

Epistemological Problems of Ecology:

Changing Views at Nature from Ancient to Modern Times (18th Century)

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Introduction

Epistemology is the philosophical reasoning about knowledge. It is derived (1) from Greek ἐπιστήμη (epistémē) = Latin *cognitio*, *perspicientia* that is knowledge, science (German: Erkenntnis), and (2) Greek λόγος (lógos) = Latin *verbum* = word, also reason, and today, most often used in the sense of "study of" (German: Wort, Vernunft, Wissenschaft von). Basic questions of epistemology are: What is science? How to gain knowledge? What are the borders of our reasoning, recognition, and experience? Why?

The philosophy of nature originally deals with all objects of the „nature“, living or inanimate, stars, matter and other things, thus all real entities, but, for example also with gods, and process in nature. Basic questions are: What is nature? What is the origin of all things? What does change in nature mean?

The term „Philosophy of Nature“ includes very different approaches, which have been changed, developed, and advanced in the course of time. The combination of philosophy of nature with nature research and science being concerned with ecological objects (plants and animals, communities) is a very modern idea.

Frequently a periodization is found in the époques: Ancient times up to medieval times, Renaissance (Descartes) up to 18th century, Idealisms (Kant) up to modern philosophy. An Advanced classification of European époques may be:

- Archaic (mystic and religious attitudes to nature)
- Pre-Socratics (de-mystification, not de-theologization)
- Socratics (development of science, nature as "physis")
- Hellenism (stoicism, epikureism and the philosophy of the Romans)
- Christian era (synthesis of different traditions)
- Medieval eras (early, high, and late middle ages: syncretism, separation of god, mankind and nature, scholasticism)
- Renaissance and subsequently, the foundation of continental rationalism (Descartes, Leibniz) and British empiricism (Newton, Locke, Berkeley, Hume)
- 18th century enlightenment (Kant)
- Idealism (Hegel, Schelling, Schopenhauer)
- Post-idealistic, modern era (Whitehead, Quine and many others)

Different attitudes towards nature and knowledge about nature within different cultures and periods may be illustrated by the following citations.

“Only those who control themselves, control the things as well.” (Ptahothep)

“And it [everything] never was and it never will be, because it is present in total, as a coherent singularity.” (Parmenides)

“The shrubs and trees don’t tell me anything, however, the people living in the polis do.” (Platon [Sokrates in dialogue Phaidros])

“Heaven and earth are mighty – but they don’t speak.” (庄子 [Zhuang-Zi])

“To say from that what is, it is not, and to say from that what is not, it is, is wrong, however, to say from that what is, it is, and to say from that what is not, it is not, is true.” (Aristoteles, *Metaphysica*)

“What good will it be for someone to gain the whole world, yet forfeit their soul?” (Matthew 16/26)

“I wonder whether nature will finally fathom itself.” (Goethe)

“The limits of my language are the limits of my world.” (Wittgenstein)

On the Relationship between Philosophy of Nature and Science („Naturwissenschaft“)

The tradition of the work on the philosophy of nature was discredited in the course of the 19th century due to several reasons, especially the separation of science from philosophy, some effects from romantic speculations and aberrations, and interferences of the philosophy of nature in fields of empirical working sciences.

Philosophy of nature was advanced as competing enterprises to empirical sciences (physics, biology, ecology), as a speculative precursor of empirical sciences, and as a further establishment, justification, and upgrading of sciences. Today, the relation between man and nature has become alienated and this is one reason for the current environmental problems. The current environmental problems will give not only perspectives for the critique of the recent phi-

losophy of nature, but also for the elaboration of new approaches. – For the determination of the future relationship between philosophy of nature and science the reflection on the relation between man-nature-environment will be important. There have been various interpretations of this relation in different eras.

Philosophy of Nature in the Pre-Ancient World

There are three basic roots for the development of the European civilization, the Greek concept of reason, the Roman concept of law and the Jewish concept of monotheism.

The Greek concept of νοῦς (nous, Latin: spiritus, English: mind, German: Geist) and, subsequently, λόγος (logos, Latin: verbum, Engl.: word), respectively, that is (in various expressions and translations) or lead to the concept of reason (understanding, intellect), mediated by the Latin intellectus, ratio (German: Verstand, Vernunft). The second root is the Roman concept of ius, that is law („Gesetz“) which is intended to lead to iustitia (justice, „Gerechtigkeit“), the third root is the Jewish concept of monotheism based on Abrahamic revelation religion. These roots are still ubiquitous in Europe and in countries with absorbed European culture and languages.

