

WIM VAN DEN DUNGEN

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REGULÆ

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# *Regulæ*

Rules of the Game of Knowing the Truth

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*en hommage à René Descartes  
et Erik Oger*



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## Preface

In 1628 or perhaps a few years earlier, the rationalist René Descartes (1596 – 1650) began work on a treatise, left unfinished, regarding the correct method for scientific and philosophical thinking, entitled : *Regulae ad directionem ingenii*, or *Rules for the Direction of the Mind*.

To honor Descartes' effort, this book brings together a hundred rules covering the *game of knowing the truth*. This sport, played by scientists and philosophers alike, intends to gather conceptual knowledge (context of discovery) valid *pro tem* (context of justification). It involves the *sense of truth* and the difference between the 'context of discovery' and the 'context of justification.'

Studied by epistemology under transcendental analysis, the game of knowing the truth calls for *normative* theory and the practice of knowledge. Such analysis of conditionality does not describe the process of acquiring knowledge from outside knowledge, from, as it were, a high ground deemed safe, but discovers –by way of transcendental self-reflection–, the *rules we have always been using* to manufacture so-called "valid" or justified knowledge. One cannot deny these rules without utilizing them in the act of denial.

Together with ethics, focusing on the good and aesthetics, aiming to understand beauty, epistemology constitutes normative philosophy, articulating what we *must* think to understand what *can* be known, what *ought* to be done, and what example one *may* aspire others to follow.

Criticism is the format of normative epistemology, drawing demarcations between valid and invalid conceptual knowledge, between science and metaphysics, and between immanent and transcendent metaphysics (cf. *Book of Lemmas*, 2016, 2019).



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Criticism steers the middle way between dogma (affirming propositions *ad hoc*) or skepticism (negating the worth of propositional knowledge).

Because transcendental analysis does identify *a priori* principles and norms of knowledge, one cannot say no propositions *a priori* exist. The principles (of transcendental logic) and the norms (of theoretical epistemology) refer to special transcendental facts hinged on the *factum rationis* or fact of reason.

Skepticism is overturned.

Because all conceptual knowledge depends on theoretical connotation, dogmatic semantic dualism conflicts with the logical necessities of strict nominalism.

Dogmatism is overturned.

Conceptual knowledge, be it analytic (logic, mathematics) or synthetic (science and immanent metaphysics), is always based on a series of conventions and a set of intersubjective agreements *a posteriori* on how something is usually done.

Conventional knowledge articulates empirico-formal statements of fact denoting objects supposed to exist from their own side, separated from and before the knower. This superimposition of substance can only be removed by critical thought and then reintroduced 'as if.'

The conventionality of conceptual knowledge points to variability and fallibility. The ultimate truth is *a priori* not to be known by conceptual thought (the moment this would be the case, the knower would be placed outside the game). Absolute knowledge is unwarranted. Reason is not equipped to apprehend the absolute. Per definition limited by the conceptual framework of conventional thought, it can only ascertain by superimposing un-avoidable

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restrictions. It does not preclude the possible prehension of the absolute, but such intuitive, unsaying *gnosis* falls outside the domain of science.

*Regulæ* was preceded by two decades of study of the principles, norms, and maxims of acquiring conceptual knowledge.

Wim van den Dungen  
Brasschaat  
October 2020

'We are like sailors who have to rebuild their ship on the open sea, without ever being able to dismount it in dry-dock and reconstruct it from the best components.'

Neurath, O. : *Wissenschaftliche Weltauffassung, Sozialismus und Logischer Empirismus*, 1979, pp.41-42.

