorean notion of spatially extended units, and possibly of the Pythagorean 'higher' (heavenly), and 'lower' (earthly) reality. He was a monist as much as his Ionian predecessors, and cosmic equality appears as an integral part of his philosophy. Nevertheless, he did undermine the reality of the senses and of change. As a system of thought it had damaged the materialist, and by default, the radical democratic camp. The cause of this attack, other than his personal genius in finding the vulnerable points in Ionian thought, was cultural: The Greeks of southern Italy and Sicily, isolated from other Greeks, less exposed to other high cultures, were more conservative and inclined to mysticism. Parmenides himself was affected by Pythagorean mysticism, though not a Pythagorean himself (Guthrie, 1965:3). Whatever his intellectual intentions (his attack was mainly against the Pythagorean dualism of heavenly and earthly elements), he had checked the democratic project which was fundamentally based on the reality of the senses and thus the equal status of everyone's experience. By implication, he had also checked Anaximander's commonwealth of nature, the historicity of the world, and the gradual evolution of life on earth, another bastion of democratic thought (for one it discredited lineage connected to gods). As no philosopher could really undermine the principles of the Protagorean argument, that is, 'a monistic universe is by definition an immobile, unchangeable universe', the materialist camp tried to by-pass the argument by employing pluralistic theories. The most significant and fruitful

of these attempts were the ones by Empedocles, Anaxagoras, and the Atomists. Furthermore, through Pythagoras and Parmenides, mysticism had bifurcated. While pro-agency mystical understandings of the world remained alive, to arrive at a full degradation of matter and nature later on, a non-salvationist, philosophical offshoot became a logical-paradoxical argument for truth above human experience and senses: The world might not be driven by agents, yet senses should not be trusted.

Empedocles sought to overcome the logical barrier of eternal being by the existence of four physical bodies: earth, water, fire, and the newly discovered air, each with its own characteristics, unchangeable in themselves, that is, four qualitatively similar copies of Parmenides' Being. Their mingling in a variety of proportions is responsible for the multiplicity of the forms our senses detect in the world. He named the forces that mingle or dissolve the four substances Love and Strife. Thus, the whole world is made up of six entities, and there is nothing empty of them (again, conforming to Protagoras' argument). These substances are equal to one another, equal to themselves, deserving equal honours, and ruling in turn, so that cosmic, social, and bodily justice (i.e., health) is guaranteed (Vlastos, 'Equality...', 1970:61-62).

Parmenides had argued that since everything is full of Being, motion and change are impossible. Empedocles argued in response that change is possible because of Love, which brings entities together, and Strife, which separates and reforms them (Chernis, 1970:23). The argument, as convenient as it was, had political connotations: Love and Strife, that is harmony and conflict, work together, and they are both needed to make the world possible. Harmony is not morally superior to conflict but equal to it, necessary, and welcome. When the one has supremacy, the other will be 'rising up to claim its prerogatives' ([fr. B30.2] in Vlastos, *ibid.*: 63).

Influential as the argument was, especially in the materialist school of medicine, it faced a logical problem to be exposed by another Eleatic philosopher, Zeno (460 BC), pupil of Parmenides, rival of the Pythagoreans, and a democrat himself (Guthrie, 1965:81). Zeno argued that for such a

mixture of bodies to take place, the parts should either be made of particles or be infinitely divisible. He reduced both possibilities to absurdity employing the paradoxes of the 'Flying Arrow' and the 'Moving Rows' for the prior, and the 'Stadium' and 'Achilles' paradoxes for the latter.⁴⁰

Anaxagoras (500 - 428 BC), the second challenger of Parmenides theory and contemporary of Empedocles, approached the subject from another point of view, that of the Ionian tradition from which he descended. Like Empedocles, he accepted the Parmenidean canons that there is no empty space and no essential change in the world, in the sense that nothing passes away or comes to be from nothing. Yet, this does not mean that nothing changes. Instead, change occurs in the mixture of things. But the mixture is not made of four elements, or 'roots', but of all tangible substances such as flesh, iron, wood, stone, etc. Everything is made of everything else, and this explains why even though we do not eat hair, or bones, we do nevertheless develop them in our body (Guthrie, *ibid.*: 271-5).

Anaxagoras consciously chose one horn of Zeno's dilemma and declared that matter is infinitely divisible in line with Anaximander's Boundless. But he could no longer make a full circle and return to Anaximander's theory since motion could not occur by itself (as Parmenides had 'proven'). Motion and mixture had to be explained, and to stay in line with Parmenides canons, it had to be an external force. On the other hand, since nothing disappears (all tangible substances are eternally alive), contrary to Empedocles theory, Anaxagoras felt it necessary to posit only one kind of force. He called it Mind, *Nous*, and thus he introduced into Greek philosophy the potent notion that the natural world is the result of reason, that reason is not a part of nature nor a product of it but different in kind and sovereign over it (Chernis, *ibid.*: 24). This would be fully exploited by democracy's enemy, Plato. This was a potent notion, for Anaxagoras never thought of Mind as the beginning and end of history, or some kind of despot over nature. Indeed, his

⁴⁰For details on the paradoxes see *A Dictionary of Philosophy*, Macmillan Press, 1979:380.

Mind was an incorporeal, eternal, conscious, intelligent, self-governed director of the material world (Guthrie, *ibid.*: 279). Yet, these were all properties necessary to explain change without stepping into Parmenides' minefield. The Mind did not take part in the actual ordering of things and no teleological explanation of the world was provided.

Instead, the existence of Mind gave a dualistic sense to Anaxagoras' theory, since Mind's purpose was to support the monistic view of the cosmos, that is the world of senses, change, balance and equality in which everything possible takes place. For Anaxagoras, the atmosphere (*aer*) contains the seeds of all things that fall on the soil, and none of them is intrinsically different from the rest: Plants, animals, and humans are all intelligent, and have desire and sensation, though humans are more intelligent through being able to learn because they have hands; as for gods, they have nothing to do with human affairs ([Fr.59A112] in Havelock, *ibid.*: 107-8).

Anaxagoras was a firm supporter of democracy and Pericles (the leader of the democratic party in Athens) invited him to educate the Athenians with the Ionian, apparently atheistic, way of thinking. Indeed, he spent thirty years of his life in Athens, always under the protection of Pericles but with little success in 'civilising' the Athenians. He was finally accused of atheism, condemned to death, and forced to leave Athens forever (Russell, *ibid.*: 79). We will examine the reasons for this failure later on, but for the moment let us examine the reaction to his theory.

The reaction came from Melissus, the third Eleatic philosopher (though he lived in Samos). He attacked both Empedocles and Anaxagoras for their notion of differentiation. Without void there can be no motion (and they both accepted the absence of void), and identity excludes any kind of rearrangement since rearrangement means separation, that something has changed both temporally and spatially (Guthrie, *ibid.*: 101-118). We could be almost certain that this intra-intellectual rivalry over the law of identity, motivated by a desire to save the sensible world, was fully responsible for the

emergence of **Atomism**. This theory was built step-by-step as an anti-logue to the Eleatics, and offered a strong ideological thesis to the egalitarian cause.

The way it was constructed entirely in a 'counter-conceptual' mode is brilliantly presented by Chernis (1970). He exemplifies the intensity of the debate, its dynamism, as much as its urgency. I quote from him:

Leucippus... accepted this implied challenge.

(1) Since there could be no motion without a void, the atomists asserted the existence of a void, a physical non-being;

(2) and, in as much as Melissus had shown that a commencement of motion contradicts the law of identity, they abandoned such forces as Anaxagoras' *nous* and, making explicit the old, naive Ionian assumption, declared that constant motion is an unvarying characteristic of all matter.

(3) Melissus' proof of the necessary homogeneity of all matter they accepted;

(4) and, since the sensations could no longer be defended as true witness anyway, they denied that the characteristics apparent in complex bodies had any existence at all.

(5) Anaxagoras, by asserting the infinite divisibility of matter, had laid himself open to Melissus' attack that he had no reason to assume difference save for the arbitrary division which involved an initiation of motion; the Atomists therefore accepted the other horn of the dilemma and assumed that the particles of matter are indivisible and unchangeable, differing from one another only in size and shape and, except for their motion, having no other characteristics at all.

(6) Leucippus simply denied their existence (i.e., the reality of characteristics unsuccessfully supported by Anaxagoras) and explained the apparent differences of complex bodies as illusory epiphenomena of the real difference of the number, size, shape, arrangement, and position of atoms moving in void' (1970:25-6; numbers and paragraphs added).

Leucippus was Ionian in outlook, and well versed in Eleatic philosophy - it is said that he was Zeno's pupil (Guthrie, 1965:384). He did produce a theory able to withstand Eleatic attacks, re-establishing the unity of the world, of humans and nature, but at the expense of discrediting sensational authority. It was a shaky compromise since it gave an imperative authority to the mind to discern truth. Indeed, the truth to be discovered was essentially *material* as was the Atomistic mind itself, but the arbitrariness of its counter-conceptual construction made it a potentially easy prey for a strictly idealistic theory which would draw a steady line between a 'higher' immaterial mind, and a 'lower' material perception.

This perhaps was the reason that Atomism did not last for long. However for a sort period of time, in the second half of the fifth century, it did find fertile ground, especially after Democritus, Leucippus' pupil, elaborated on the implications of Atomism on the cultural and social domains of his time. His time was influenced by Athenian standards, and Athens at that time was seeking happiness through pleasure. Democritus reasoned that pleasure is not the end but the means, and in contrast with the later idealistic philosophers, it should serve both the soul as well as the body. The system he developed on the human condition was based on such an axiom and shows a deep consistency with the Atomic, entirely mechanistic principles of his theory: The human organism is in its best condition when it is 'cheerful', and cheerfulness is achieved through 'moderation of enjoyment and harmony of life' ([Fr. B191], in Vlastos, 'Ethics...', 1970:383). Moderation is a natural state of being which is spoiled by movements of the soul's atoms over large intervals. Too much, or too little pleasure spoils the balance of the atoms and disease (moral or bodily) is immanent. The natural environment plays its own role in this balance: A climate that is too hot or too cold unbalances the soul which then goes out of its mind.

Balance between the body ('microcosmos') and the wider natural environment ('macrocosmos') is also kept mechanically. The environment, a compressing force of atoms could crush the soul out of the body (resulting in

the death of body *and* soul) if we did not possess the power of respiration. Thus, the environment as such is perceived, in contrast to the Ionian naturalists, as morally neutral: It could be potentially 'good', when we inhale the soul-atoms that check the crushing, or 'bad' if we fail to do so. The external goods (material and immaterial) that provide us with pleasure, could also be potentially harmful or beneficial - in both cases the decisive factor is the body itself (Vlastos, *ibid.*: 386). Both soul and body can change according to the natural and cultural environment. 'Need' creates arts (techniques) and they change our 'nature' (i.e., our being), by altering atoms of the soul and the body. The training that maximises healthy pleasure is hard work, for both negative and positive reasons: In its absence, pleasures go wild, in its presence self-sufficiency, the maximum security of pleasurable life, is guaranteed.

Nature itself is entirely separated from anthropocentric teleology in the Democretian system. True, the Ionians had perceived the cosmos to be predictable and agent-free as well, but they thought that the irresistible mechanism of evolution would finally create humans and human societies. Not for Democritus: Evolution, mechanically produced by the movement of atoms, could also produce worlds different from ours, with no sun, moon, or human life at all ([Hipp. Ref. I 13.3; A40] in Vlastos, *ibid.*: 390). As for the universe itself, it is in constant evolution and rearrangement since atoms never cease to move. Nature is not fixed but dynamic, 'in the making', *without* any final purpose or metaphysical destiny.

Democritus seems to suggest two ways that life can be organised: One, the dominant way, is through 'Necessity', the mechanical laws responsible for the arrangement of the atoms. The other, always under the authority of Necessity, and available to humans alone is 'teaching' which alters the structure of our soul-atoms to achieve a higher stage of happiness. It is created by humans, and when humans form groups, such as a *polis*, it takes particular forms accordingly. By employing righteous teaching a *polis* can enter into a stage of cheerful well-being enjoyed by all its members.

As a materialist and naturalist he started by examining the minimum parts of an organisation, and the way these parts proceeded historically. Thus, he asked the question: Why did people, once living solitary and brutal lives, organise into communities? The answer was, to protect themselves against others and other species. The people created laws to allow for security and happiness. The laws were generically created by circumstances, and their enforcement potentially guaranteed the happiness of the whole group.

Yet, as Havelock notes, Democritus insisted that there is no such thing as the Law, an eternal form of Good and Right, but a system of customs serving a specific purpose: To make the life of a community easier and happier (ibid.: 144). The *Polis*, as a late stage of political organisation, is a complex one, easily destroyed by individualism or rigid customs. What can save the group in such a case is the ethos of altruism and compassion of the governing class. It is their responsibility, as more gifted by nature or education to save their community and to lead the whole of the *polis* into happiness even if they have to sacrifice some of their wealth through distribution to the poor (B267, in Havelock, ibid.: 148; B191, 255, 261 in Sinclair, 1951:65). Yet, the superior by nature should be the natural leaders of a democratic community, not a despotic one: Democritus said 'Poverty under democracy is better than any prosperity under oligarchy as is liberty above bondage' (B251) and there could be little doubt that he perceived authority as a contract between governed and governors to achieve the common good.

Democritus perceived politics as a continuing process of enhancing the happiness of a community. He was a democrat, indeed the first one who did not claim a moral equivalent of democracy in nature, but a potential for happiness among humans which was natural itself. The world is made of blind atoms, blindly engaging, and blindly creating universes which take more complex forms as time goes by. Humans are a natural incident engaged in the cosmic game of starting from simple patterns of organisation and moving to more complex ones. Politics is the art of solving problems, obstacles to happiness. Let us not forget that he lived in Athens in a period

when two issues dominated the political stage: One was the radical equality the democratic party envisioned, the other the relationship between custom (also 'law') and nature. In both cases he chose the moderate path: It would be folly to trust the rule of the *polis* to the lesser since they did not know how to rule and would bring disaster to all (B254, 267 in Havelock *ibid.*: 147-8). As for custom, he went so far as to argue that they are not natural since what really exists are only the atoms that the senses are unable to detect. Yet, this does not mean that customs are harmful. On the contrary, 'it is proper to be obedient to law, to the ruler, and to the wiser' (B47 in Guthrie, 1965:495). In general, they are necessary to bring happiness, but in particular they are good only as long as people obey them; if not they should change after a general agreement.