The world view of the Greek antique is the cradle of the whole European (occidental) civilization. All the basic and important questions, which determined the discussion in all philosophical disciplines over more than 2500 years, were already discussed by the Greeks.

The archaism has its roots in mysticism. The people described in the Iliad (Ἰλιάς) and the Odyssey (Ὀδύσσεια) by Homer (about 750 B.C.), who was fundamental for Greek civilization and philosophy, are living in harmony with nature and there are no loose ends in their thinking, feeling and acting. The subject is not broken in mind. The world is created by divine demiurges (craftsmen). Hesiod (after 700 B.C.) first tried to classify things, giving catalogues and hierarchizations (starting with the pantheon, i.e. the world of the gods). – Mysticians and orphicans are also important for the further development: a process of demystification of the world view started, and subsequently, a scientification.

Ancient Greek philosophy (600 – 336 B.C.) is very complex, difficult to reconstruct, and difficult to understand! This is due to various reasons.

- Only a very small part of the writings is still available, handwritten transmissions and translations (to Latin) are often incomplete or incorrect.
- Philosophical terms and language were still not available, philosophy was expressed in poems. Thus, the conceptions must be dissected indirectly.
- Philosophers out of fashion at special times or adherents of undesired opinions and approaches (Empedokles) were not copied any longer, and information on their thoughts and conceptions is lacking.
- Some philosophers did not write, but preferred oral communication and teaching (Pythagoras, Sokrates, partly Platon and Aristoteles).
- There is a large geographical range where the philosophers worked and founded their schools: Who came to know the thoughts of whom? What is original what is copied from other work?

However, the significance of Greek philosophy for European thought and culture cannot be overestimated!

Thales of Milet (~624 - ~546 B.C.) is the first philosopher. He gave mechanistic interpretations and explanations of natural phenomena (eclipse May 28, 585 B.C.). Anaximandros of Milet (~610 - ~546 B.C.) is the first philosopher of whom we receive a text. His important feat was that he at first started a serious and systematic attempt to understand and acquire nature in order to subject and to subjugate it by giving an explanation of reality. He was the founder of the concept of κόσμος (kosmos, cosmos). The basis of his thinking is observation and rationale reasoning exclusively. – Very important philosophers at that time were Anaximenes (~585 - ~526 B.C.) and Xenophanes (~580 - ~475 B.C. [sic!]).

After development of the ionic philosophy of nature (after 550 B.C.), a fundamental polarization was founded by Heraklitos (~520 - ~460 B.C.) and Parmenides (~520 - ~450 B.C.).

The central and basic statement of Heraklitos was: πάντα ῥεῖ (panta rhei = „everything is flowing“, that means: everything is permanently changing). By this the focus is on the becoming, the generation, the process. He was asking for the structure (cosmology) and the development (cosmogony) of the world which can be realized.

Contrary to this philosophy Parmenides basic thesis is: „nothing changes, everything is everywhere and altogether“, a coherent singularity. The focus is on the being. He argues that it is impossible to think about nothing, and non-existing objects are beyond our faculties of thinking and expression by language. Therefore, nothing can come into being: Everything is perfectly self-identical and self-evident. Reality is absolutely homogeneous, and fixed, and timeless. All perception is unreliable and there is no way to get reliable realizations of the world. Thus, it is necessary to separate opinion about things and the things themselves.

Parmenides of Elea founded the Eleatic school of philosophy (modern Ascea in southern Italy). The only known work of him is the poem „On Nature“ in which the dualism of appearance and reality is founded by the separation (in two sections):

The ἀλήθεια – aletheia: „The way of truth“, the existence, coined as „what is“, and the δόξα – doxa: „The way of opinion“, the appearance, coined as „what is perceived“. Due the imperfect sensory faculties of our mind appearances are always vague. Our perception of reality is incomplete and may lead to wrong conceptions. Reality does not change, existence is timeless: „Nothing comes from nothing“.

There is a very strong influence of Parmenides on Platon. He advanced his concept of the timeless and spaceless idea based on Parmenides' philosophy (see his dialogue Parmenides, in which his ontological basis is advanced).