## Introduction to Criticism

In Kant's seminal works *Kritik der reinen Vernunft* (KRV, 1781), *Kritik der praktischen Vernunft* (1788) and *Kritik der Urteilskraft* (1790) the word "Kritik" or "critique," from which "criticism" was ultimately derived, refers to the Greek *κριτική* (*kritikē*), or "faculty of judgment," the cognitive activity of discerning. In critical epistemology, *critique* denotes *demarcation* (Popper). Generally speaking, to demarcate is to *draw a borderline* between two distinguishables. This specific case refers to the *distinction* between justified or valid knowledge and unjustified, false, or invalid knowledge. Insofar as critical epistemology defines the limitations of our conceptual knowledge, criticism may exceed this by entertaining a critical view on reality (critical realism) and/or the mind (critical idealism or critical mentalism). These perspectives and interests then inform the critical view of the world, keeping away from the extremes of dogmatism (confirming what is known) and skepticism (denying what is known).

As a word, "epistemology," from the Greek *ἐπιστήμη* (*epistēmē*), or "knowledge" and *λόγος* (*logos*), or "discourse," was first used in 1854 by the Scottish philosopher Ferrier, denoting that branch of philosophy concerned with the theory of knowledge. *Grosso modo*, it involved understanding how knowledge is acquired and how it can be justified, or validated, i.e., distinguished from invalid, false, spurious knowledge or, in contemporary parlance, "fake news." In the critical, neo-Kantian tradition established after Kant, epistemology explains *how conceptual knowledge is possible* and *how it can be advanced*. Here, asking about the possibility of such knowledge does not refer to the "context of discovery" (cf. an *ars inveniendi* à la Ramon Llull), but to Kant's *transcendental analysis*, critically laying bare *what, using concepts, we can know* and *what not*. The progress of conceptual knowledge points to its validation and production, where discovery indeed becomes pertinent.

Science and philosophy advance by way of *valid* conceptual knowledge and, for the sake of the profound *sense of truth*, informing them, purge themselves from invalid concepts.

The *sense* of truth states the pre-critical, pre-nominalist, pre-epistemological meaning of truth, rooted in the Greek *ἀλήθεια* (*aletheia*), translated as "truth," but also "unclosedness," "unconcealedness," or "disclosure," a denotation revived by Heidegger in the 20<sup>th</sup> century. For him, this "truth" was an *exposure* of how things primarily exist ; in other words, their "being" (or *Dasein*), a view which will be criticized later (§ 8).

Augustine (*Confessions*, XI/XIV, 17) sighed that the answer to the question, "What is time ?" was known to him as long as nobody posed it, but he did not know the response ... The same seems true regarding truth. Firstly, the truth of things (*veritas rerum*) is distinguished from the truth about the truth itself (*veritas veritatis*). Truth is not a "thing" like other things. The truth of things refers to the agreement of cognition with its object. The truth about truth is 'a general criterion of the truth of any and every kind of knowledge' (KRV, B82). Moreover, if asked about this truth of the truth itself, one has –to judge that this-or-that statement about it is true– to know in advance what the truth is, implying circularity. So the question, as Kant said, is 'absurd in itself,' and 'calls for an answer where there is no answer,' thus throwing disgrace on the questioner (KRV, B82).

The sense of truth tries to identify the simple, primitive, self-evident meaning of the truth (*materialiter*). The latter is to be distinguished from the logical meaning (*formaliter*), in which a proposition is true when corresponding with reality (cf. Thomas Aquinas' *veritas est adequatio intellectus et rei*, borrowed from the 10<sup>th</sup>-century philosopher Isaac Israeli's *Liber definitorum*) or with ideality (cf. Spinoza's *leges cogitandi sunt leges essendi*).

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Criticism limits itself to the *formal* meaning of truth, seeking a theory of truth explaining why propositions are valid or not. Seeking the sense of truth is moving beyond what is needed to justify propositions of fact. It is a metaphysical endeavor calling for modes of cognition beyond formal and critical thought, i.e., beyond reason, limited by conceptuality and discursiveness.