Democritus and Atomism is the last episode of the long story of naturalism which started with Thales two hundred years before him. Naturalism's major weapon was the belief in the unity of the universe in politics (i.e., equality), substance (i.e., materialism), morals (i.e., justice) and its autonomy from agents of sovereignty above, or beyond, it. Its development had followed the social developments of its time asking for political equality among the citizens, the 'natural' way of organising social life. The Eleatic law of identity shattered this unity and from now on something had to be left out of the previously neat equation.

The Atomists saved the autonomy of the universe from agents, as well as the unity of substance, sacrificing the moral unity of the universe. Anaxagoras, Heraclitus, Anaximander, even Parmenides and Empedocles, had naturalised justice by moralising nature alone democratic lines. It was a short-lived victory. Atomism was forced to de-moralise nature. It is 'necessity', not 'justice' that drives nature, and it is not good or evil, just the blind force of atoms moving in a void; as Vlastos wrote, 'not intelligent, but intelligible' (*ibid.*: 397). Justice is an art, to be created and if necessary changed, always under the law of necessity. As justice became a tool of Necessity, Atomism became indifferent to equality: The infinite worlds are

unequal in shape and attributes; sun, moon, and earth are unequal in quality, size, and intervals; the earth's breath and length are unequal, and so are the northern and southern halves, etc. As Vlastos notes, '...cosmic equality has lost its importance, for cosmic justice no longer makes sense. Justice is now a human device' (Vlastos, 'Equality...':90). Politics had been left to human ingenuity alone. The curious coincidence is that as Democritus was teaching his theory in Athens, the social conditions in the *polis*-capital of Greece were changing, and the implications of his thesis were immediately put into political practice. We will now examine how.

3.c. A Shift of Perception, a Shift of Interest

During the fifth century, large scale Hellenic democracy had been achieved by genuine social developments and a culture of communal freedom, as well as by historical incidents. Yet, the stability of the system was primarily based on geopolitics. The stability of pro-Athenian, political life on the shores of the Aegean depended on the stability of the Athenian democracy, and the stability of Athens rested on its imperialist fleet which alone could guarantee political supremacy, the wages of the poor oarsmen, the cost of running Athens' democratic institutions, and support the expenses of Athenian cultural monuments. The latter were profound expressions of Athenian ideology, itself a mixture, rather than a blend, of all three world-views sometimes represented in the same architectural complexes: The defeat of wild nature by civilisation, as for example, the struggle of *Lapithes* against *Centauroi* depicted on the Parthenon; human sobriety and balance depicted on Phydias' statues; and the Pythagorean architecture of the Parthenon where size and proportions reflected the names of gods and goddesses.⁴¹

For almost half a century (480 BC - 430 BC) this supremacy was unquestionable. Maritime state-led trade expanded, the imports of wheat from

⁴¹ Greeks represented numbers with small letters. This gave them the opportunity to use dimensions as names. Thus, names such as 'Athena',

the Black Sea were secured through diplomatic channels, and the pottery industry flourished leading to prosperity for a large part of the Athenian population; citizens, women, metics, and even domestic slaves. A new generation of Athenians were eager to grasp any opportunity, serve their *polis* with pride, and participate and make a name in the general assembly as leaders of the people. It was a political environment which openly glorified the culture of Athens, the democratic institutions, the ability of speech and argumentation to find solutions to issues of tactical or strategic importance, and the value of balancing political forces and interests (see Thukidides, *Epitaphios*).

Yet, the three world-views these social developments were based upon, remained institutionally autonomous. The other-worldly, Orphic, soteriological message found expression in secret meetings in the houses of believers or in local mysteries such as the Eleusinian ones (Beach, 1995). Philosophical, this-worldly, discourses inhabited the *agora*, private schools, and *symposia*. Lastly, the 'pagan' religion of Olympian gods was maintained and elaborated through public ceremonies, rituals of initiation, and monumental constructions (statues and buildings) offering employment to poor Athenian citizens, and international prestige and fame for Athenian foreign policy (Humphreys, 1983; Adams, 1985). They roughly correspond to the three imaginative concentric circles of the Greek universe: The *polis* (patron Olympic gods); the Greek world (soteriological religion); the universe (philosophers). As long as the three networks remained distinct, their ideological correspondents were bound to remain distinct too. And as long as the three world-views understood nature differently, nature was to remain an unresolved issue.

The most important development concerning these world-views during the fifth century, was their rationalisation. We have examined how this process started in the 6th century, the time period which also heralded the

and 'Poseidon' are found in various buildings on the Parthenon (Manias, 1985).

bureaucratic rationalisation of the Greek states (Runciman, 1982). Now the transformation became faster, inexorably moving toward more complete forms of reflection. The Eleusinian mysteries were transformed from an agrarian ritual of annual renewal to an institutionalised religion exclusively for Greeks, promising eternal salvation and bliss through purification and proper moral behaviour. The Olympian rituals were modernised with the intention of including all of the Athenians, men and women, children and elders, in the festivities, rather than only the aristocratic families as had previously been the case. As for philosophy, it started operating in more strategic ways, in long-term institutions, teaching free citizens wishing to learn for a fee.

The 'schooling' function of the philosophical discourse stems from a crucial, though somehow neglected, contradiction of the Athenian political system. While Athenian democracy was based on the actual equality and similarity of the citizens as a single group, the State attributed great importance to the individual, demanding initiative and leadership from him. Any Athenian citizen could lead the hoplites as long as he could persuade them of his ability, and he could achieve this by training in speech and politics, i.e., the art of rhetoric. Yet, advanced education was not a state provision but left to the discretion of the citizens themselves. It was a golden opportunity for intellectuals from all over colonial Greece (revitalised Ionia, Macedonia, Thrace, Magna Graecia), to flow to the new 'centre of civilisation', and satisfy the demand for anyone who had the resources to pay the fees.

Education was provided by 'technicians of speech', as well as political thinkers, the Sophists, who had either taken part in the shaping of naturalist philosophy, or were aware of the developments in the field. Their teaching varied widely in subject-matter and method and leaned towards individualism and relativism. They encountered an audience which on the one hand was unaccustomed to political philosophy (being part of metropolitan, conservative Greece), but on the other hand was not very certain any more

about the moral foundations of their own, or *polis* behaviour. The contact between teachers of rhetoric and naive but eager and rich students was nothing less than revolutionary, changing the substance of the Athenian state, and the future of Greece itself. The insecurity of the sixth century was partly responsible for the success of the sages' message of social cohesion. The successes of the fifth century created a confidence and arrogance that softened morals and relaxed egalitarian norms. The argument the Athenians employed, (e.g., Thukidides, *Epitaphios*; Aeschylus, *The Persians*), was simple: We won because we fought for our freedom given to us by our constitution, while the Persians lost because they were forced to fight for their master. Other *poleis* with tyrannical regimes had to submit to such an argument, that is, Law means Freedom. The correct constitution to secure freedom became the primary concern of Greek political thought. But, what freedom? Freedom for the individual, or the group?

Some Athenians started questioning the supremacy of social norms over individual wishes: That laws and constitutions may themselves be a tyranny - a series of customs and conventions imposed upon men and restricting their individual freedom; freedom which brought victory over the Persians (Sinclair, op. cit.: 41). Absence of external threats and internal revolts, new luxuries from expanding trade, and contact with new people and cultures were all responsible for the origination of this radical relativistic world-view. The Sophists precipitated the controversy by teaching the youth how to command their audience no matter what their argument was, and now the connection between nature and Law had to be investigated anew.

3.d. Law and Nature Re-examined

In the expanded world in which the Athenians were now living, the only stable point of reference became man alone. Lands, customs, language, and regimes were all different. Reflection was forcing the Greeks to think that Greek customs, as well as the Solonian laws could not be sanctified by Zeus, they could not be *the* Laws, but merely convention. If so, was there any

guaranteed, righteous, way to behave? Was there any similarity among all human beings? As some travelled philosophers observed, the only certainty about humans is our physiology: We are all born, grow old, and die, the process called *physis* in Greek, in Latin *natura*, and in English *nature*.

As Sinclair notes (op. cit.: 49) there were four possible ways to link nature (*physis*), law (*nomos*), and the divine. The first possibility was to make *physis* dependant on law, and law dependant on the gods. Yet, the law was too close to the *polis* institutions to describe the nature of human beings.

The second possibility was to dissociate *physis* from the laws and attach both to the divine. The fact that laws were written down made them practically stronger, but it had weakened their sense of divinity since the veil of tradition was removed.

The third possibility was to claim that, while laws owe nothing to the *physis*, it is natural for humans to order their life by laws. As we have seen, this is the line Democritus followed, as well as Protagoras, Prodicus, Ippias, and Gorgias, all of them Sophists, newcomers to Athens. The argument was not attempting to include the divine into the equation at all, simply because the exponents of this view were atheists and Democritus was personally responsible for de-moralising nature itself.⁴² Human communities need laws (do not all societies obey some kind of laws?) because the order they produce guarantees social life and thus the happiness of the members of the group. Nature in this sense is perceived as an arena of potentiality and growth, without any deterministic, eschatological overtones. It is not divine or moral as such, but nevertheless morality is possible if it satisfies the natural propensity of happiness.

⁴²Democritus believed that gods, though superior in faculties to human beings, are made of matter, and that they follow the same process of growth as humans (Havelock, *ibid.*:125). Protagoras argued that knowledge about gods is impossible. Neither of these views could be identified as religious in their times.

No matter how suggestive this third possible way, it did not prove very popular. For the first time in history men (but not women), especially men of wealth, had discovered the possibility of absolute, unrestricted freedom, and this, third thesis was asking them to obey customary behaviour 'for their own good'. Perhaps for the majority of the middle classes, and certainly for the poorer classes this was indeed beneficial. Their privileged political position in the Athenian democracy was based on egalitarianism. But for a privileged few, the main group of people who did have the money to pay for political education, convention was not an exciting prospect. In fact, the landed and monied aristocracy were always prone to amoral, individualistic teachings, but in the sixth century they had been checked by popular demand for moderation. Now everyone was benefiting from the empire, especially the poorer classes who were employed in the state-run fleets. If someone wanted to adhere to a radical view of power, there was no social group available to check him from embracing the fourth line of thought.

This fourth line of thought opposed law and physis, elevating physis as the only ruler of moral conduct, of good and evil. The sages and the naturalist philosophers, especially the naturalist medical school had shown that everything in nature has, potentially or actually, a correct condition. If this is so in the physiological domain, why not apply it in the moral and social one? Was it not Democritus, their contemporary, who had discredited morality defending the material world from Eleatic attacks?

1.	2.	3.	4.
GODS	GODS	LAWS // NATURE	NATURE
	/ \		
LAW	LAW	NATURE	
NATURE			

The earliest formulation of the fourth proposition came from **Archelaus**, a naturalist himself, and disciple of **Anaxagoras**. He was especially interested in biology, the process of *physis* he had associated with the principles of hot and cold. In this process he could identify nothing right or wrong. He thus reasoned: 'right and dishonourable exists not by nature but by custom law' ([60A; 2.45.21] Havelock, op. cit.). We do not know if he meant that we should disobey the law, but it was understood as that (Sinclair, op. cit.: 51).

The observations of Archelaus, and the relativism of Democritus and Protagoras, had left the door open for anyone who wanted to deliver a full scale attack on laws, and this came from an Athenian (the first genuine Athenian thinker), **Antiphon**. A *physicos* himself, he was interested in natural phenomena, foreign cultures, geometry, and time. He put his finger on the two issues the Greek *polis* was now facing: The nature of the individual and the nature of the race. For him, the *physis-law*, the only Law, distinguished between strong and weak, not among Greeks and non-Greeks: '...but if a man be of a lowlier family we feel no awe for him and show him no veneration. This is a case where in our [social] relations with each other we have 'barbarised' ourselves. For by nature all of us in all things are constituted alike both barbarian and Greek' ([87B44; 2.352.B.23ff.] in Havelock, *ibid.*: 256). The laws we should obey, he continues, are those which comply with the well being of our physiology, not the conventional ones which usually restrict this well-being. It is profitable to obey the conventional laws only to protect ourselves from punishment. Otherwise, they are just fetters of nature.

Thrasymachus, a professional sophist who moved his audience as few others could, pressed Antiphon's argument by elaborating on the growth-process differences. He did so by reasoning that larger and stronger animals devour the weaker, and that the clever could hoodwink the stupid: Inequality exists both in human races and among individuals and since it is natural, inequality is morally right. Arguing from facts that no one could deny in

Athens of this period, he maintained that rules should serve the self-seeking interests of the strong because by obeying them they would be obeying their physis, and this is moral.

The political conditions of the second half of the fifth century welcomed such kinds of arguments as backing the emerging liberalism. They were even more welcoming of the possibility of replacing brute force with the art of persuasion. **Polus**, friend of Thrasymachus, speaks in the name of all sophists when in Plato's *Gorgias* he defends the art of rhetoric as providing the power of persuasion, bringing its owners 'success at any price'. Nevertheless, the liberal argument was not merely shaping the character of the Assembly, nor just the quality of the orators, but the character of the Athenian imperium as well. This change in attitude is clearly illustrated by **Callicles**, a character in Plato's *Gorgias*. Socrates had just attacked Polus with the argument 'to do wrong is more disgraceful than to suffer it' ([482D] in Sinclair, *ibid.*: 76), to which Callicles replied with nothing less than a theory of Will to Power: It is natural, part of our physis, to avoid pain, and it is also natural to inflict pain on others if this enhances our well-being. The strong side, whether an individual, a class, or a *polis*, do not have to excuse themselves by finding moral, old fashioned, justifications: 'Give me a man who has enough raw nature in him to shake off the trammels, break through and escape, trampling on our scraps of papers, our mumbo-jumbo and eyewash and all our unnatural conventions' ([484A] in Sinclair, *op. cit.*).

The culture of the period recognised the debate and got heavily involved in it. Tragedies and comedies often raised the issues of power, law, and nature. Aeschylus, Euripides, Sophocles, and Aristophanes formalised the discussions of the day in theatre. Prometheus (in *Prometheus Bound*) becomes a champion of humanity against the despotic gods; Iocaste (in *Phoenicians*) declares that nature is a domain of equality; Aithra (in *Suppliants*) advises Theseus to obey the laws of the *polis*; Antigone (in *Antigone*) disobeys the unjust king Creon and buries her brother according to the customs; and the chorus (in *Tereus*) advocates the unity of the human

race. Aristophanes constantly attacked the all-powerful demagogues of the war party, lamented the losses, and advocated peace.