At least three attempts have been made to solve the Heraklitos-Parmenides-Dichotomy: The approach presented by Anaxagoras from Athens (~500 – ~428) is not reconstructed in detail. Empedokles (~494 – ~434) suggested empathy and feeling, Demokritos from Abdera (~460 – ~380) suggested abstraction: Use your intellect! In Platon's view, the Heraklitos-Parmenides - dichotomy was solved by Demokritos and his approach of the radical materialism and atomism, and not by Empedokles who had advanced a holistic approach, which is open for impressions and feelings. This is the origin of the occidental, European philosophy and epistemolo-

gy. Based on the work of these philosophers, there was a very rapid development: impressions and perceptions are reduced to objects, which can be expressed by words and which can be enclosed, classified and explained. – This is the triumphant success of the λόγος (logos: reason). This is also the origin of „science“.¹

The subsequent development after Demokritos is characterized by a turn to the philosophy of ethics, educational theory and theory of civilization by the sophists. Several sciences have been established (medicine, history, rhetoric's and others). – New research on epistemology restarts again with Platon.

Philosophy of Nature in the Ancient World

“All western philosophy is nothing else than a footnote to Platon.” (Alfred North Whitehead)

Platon from Athens (428/427-348/347 B.C.) was a very important interface, he tried an integration of different conceptions, which are selected and advanced. He established his philosophy of nature in the dialogue Timaios. All formerly advanced conceptions are filtered by the adherents of the Platonism.

Maieutics of Sokrates and Diaeresis of Platon

Sokrates's technique of maieutics (from Greek μαευτικός, „midwifery“) is a technique of conversation based on the proposition that the truth is latent in the mind of everybody, however, it has to be "given birth" by asking and answering intelligently proposed (Socratic) questions. It is done in two steps:

- Elenctic (from Greek ἐλεγκτικός = „able to convict“): Evidence is given that a statement of a dialogue partner is wrong and that he is in the state of aporia.
- Protrepic (from Greek προτρέπω = „to persuade“): Further questions lead to a more suitable and better opinion, though not yet to real final knowledge.

Platon's technique of diaeresis (διαίρεσις, „division“): Diaeresis is a method of definition based on partition. A large group is continually divided into equal parts until the definition is as exact as it is needed. It is also used as a classification technique.

¹ „The origin of European epistemology and metaphysics, and thus the foundation of our thinking can be dated exactly: Parmenides' experience of totality. From then on, with almost alarming speed, the reduction of impressions to objects is decided, which is specific to European thought. For a moment it is on a knife's edge, when Europe (Greece) has the choice between Empedokles and Demokritos, that is between a concept formation, which is open for a great richness of impressions and which chooses units as guidelines for criteria of demarcation that are the result of temporal processes of attraction and repulsion, and our nowadays familiar concept formation, which starts with schematic attributes, which are filtered out of impressions.“ (Schmitz 1988, translation UB). [„Der Ursprung der europäischen Erkenntnistheorie und Metaphysik und damit das Fundament unseres Denkens ist genau datierbar: die Ganzheits-Erfahrung des Parmenides. Von da an entscheidet sich mit fast bestürzender Geschwindigkeit die spezifisch europäische Reduktion der Eindrücke auf Gegenstände. Einen Augenblick lang steht es auf des Messers Schneide, als Europa (Griechenland) die Wahl hat zwischen Empedokles und Demokrit, d.h. zwischen einer Begriffsbildung, die einer unübersehbaren Fülle von Eindrücken offen ist und die geschichtlich durch Prozesse der Anziehung und Abstoßung entstandene Zusammengehörigkeiten als Kriterien der Abgrenzung zur Richtschnur wählt, und der uns heute gewohnten Begriffsbildung, die von einzelnen übersichtlichen, aus den Eindrücken herausgefilterten, schematischen Merkmalen ausgeht.“ (Schmitz 1988: Der Ursprung des Gegenstandes. Von Parmenides bis Demokrit. Bonn: VIII).]