Epistemology is engrained in our need to understand the world, to grasp how we acquire conceptual knowledge we can uphold as valid *pro tem*. This intent did not start with the Greeks but can be traced back to Ancient Egypt. Humanity's strength precisely lies in this ability to try to know the world. This cognitive interest distinguishes us from the animals, devoid of a mentality enabling them to escape their opaque sense of the here and now. While cognition is millennia old, the capacity to understand *conceptual* cognition on its own terms is rather recent. In the West, before Kant, epistemology always had ontology as its root, not the other way round. One foremost sought to know *how things existed* before asking how this may be indeed the case. Criticism reverses this, asking first what we can know *before* making statements covering the totality of existence (ontology).

Since the beginning of sapiential thought in Ancient Egypt and philosophy in Ancient Greece, two sources of knowledge have been acknowledged : the five senses and the mind. In the West, sensate and mental activities have been plainly separated and at times opposed, placing the mental in another extra-sensuous category, a divide rooted in the Ionic difference between *φύσις* (*physis*) or "nature" and *νόμος* (*nomos*) or "law," and "social norms." In the East, as seen in Hinduism and Buddhism, the mental is deemed a sixth sense (*citta* in the *Yoga Sūtra*, the *mano vijñāna*, the 6<sup>th</sup> consciousness of Yogācāra, the Buddhist Yoga Practice School). Historically, the distinction has been exaggerated, reduced, or denied (eliminated).

Criticism seeks to draw the proper demarcations between sensate and mental objects, valid and invalid knowledge, science and metaphysics, and immanent and transcendent metaphysics. It upholds strict nominalism as a "middle way," thus avoiding idealist and realist ontological presuppositions.

In what follows, critical epistemology is introduced by pointing to pivotal waymarks in understanding how knowledge is possible. To do so, the division between pre-Kantian and post-Kantian is crucial. What happened before Kant will, therefore, be presented in terms of its bearing on criticism. Crucial here are Greek concept-realism, the Medieval battle over universals, and the "scandal" of the antinomies caused by opposing empiricist and rationalist answers to the question "What can I know?" Mainly Kant's answers to David Hume's rejection of causality, as well as Newton's law of gravity, are to be noted.

At the same time, the post-Kantian period is understood as the purging of Kant's system of its untenable tenets, like the monopoly of Euclidean geometry, the existence of synthetic judgments *a priori*, and the presence of quasi-causality (to initiate the material moment of the cognitive act), to name the central ones.

The reconstruction keeps the fundamental tenet of Kant's criticism intact, namely the decisive distinction between *phenomenon* and *noumenon*, in other words, the critical assertion that conceptual knowledge cannot grasp the things in themselves, recently reformulated as the theory-dependence of observation. It informs critical realism, perspectivism, and our contemporary scientific humility, ending the brontosauric view on science.

The study of post-Kantian criticism also involves the rediscovery of Kant at the end of the 19<sup>th</sup> century, and the rise of neo-Kantianism, indelibly influencing the theory of knowledge of the 20<sup>th</sup>-century.

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## § 1 Kemetic Ante-Rationality

Under “ante-rational” is understood all stages of cognition prior to formal and critical rationality or “reason” proper. In genetic epistemology (cf. § 11), these stages cover the earliest notions (myth), pre-concepts (pre-rationality), and concrete concepts (proto-rationality). Their unfoldment through time brings about a layered cognitive texture characterized by three primary strata : instinct, reason, and intuition.<sup>(1)</sup>

Ante-rationality is the “quasi-logic” of instinct, a cognitive process in which, at best, a sequence of concrete concepts is used abductively to solve practical issues. For the most time, the mind confounds its concepts (as in pre-rationality, linked to tribal mentalities), adheres to libido-driven mythical notions, and, at all times, is always bound to context, horizon, and perspective.

The three millennia of Ancient Egyptian civilization provide us with splendid examples of ante-rationality, including many different kinds of texts, counting those addressing the mind, speech, and how knowledge is gathered.<sup>(2)</sup> Of course, criticism is a reflection on the conditions of *formal* thought, utterly absent in Kemet. One cannot identify a direct influence of Egypt’s proto-epistemology on critical thought. Nevertheless, their concrete conceptuality does offer some interesting perspectives on the creative power of the mind, the origin of knowledge, and the question of the stability of existence.