It was a message of moderation but the explosive geopolitical situation of the second half of the fifth century was dragging Athens to extremes. When the Athenians sent an envoy to Melos to enforce a tribute from the islanders, they used the sinister language of Callicles: 'We shall not trouble you with specious pretences, either of how we have a right to our Empire because we overthrew the Persians, or are now attacking you because of wrong that you have done us. You know as well as we do that right, as the wrong goes, is only in question between equals in power, while the strong do what they can and the weak suffer what they must'.

The people of Melos replied that they would resist and that the gods would favour the cause of the just. To this the Athenians answered: 'When you speak of the favour of the gods we may as fairly hope for that as you, neither our pretensions nor our conduct being in any way contrary to what men believe of the gods, or practice among themselves. Of the gods we believe, and of men we know, that by a necessary law of their nature they rule wherever they can. It is not as if we were the first to make this law, or to act upon it when made. We found it in the world before us, and shall leave it in the world after us; all we do is to make use of it, knowing that you and everybody else, having the same power as we have, would do the same as we do. Thus, so far as the gods are concerned, we have no fear at all' (quoted in Parkinson, 1958:176).

As the war between the Athenians and the Spartans (431 - 404 BC) dragged on, Athenian policy operated more openly on these lines. Pericles, the brilliant and moderate leader of the democratic party and of Athens for thirty years, died during the third year of the conflict. The new generation of Athenian leaders, people of wealth, being accustomed to unchecked Athenian power rather than to the traditional Athenian asceticism, and educated by men like Gorgias, Protagoras, Theophrastus, and Antiphon, all relativists, were

becoming more cynical in their political aspirations, and more brutal in their practices.

There should be no misunderstanding: the early sophists had accepted the relativity of custom under the persuasion of intellectual developments and contact with other cultures; they were still accepted its benefits as serving the nature of human beings. The later sophists did not. The Athenian *polis* was turning into a tool of power for anyone who knew how to convince the easily persuaded general assembly of Athenian citizens to press ahead with their imperialist, predatory policies. Most of the time these people were aristocrats, like Kimon.

Voices who rose against the trend were simply not heard. Thucydides, a general and politician before he was expelled from Athens, an historian and political theorist afterwards, is perhaps the most important of them. Trying to understand the pattern of history, if there is any logic to the unfolding of human affairs, he faced the dilemma of law - *physis*. He identified both of them as historical factors. They do not exist outside of social organisation and they do not exist against it. On the contrary, humans behave according to their own *physis*, which is not similar to the *physis* of other species. Again, humans are different enough among each other to never agree completely about what is just. But they could potentially find laws to satisfy everyone.

Nevertheless, these voices were in vain. To paraphrase Weber, there was an eclectic affinity between theoretical amorality and geopolitics which made the combination irresistible. Human *physis* was perceived as completely alien to conventional morality, while society was viewed increasingly as an organisation of interests, based not on harmony, but on calculation and force. Critias, Cleon, and Alcibiades are the most famous examples of this generation of leaders. Critias (also to be called the first sociologist!), an atheist, developed a theory of power based not on force but deceit. Cleon, a leader of the Assembly lured the Athenians to exercise brutal force toward anyone who did not acknowledge their hegemony. As for

Alcibiades, this genius of rhetoric, strategy, and politics (some say the only hope of the Athenians to win the war), when accused by the Assembly of blasphemy, did not hesitate to become a Spartan advisor to the disaster of Athens. The Athenians, following a similar morality, first condemned him to death only to forgive him and beg him to return a few years later.

Athens lost the war in 404 BC. A short but bloody oligarchy of thirty tyrants followed. Democracy was re-established the next year and remained alive for the next six hundred years. But Athens would never be the same again. It had lost the Long Walls, between half and two-thirds of its population, five hundred triremes, and the empire. Without a fleet, with Persian hegemony re-established, and with other *poleis* developing hegemonies around it, it never again rose to imperium. The debate over nature, loaded and shaped by Athenian concerns, would continue, and the legend of the Golden Age would keep Athens the main arena of this debate for a long period.

4. The Fourth Century

4.a. Geopolitics and Morality

We have seen how the amoralist/naturalist school had gained predominance in Athenian politics, especially after the death of Pericles, and the rise of the new trade aristocracy during the war with Sparta. Certainly its dominance was not unopposed - but for the duration of the war opposition was not effective for social and intellectual reasons. Firstly, the empire was based upon and was feeding on opportunism and not on some moral principles. Secondly, even the opponents of amoralism were relativists themselves. They acknowledged the historicity of the laws and their functionalist value; that they were good because they brought happiness. The argument was self-defeating since some could declare, as they did declare, that laws do not make them happy.

The defeat of Athens had taken away much of the spirit of opportunism, and egalitarian laws and customs were once again gaining ground in the mind of the citizens, but there was not a ready-made intellectual answer to the relativists. That would follow a more complicated course, a new perspective of history, of epistemology, as well as of communication. All this culminated in Plato's idealism, and Aristotle's teleology.

The counter-attack against relativism started with **Socrates** (470-399 BC).⁴³ Socrates, as any other Athenian of his time, had been exposed to the naturalist school. Soon he came to the conclusion that a good life was not founded on observation, but on reflection. His dialectical method of investigation, his intermingling with the youth rather than the older citizens, his charismatic personality are too well known to be elaborated here. What is of importance are his conclusions: The concepts of law and order that bind people together could no longer be based on traditional concepts of deity; or

⁴³ His life belongs to the fifth century but as his thought shaped the fourth one, it is more appropriate to mention him here.

on the observation of how other human communities, or species behave. Other species, he reasoned, live in their own universe, thus, they are completely irrelevant to humans. 'Trees and country places won't teach me anything; give me men in town' (response to Plato, in Sinclair, *ibid.*: 88). We have to distinguish the realm of human physis from both that of gods, and that of nature. As for the various customs we observe around us, they might be just, or they might not; one way or another they are temporary. Instead, we should distinguish between observable customs, and an eternal, immortal, universal and eternal Law beyond this world. The Law resides inside us, in our soul; the objective of everyone should be to listen to his inner voice, identify the Law inside him, and follow its commands. This will lead him to become an excellent person, righteous, disciplined, and holy (*Protagoras* 329e2 ff.)

This Law is connected, according to Socrates, with a supra-human realm of nature, binding to all, the Form. The degree of humans' conduct with the Form determines their degree of excellence. The Form itself is uncompromised, systematic and final. This is why it should be one, a unity of goodness allowing no approximation, variety, or shift. This is why it is ahistorical, and foreign to any social arrangement. Humans can produce copies of it, all being approximations of the Form and thus, imperfect. Yet, we can improve the quality of these copies by training ourselves to understand abstract forms and to alter the patterns of our actions to correspond more closely to the Form.

Socrates was dealing with a particular social problem of his time, that is, the relationship between customary laws and individual morality. The Sophists had more or less accepted the relativity of both under the common denominator of pleasure and progress. Socrates disagreed: morality cannot be based on pleasure but on integrity. By situating it in relation to a supra-human domain, he sanctified it; by connecting it to our immortal soul, he opened the gate for the great division between the inferior domain of matter and the superior domain of immaterial ideals.

This project was to be further developed by Socrates' pupil Plato, and Plato's pupil Aristotle. But first we will examine the political and economic environment which they contemplated.

4.b. The *Polis*' Decline

The fourth century has been summarised as a period of growth and a period of crisis (Austin and Vidal-Naquet, 1977). It was a period of growth in terms of trade, agricultural improvement, technological developments (finance, military techniques, arts); it was a period of decline and crisis for the *polis* and its institutions. The single most important development was the heightening, once again, of stratification between rich and poor. Its immediate result was the prevalence and permanence of war. From 431 to 338 BC the southern Greek states experienced continuous large scale warfare among shifting alliances. Athens was crushed by Sparta. Sparta's rigid system was soon corrupted by its victory, and the wealth it drew into its economic (well-ruled) structures destroyed both the egalitarianism of its hoplites and its own hegemony in the Peloponnese.

Hegemony passed for a while to Thebes due to the brilliance of its military leaders, Epaminondas and Pelopidas, who developed two original, radical techniques of fighting. The first was to skew the phalanx instead of ordering it in a straight line. The second technique was to place elite troops on the left flank rather than the right. The results were devastating. The Thebans twice smashed the Spartans in Mantynea and Leuktra, and they would have certainly consolidated their hegemony in southern Greece if their generals had not been killed in these two battles (Epaminondas in Mantynea; Pelopidas in Leuktra). The innovation of the left-flank-first was an immediate result of the fifth century's enlightenment: Until then, there was a strong convention in metropolitan Greece at least, to prefer the right side over the left, as more powerful, more noble, more 'right' than the left. Yet, the 'biased' geometry was no longer dominant, replaced instead by symmetrical geometry (Vidal-Naquet, 1980: part 3). We saw how the perceptual shift happened in the

Ionian *polis*. Now we can see how it happened in the battlefields of southern Greece.

This is just one example of the retreat of old, almost ritualistic, practices. *Polis* life was also losing ground. The economic divisions were once again rising. All the *poleis*, but especially Athens, had suffered immense losses of men and materials. The country-side, deforested and eroded, was losing its productivity. The harvest was not as certain as before. Land was losing its value, inflation was high, and the competition for mobile wealth was making things worse. The new financial techniques of banking, and insurance promised profit to smart and adventurous people, but they were in the minority. For the majority, the prospects were bleak as the price of imported food increased due to lack of imperial fleets which alone could guarantee low prices. Poverty was the problem of the day, and the social demand was for a redistribution of wealth.

Taxation was the obvious solution, and when it failed the result was *stasis*, social conflict between the rich and the poor. This - surprisingly - did not generate the social movements of the sixth century, but a vicious cycle of blood-baths and at best the return of tyrannies. The reasons were economic and ideological. In the sixth century most of the wealth (90% of the *polis*' revenues) was created by land. At the beginning of the fourth century it was created by trade and finance. Mobile wealth is difficult to check, and even more difficult to tax. Land and debt reform is possible. But how can you redistribute mobile assets? On the other hand, the concept of 'equality' had by now been developed in both of its versions; the sixth century's proportional, or geometric equality that the privileged preferred, versus the fifth century's absolute or 'arithmetic' equality that the poor favoured (Aristotle, *Politics*, V, 1301 a 25 - 1301 b 18). Both of these classes were now ideologically emancipated and no broker could mediate to impose his own superior and respected opinion. Instead of taxation, people put their resourcefulness into finding ways to increase the productivity of the land, and to make self-sufficiency (the oldest Greek utopia) a reality. Xenophon wrote a few treatises

on the subject of agricultural productivity (*Ways and Means; Oeconomicus*). What is striking for our subject is not just the pragmatism of the investigation, but the absence of any supernatural agent in nature. The Greeks had come a long way since the times of Hesiod. The attempt failed, as we can detect from the rise and popularity of another way to make a fortune: military service under some successful employer, Greek or barbarian, it did not matter. Was this partial effect of the teaching that there was no difference between a Greek and a non-Greek? In the cities the divisions between citizens and foreigners had indeed weakened, and the only distinction that remained between them was that foreigners could not participate in the Assembly (Austin and Vidal-Naquet, 1977:147).

Military techniques were also changing, becoming less ritualistic, and less meaningful to the egalitarian character of the *polis*. The hoplite phalanx of citizens, the bastion of egalitarianism, gave way to lightly armed professional armies, led also by professional generals rather than by political leaders. Devotion to generals and to booty created mercenary armies as large as the ones managed by Athens and Sparta at the peak of their *imperia* (8,000 – 10,000 *hoplites* and *psyloi*).

The fact of the matter was that the discourse of investigating facts and reasoning of events had also changed profoundly. Gods were no longer considered significant factors affecting society, and the citizen was no longer the centre of the universe. Instead, Hellas became the reference point to describe social problems and solutions. This is how Isocrates described the social problems of his time (380 BC): 'Already there are many evils which in the course of nature afflict mankind; but we have gone out of our way to discover others beyond those which necessity imposes; we have inflicted on ourselves wars and civil war. Some meet their end in lawless anarchy in their own cities, others with their wives and children move from place to place in foreign lands; many in order to get daily bread are driven to become hired soldiers and die fighting for their foes against their friend' (IV [Panegyricus] 167-8).

As far as Isocrates was concerned the problem, a social one, could be solved by a Panhellenic effort to capture land from the Persians which would then be distributed among the Greek have-nots. In practice, the *polis* was losing its citizens; in principle, it was losing the privilege to command history. The Greek triple power network of *Polis*, *Hellas*, the *World*, was in trouble as the institution of the *Polis* was breaking down under economic, political, military, and ideological pressures. Yet, pride in cultural and political achievements connected to the city-state was not easily forgotten. In fact, no alternative to the political or social organisation of the *polis* had been developed and for most Greeks, *polis* life was the ideal life. The last defenders of the *polis*, Plato and Aristotle, lived and wrote in the fourth century, during the last gasp of the city-states' predominance and their question was exactly this: How could a *polis* survive degeneration? They both reasoned that it would survive if a common morality replaced the particular interests and individuality to which *polis* life was prone. Plato insisted that only an ideal structure would guarantee its survival. Aristotle, more pragmatic, reasoned that it could exist under many forms, though some would be better than others. The originality of their answer demanded an original approach to nature, which they provided.

4.c. Plato - When Nature Lost Her Autonomy

Socrates was the last of the public commentators who still preferred oral speech to written prose, and there is no evidence that he wished to develop a systematic and comprehensive theory of his teachings. Like his contemporary sophists, he was a teacher though he never accepted fees. It was up to Plato, a student of Socrates, to write down Socrates' ideas⁴⁴ as well as to build upon them.

⁴⁴ Whether or not the 'Socrates' that we encounter in the Platonic dialogues is Socrates the historical person will always be uncertain (for a detailed speculation see Russell, 1979).

Plato was an aristocrat, born in Athens (428 BC) during the Peloponnesian War. His life was shaped by the Athenian defeat, the subsequent short and brutal adventure of the Thirty Tyrants (many of them his friends and relatives), and finally the execution of his beloved teacher, Socrates, by the newly re-established democracy the following year. Deeply embittered by Athenian degeneration and his master's condemnation to death he realised that the problem of *polis*' decay and public injustice, both urgent in his time, were problems of morality. Political life should be based both on disinterested public service, and the unity of the people. Only under these conditions would the *polis* keep its integrity, and live forever.