Humorously overdone example: A statesman is a guardian of a biped hornless herd, who is well-equipped with theoretical knowledge of ordering. (Ein Staatsmann ist ein mit anordnendem theoretischem Wissen ausgestatteter Hüter einer zweibeinigen ungehörnten Herde." (Platon: Politikos, 267c)

Philosophy of Aristoteles

Aristoteles from Abdera (384-322 B.C.) founded the „three principles of the nature“: matter, form and deprivation („not-form“, „un-form“). Theophrastos was the founder of botany. His conceptions lead to the empiricism of science (observation, sampling, classification etc.).

The reason for the achievement of process in nature and the origin of different types of natural kinds are:

- Cause of matter („Materialursache“)
- Cause of forming („Formursache“)
- Cause of impact („Wirkursache“)
- Cause of objective („Zielursache“)

Process is the central expression of the Aristotelian philosophy of nature. The definition stresses the terms of „possibility“, and „fulfillment“, and „actuality“. The main approach is: the „chaotic“, „unformed“ principles are seizing the unstructured matter so that a single entity passes through the potentiality and reaches actuality and, subsequently, fulfillment. The property which realizes this process is called entelechy.

The categories quality, quantity, substance, determination in space are of central importance in order to fix an object. Aristotle founded the principle of entelechy. Entelécheia is composed from three parts (en-tel-echeia): Geek en (in), tel (from telos = aim, objective), and echeia (from echein = to have or to hold or to bear). Linguistically the word is composed by combining entelēs (complete, full-grown) with echein (= hexis)². Entelechy is the property of an object to bear its completion in itself. It referred to the form that is realized in the material, particularly in terms of the organism's inherent power that brings it to self-realization. Assuming entelechy will lead to teleological thinking.

Epikureism and Stoa

The founder of **Epikureism** is Epikuros (341-270 B.C.). The world is built up by atoms (very small units) which are coming together in empty space (dynamic materialism). There is no order in the world; man cannot refer to anything in order to justify anything or to give reasons for his acting. Gods are mighty persons of another world who do not care about our world.

The founder of the **Stoa** is Zenon from Citium (332-262 B.C.). The approaches are based on the term of „heimarmene“ (Gr. εἰμαρμένη), i.e. the theory of the unchangeable determination of all process and development; there is no way to modify the world by acting (statical materialism). It is necessary to realize the determination reasonably and to accept it. Man is not responsible for the process and the development but for the state of his consciousness. The theory leads to an unlimited confidence in the order of the universe.

² Greek ἕξις („hexis“: disposition, character) denotes a certain way by the continuing effort of holding on in a certain condition.

Significance of Roman Approaches

For the world view and the associated attitudes towards the concept of nature of the Romans and, subsequently, of the whole Roman-Christian civilization the literature and the philosophical work of Publius Vergilius Maro (70 – 19 B.C., „Homer of the Romans“), Marcus Tullius Cicero (106 – 43 B.C., „Platon of the Romans“) und Lucius Aenaeus Seneca (1 – 65, „Socrates of the Romans“) is of central importance.

The Romans originally were farmers with a sturdy, sober-minded, realistic and direct attitude towards their environment and nature. During the time of the decay of the roman republic (1st century B.C.) the religion was important for life and thinking of the Romans. The belief in omen (lightning, nature-catastrophes, flight of birds) was widely distributed. It was assumed that there is a divine instruction to produce order in nature, and to arrange natural kinds. Acting of the Romans originally was not determined by a pure power mania, but rather by the intension to build up order in nature.

The Romans found inspiration in the Greek mythology and their stories (Homer!) and also order in the philosophy of the Greeks. The Romans communicated Greek philosophy in Latin language to medieval times and to our times. This is a fundamental merit of the Roman authors.

Jewish and Christian Traditions

As to the development of a specific Jewish-Christian view of nature the integration on old Jewish (patristic), antique (Greek) and new-testamentary (Paulus) perceptions were important. The epoch-making implication is that for the first time completely different world views (see table 1) of Indo-European and not-Indo-European world views are synthetically combined to a coherent conception. This was mainly done by (Aurelius) Augustinus from Hippo (354-430).

Within the occidental civilization of the post-antique Europe up till now there are basic views which have exactly these two roots. In the philosophical and cultural point of view this synthesis is marking the end of the antique era and the beginning of the medieval age. Including the Roman concept of law and justice this process was finished.

Attitudes Towards Nature in the Bible: Old and New Testament

The creation gives evidence for a creator (but is not for him). God gave power to man, to control nature. The beauty of nature is not accepted because of itself, but because of the creator, however, god is not within nature. You should not deal too much with nature, because you are kept away from god by doing this.