‘It is a persistent, if no longer intentional, bias of Western thought that “serious” philosophy began with the Greeks. In the sense of philosophy as a science –a system of intellectual principles developed according to fixed rules of investigation– this is true. But in the broader sense of philosophy as a system of human thought it is, of course, erroneous. (...) The biological imagery provided the ancient Egyptians with a means of visualizing and



communicating basic concepts that are more familiar to us as abstract principles or the terms of an equation. To appreciate the true intellectual content of ancient thought, we have to look behind the images for the concepts those images are meant to convey.’ – Allen, J.P. : *Genesis in Egypt*, 1988, p.ix.

In Memphis, the city of the divine king, the god Ptah, represented the “great one.” In Memphite thought, he was the creator of the universe. He gave *form* to *matter* exclusively by using his divine mind and speech. This creative process happened in the ‘form’ or ‘image’ of Atum-Re as a sequence of events “on the tongue” (speech) and, concurrently, “in the heart” (mind) of Ptah. Atum-Re was the creative verb, image, scheme, or model used by Ptah to fashion everything. His function (and that of the other deities) was not denied but seen as an *outward* manifestation of the overseeing *cognitive activity* of Ptah. In the first Dynasty, the iconography of Ptah was already established in embryo. While the form deities took often changed over time, Ptah’s remained the same and stood for stability, continuity, fertility, and authoritative command, the main features of divine kingship. The creative power of mind and speech was crucial, informing how knowledge was gathered and answering why existence did not collapse upon itself.

‘Along with the Sumerians, the Egyptians deliver our earliest –though by no means primitive– evidence of human thought. It is thus appropriate to characterize Egyptian thought as the beginning of philosophy. As far back as the third millennium BCE, the Egyptians were concerned with questions that return in later European philosophy and that remain unanswered even today – questions about being and nonbeing, about the meaning of death, about the nature of the cosmos and man, about the essence of time, about the basis of human society and the legitimation of power.’ – Hornung, E. : *Idea into Image*, 1992, p.13.

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Amidst the cycles of the natural processes, in particular, the vital yearly inundation of the Nile, Ancient Egyptians sought a *stable* ground to satisfy the instinctive human want for regularity, continuity, and permanency, for theirs was an everchanging landscape. They witnessed the rising and setting of the Sun, the planets, and the stars of the Milky Way, as well as most ongoing agricultural and natural occurrences. The stars circling the Polar Star (the circumpolar "imperishables" never rise or set) represented eternal, enduring reference points in an otherwise continually shifting world. These stars were the heavenly abode of the immortal deities, viewed as luminous and capable spirits (or *akhs*). While their radiant essences forever remained in the sky, their operational principles (their *kas*, or doubles, and *bas*, or souls) were able to *descend* and *interact* with the world of the living. In this way, they could bring a "good Nile," inhabit the cult-statues of the gods and goddesses, "eat" from the offerings, or, in the case of the deceased, interact with the living through the "false door" of their well-provided mortuary temple.

This transparent, smooth divide between, on the one hand, an eternal and permanent spiritual core (*akh*), and, on the other hand, an ever-changing, transient, mortal, and impermanent natural world (assisted by doubles and souls), so consistent with the African approach of society,<sup>(3)</sup> life, and death, prefigures the much later Hellenistic separations of Olympus and the mortals, the world of ideas and the world of becoming, contemplation and action.

'Ancient Egyptian civilization was founded on the continent of Africa and it was an African civilization. It would be odd indeed to imagine that a civilization such as that of the Ancient Egyptians lived in isolation and did not have relations with other groups. Ancient Egyptians should not be studied as if they lived on an island on the continent of Africa with the rest of Africa being a Dark Continent.' – O'Connor, D. & Reid, A. : *Ancient Egypt in Africa*, 2003, p.91.