Plato embarked on a project to build-up this ideal *polis* from all perspectives, creating a complete and systematically written theory of the world for the first time. His main argument was that the process of growth, *physis*, is synonymous with decay and death. For an organism to remain alive for ever, change should be minimised. Change is minimised when the organism is close to perfection, and perfection, he thought, could be taught.

He was influenced by every known political and philosophical system which exemplified the eternal, the timeless, the immovable, and the unchanged. He was thus affected equally by the Spartan constitution, as well as by Pythagoras, Parmenides, Heraclitus, and Socrates. From Sparta (the victorious side of the Peloponnesian War) he borrowed the oligarchic system of governing, the rigid training of both men and women in fighting and sacrifice, the repulsion for trade and money which otherwise 'split society into two nations', and the condemnation of any kind of activity which does not contribute to the defence of the *polis*. From the Pythagoreans and the Orphic cults Plato derived the belief in immortality and transmigration, the priority of other-worldliness, and the intermingling of the intellect with mysticism; from Heraclitus, the futility of the senses and the triviality of change; from Parmenides, the unchangeability, and immateriality of what really exists; from Socrates the primacy of ethics and the concept of Good as an absolute and immaterial property that can be taught.

The basis of Plato's philosophy is the theory of Forms or Ideas. To put it simply, all similar objects share an identity, an identity of form. For example, there are different kinds of tables or cats, but all tables share a certain 'tableness', and all cats a certain 'catness'. Since the abstract words 'cat' and 'table' are not meaningless, they must refer to the ideal table or the ideal cat. These 'ideals' by definition do not exist in this world, but are eternal, and both perfect.

The Platonic axial dichotomy between transcendental and mundane domains is less 'philosophical' than it appears to be. It is not an individualistic quest for truth, but a political necessity. Just as tables and cats have an ideal form, so must the city-states. There must be an ideal *polis*, eternal and perfect, and Plato tried to perceive this using both the intellect and mysticism (Sinclair, *ibid.*: 145). With his eyes fixed on Sparta, as much as on the current trend of professionalism and specialisation, he came up with the following idea: A perfect state should be divided into three autonomous classes. The rulers (the 'guardians' of the Laws), the soldiers, and the producers. The rulers of a state are those people (men and women) who protect the state from corruption. They should be chosen according to their merits, and they will be taught how to understand, that is, how to 'remember' (since their souls have transmigrated), the eternal Good.⁴⁵ By definition they will be philosophers, 'lovers of truth'. This would be achieved by a combination of moral and intellectual discipline to avoid carnal pleasures. Pleasures destroy the discipline of the body and corrupt the mind by disturbing its communion with the eternal, perfect, and other-worldly God.

Thus, the philosopher-rulers should avoid material pleasures as well as the whole domain of matter, for the mundane is unable to provide them with definite information, 'knowledge' of what is, and what is not.

⁴⁵Although never quite explicit what Good is for the state, there should be little doubt that Plato meant the absence of social friction caused by economic inequality, the absolute obedience to the Laws, and the correspondence of personal merit with vocation.

Knowledge belongs to the supra-sensible, transcendental world of Forms, of ideal existence of concepts (such as 'Beauty') and of objects (such as 'cat', or 'table'). What we experience in the material world are imperfect copies and degenerated reflections of Forms.

The Platonic idea of 'soul' is a direct consequence of the need to take sound decisions. Our soul is what connects us with the perfect world. Being timeless, the soul carries with it memories from the world of Ideals that we must try to remember in this life using our intellect and our emotion (thus the connection between mathematics and mysticism). When we die, the soul is separated from the body. Only the pure philosophers, the leaders-to-be of the perfect *polis*, can be certain that their souls will take their place in the world of Forms. The souls of the rest of the people will inhabit a new body until they purify themselves and escape the eternal circle of incarnations. The body is a hindrance to knowledge and to eternity, an evil, distorting medium, and a source of lust. I quote from *Phaedo*:

'The body is the source of endless trouble to us by reason of the mere requirement of food; and it is liable also to diseases which overtake and impede us in the search after true being; it fills us full of loves, and lusts, and fears... Whence come wars, and fighting and factions? Whence but from the body and the lusts of body? Wars are occasioned by the love of money, and money has to be acquired for the sake and in the service of the body. The soul when using the body as an instrument of perception... is then dragged by the body into the region of changeable, and wanders and is confused; the world spins round her and she is like a drunkard when she touches change... but when returning into herself she reflects, then she passes into the other world, the region of purity...' (in Russell, op. cit.: 151).

As for the material world in general, it is made of two principles: matter and form. What gives objects their attributes, and makes them intelligible to us, is form. 'Finding the whole visible sphere not at rest, but moving in an irregular and disorderly fashion, out of disorder He (God) brought order. He put intelligence in the soul, and the soul in the body. He

made the world as a whole a living creature having soul and intelligence' (Russell, *ibid.*: 157).

God is a necessary cause of creation because it is only through an external agent that becoming is comprehensible (having a final target), and God is good because only goodness can guarantee the extension of oneness to overflow and reproduce itself i.e., what is good will not be content to enjoy its essence (goodness) alone (Collinwood, 1945:70-79). Here we come to Plato's dualism: reality vs. appearance, ideas vs. sensible objects, reason vs. sense-perception, soul vs. body, mind vs. instinct, and most crucial of all, a total separation and submission of contextualised nature, to fixed, eternal, objectified 'concepts'. Abstractions were always present in Greek, or non-Greek, thought, such as the Egyptian *ma'at*. Yet, they were used to describe intangible, diffused, usually moral ideals. With Plato's introduction of ideal form, everything has a perfect, unchanging, equivalent. And since there is no structure binding ideal forms, each one of them stands in isolation from its environment.

Nature is an inferior shadow of truth, humans and the rest of this world share this inferiority, as everything descends from a supra-natural domain of Forms, eternal, universal, constant, and perfect, made by the remote and single God. Although he did not intend to, Plato opened the door for a full hierarchisation of nature, humans to be superior to other species *in principle*, by suggesting that some humans can escape the material world altogether.

The most interesting and paradoxical point about his nature-view, is that while he puts the world of truth and the world of experience in conflict, he reintroduces morality to the material world, removed by Democritus thirty years before. Is it an accident that he alone, of all the political thinkers of the fourth century, laments the erosion of Attica (Wall, 1994:36-37)? The earth has a soul that makes it partake in the perfectibility of Forms and the goodness of God. But as humans degrade themselves through the pleasures of

the body, they also degrade the earth; Christianity (especially the Eastern Church) will see nature degradation as a sinful act.

Nevertheless, nature under Plato lost her autonomy, and humans lost the intrinsic connection with nature that the naturalists had fought for since the seventh century. According to Plato, God created all beings simultaneously but in autonomy from one another. From chaos he created regulation, but this regulation no longer derives any longer from the interaction of species or from intra-species relations, nor from an evolutionary and mechanical process, but from the fact that matter is enclosed in intelligent forms. Plato tried hard to put his ideal state into practice. He visited Sicily, where Pythagoreanism was popular and Pythagoreans were highly influential in Greek *poleis* (such as the aristocratic Archytas in Taras). The Greek tradition had always welcomed law-givers and Plato became a law-giver. Plato visited Syracuse, a great commercial city engaged in a long war against the Carthaginians. He tried to convince Dionysus the Elder, the tyrant of the city, to become the first king-philosopher. He became the teacher of the tyrant as well as of his son - evidence of the significant role intellectuals still played in political life. His experiment failed due to the pragmatism of Dionysus the Elder, the stupidity of his son, and the commercial character of the city. Syracuse defied his law - it was thriving because of its open-ended institutions.

The scope and brilliance of his thought should not be underestimated. Above all, his work constitutes the first fully reflective, wholly axial thinking in the West, with the comprehensive rupture of this-worldly, and other-worldly realities. Yet, his influence was immensely enhanced by three particular factors: Firstly, he constructed his theory not to be addressed to an audience, but to be *read* by the few. With a few exceptions (e.g., Leucippus' *Macrocosmos*) all the philosophers before him had done the opposite. They had shaped their theories in accordance with *polis* life, parts of them to be read in the agora, then debated with or without the presence of the author, and then sold cheaply in the book stores which flourished during this period.

Secondly, Plato did not just write his theory down in analytical form, he also included the most popular of his enemies in his writings (i.e., the Sophists), as well as Socrates, and the beloved and controversial Alcibiades. He then presented the debate not in the remote way of today's academics, but in the vivid form of historical dialogues: Socrates vs. Gorgias, Alcibiades vs. Protagoras, et cetera. He used a persuasive oral style in written format, achieving such a high level of realism, that the reader is compelled to believe that these dialogues indeed happened, and that Plato's ideas indeed predominated.

Thirdly, he organised a school of thought, the Academy, a sign of the now apparent inability of the *polis* to absorb intellectual thinking and disband elitist clubs. The Academy's role was to preserve and to elaborate on his philosophy, as well as to prepare young aristocrats to become king-philosophers. It failed in the latter task; nevertheless the Academy became the major philosophical school of the ancient world, lasting for over eight hundred years, and shaping the political thought of Europe for centuries.

What kept Plato's cosmo-theory from conquering the world of the Mediterranean was its belief that nature, and by implication social organisation, needs divine intervention to restrain its evilness. The Neoplatonists would be frank about it; the world is evil because matter is not plastic enough to adapt perfectly to the shape of the Forms.

4.d. Aristotle - The Functional Hierarchisation of Nature

Next to Plato stands Aristotle (384-322 BC). Twenty years younger than Plato and his pupil for twenty years, he differs from his master in the following respects: he had an intrinsic interest in biology rather than mathematics, which made his physics and metaphysics more pragmatic than those of Plato; he did not show any inclination to asceticism - on the contrary he was a man who mingled with worldly affairs; his efforts were toward the 'best possible' constitution for a 'particular' *polis* rather than the 'ideal' constitution for 'any possible' *polis*.

He probably started as a Platonist but being a northern Greek from Stagyra, situated next to the kingdom of Macedonia, a Northern Greek territorial ethne, he became aware that the art of governing should be less strict than Plato had envisioned. He could see that a kingdom was operating on lines different from a *polis*, such as his own, and this comparison led to a more flexible view of politics. Like Plato, he paid considerable attention to morality as the source of good government, and it is the Ethical part of his work that informs both his physics and political theory. This does not mean that his ethics are *sui generis*; instead, they are informed by his experience of living among ethne, and by his political pragmatism. All this being said, as a system of thought it is his metaphysics and physics that make his Ethics comprehensive, and his Ethics that make his political theory accountable. We will examine them in that order.

Aristotle did not accept Plato's strict dualism of Forms and Matter. Employing a counter-thesis of 'universals', not very relevant to our inquiry, he saw the universe as a structure of real beings united under common characteristics and common mechanisms. The mechanism that unifies the material world is *physis*, the process of growth, the coming-to-be. It is the nature of an acorn to become an oak, this is the purpose of the acorn, and it exists for the sake of this purpose. Nature offers the organism an internal principle which Aristotle calls the 'essence' of the organism. Where is this essence situated? To this Aristotle answers, in the 'form' of the organism. It is because of the form that matter is a definite thing, without form it cannot exist. The form of a body is its soul. The soul makes the body one thing, having unity and purpose, and gives the body the characteristics we associate with the word 'organism'. The purpose of an eye is to see, but it cannot do so without being a part of the body.

Things come closer to their nature, to their *physis*, by acquiring form. Matter without form is only potentiality. As the organism evolves toward its 'natural end' the thing in question has more form than before, it is more 'actual'. Since form is the essence of an organism, the closer to actuality the

finer the organism. This is a teleological and optimistic view of the world. Matter is not a wanderer, but a purposeful actor striving to become better than before. But there is a certain hierarchy in the universe. The hierarchy of the universe and in nature is situated in qualitative differences between forms (or souls), as well as in their interaction. Forms are substantial but substances can be of three kinds: The sensible and perishable (earthly beings) ones, the sensible but not perishable (anything above moon) ones, and those that are neither sensible nor perishable (the rational soul in humans, and also God).

In the *Nicomachean Ethics* he elaborates on the quality of the soul. There is in the soul one element that is rational and one irrational. The irrational part of the soul consists of the vegetative (common to all living organisms) and the appetitive (common in all animals). The rational soul is a property of men only. Its life is concerned with the contemplation of God, and it is the divine spark in men. In his book *On the Soul*, he adds another element, higher than the soul itself, the 'mind'. He writes: 'The case of mind is different; it seems to be an independent substance implanted within the soul... it seems to be a widely different kind of soul...' capable of understanding mathematics and philosophy, timeless objects which makes mind timeless itself. But only a small minority possess mind.

Thus, living creatures are arranged hierarchically according to the quality of their soul. This hierarchy becomes meaningful under the common denominator, the authority of God. God is pure form and pure actuality; in him there can be no change. He is what every other creature wishes to be, and this unilateral wish for completion, *eros*, is the cause of growth in nature. The world, inspired by *eros* continually evolves toward a greater degree of form, becoming progressively, yet never fully, more like God. Nature operates for the sake of God. Yet, this operation ends on the earth with decay and death. In the upper part of the universe (above the moon) where objects are eternal, they are perfect and indestructible. The higher we move the more perfection we encounter. There resides God, the First Mover, the one that produces

growth and perfection by being loved, though he is incapable of loving (wishing to be complete), since He is perfect and thus completed.

The metaphysical and physical system in turn informs the Aristotelian Ethics, what constitutes the good life and how people will attain it. The good is happiness, an activity of the soul which is reached when the soul feels close to God and shares the divine life. Happiness in *polis*-life takes the form of virtue. Potentially there are two virtues, the intellectual and the moral. Moral virtue is the lower kind open to everyone. It is acquired through training to perform good deeds, and if successful, it becomes a habit. The intellectual virtue is the higher form and results from teaching. Training affects the irrational, animalistic part of the soul (vegetative and appetitive), teaching the rational part and the 'mind'.

The men who acquire both kinds of virtues become excellent citizens. They are superior to the rest and their social position is exceptional, because they are closer to the divine soul and thus happier than the rest. Thus, relations in a social community are unequal relations, and justice involves not equality, but proportionality in rights and obligations: 'The magnanimous man, since he deserves most, must be good in the highest degree; for the better man always deserves more, and the best man most' (*Nicomachean Ethics* 1123b). This is not an original thesis. We have already found it in the Solonian concept of justice as living according to your nature without disturbing or being disturbed by anything else. Yet, for the sage who lived two hundred years before Aristotle, 'nature' was a fixed property. For Aristotle, nature is a process of growth to be aided by innate traits such as the possession of reason and 'mind', but nonetheless in need of cultivation. The excellence that the individual will develop should then be employed in the social organisation, for his, as well as its own benefit.