In the early stages of the Christianity a synthesis was advanced among Greek (Platon), Roman (Vergil, Seneca) and patristic (old-Jewish) ideas. There have been no or only few conflicts between Christian ideology, philosophy and science during the time of the Christian imperium (after Constantinus) and during the early middle age. Tensions arose subsequently, when the philosophy of the peripatos (Aristoteles), which have been established by the early church fathers (Augustinus and others), eroded.

Table 1: World view of Indo-European and Jewish civilization (simplified).

Indo-European civilization	Jewish civilization
The world is a drama, where good and evil are fighting	The belief in a creator (god) is determining everything
There is a deep gap between the gods and the world of human beings	The world is created by god, he cares about the world, especially human beings
Speculations on world and nature	No speculations on world and nature
Examination, understanding, research and knowledge	Belief and expectation
View of history as a cycle	Linear view of history
Polytheism	Monotheism
Focus on visual perception	Focus on auditive perception
Farming and agriculture	Cattle breeding and trading
Settled and resident	Wandering, migration, „diaspora“ (dispersion)

Philosophy of Aurelius Augustinus

According to Augustinus religious belief precedes reason; however, reason is important to confirm it. The acquisition of knowledge is not a value in itself but serves to strengthen belief. Reason alone is too weak to find the truth ("credo, ut intelligam" [I believe, therefore I understand]). This requires the authority of the Bible, even if it is to be interpreted allegorically. The belief is determined by the authority. The authority is the institution of the Roman Catholic Church.

Augustinus separates god and his creation, the universe, the world. The special position of human beings is accepted. Basic concepts of Paulus are advanced („bona voluntas“ et „mala voluntas“ [„good intention“ and „bad intention“]) and compared. Intension is separated from perception. Human intension is absolutely free. Thus, the metaphysical reason for the sin and the concept of the divine grace is established.

The scholastic „nunc stans“ (the timeless presence) is founded. Everything is coexistent in god's omnipresence, and coherently present in the human soul. According to this idea we do not divide among the past, the presence and the future, but there is only a presence of the past (remembrance), a presence of the present (perception) and a presence of the future (expectation).

The history of philosophy being a linear process is founded to be constitutional for human mind deviating Platonism. The struggle of the good and the evil is done in history, and god

needs history to establish god's nation. The interpretation of the creation of the world as a linear process was combined with the imagination of evolution in nature.

Various Conceptions of Nature in the Medieval Ages

Considering human welfare and dignity: Why is it necessary to know, where the Nile rises? Lactantius (240-320)

The medieval culture mediates between the antique and the modern age. It is a filter for different concepts and theories, and catalyst of various ideas and imaginations as well.

Central proposition are not discussed and are set to be valid:

(1) Scientifically true is exclusively everything that is not in contradiction with philosophical truth or consistent with mathematics; scientifically true is only what is lasting in the face of the results of approaches in philosophy (and mathematics).

(2) Scientifically and philosophically true is exclusively everything that is not in contradiction with theology and (Christian) religious belief which is dictated by the church.

Origen (Origenes Adamantius [185-254]) sees man as a modifier of a created world. Based particularly on Platon it is claimed that everything should serve human beings because man is rational and intelligent.

Plotinus from Alexandria (205-270) draws the image of the eternal reality in which life constantly comes into being and passes out of a constant and unchangeable being. The body-soul dualism is advanced in detail. The physical existence of man is not important. – Plotinus is the most important of the Neo-Platonists, who took Platon's theory of ideas as the basis of their philosophical reasoning. According to Plotin the world consists of opposites, the divine light at one end, at the other end the absolute darkness. The most serious problem of Christian syncretism on a Neo-Platonic basis was: How is it possible that the almighty Absolute God includes simultaneously the being, the good and the light, and also the non-being and the darkness, and the evil. – When working on this issue Plotinus founded his specific ontology.

The darkness and the evil do not constitute existence by itself. It is constituted by the absence of something: the light irradiates the soul, while the substance is the darkness that is not in itself.

Augustine attempted a synthesis of the rational analysis of the Bible with the help of the Greek tradition (especially Platon and Aristoteles). The guiding principle that nature should serve man is not rejected, but not defended one-sidedly. However, the curiosity (*curiositas*) is massively rejected and thus empirical-scientific research.