In ca. 710 BCE, the black Kushite king Shabaka (XXV<sup>th</sup> dynasty, early 8<sup>th</sup>-century BCE) ordered a papyrus roll inscribed with a Middle Egyptian hieroglyphic text to be carved in "green breccia" (basalt). Later used as a nether millstone, today known as the "Shabaka Stone" (British Museum 498).

The oldest hermeneutical layer of this damaged text may well go back to the V<sup>th</sup> and VI<sup>th</sup> Dynasties of the Old Kingdom (ca. 2378 – 2205 BCE), while the *extant text* is a composition of the XXV<sup>th</sup> Dynasty, in all likelihood copied from a lost, "worm-eaten" Late New Kingdom original (ca. 1188 – 1075 BCE). This remarkable document contains the core of Memphite thought, the so-called "Memphis Theology," associated with divine\* kingship.<sup>(4)</sup>

The *Memphis Theology* : '... contains the theological, cosmological and philosophical views of the Egyptians. (...) Just as the Memphite Theology is the source of Greek philosophy or primitive science, so it is also the basis of modern scientific belief.' – James, G.G.M. : *Stolen Legacy*, 1992, pp.139, and 145.

Being a stela, it has a written surface of 132 by 68.8 cm, consisting of 3 inscribed horizontal rows (LINES 1, 2, and 48) and 61 columns carved into the obstinate stone with copper chisels (some columns contain scribal voids, while LINE 5 is empty).

A rectangular squarish hole of 12 cm by 14 cm is cut deep into the stone in the center, out of which eleven rough channels or stripes in the length of 25 to 38 cm radiate as a result of ignorant disregard in post-Pharaonic times, when it was probably used as a nether millstone or as a foundation stone. The scribal voids may refer to the damaged original Shabaka found ; namely, the outermost edge of a scroll rolled open from left to right.

(\* ) ante-rational conceptualizations of the divine are never capitalized : "divine," "deity," "god," "goddess," "pantheon," etc.

In terms *preceding* Greek abstract rationality proper, this theology understands the artisan-god Ptah to create all things with his mind (heart) and speech (tongue). Although not yet a full-blown Greek *logos*, Ptah's mind pre-exists his creations as a luminous spirit (*akh*).



'There comes into being in mind.  
There comes into being by the  
tongue. (It is) as the image of Atum.

Ptah is the very great who gives life  
to all the gods and their *Kas*. Lo,  
through this mind and by this  
tongue.'

*Shabaka Stone* : LINE 53  
(hieroglyphs in grey are reconstructed)

Frankfort remarks : 'We know from numerous other texts that "heart" stands for "intellect," "mind," and even "spirit." The "tongue" is realizing thought ; it translates concepts into actuality using "Hu" – authoritative utterance. We must then read these passages as the true Egyptian equivalent of John's "In the beginning was the Word, and the Word was with God, and the Word was God."' – Frankfort, H. : *Kingship and the Gods*, 1978, p.29.

For Breasted, 'The above conception of the world forms quite a sufficient basis for suggesting that the later notions of *nous* and *logos*, hitherto supposed to have been introduced into Egypt from abroad at a much later date, were present at this early period. Thus, the Greek tradition of the origin of their philosophy in Egypt undoubtedly contains more of the truth than has in recent years been conceded. (...) The habit, later so prevalent among the Greeks, of interpreting philosophically the functions and relations of the Egyptian gods (...) has already begun in Egypt before the earliest Greek philosophers were born ;

and it is not impossible that the Greek practice of the interpretations of their own gods received its first impulse from Egypt.' – Breasted, J.H. : *The Philosophy of a Memphite Priest*, 1901, p.54.



### Nu

The Egyptian word *Nu*, with the determinative for "action with the eyes," is possibly the supposed origin of the Greek word *νοῦς* (*noûs*), or "mind" and also "perception, sense, to keep guard over, to watch, to tend, intention, care for something, shepherd, guide, reason, purpose, design."