Individual beings and social organisation are both 'organisms'. The individual belongs to his society as much as the hand belongs to the body. This is for two reasons: Firstly, individuals cannot exist without being attached to the body and the society; secondly, because their purpose is to

serve the whole - detached from it they are nothing. Social organisation grows just like a body. Its final form, its nature, is the *polis*. It is the highest kind of community and aims at the highest good. In nature it is self-efficient, law-driven, and harmonious. It is a hierarchical organism composed of families of unequal members (father, mother children), as well as of freemen and slaves. The slaves should be naturally inferior to the citizens, and thus, non-Greeks. The functions of the *polis* are also unequal in value. Usury is inferior to retail trade, and the latter is inferior to commodity trade. Management of house and land are superior to any kind of trade since trade depends on, and perpetuates the *heteronomy* (dependency) of the *polis* economy.

Aristotle's hierarchical scheme recognises three kinds of political rule: the first is the single ruler, the second is of the few rulers, the third is the rule of many. If performed well the government is called accordingly: monarchy, aristocracy, and constitutional polity. If not, then it is called tyranny, oligarchy, and democracy (mob-rule). The governments are judged according to the morality of the rulers. The best possible government is monarchy (absolute desire for honours); the worst is tyranny (absolute desire for riches).

The morality in question is the benevolence different social groups will show one another. When the rich disregard the needs of the poor (oligarchy), or when the poor disrespect the rich (democracy) the *polis* will not be able to live according to its nature. What will save the nature of the *polis* is education, respect for law, and justice in administration ('equality according to proportion, and for every man to enjoy his own' 1307a). Not everyone should be a citizen and thus enjoy the fruits of a harmonious civil life. Citizens will be only those who are trained and especially educated to be virtuous, and the only people who have this ability are the landed nobility. The rest are too brutalised by their occupations to have any share in citizenship.

5. The Hellenistic Times (3rd-2nd centuries BC)

The fourth century witnessed the stagnation in the life of the *polis*. The apparent geopolitical chaos and social unrest of the period was partly the result, and partly the cause of the *polis* organisation itself: The result, since no *polis* had the resources to dominate the rest, thus all were in chronic need of new land and wealth; the cause, since constant warfare perpetuated the existence of small and weak states.⁴⁶ The political thought of the late fourth and third centuries, specialised, and happily isolated from social developments at large, remained loyal to the dysfunctional city-state organisation, at this particular time (c.350 BC) theorists ceased being the avant-guard of political action. Thales was a philosopher and political advisor; Solon a sage and a political leader; Protagoras a philosopher and constitutional writer. In contrast, and starting with Aristotle, no philosopher of the period ever became a political broker, or a source of inspiration for social change, though many became 'advisors' to authoritarian rulers.

This outmoded loyalty to the *polis* meant theoretical stagnation, since all possible aspects of *political* organisation had been exhausted: The rule of the one (monarchy and tyranny), the rule of the few (aristocracy and oligarchy), the rule of the many (democracy); the levelled participation (arithmetic proportion), and the proportional participation (geometric proportion). The soil on which debates about nature grew for two hundred years now lay barren. True, some theorists escaped the boundaries of the *polis* and argued for a brotherhood of mankind (Antiphon) and a brotherhood of Greeks (Isocrates). Yet, beyond-the-*polis* approaches remained peripheral to people whose source of wealth, power, and pride was their city-state - and they were the majority. Indeed, there were some Greeks who travelled abroad, and whose life was not controlled by the *polis*: merchants and mercenaries.

⁴⁶There were a few efforts to build up permanent federations but lack of leadership and absence of ideological backing made them notoriously unstable. Even when some kind of stability was achieved (Achaian League) the Federation remained an instrument of war, and served the particular interests of the federal city-states.

But they could not produce any significant cognitive change. Ideology was a child of the city. As long as the urban centres remained loyal to the *polis* world-view, so did the mercenaries.

The stalemate was solved, in a rather unsophisticated way, by Philip II, and his son and successor to the throne of Macedonia, Alexander. The southern Greeks were forced by the superior, professional Macedonian army into a pan-Hellenic alliance and their *poleis* lost their autonomy. The defeat of Persia by the army of Alexander turned the military defeat of the city-state to the ideological annihilation of the *polis* life all together. From this time onwards the *poleis* lost much of their political significance. They became urban centres of vast empires, with clients of monarchs depending on them for privileges and donations. The inner power network of the Greek world had been broken. The cultural and ideological networks could not stand alone. The objective reason (the *polis*' intense social cohesion and exclusivity) was no longer valid. Many Greeks, soldiers, traders, and bureaucrats, were no longer 'city-state animals' (to use Aristotle's definition) but 'world animals', cosmopolitans. The audacious, the wealthy, and the educated moved to the east looking for adventure, knowledge, and booty. There was a demand for educated Greeks and they satisfied it. They became the new elite of the Hellenistic Empires, mingled with the local nobility, and started defining themselves in cultural rather than racial terms. To be a Greek meant to speak Greek, to be educated in 'wisdom and speech', and to be cultivated.

For these people the political, ideological, and economic friction of their parent city-state meant nothing, and the political questions that fifty years ago sounded so urgent were now obsolete. Questions such as 'what should be the relation among classes', 'what is the best constitution', or even the later Aristotelian, 'what is the best *possible* constitution' became meaningless. These were city-states' questions irrelevant to the new empires of domination based on the strong individual, his bureaucracy, and the results of endless battles.

The questions and theories of nature, so closely connected to political thought, could not stand alone. They did not disappear altogether, since they had their own, partially autonomous life. But they substantially changed to accommodate the new objective reality: The Greek monarchs turned to the old-fashion cosmogonies of sovereignty, the upper classes to individualistic moral teachings, the middle and lower classes to the worshipping of Faith, Luck, individual deities, and demons.

Empires were not able to control social fragmentation and the emergence of autonomous ideological networks. Schools of thought were fully established and flourished. The Cynics were the first of the schools to be founded in this new cosmopolitan world. Cynicism was primarily a reaction to the social injustice and the uncertainty of the time. Condemning the hypocrisy of the wealthy and the pretentiousness of the cultivated, the Cynics (meaning 'dog-like') idealised the simple life of the ordinary people and preached a return to nature: no government, no private property, no marriage, no religion, no patriotism, and no meat-eating (since meat festivals were a symbol of culture). *Mutatis mutandis*, they were the Deep Ecologists of their era.

They preached primitivism: humans are animals, and the more we depart from our nature the more unhappy we become by exposing ourselves to futile pleasures. Desire for anything beyond the minimal bodily satisfactions should be condemned as unnatural; so too, any convention that prohibits their satisfaction. The way to liberate one's self from the evils of civilisation is virtue and self-discipline. The message of the Cynics to be repeated again and again in the following centuries was 'the world is bad; let us learn to be independent of it'. The Cynics were reflecting by negation the new spirit of cosmopolitanism, and the belief in the universality of the human nature. Crates, a cynic, refused to return to his native city Thebes when it was rebuilt in 315 BC (it was burned by Alexander): 'I have no one city... but the whole world to live in' (quoted in Sinclair, *ibid.*: 246).

Cosmopolitanism, universalism, and humanism were the pillars of Stoicism as well. Their political theory was based on a concept of Nature as encompassing gods and humans in a common realm, the realm of Nature, which is at the same time the realm of Law and the realm of Reason. Plutarch identified its aims as ‘...that we should discontinue living in separate cities and peoples, differentiated by varying conceptions of justice, and instead regard all men as members of one city and people, having one life and one order, as a herd feeding together is reared on a common pasture’. And Chrysippus, a later leader of the movement added: ‘...[J]ust as a *polis* is used in two senses - a place to live in and also the whole complex of state and citizens, so the universe is, as it were, a *polis* consisting of men and gods to have dealings with each other because both partake of Reason; this is ‘law by nature’ and all other things have come into being for these objects’ (quoted in Sinclair, *ibid.*: 257).

Law, as Stoicism understand it, depends on a rational, universal, and divine Nature. In the same extract Chrysippus continues: ‘Law is king of all, of all things human and divine; it should be the authority on things noble or base, be ruler and leader; and in virtue of this it should be the norm of what is righteous and, as for those beings that are by nature political, it shall tell them what they must do and forbid that which they must not’. As a sign of the times, the Stoics did not make an effort to develop an ideal Stoic-like state. The absence of the *polis* social environment made such an effort futile. For the moment, the State was *de facto* ruled by monarchs who were not particular keen in pressing for a Lawful regime, and a ‘people’ could not press such a demand. The social divisions, now taking place in a wide space of empires could not generate the classic, 6th and 5th centuries’ intensification of social action. The achievements of the sages could not be repeated among people so diverse as the subjects of the Hellenistic monarchies. The class struggle that in most previous centuries was responsible for radical political (and natural) thought in Greece no longer flourished. In the Hellenistic kingdoms, as in all other empires of domination,

classes were latent, 'in themselves', unable to make the qualitative passage to overt, political classes. Only the upper classes were attracted by the new humanism and universalism; they enjoyed the fruits of cosmopolitanism and a reflective pessimism. Inevitably, the political message of the Stoics, a message of intrinsic equality vis-à-vis the Law of Nature was forgotten, and replaced by an eclectic message of the wise and virtuous man, perfectly in line with the world-view of monarchs and nobles. The Stoics attached themselves to courts and palaces - the best way to achieve fame and wealth - and pressed for a virtuous, Platonic ruler.

The Stoic concept of nature, not as a process of growth but as the reflection of Divine Reason, the Law itself, retained its influence, especially in the Academy, and laid the foundations of Universal and Natural Law. Yet, as a sign of the times, its political message for a universal State failed to make a political difference, for the social conditions of the time prohibited such a project.

Epicurus (342 - 270 BC) was more pragmatic, and perhaps more aware of the evils of his time. Based on the physics and the ethics of Democritus he reasoned that '*ta physica*', the natural domain, in a social context is meaningless in itself. Yet, the nature of justice is in accordance with the nature of man; it is *natural* for a man to be just, because it is natural for him to want to be happy (Theodoridis, 1981). Justice is not an end in itself, but only a means to achieve happiness, and the major enemy of happiness is fear. For happiness to be undisturbed, all sources of fear should be removed. Like the early egalitarians he found happiness to be possible in a peaceful, harmonious city, where citizens agree to refrain from wrong-doing, which minimises happiness.

As for the anxiety of gods, death, and superstition, he overtly uses Democritus to give materialistic explanations and thus to eliminate the fear of them: The soul is made of material particles dispersed after the body has died: 'Death is nothing to us; for that which is dissolved, is without sensation, and that which lacks sensation is nothing to us' (quoted in Russell, *ibid.*: 255).

Gods do exist, but he reasoned that they do not trouble themselves with petty human affairs, and no fear of them is thus justified.

Epicurus wished to offer people a way out of the anxiety and misery of the times. He attacked cults and organised religion, superstition and divination but his efforts were aimed at the consciously remote individual. Reflecting on the social conditions of his time he reasoned that a happy individual could only be an a-political individual. Political involvement is a calamity, since nothing is less likely to bring about the happy condition of 'not being worried on account of people' (quoted in Sinclair, *ibid.*: 261).

The age of Epicurus was a weary age, with social action becoming meaningless and chaotic. For ourselves the promise of remoteness and eternal nothingness is depressing, while for at least some people of his time, aristocrats or not, it was liberating. Similar social conditions in the east had already spoken the same message. Yet, the concept of nature they used was somehow different. However, these developments constitute another set of social conditions altogether.

6. The Appropriation of the Natural Environment

In the previous pages we dealt with the Greek perception of the natural environment as a tool of political debate as well as a means to make sense of the broader social environment in which the Greeks were situated. Yet, we have hardly dealt at all with the actual treatment of the environment. The treatment of the natural environment can be detected by inspecting particular attitudes towards it, as well as the actual Greek economic praxis, that is, the appropriation, transportation, distribution, and consumption of natural resources.

When Alexander was in the Indies he asked some Brahmans he had met: 'What is the most cunning animal?' One of them answered without hesitation: 'The one man has not discovered yet' (Plutarch, *Alexander*, 64.2). The answer of the Brahman summons the aggressive stand of men towards the natural world, not just in the Orient, but in the Occident as well. Certainly,

the Olympian gods were living in nature, and specific species, as well as whole areas were under the protection of gods and goddesses. We have already mentioned briefly the role of Artemis as the overseer of wild life. The oak-tree was devoted to Zeus, the laurel-tree to Apollo, the pine-tree to Pan, and so on. Specific groves could also be devoted to gods and goddesses and anyone who dared hunt there invited divine retribution (e.g., Agamemnon, Cleomenes). Even in Mycenaean times, and before the advent of the Olympian gods, there was a strong connection between religion and the natural environment. The worshipping of the Mistress of the Wild Beasts, the veneration of the wild fig-tree, the identification of rocks, and hills as places of worship, all suggest a strong religiosity towards the natural environment.

But what about the actual treatment of nature? We have seen how notions of the environment and notions of cosmos were socially significant symbols, arranging social order and channelling social action. Aesopous' stories of animals dealing with morally pregnant situations is such an example. Did they also inform environmental attitudes? If they did so, if there was an effect, this would be detected in a restriction of detrimental actions to the environment, that otherwise would have taken place. Yet, all the known evidence suggests the opposite.