Anicius Manlius Severinus Boëthius (about 480-524) is probably the last philosopher who had the full range of ancient education. Besides Origen, Plotinus, Augustinus, Porphyrios, and "Pseudo Dionysius the Areopagite" he is the most influential philosopher of late antiquity and the early Middle Ages. He made translations of the works of Plato and Aristotle in the context of the concordance program (syncretism). In many respects, he remains a Platonist. He makes Aristoteles well known in the Western Europe and influenced the philosophy of the Arabs significantly.

Boëthius opened up the famous so-called dispute on universals (“Universalienstreit”), which remained virulent throughout the middle ages. Are common denominations (abstract concepts such as "animal") real (realia), or merely thought (nominalia)? Are they transitory or permanent, separated or immanent?

Our senses give us the physical objects together with the incorporeal things within the objects: our senses, therefore, perceive not only physical objects. In other words, they perceive in linguistically designed contexts. Boëthius introduced the similarity (similitudo) as the central concept to resolve the basic paradoxes of dispute over universals. If similarities exist in single things, they are sensual, if they exist in general terms, they are intellectually recognizable: Differences that address mind, are just the general.

Late Medieval Philosophy of Nature

Medieval philosophy is very manifold, maybe more than modern philosophy. Central propositions and concepts (motion, power, process etc.) that we use today are advanced in the late medieval ages at first. Philosophical mainstream follows Platonism, Neo-Platonism, syncretism, peripatetics and the ideas of Augustinus.

Scientific perception is always to be related to the relevance for the human welfare and dignity. The focus is not on the body, but on the soul (but see Ep. Rom. 8,9: „Vos autem in carne non estis sed in spiritu“ – „You, however, are not in the realm of the flesh but are in the realm of the spirit“). Every perception is to be related to the dignity, honor and praise of god.

In the era of the late scholasticism (12th, 13th, 14th century) a process of the human self-emancipation and a liberation from traditions and institutions (the church) started. This development culminated in the rationalism of Descartes. Subsequently the era of the middle age was brought to an end and the renaissance was established.

By the assumption of an almighty god, who can act everywhere the hypothesis of a simple world was deeply devastated more and more. In order to give an orientation in a faster and faster changing world without the security of the weakened institutions human reasoning became more and more important. More and more efforts were made, which lead to a further decay of the former hermetic and closed world view, because self-emancipation increased again. The people perceived it as a predicament.

In the phase of the late scholasticism the possibility of perceiving the true cosmological order of the world was lost (skepticism). Subsequently, possibilities and obligations to evaluate hypotheses and models arose. Science emancipated from the obligation to be exclusively concerned with the human welfare and dignity.

Conceptions of Nature in Modern Times up to the 19th Century

Philosophy of science at the beginning of the modern age is characterized by some general developments. Precondition was, of course, a process of secularization and emancipation of human reason. A separation of (British) empiricism (Locke, Berkeley, Hume) and (continental) rationalism (Descartes, Spinoza, Leibniz and others) is taking place. Leibniz advanced the rationalism of Descartes („I think, therefore I am“) in order to evaluate it for science by taking

over central ideas into research programs. For the philosophy of nature his concepts of identity, individuality and monadology became important.

Isaac Newton (1643–1727) separated science and philosophy completely. The separation was stabilized in the 18th century. During the 18th century some basic ideas (importance of law, concept of process, importance of experiment) became stronger. Many discoveries, inventions and experiences have been made. Subsequently, the general view of nature changed again: The belief in science, techniques, progress and reason became stronger and stronger. Basically everything seems to be perceptual, discoverable, experiencable, and improvable without any limits.

This world view was completely destructed by the work of the philosopher Immanuel Kant (1724-1804). The first edition of his “Critique of Pure Reason“ was published in April 1781. With this book Kant reaches a new dimension of the discussion of different epistemological approaches. There was a deep destruction of the prae-Kantian philosophy, and what follows for more than two hundred years is an intensive debate on Kant’s concepts, by the construction of „great all-embracing philosophical systems“ (Fichte, Hegel, Schelling, Schopenhauer), in the framework of the „Neokantianism“, and in various other ways in the course of the 20th century.