Although part of the dynamic processes of nature, identified as *ka* (vital power) and *ba* (dynamical power),<sup>(5)</sup> Ptah also transcends this activity without moving *outside* the order of creation. He primarily exists as an *akh*, a luminous, active, eternal essence. As Atum, he co-exists with the Nun, the primordial sea of pre-creation. The god of artisans and making things (creating, generating, bringing about, going out) has a divine substance or essence (*akh*) remaining fixed and remote while participating in the constantly changing forms of nature by way of his *bas* and *kas*.

The godform of Ptah, "as the image of Atum," has an unchanging luminous core (*akh*) amidst various patterns of change. This spiritual existence prefigures the Greek concept of "substantial Being" or *ousia*, of substance and accident. For Hare, 'The Memphite Theology is, undeniably, a remarkable document, and it clearly ascribes an intellectual and volitional motive to creation, with a focus

on the heart or mind of the creator and the manifestation of thought in language and material reality.’ – Hare, T. : *Remembering Osiris*, 1999, pp.178-179.

In the ante-rational Egyptian mind, the essence of this godform (*akh* or spirit) always remained in heaven (*pet*). At the same time, its vital and ascending embodiments (*ka* and *ba*) could be ritualistically summoned by the divine king and his (high) priests. This essence of Ptah existed as the best of nature, separate and self-powered (as divine substances or divine essences on their own).

The simultaneity of the mental (subjective, mind) and material (objective, speech) sides of the creative (generative) cognitive process of Ptah is indicated by the use of symmetrical hieroglyphic writing at the beginning of the *logos* passage. It is also shown by the symmetry between “heart” (mind) and “tongue” (speech). The heart (*ib* or mind) of Ptah is not a Greek *nous* or *logos* devoid of context, i.e., an abstract Divine (Platonic) Mind. It is too early for that. Instead, the contents of the mind (the divine words) simultaneously *move* his tongue. Formal and material poles come together in Ptah’s *continuous actions*, the overseeing “Great Throne” of Ptah. This “Great Speech” of Ptah produces all physical structures.

Earlier, in the *Pyramid Texts*, we read :



‘Indeed, the lips of the king are as the Two Enneads. This king is the Great Speech.’ – *Pyramid Texts*, 506 (§ 1100).

‘The active engagement of the participants on earth consisted in large part of *the correct enunciation of words*. (...) These words were doubtless uttered in the company

of ritual actions, and required prescribed material ingredients such as incense to sanctify the ritual environment. Nevertheless, the primary offering to the sun god was not the great table of food and drink offerings, which he also received, but the word, and above all the deified Egyptian word Maat "What is Right." – Quirke, S : *The Cult of Ra*, 2001, p.41, my italics.

The earliest *Pyramid Texts* (cf. *Renewal and Ascension*, 2019) evidence the bond between understanding (*sia*), authoritative speech (*hu*), and magical executive power (*heka*). The divine king, first as "Follower of Horus" and later as the sole "son of Re," was the only *akh* or spirit incarnated on Earth. What he thought, he said, and thus it happened. The mental process suggested here is proto-rational, aiming at establishing a solid case for *ongoing creative speech* and the ontic supremacy of Ptah as "very great." This while allowing, consistent with henotheism, other creative deities like Atum-Re, Thoth, and Osiris to exist as such "in" or "as" Ptah.

'For such "creative speech" turns each divine word into the *causa materialis*, *causa formalis* and *causa movens* of an element of creation all in one.' – Frankfort, H. : *Kingship and the Gods*, 1978, p.29.

In Memphite thought, the impact of mind and speech on both ontology and epistemology is made clear in ante-rational terms.

On the one hand, this is an idealism *avant la lettre*, i.e., a proposal in which the creative and constructivist power of thought and its proper articulation (cf. the "good discourse" of Ptahhotep – *The Egyptian Gentleman*, 2017) are put forward (the object constituted by the subject). To conceive something is *to set in motion (ba) and thereby generate structures determining reality (ka)*. Such ontological idealism is pre-Platonic and cosmogonic but exemplifies the importance of (divine) cogitation, both in

terms of understanding (*sia*), authoritative utterance (*hu*), and direct, uninterrupted magical action (*heka*). On the other hand, this theology underlines, in a realistic fashion, the importance of working with a *material medium* and with *perception*. The senses bring their information *before* the mind so the latter may *decide*.