Since the Mycenaean era the Greeks altered or damaged their natural environment in the process of constructing their artificial environment and extracting the agricultural products upon which their economy was dependant. If the scattered evidence bears any truth, then Greece experienced a first major environmental break-down during the 12th century BC, and a second, less critical one during the 4th century BC, which shaped Greek land into barren landscapes down to the present time (Roper, 1957; Bates, 1960; East, 1966; Hanson, 1995). Actually, it has been suggested that the Mycenaean House of Atrides was treated with contempt by generations of Greeks as a subconscious symbol of environmental malpractice. In classic tragedies the members of the royal family personify *hybris*, the sense of disproportion, and arrogance toward the gods. Indeed, there is ample evidence

of deforestation, intensification of agricultural production, and destruction of young trees by goats and sheep that caused the abandonment of the cities which the Dorians found deserted two generations later⁴⁷ (Bouratinos, 1990). If this is true, the protective spirit of the Olympians has to be understood from another perspective, as the specification of the divine spirit to particular 'pockets of resistance', allowing free access for exploitation of the vast majority of primary resources. At any rate, there is no evidence of cases where necessary access was denied for the sake of environmental protection. Pausanias mentions villagers being afraid to catch turtles who lived on a holy Arcadian mountain (Pausanias, 8.54.5) and no one could enter Lykeion, Zeus' grove in Attica, without dying in the next year. Yet, the economic praxis did not depend on turtles or game. It depended on the appropriation of fertile land and woodland, and most of it was Olympus-free. Among a myriad of technical accomplishments we only have to mention the Mycenaean isthmus *cum* drainage system of Minyes swamps, the Corinthian conduit linking the Saronic with the Corinthian Gulfs, the Samian subterranean aqueduct (Ευπαλινειον Ορυγμα), and the drainage of Ptychoi lake in southern Euvoia, as witnesses of the pragmatism and ingenuity of the Greeks *contra* the Olympians. What became alarmingly significant in the classic period and beyond was a globalisation of environmental degradation. This process incorporated economic as well as military practices. For example, the naval fleets of both Athenians and Spartans were built with timber imported from the Crimea. If we assume that 1000 sq. metres of timber were needed for the construction of one trireme, the Southern Greeks consumed 10,000,000 - 12,000,000 sq. metres of Crimean forest land just to wage war against each other.

⁴⁷ Older theories suggested that the Dorians defeated the Mycenaeans and conquered their lands. These theories have now been rejected since there is neither evidence of a clash between the two peoples nor of burned Mycenaean cities or citadels. Instead, all archaeological findings suggest that the cities were abandoned (Snodgrass, 1980).

Constant interference with the natural environment from Mycenaean to Hellenistic times suggests that the Olympian nature-view, which perceived nature as the domain of gods, was never strong enough to block technological developments or to advance a hands-off environmental policy. Indeed, Greeks attributed the Persian failure to capture Greece to the hybris of the Persian king, Xerxes, who dared to breach the isthmus of Athos (Herodotus, *Histories*, vii, 141). It is also true that the inhabitants of Cnidos were ordered by the Oracle of Delphi to stop digging their isthmus (Pausanias, *Description of Greece*, ii. 1. 5.). Yet, cases like these are few and far between, some of them could effortlessly be interpreted as mere propaganda, and in any case they become fewer after the fifth century. The rule was that humans could operate freely in nature as long as they did not disturb the sacred places explicitly linked to a divine presence.

Yet, we have to distinguish between two kinds of environmental interference. The first is the segmented, isolated effort, based on skill, experience, and pragmatic intention. The knowledge required for such tasks could be called 'meta-cultural', meaning a technique learned but not theorised. As such, it is not related to some particular world-view, with some meta-narrative of physical laws, universal rules, and ultimate explanations of how things work. It was the dominant method employed to appropriate natural resources in antiquity. The method operates by trial and error, and inter-generational transmission and improvement of practices, and is legitimised by its ability to fulfil the wishes of the producers.

The second kind of environmental interference is related to a more comprehensive understanding of the universe, of natural patterns; we will call the knowledge required for such a kind of interference 'supra-cultural'.⁴⁸ This kind of knowledge informs many of the grand scale projects of Neolithic and pristine state societies. In these cases the project brings together and combines meta-cultural techniques and supra-cultural schemes of Cosmic Order. This

⁴⁸ The terms 'meta-culture' and 'supra-culture' have been proposed by Professor Roger Krohn (personal communication).

method of environmental appropriation became prominent in Greece from Archaic to Hellenistic times. Technique and Cosmic Order became blended, rather than combined, as they operated tightly under naturalist, materialist, theories. The technical achievements of that period increasingly came to depend on the naturalist notion that the world is a rational construction that no god or demon can affect. Urban structures spoke the naturalist language, materialising the naturalist argument. It is no accident that the founders of western mathematics and mechanics (Euclides and Archimedes) lived in the 3rd century BC. It is the same principle which allowed Aristotle to develop his teleological theory, and Theophrastus to develop a truly ecological, interactionist theory of soil, climate, and plants (*Inquiry into Plants*, I. 7. 1.).

We could ask then, why did Greeks fail to develop physics as Europeans eventually did in modern times? Why did we have to wait for two millennia for the rise of modern, industrial development? The answer is that a few crucial ingredients were missing. Some of them were related to scientific and technical problems that needed time to develop. Another is related to scientific institutions that were underdeveloped. The only university of the period able to accommodate long term scientific inquiry, the Library of Alexandria, was repeatedly destroyed (Julius Caesar 47 BC, Aurelianus 270 AD, Serapeion destruction 391 AD, final destruction of the Library by Khalif Omar 641AD).

Yet, the most important factor in preventing fully-fledged industrialism was the social conditions themselves. Greeks never developed a spirit of entrepreneurship similar to the modern culture of capitalism. Liberalism, on which capitalism depends, did not become the dominant ideology in Greece except in a very few *poleis*, such as Corinth, or for a very short period of time, post-Periclean Athens. In Greece, the most prominent feature of public temperament was autarky *cum* egalitarianism among free citizens, a strong sense of personal freedom *cum* equality, which after the seventh century became identical with the *polis* public life and institutions. The majority of Greeks preferred either to own a plot of land and try to

achieve the old ideal of autarky, or to have their everyday needs provided by the state (Humphreys, 1983). No one would stop an Athenian becoming rich, as long as he was ready to spend his profits in liturgies (public services) and other unproductive gestures of subjugation to the group. The only classes who could legitimately devote their life to getting rich for the sake of it were the metics and the slaves. But then, they were not citizens, but foreigners.

In Greece, as in the Mesopotamian case examined in the previous chapter, environmental degradation seems to be unrelated to the divinisation of the environment. It was related to the broader geopolitical circumstances in which the civilisation was located, as well as the economic transactions that were related to the maintenance and promotion of the state's power and the population's well-being. In Greece, this game of power went hand in hand with the rationalisation of social life, and rationalisation came to reflect the rational treatment of the environment in terms of utilising its productivity (Xenophon, *Economicos*; *Poroi*).

7. Conclusions

Social life without a sense of identity is impossible. Either as individuals or in groups, people need to render meaning to their situation and purpose to their action - especially in times of social change. Identity includes reference to nature, since the latter is incorporated into the idea of Cosmic Order, and informs the symbolic communication of social actors. The references civilisations used until the axial age were versions of a similar, vernacular, first order, thinking. The notions they used to describe the natural environment were passive reflections of their social conditions. In comparison to Greece, these societies were cognitively passive. This passivity was largely the result of the absence of three social conditions that were present in Greece. Firstly, in relation to the ideological network of power, scribes, administrators, and priests, were dependent upon the political ruling class and had little or no opportunity to question the deeds of the strong, or to oppose 'is' with 'ought'. Secondly, cognitive tools, such as scripture,

audience, and debate, were under-developed or non-existent. Thirdly, people living in those states were brought up in a cognitive universe where human action was less meaningful than the action of the gods.

During the sixth century Hellas experienced the slow but certain development of two paradigmatic shifts, two alternative axial world-views, one secular and this-worldly (Ionian materialism) and one religious and other-worldly (Orphic salvationism). This development of axial thinking, i.e., the distinction between what actually exists and what should exist, is directly associated with the way the four networks of social power were accommodated into the *polis*' space: the rationalisation of ideologies, the army of *hoplites*, and political rights and economic security of the citizens vis-à-vis the *hippeis*, the metics, and the slaves. The bifurcation was related to the geopolitical situation of Greece, the particular locality of the city-states, their history, and culture.

Neither the secular (i.e., Ionian naturalism) nor the religious (i.e., Orphism) versions of axial thinking were able to absorb the traditional, pre-axial, Olympic 'religion'. This was because the gods and demons of Olympus remained meaningful as symbols of cultural identity, illustrated by the significance of the Olympic games. Thus, Greek social thinking spun around three world-views intermingling, cross-fertilising, and cross-refuting each other in *polis* life. The Greek *agora* became the institutional means of their political blending; drama became the institutional means of their cultural amalgamation. The nature of society, the nature of gods, and nature of humans were conjured up in the speeches of Pericles, as well as in the passions, dilemmas, and choices of tragic figures such as Oedipus, Media, Prometheus, Iocaste, and Pentheus.

As the *hoplites* became more aware of their own significance and demanded a radical democracy of equals, the naturalists offered them a coherent, though not systematic, world-view in which significant relationships were redefined and re-established. The connection between humans and nature was one of them, not because there was any popular

demand to re-examine nature as such, but because nature had to be incorporated into the New Cosmic Order and to reflect urgent social realities and political expectations. Nevertheless, this reflection could not be unconditional. This would put ideologies and theories into the supra-structure, turning them into mere epiphenomena ready to change under the first 'material' fluctuation. Instead, the new materialist and soteriological Cosmic Orders were channelling ideas and political programs to certain paths, such as institutional democracy and aristocracy. These political organisations were power structures based on specific cognitive schemes of law, morality, and a conglomeration of obligations and rights. Above all, they created the *polis* communities that could not exist otherwise. Furthermore, the subject of the investigation had an intrinsic value in itself, apart from social implications. Cognitive schemes were developed and exposed to scrutiny and debate. They were checked and altered by more comprehensive theoretical schemes, which suggested alternative political and social organisations. Ideas had the power to affect social developments, just as the latter had the power to affect ideas.

The inter-*polis* environment facilitated the formation of new, diffused ideological networks of power, that were not overlapping with that of the agora or the *polis* temple. They transcended traditional social divisions, creating imaginary communities, and suggesting new accountabilities, such as the *polis* itself (Orphic religions) or universal laws (naturalists). Ideology had its own intra-communal life. Until Plato, theories were not dogmas. They could not be, since the Greek cultural world, Hellas, was literate, geographically dispersed, and politically acephalus. Literacy meant that a theory became known quickly, and was exposed to scrutiny. Internal logical problems, such as Thales' water, Anaximander's diversification, Anaximenes' material relativism, and Heraclitus' constant flux, were all axioms for their authors, but for others they were problems demanding explanation.

In the mystic camp none claimed to be the direct agent of the divine, though all claimed to know something about it. Orpheus, and Demeter, functioned in different cosmologies but shared the same basic argument, that there is a better world beyond our bodily existence. There was a genuine demand for both mystical and naturalist discourses and such a demand could either strengthen the ideology with added modifications or weaken it (e.g., Anaximenes on Anaxagoras, Parmenides on Anaximenes). Its opponents did not have to be, and, indeed, some times they were not, political rivals. To put it in terms of rational choice theory, a strong, prestigious rational thesis generated its own benefits.

Geographical dispersal meant that Hellas as a whole never experienced the same political conditions. The advanced Ionian cities were destroyed or subjugated by the Persians while western Greece was starting its rise as a regional power. The Greek colonies of southern Italy and Sicily, known as *Magna Graecia* had developed aristocratic institutions from their foundation (Murray, op. cit.) and were invariably divided between democratic and aristocratic factions, resulting in the consolidation of tyranny for a much longer time than in metropolitan Greece. The dissimilarity of conditions meant that theories soon lost their local, situational relevance. A reader in Athens was familiar with Milesian, Ephesian, Eleatic, or Samian theories, with Eleusinian and Cabirian mysteries, and would develop a theory in response to these; but only for an Athenian audience and to be applied in the Athenian social context. Lastly, and apparently more importantly, Greece was politically acephalus. No political unit, no city-state, could claim authority over all of Greece; Athens tried and failed miserably. Whenever a thinker, or a school of thought, was feeling uncomfortable or threatened in one *polis*, they could move to another, friendly, *polis*. Freedom of thought, circulation of ideas, and open debate was secured.

All of the above defined the cultural context in which all schools operated. This context produced the geometric and arithmetic perceptions, as well as the other-worldly and the materialist Cosmic Orders. They sought to

define the true nature of the physical environment and were all inspired by political, economic, and military developments. Yet, it was clear by the fourth century that the egalitarians had lost the battle: Orphism, Platonism, Stoicism, and the eastern cults were on the rise. The radical 'levellers', the Ionians, the Atomists, lost in both the scientific *and* the political domain. By definition, the *polis* was always a contradictory organisation: male, ethnic egalitarianism was its corner-stone, and this feature forced Greek democracies to exclude women as well as metics from participating in the commons. It was not a liberal democracy, as modern Anglo-Saxon regimes are, where equality is understood as a mere principle, and where rights and responsibilities are kept to a minimum, thus allowing a maximum of participants. It was an egalitarian democracy, a community of resemblance, demanding actual equality and similarity. It could not afford the liberal individualism that would turn free citizens into bankers' employees, who without exception were slaves (Humphreys, 1983: 143-148). The *polis* environment was open to the demands of the many. The state environment facilitated the rights of the elites, small groups of people who had skills and resources to outflank the demands of the disorganised masses. This is why Havelock (op. cit.) is wrong in dividing Greek social thought into conservatives and liberals, thus putting the early naturalists and the late sophists in the same political camp. Relativism, the argument of the late sophists, served the interests of the oligarchy, not the demos. This is why Fotopoulos (1993) is wrong to argue that Athenian democracy collapsed because it did not try to impose an economic democracy. The fact is that Athenian egalitarian social cohesion, when it was based on farming was quite stable, but could not withstand the 5th and 4th centuries' trading and commercial activities, which defied equal 'yields' of profit, internal political control, taxation, and legislation.

On the other hand, the old Olympian religion, once rationalised, was intrinsically connected to the social organisation: the religious festivals defined the character of the *polis*, its culture, and its identity. This was a general phenomenon but in Athens it came into conflict with democrats and

individualists as soon as the latter started to question the moral grounds of the traditional religion. Athens was a conservative, mainland Greek state, and its people could tolerate a 'liberal' radicalism as long as their teachings served political aspirations - not cultural change. When Hellas turned into a district of an empire, *polis* life, the generator of social action, became extinct. The schools of philosophy still functioned in Athens, but their agenda was aimed not at social change but at individual salvation. Such a moral orientation, and the basic agreement about the futility of this life, was not a fertile ground for the development of nature-views. The wide extension of the new Hellenistic empires made communication difficult and the debate less intensive.