Case Studies: Conceptions of Nature, Human Work, and Aesthetic Judgment

Case Study: Attitudes towards the concept of nature

Periodization:

- Ancient Greek „φύσις“ (physis) up to Hellenism
- Roman „natura“ (nature) up to Christian ideology
- Medieval „nature“ up to the beginning of the modern age
- Beginning of the modern age
- Modern age (today’s view of nature), after Kant

The Greek word physis means everything, that is moving, everything that is changing. „Physis“ is the total entirety of everything that came into being and has an origin and fades, ceases and passes. God and human beings are integrated in this concept of physis. – Physis means what we call the reality. The word „physis“ means in the context of its philosophical usage the epitome of reality, and, respectably, in the term of „physis“ the term of „reality“ became available. Reality („Wirklichkeit“) can be imagined as something that a duration can be assigned to.

The Romans assigned another connotation to the word „natura“ (physis), which is different from the original meaning of („physis“) nature: Natura is something that is available, it is everything that one can be provided with, that is of one’s disposal, that one can own. The focus was set to nature as being something, that came into being and that has an origin. In this view nature is everything that emerged and that have been created. It is something substantial, and the aspect of the development is one-sidedly stressed by neglecting the aspect of fading, ceasing and passing. Thus, physis was reduced to the „natura naturans“, and, subsequently, to the

„natura". This process is fundamental for the further development of our modern understanding of nature³.

During the late antique era and in the medieval world nature was everything that is fateful, uninfluenced and ordered by an almighty power [god] (conditional: monotheism and a single code of rules): in all cases nature was unfixed and spontaneous. Nature was going to be the “existence of things, as it is determined by general laws of nature“ (Kant).

According to the view of nature at the beginning of the modern age after the middle age the ideas of scientific perception, the perception of laws in nature, the role of experiments, and the idea of progress in science (including proud of human reason) became important.

Case Study: Attitudes towards human work

The interpretation of different attitudes towards working is of central importance as to the interpretation of the various views of nature, because working means transacting and confrontation with matter and environment, and by this, an acquisition and overruling of things under the intension of the actor.

- In ancient times there was a scant regard for the value of work (in Greece only the slaves are „working“).
- The Romans felt "labora" und "industria" (farming!) to be worthy.
- The Stoa insists on the educational importance of work, especially of physical human work.
- Contrary to Paulus, Jesus did not like work.
- The first book on human work was written by Augustinus ("De opere monachorum" [On the work of the monks], based on Paulus' and old-Jewish attitudes towards working) the general sacral dignity of human work was founded.
- Aristocratism and scant regard of working have been restored and remained in the middle ages, especially as to the monastic work.
- The bourgeois society of the 19th century insists on the educational importance of human physical working but not referring to the dignity of work. Associations were diligence, duty, punctuality, cleanliness, integrity etc.

During the 20th century all ethics and attitudes became different and ambiguous, there were no more binding traditions. Important is the freedom of the single human being, however, some ethical views were set up for principles of human acting.

Case Study: Changing attitudes towards Environmental Aesthetics

Judgments on taste are determined by or at least related to the cultural époques, social relations, and general attitudes toward special world views and ethics. Basically they are variable and changeable. However, this is true not only for aesthetic judgments, but also for others. „Taste is not timeless"!

³ The Roman transformation (from „physis“ to „natura“ is the main reason for the development of ideas which lead to the exploitation of nature resources with the aid of different techniques (and not the famous „dominium terrae!“ („subject the earth to you“, 1 Mose 1/28).

During the middle age mainly there was a „vertical“ view of landscape (for example, a stag at the river is related to the human soul which is thirsting for god). This is in contradiction to the modern „horizontal view“ (for example, river, trees, and meadows are perceived as a coherent unit, and the stag is related to it).

During the 19th century the view of landscape was more limited. Generally smaller seizes of landscape have been perceived and realized.

Some Further Readings

Curt, P. 2012. Pre-Socratic Philosophy. <http://plato.stanford.edu/entries/presocratics/>

Articles on Socrates, Plato, Aristotle also on the Stanford portal (Stanford Encyclopedia of Philosophy).

Sweeney, E. 2008. Literary Forms of Medieval Philosophy.

<http://plato.stanford.edu/entries/medieval-literary/>

Also highly recommended:

Russell, B. 1996. History of Western Philosophy, Routledge (originally publ. 1946).