'The sight of the eyes, the hearing of the ears, and the breathing of air through the nose, these transmit to the mind, which brings forth every decision. Indeed, the tongue thence repeats what is in front of the heart. Thus was given birth to all the gods. His (Ptah's) Ennead was completed. Lo, every word of the god (Ptah) came into being through the thoughts in the heart and the command by the tongue.' – *Memphis Theology*, 56-57.

So, although Ancient Egypt did not articulate an abstract, formal definition of how we acquire what we know and how we know what we know, they did understand the importance of the senses and the organization of this material by the mind. Object, subject, matter, and mind are distinguished using the logic of myth, pre-rationality, and proto-rationality. In the latter, thought is always irreversibly limited by context and circumstance. It is concrete, abductive, and palimpsestic.

The process of obtaining knowledge, starting with what the senses have to offer, is identified. The data thus received by the mind (*ib* – heart) are dealt with and "understood" (*sia*), and this results in authoritative speech (*hu*). The latter always implied writing, for what was uttered by any authority – in fact speaking for the divine king (the "great



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house," *per aa*) – was, to be effective (*heka*), written down in sacred signs (hieroglyphs). Of course, no abstract exposition of this process was made. Still, the concrete components of the operation are available : the senses, the reporting mind, and the recorded speech act are on stage. It is not so that the activity of the mind is only approached with mythical notions or pre-conceptual psychomorphism, as is often claimed by those cherishing Hellenocentrism, considering all possible pre-Greek sapiential thought as inexistent.

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The *Memphis Theology* is the earliest articulation of concrete concepts assisting in acquiring knowledge. Mind (thought) and speech (language) are co-extensive. When the gods think (*sia*), they say (*hu*), and it happens (*heka*). With the *logos* section, the Memphites underlined the creative, constructive power of non-abstract thought. The mind is an artisan, a power to build, erect, manifest the beautiful forms existing in the mind of the sole god with a human face (Ptah).

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'But we have found on closer inspection of the evidence that the ancients' adherence to quasi-contradictory opinions was not due to any inability on their part to think clearly, but to their habit of using several separate avenues of approach to subjects of a problematic nature. They did justice to the complexity of a problem by allowing a *variety of partial solutions, each of which was valid for a given approach to the central problem.*' – Frankfort, H. : *Ancient Egyptian Religion*, 1961, pp.91-92, my italics.

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The importance of the senses is found in Democritus. The organizing power of the mind is part of the message of the *Two Ways* of Parmenides. Sometime later, Plato, inspired by Socrates, claims that he who knows the truth acts accordingly, reminiscent of the relationship between *sia*, *hu*, and *heka*. Finally, Aristotle's epistemology, starting with sensuous contact and ending with the concept, reminds us of what we read above.

The difference here is that in Ancient Egypt, the result is a *concrete* concept. By contrast, Greek concept-realism ends the process of acquiring knowledge by attaining an *abstract* concept, symbolizing the eternal essence of the object known (cf. § 3). It brings us to the significant difference between Kemetic thought and Greek concept-realism. While the former always depends *on the context* at hand, the latter seeks to formulate an abstract, *universal* truth in formal terms, allowing the elaboration of a system of abstract concepts, i.e., theoretical activity, for the first time in human history.

The latter was unknown to Kemet.

For example, when the word '*netjer*' (*ntr* – god) appears in a Memphite text, the god Ptah is meant. In a Theban text, this would be Amun, and in a Heliopolitan text, this would be Atum-Re. There is no 'universal' solution, no 'abstract' or 'theoretical' view on 'God.'

The speculations of Kemet always remained limited by their local horizon.