At the end of the second century BC there was no one idea of the natural world, nor of the nature of things. It would be wrong to argue that no one believed in an animistic world, with gods giving birth to life, and trees, rocks, and rivers being alive. But simply, it was not the dominant belief, it had been by-passed organisationally by the philosophical schools and the mystical religions which enjoyed privileged access to other networks of power, mainly the political ones. The written word had cultivated reflection, abstraction, and the objectification of concepts. When this was applied to a complex, partially literate, multi-faceted, and mobile society, a myriad of nature-views emerged. Of all of these, neo-Platonism and salvationist Orphism were the prominent ones. Both of them had a strong transcendental vision. The later negation of the world derived from them.

The Greek world highlights the variety, as well as the structural character of nature-views. They were means to channel social action, as well as cognitive frameworks to understand the world for its own sake. They were not science-driven but politics-driven. As ends in themselves the nature-views we examined, as Kuhn would argue, were forced to change and develop because of an accumulation of errors in the intellectual domain itself. Yet, the rest of the power networks played a comprehensive role as well; the accumulation of social and economic changes facilitated new forms of political organisation and cognitive reasoning.

There are a few factors that stand crucially at the centre of the cognitive developments:

- 1) The culture of personal freedom, albeit always enclosed in the communal framework, that was always present. Agamemnon and Achilles, the tyrants, Pericles and Kimon, even Alexander II had to persuade the commoners, the many, to obey their commands.
- 2) The autonomous class of intellectuals, who in half a millennium were transformed from aristocratic image-makers (10th c. BC), into public commentators (7th c. BC), teachers, and philosophers (5th c. BC) taking advantage of new venues of status and prestige.
- 3) The concentration of diverse social groups of people (farmers, aristocrats, sailors, shepherds, slaves, metics) in confined geographical areas with an urban centre that facilitated face-to-face interaction and open debate over political and economic issues. Debates between aristocratic and democratic parties facilitated speech, and speech facilitated reflective thought.
- 4) The Greek alphabet allowed the masses to be educated, while it facilitated reflective thought.
- 5) The proximity of Greece to the super powers/high cultures of the time and the 'accident' of Athenian supremacy.
- 6) More important than all the previous factors, stands the Greek acephalus system of city-states itself. People could exit their social setting and move to other, culturally similar, *poleis* that were ready to welcome them if threatened at home. Ideas could likewise travel to welcoming places.

In the long run, and because of the above factors, world-views were facilitated and elaborated into three analytically distinct Cosmic Orders: The Olympian, the mystical, and the naturalist. If we divide Greek space into its three major components, that is, urban space, agricultural hinterland, and wilderness, we can detect that the three Cosmic Orders *tend* to perceive space, and the landscape, differently. The picture could be completed by adding the three perceptions of the human body. In 5th century Athens for

example, the human body and the three spaces were seen, from the three perspectives, as follows:

Olympian Cosmic Order:

1) Humans are made of stone and sprang out of the earth (Deukalion's myth). They are at the mercy of gods, and the target of supernatural forces, spells, and magic.

2) Urban space: the rationalised Olympian religion recognised and embraced male and female citizens. Especially in Athens after the Persian wars, particular policies deliberately discarded old, agricultural, aristocratic rituals (e.g., *Voukranea*), and established new, urban ones (e.g., *Panathenea*) to strengthen social cohesion for the whole Athenian population.

3) Agricultural space: according to legend, Athena, the patron goddess of Athens, protected the land where the soil was cultivated with olive trees. The same is true of Demeter and the cultivation of wheat.

4) Wilderness: the domain of lesser demons, beasts, nymphs, the land of Pan who brings madness to people.

Orphic Cosmic Order:

1) Humans are made out of the ashes of titans (chthonic deities) who had eaten Dionysus (a heaven deity). Thus, human substance is dual: part of it is superior, and the other of lower quality. The purpose of humans is to free their superior substance.

2) As far as the urban space is concerned, the Orphic followers imposed a first cognitive boundary within the city between devotees and non-devotees.

3) According to the Orphic Hymns, the agricultural space and the wider natural environment were seen as manifestations of the divine (*Orphic Hymns*). Yet, the golden tablets, found in the graves of Orphic followers from the 6th century BC, make clear the wish to escape Titanic (lower) flesh and unite with Phanes, the Orphic primordial god.

4) In Orphism matter as such, the natural environment, is only implicitly considered to be degraded.

Naturalist Cosmic Order:

1) The human body is part of the evolution of life on earth. Health is achieved when the four elements the body is composed of are in balance, while the external environment is also balanced (not too cold, or too warm, etc.)

2) Urban space: Considering the Ionians, the Atomists, and the sophists to be politically conscious philosophers, it is apparent that the people who felt naturalism's influence most were those involved in politics, i.e., male citizens.

3) Agricultural hinterland: Naturalism, being devoid of gods, favoured a pragmatic, 'rational', approach to economic appropriation of the land. Xenophon's *Resources*, and *Oikonomikos*, are examples of the naturalist influence. What is striking in Xenophon's work is not just the rational approach to the management of resources, but the absence of any supernatural agent in nature. The Greeks had come a long way since the constant mention of gods and superstitious precautions in Hesiod's *Days and Ways*.

4) Wilderness is essentially similar to any other kind of material environment.

Yet, it should be made clear that the three Cosmic Orders, the three world-views, and thus the three nature-views, were not clearly distinct. The boundaries between them were blurred, cross-fertilising and informing each other. The major reason for this was the partially overlapping social groups which supported the world-views. An Athenian (male) citizen was definitely involved in the *polis* Olympian festivals, could be an Orphic follower, and, if wealthy enough, the student of a sophist. Overlapping roles brought overlapping identities, allowing the social actor a cognitive flexibility in his daily affairs. In more institutionalised forms of social life, this 'flexibility',

the blending of the three nature-views, is evident in Athenian public monuments and buildings erected during the same time-period (second half of the 5th century BC). On the Parthenon, devoted to Athena, we can see the struggle of Lapithes against the Centaurs, symbolising the defeat of the wild and irrational (Centaurs) by civilisation and rationality (Lapithes). Poems written for public holidays reflected mystical notions of cosmic concentric circles (Aristeides, *Panathenaikos*, 99). Human sobriety is depicted by Phydias' and Polycleitus' statues which were designed on Orphic and Pythagorean rules of proportion and balance. The same rules are used for the new (460 BC) urban planning of Piraeus' port. Its form was similar to that of an ancient theatre, and thus it followed the naturalist teachings about equal distance of citizens from the political centre of the city (*agora*).

The Greek experience suggests that nature-views incorporated into particular Cosmic Order schemes operate on two levels: the ideological and the cultural. As ideology they were distinct cognitive categories. As cultural products, parts of the every-day life that were 'silently understood', they did not have to be either pure or distinct. It is this constant dialogue between ideology as social power and culture as internalised beliefs that provided the Greek nature-views with the strength to advance through wider social developments.

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CONCLUSIONS

1. Theories of Political Ecology and the Four Networks of Power

The delineation of the concept 'nature' presented in the previous chapters has shown that, as a *social* construction, it was an open-ended process, with no single social factor determining its course. Since the theories of political ecology we examined in the first chapter are monist, they are not adequately equipped to comprehensively delineate the history of the economic appropriation of the natural environment in relation to the political manipulation of nature. Instead, they can only grasp a glimpse of our past, depending on the quality of the single variable they use.

Thus, Deep Ecology is right to argue that human exceptionality in treating the physical environment in opportunistic, utilitarian ways is the ultimate cause of environmental degradation. This is proven by the disturbance of ecosystems human presence almost always caused in the period we have examined. Precisely because human interference with the natural environment always brought ecological degradation in our prehistory and early history, the Deep Ecology argument becomes almost tautological. Since the withdrawal of our species from the planet is not an alternative, we have to investigate the nexus between humans and the physical environment using variables much more precise than Deep Ecology suggests.

Eco-socialism is also correct in implicitly⁴⁹ suggesting that intensification of production for profit rather than subsistence purposes has proven environmentally catastrophic. Furthermore, we have detected cases where international trade internationalised ecological degradation linking peripheral specialised products to core civilisations (e.g., Crimean timber for

⁴⁹ Eco-socialism is preoccupied with modern economy. It is only natural to assume that a more in depth historical analysis would have led eco-socialists to the above conclusions.

southern Greek states). Yet, we could hardly claim that trade was the primary cause of environmental catastrophes. Instead, ecological deterioration started before the advent of the Bronze Age, before any significant trade for profit ever existed. Furthermore, the development of the state and its institutional consequences, such as bureaucracy, standing armies, capacity to structure social action beyond kinship limits, were equally important in causing intensification of production leading to ecological alteration and disturbances.

Social Ecology is correct in arguing that hierarchical, oppressive political practices are linked with utilitarianism and environmental degradation. We have seen how political elites appropriated nature, arguing that they were metaphysically linked to gods and natural phenomena. Additionally, we have seen how the same elites structured nature in a hierarchical order to legitimise their own privileged status. Yet, Social Ecology is a maximalist theory, wishing to link social oppression ontologically to environmental degradation. This is a fundamental flaw of the theory, exposed in its inability to explain ecological degradation caused by egalitarian, Stone Age bands, as well as later cases such as Egypt, an authoritarian state, which did not cause an ecological disaster, or Crete, a decentralised civilisation with matriarchal overtones, which caused an ecological catastrophe. Furthermore, the theory faces difficulties in making sense of the multiplicity of ideologies about nature we have encountered, and the way in which they corresponded with actual economic activities.

This also constitutes one of the problems faced by ecofeminism. While ecofeminists are right in arguing that males dominated the public space and shaped perceptions of nature, at least since the Bronze Age, they are unable to explain how and why patriarchy developed such a wide variety of Cosmic Orders in which women and femininity are crucial components. Indeed, we have detected a continuation of belief systems from the Stone Age to the Bronze and Iron Ages, which incorporated notions of masculinity *and* femininity. While ancient panthea were always led by male deities, goddesses remained significant enough to protect not just 'traditional' feminine loci, such

as agricultural land, but important urban centres, such as the cities of Busiris (Isis), Ur (Innana), Athens (Athena), and Sparta (Hera); and they were powerful enough to affect the lives of mortals, males and females, for better or worst. Thus, the cult of Dionysus was a woman's cult and it did affect public notions of nature as much as the Ionian philosophy; Orphism was equally attractive to men and women. In other words, women and femininity continued to participate in the construction of Cosmic Orders even in the age of patriarchy. Another problem ecofeminism faces is the contribution of women in altering the physical environment. Domestication of wild life, plants and animals, was an enterprise initiated by women. This contradicts ecofeminist ideologies which insist that control of the wild was and could only be a male enterprise.

We have to acknowledge that social developments, such as patriarchy and political centralisation, do not produce the clear-cut results, of the benign or evil moral messages, that political ecology claims to have identified in history. Power, the ability to pursue and attain goals through mastery of the social and physical environment, is a feature as central to our own species as to any other. As Chomski among others has argued, the objective of political criticism should not be to free society from power relations, but to promote legitimated forms of power. In those societies we examined, legitimisation was achieved by producing adequate collective power. Furthermore, power was never one-dimensional. Patriarchy was accompanied by other forms of power, such as gerontocracy, plutocracy, aristocracy, ethnocracy and meritocracy. Most people had access to these forms of power and their exercise was satisfying their urge to control part of their social environment.

With the exception of eco-socialism, the rest of the political ecology theories strongly maintain that social behaviour is fully determined by volition; that people chose to behave in particular ways, and the behaviour can be guided by ethics alone. They also presume a golden past when people lived in harmony with the environment until evil befell the earth, resulting in a

fallen humanity and global ecological crises. In the previous pages we have examined our prehistory and the beginning of our history without detecting any Golden Age. Urge to control our environment rules out any possibility for a period of harmony between humans and nature, or a period of harmony among human beings. Instead, we found human beings behaving on the basis of long-lasting bonds and economic strategies of survival that are not radically different from ours. We detected symbolic connections between humans and nature in Cosmic Orders being shaped by particular social structures, and identified social structures as being the result of human volition as well as of ecological circumstances and psychological predisposition. We examined periods of intensification of social unrest, as well as periods of intensification of environmental degradation among all kinds of social settings: 'egalitarian' hunters and gatherers, hierarchical bands, centralised kingdoms, and socially mobile *poleis*, and arrived at the tentative conclusion that environmental degradation is more closely related to ecological vulnerability, demography, and technological capacity than to social structures *per se*. It only took a few thousand hunters and gatherers to extinguish the mammoth, and a few rival Neolithic families to degrade Easter Island, but it took hundred of thousands of Sumerians to degrade south Mesopotamia, and a few million Pharaoh-led Egyptians never 'managed' to destabilise the Nile basin.

To identify the causes and effects of human-nature contact we examined the way the four social networks of power operated in selected Eurasian civilisations. In terms of economic appropriation of material resources, we came to the conclusion that each epoch left its own mark on the earth's ecology. The Stone Age proved particularly detrimental to megafauna, while later periods of intensified agricultural activity harmed woodlands and topsoil. These destructive phenomena were the unintended consequences of social life in given ecological settings. In other words, the essence of the human condition, the *modus vivendi* of our species is constant. It was the available means that changed, climatic at first (i.e., post-Ice Age ecology) and

social afterwards (e.g., permanent residency), which apparently altered social contact, as well as our contact with the natural environment.

While conclusions particular to the specific periods are stated in the previous chapters, a general point to be made about the economic appropriation of natural resources and the political manipulation of nature is that they were never solid, one-dimensional phenomena. Because the source of social power is not one but four, and because some networks were always escaping the control of an authority central to civilisations, there was always a multiplicity of social forces at work. Certainly, in any civilisation there were almost always a dominant political voice, yet, it could hardly claim full and total control of beliefs. In Babylon we have detected two belief systems about nature; the urban and the rural; in Greece we detected three: the Olympian, the Orphic, and the Naturalist. Furthermore, there was a multiplicity of reasons for altering the natural environment. For Assyrian kings 'conquering' a mountain and its inhabitants was a sign for victory over wilderness, for the Samians who constructed a subterranean aqueduct it was a victory over thirst, and for the Corinthians who constructed a conduit between two gulfs it was a source of profit. The pursuit of power employed more than one means.

2. Social Power and its Effects on Human-Nature Contact

Up to this point our analysis concentrated on delineating the ways the components of social power, that is, the four social networks, shaped our cognisant and material contact with the physical environment. By necessity, this endeavour focuses on conclusions concerning particular cases. Yet, the theory of networks of social power allows us to move one step further and examine how power itself shapes our contact with nature, this time in principle. We once again follow Mann's theoretical analysis (1986:6-10). According to his argument, power is a means to achieve some general goals. To achieve these goals, humans are organised in the social networks as we have already mentioned. But these networks are not of similar quality. Instead, the elements of power they embody are (a) either extensive or intensive, and

(b) either authoritative or diffused. Extensive power refers to the ability to organise relatively large numbers of people over far-flung territories with minimum co-operation (e.g., territorial civilisations). Intensive power refers to the ability to organise tightly and command a people with high a level of mobilisation (e.g., city-states). Authoritative power comprises definite commands and conscious obedience (e.g., an army). Diffused power embodies power relations based on understanding rather than explicit command (e.g., an ethnic culture). Based on this theoretical scheme, we could analyse the various forms beliefs and ideologies of nature take according to each and every element from which power is made. Our analysis would also include the effect of local ecology, as well as the effects of the distributive and collective power social groups necessarily embody.

Investment in land and long-term social bonding intensified both the distributive and the collective aspects of social power, that is, both the power of a few over the many, as well as the collective power of all over third parties and over the physical environment. Strategic junctions of communication, rich land, charismatic personalities, exceptional skills, military mobilisation, defeat in war, and inability to 'exit' are possible reasons for such an outcome. In any case, primary unequal distribution of power over nature and among humans precipitated a second wave of concentration of power. Concentration of power generated mechanisms of social competition as well as geopolitical rivalries for the control of these resources - the Assyrians would not have invaded Babylon if it had been a hamlet in the Zagros mountains. In this endless game of power the physical environment provided (and provides) the contestants with the material resources and perceptual forms to be used as tools of supremacy. The construction of a monument, whether the Pyramids or the Empire State Building, encapsulates both aspects of nature-as-tool: it incorporates an otherwise wasteful consumption of natural resources in a structure full of symbols of dominance. It is obvious that as we move from wandering bands to big-men's villages, to pristine states, the stakes become greater, resulting in the intensification of both symbolic and

appropriational aspects of human-nature contact: larger constructions, greater monuments, longer-term irrigation projects, control of more extensive lands and larger populations, and lastly, greater surplus food production to feed standing armies and bureaucrats.

While the ecological setting may have been altered as a result of human intervention, it in turn played a significant role in shaping social behaviour, psychological attitudes, and perception of Cosmic Order. The predictability of the Nile and the isolation of its valley from neighbouring peoples; the unpredictability of the Tigris and the possibility of drought or floods; the open-ended, protective, and cheerful Aegean shores affected social contact, social behaviour, and the understanding of social order in profound ways. Even the fact that some regions invited military intervention (Sumerian plains) more than others (rocky Aegean islands) affected the potential for a dynamic or a passive perception of the physical environment. But what about the various elements of social power?

In its *distributive* form, power channelled Cosmic Order into hierarchical forms, at the same time that it organised and advanced technical skills to manipulate natural settings and resources more efficiently. As social stratification became the rule in the new long-term, intergenerational, social organisations, social diversification resulted in a differentiation of both cognitive schemes and technological capabilities. Wherever social stratification became confined to city-states, as in Sumer or southern Greece, beliefs and practices remained relatively common to higher and lower social echelons (i.e., diffused power). Whenever social stratification took place in far-flung territorial states (China, India, Assyria) which incorporated urban centres and an extended rural periphery, or logistical problems made communication between centre and periphery difficult, the social differentiation of thought and practices was much stronger.⁵⁰

⁵⁰ Egypt constitutes a particular case of territorial state since it was exceptionally caged. Thus, both rural and urban population were sharing similar notions of Cosmic Order.

Social, cognitive, and technological differentiation allows us to speak of dominant views of nature as those views which organisationally outflank the rest: the majority of a given social group found themselves embedded within collective and distributive power organisations controlled by the fit and brave who could hunt and access the palaeolithic caves, the benevolent big-men, or the palace-priesthood bureaucratic nexus. The more overlapping the networks of power, the fewer the strategic actors, with military, political, economic, and ideological functions being incorporated within one person. These strategic actors used the resources available to them to incorporate other belief systems, such as those relating to mana, spirits, demons, and witchcraft, into hierarchical schemes of Cosmic Order tailored to fit their privileged position. They could command obedience to exclusive and privileged rituals, and ask their subjects to worship them as gods or as the god's chosen ones (i.e., authoritative power). This is how hierarchically organised commanding agents of the universe first emerged. With it came the implicit suggestion that the physical environment might be a tool in the hands of mighty gods, rather than the agent itself, which is what foraging humanity had embraced.

Yet, the *collective* aspect of power advanced control of nature by all, and benefited (though unequally) all. It cultivated the ability of humans to alter nature and precipitated the tamed-wilderness, culture-nature dichotomy. Everyone in a given social setting, such as a Neolithic band, Pharaonic Egypt, a Sumerian city-state, or a Greek *polis* gained in self-esteem by thinking of themselves as members of a superior people, the gods' chosen ones, the centre of the universe. The collective aspect was not confined to 'joined hands' policies for the construction of canals, ziggurats, temples, and the pyramids. In addition to that, the collective social power had a psychological and cultural aspect, the result of landscape construction, rituals of social cohesion, and 'unspoken', taken for granted, patterns of social interaction. The *sui generis* contrast between the cultural 'babble' and everything lying outside of it dichotomised space between 'proper lands' and 'proper people' *against* the lesser, outer domain of lesser people and improper physical environments of

wild lands. Contrast brought confrontation that enhanced feelings of cultural supremacy and encouraged imperialist policies (see table).

COMPOSITION OF POWER AND THE CULTURATION OF NATURE

LOCAL ECOLOGY	DISTRIBU- TIVE POWER	COLLECTIVE POWER	INTENSIVE POWER	EXTENSIVE POWER	AUTHO- RITA- TIVE POWER	DIFFUSED POWER
Dynamism- inertia of forces in nature	Surplus production	Increased ability to control physical environment	Rationalisati on and elaboration of <i>beliefs</i> <i>about</i> <i>nature</i> into <i>ideologies</i> <i>of nature</i>	Spatial stratification of beliefs and practices	Centralise d control of rituals	Common beliefs and practices
Optimism - pessimism	Intensificati on of production	Formation of culture vs. wilderness			Special ruler- divine relation	Cultural particularis m
	Hierarchisati on of power					

The social construction of nature then is the outcome of the combination of distributive and collective, intensive and extensive, authoritative and diffused aspects of power in a given ecological setting. The combination ascertains the particular sets of beliefs and behavioural patterns people develop vis-à-vis their physical environment. The more overlapping the economic, political, ideological, and military networks, the more unitary, comprehensive, and centralised the nature-views would be.

None of the pristine states we have examined moved beyond certain frameworks of Cosmic Order and environmental attitudes. Indeed, there were developments, like the possibility of identification with the god Osiris for all

Egyptians and not just for the Pharaoh during the Middle Kingdom period, and the relative autonomy the Sumerian gods gained from natural phenomena during the second millennium. Yet, these were extensions of a constant theme, cultural developments in a given framework, not cognitive breakthroughs. Before the advent of the Axial Age that we examined in the Greek case, no civilisation moved beyond the implicit levels of cognitive and technological articulation of nature and the investigation of nature's ways. The articulation remained an exercise of completing genealogies of gods and kings, observing the messages of stars, writing down techniques of cultivating and measuring the land, building monuments and performing rites to reinforce cosmic order. These practices were taken for granted since there was no social force located outside the dominant bureaucratic apparatus to challenge the ideological foundations of the status quo. There was no debate that would push beliefs to a higher articulation, no intellectual frustration that would create an explicit, articulated ideology. The people who could initiate a critical, 'second-order' thinking process, bureaucrats and priests, remained tied to state functions and political elites. There were no literati stepping outside the establishment to demand social change, a change to bring society closer to an ideal state of existence. Furthermore, there was no systematic comparison with other civilisations, the *sine qua non* for the development of self-consciousness. The state formation in these places was *sui generis* and very slow. There were no sudden social transformations, no conflicting social patterns; only social upheavals which begged for the restoration of good order. People took pride in being the chosen people, to be the first to walk on the earth, to be the chosen ones of the gods. The old became venerated resulting in conservatism and contempt for anything new coming from the frontier.

Ninth-century Greece was a different case altogether, situated in a unique geopolitical and ecological position which allowed access to eastern cultures, while preventing the copying of eastern institutions. Furthermore, there were no great traditions, and no great institutions. Greeks perceived nature through the upper-class Olympian, and the socially diffused Dionysian

world-views; Dorians and Achaeans settled in Greece as ranked tribes, yet, in a short period of time they mixed with the previous inhabitants and in southern Greece they turned into socially mobile, stratified, agro-urban *poleis* residents; many of these *poleis* became an integral part of the international trade network extending from the shores of southern France to the ports of Crimea, the cities of the Levant, and beyond; and, lastly, in contrast to similar city-states such as those of the Phoenicians and Canaanites, these *poleis* experienced a long period of geopolitical stability, in 'splendid isolation' from the imperial states of the east.

These particular conditions, coupled with the fragmentation of land, guaranteed the relative autonomy of the local social networks of power from each other, along with the cultural diffusion of Hellenism into three concentric spatial zones: the city-state, the Greek archipelago, and the known world. Greeks could afford to compare themselves to other peoples, visit them, and learn from them without shame. Some of the greatest minds of Greece, such as Solon, Pythagoras, Herodotus, and Plato, travelled abroad before they became known as sages, historians, or philosophers. Their life reflects the Greek case as a whole: a dynamic society without pretensions, looking around for available *modi operandi*. It is a classic case of a rising, peripheral power which does not hesitate to learn from the old central, powers. For example, the Romans learned from the Greeks (1st century BC), the Arabs learned from the Byzantines (7th century AD), the Spanish from the Moors (13th century AD), the Dutch from the Italians (early 1500s), the English from the Dutch (17th century), the Scots from the French (Adam Smith, 1763), and the Russians from both the Byzantines (9th century AD) and the Dutch (Peter the Great, 1697). The difference between Greece and the above examples is that there was no 'Greece' as a unitary state, a centralised institution, or an overlapping, centralised, power network. Greece consisted of a variety of culturally compatible groups of social actors, concentrated into their tiny *poleis*, seeking ways to explain their new condition. There were the rich and the poor farmers;

the citizens, the women, the metics, the slaves, and the shepherds, the artisans, and the traders. These were multi-polar, cross-cutting social divisions.

Here lies the significance of the Greek literati. In moments of cultural crisis they re-interpreted foreign and indigenous stories, myths, rituals, and religious beliefs in novel ways, without fear of persecution. Their messages bifurcated. The immediately successful route was the theological message of the Orphics which converted a few, and re-shaped the beliefs of the many. The second route, that of philosophy, was less successful, but potentially more dynamic. Its beginning resembled a working hypothesis: 'Let us assume that there are no Olympian gods'. But then, what can you trust? You could trust what people had started to trust in the *agora*: arguments. Philosophy started as arguments concerning the nature of that which obviously existed, the physical environment. It was a hypothesis triggered by dynamic social strife pregnant with novelties. The physical environment, and soon the social environment as well, became the arena of debates over political control of the *poleis*. Should power be distributed in geometric, or arithmetic proportions?

Philosophy was not absorbed into politics or traditional ideological networks and belief systems. Instead, it created its own space and its own institutions which were relatively autonomous from the rest. Philosophy had its own internal logic and, since distinct routes to social influence through the practice of philosophy were available, it acquired its own practitioners. The integration of philosophy into a *polis* environment necessitated institutionalisation. Since the philosophers had to convince an audience that was willing to listen, but did not have much patience to follow long speeches, their expositions first took the shape of aphorisms. Yet, these aphorisms and arguments were *de facto* open to scrutiny. Competition among philosophers led to sophisticated defensive and offensive techniques. In less than three hundred years oral aphorisms gave way to pamphlets and then to books, and free-lance philosophers to established schools of thought (the 4th century *Academia* and *Lyceum*). At the beginning of the fourth century BC, philosophy

was prestigious, elitist, and entrenched. The *polis* had lost its capability to absorb elitism, and non-egalitarian institutions such as the *Academia* could operate freely.

Scrutiny and elaboration became the tombstone of Ionic naturalism as well. Yet, it lasted long enough to become embedded into Greek culture. Greeks became accustomed to the habit of thinking and arguing about social events in a naturalistic code which almost totally replaced the older religious ones (Orphism and Olympianism). By the fourth century BC nature had been logically stripped of ancient wisdom and morality, purpose, and autonomy. What was left intact after this onslaught was the abstraction that nature is rational, governed by rules, and that these rules can be manipulated. This development allowed the Hellenistic social networks of power to appropriate naturalism for their own objectives. Armies were equipped with advanced siege engines and towns with complex fortifications and counter-siege engines (e.g., Syracuse). New mining, agricultural, and navigational techniques made their appearance. Kings and Emperors appropriated the above developments to secure their rule⁵¹. It was these abstract principles that carried on the Hellenistic philosophy of proper conduct (Stoics, Cynics, Epicurians) and opened the door to science proper, to abstract calculations of space and gravity.

Philosophy began as a rational inquiry of social morality. To this purpose it used the physical environment as a metaphor. In effect the physical environment became compatible with rational inquiry. A new Cosmic Order was created out of the social struggles of Archaic and Classic Greece, a Cosmic Order based on abstract 'forces' or 'elements' rather than mythological creatures. It pushed both ideological discourses and technology into grand narratives turning implicit cognitive patterns into explicit theories. While it separated politics and nature into distinct categories, philosophy

⁵¹ 'The economic system of the Ptolemies was inspired by one motive, the organisation of production, with the main purpose of making the State, in

served as a bridge between them, creating a potential for their communication. Before philosophy, communication was mechanical and automatic - what someone experienced was real. After philosophy, communication became intentional. Intentionality was (and still is) related to the ability of intellectuals to retain their autonomy while accessing and allying with other strategic social actors (politicians, war-lords, producers, social classes and movements) to further their interests. This novel interaction opened new possibilities and new dangers. Plato came to Syracuse to teach the city's tyrant, Dionysius II, to govern according to the ideal forms. This was the first incident where a flexible and pragmatic practice of governing faced a systematic, fixed ideology. For the sake of Syracuse, Dionysius sold Plato as a slave and sent him home. In future the contact between philosophy and politics would be more exciting and, in a few cases, have a less happy-ending.

other words, the king, rich and powerful' (Rostovtzeff, in Glacken 1967:124).