## § 2 Backgrounds of the Greek Miracle

The term "Greek Miracle" refers to what happened in Pre-Socratic Ionia around the 6th-century BCE, at times called the "birth of humanism and natural philosophy." The world was finally understood as *a natural phenomenon*. Deities or other supernatural entities used before to explain the world were out. Grasping reality was done through formal, abstract reason examining natural phenomena, an approach flourishing in the Classical period, and its outstanding works of art, literature, history, science, and philosophy. After Alexander the Great, this Greek tradition spread widely, forming the Hellenistic Era, giving birth to mathematics, physics, grammar, philology, and other sciences. Before entering the subject itself, namely the relevance of Greek thought on criticism, a historical outlook on the stages of Ancient Greek history helps understand the antecedents of this "miracle."

Ancient Greek history may be divided into five stages :

1. Neolithic Age (7000 – 2600 BCE) : settlements of farmers on the isle of Crete and mainland Greece ;
2. Bronze Age (2600 – 1100 BCE) : the Bronze Age, starting with the arrival of peaceful immigrants on Crete, divides into two stages :

a) Minoan : This culture was palace-based. Between ca. 2600 and 1600 BCE, no Greek influence was present on the island. The Minoans reached their zenith between ca. 1730 and 1500 (the *Pax Minoica*).

Two scripts are attested, namely a kind of hieroglyphics (not yet deciphered) and Linear A. The latter was nearly always used for administrative purposes (the count of peoples and objects). The last phase of the Minoan neopalatial civilization was characterized by Mycenaean influence (i.e., after ca. 1600 BCE).

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b) Mycenaean : initiated ca. 1600 BCE, the culture of these Greek-speaking people spread over mainland Greece and reached Crete. It was strongly influenced by Minoan protopalatial (ending with the destruction of ca. 1730 BCE) and neopalatial culture but remained loyal to its Greek character. Eventually, they conquered Crete (ca. 1450 BCE) and caused the elaboration of Greek Linear B based on Cretan Linear A, which is not a Greek language as evidenced by the few tablets found in Linear A (for example, the word for "total" –often used in administrative texts– cannot be understood as the archaic matrix of a Greek word).

c) Minoan and Mycenaean cultures interpenetrated : before 1600 BCE, Crete had directly influenced the formation of Early Helladic Greece but was itself non-Greek (Linear A). After 1450 BCE, Mycenaean Greece took over Minoan culture on Crete and Greek Linear B (translated by Venturris in 1953) was used by the Minoan treasury of Crete in the postpalatial period.

3. Dark Age (1100 – 750 BCE) : Dorian Greece, pushing Greek culture a step back ;
4. Archaic Age (750 – 478 BCE) : Greek culture re-emerging ;
5. Classical Age (478 – 323 BCE) : the *polis* and the emergence of classical, conceptual rationalism with its concept-realism.

Greek concept-realism would reshape the world. Its rise heralds the end of the "mind of Antiquity," always immersed in contextualizing ante-rationalism. The Greeks, who loved to explore new horizons, were the first to introduce a decontextualized view, reflected in the ability to elaborate abstract concepts. It is this concept-realism which is of crucial importance to understand criticism, for the latter directs its arrows at the essentialism lying at its core, the idea a concept can grasp the substantial core or essence or εἶδος (*eidos*) of whatever it represents.

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Philosophy and science have been acclaimed to be the most original contributions of the Greeks to the intellectual tradition of the world. Both disciplines are based on the idea that concepts can be used to subsume phenomena. These "theoretical" or "abstract" concepts are then manipulated, and the outcome is used to understand and operate the phenomena "covered."

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Although no single origin is given, the following formative components facilitating the "Greek miracle" pertain :

1. *the Minoan factor* : non-Greek, Linear A civilization strongly influenced the Greek mainland and the Greeks arriving there between ca. 1900 and 2100 BCE – the differences between Minoan and Indo-European mythology are considerable, whereas, at some point, early Minoan Crete was influenced by Ancient Egypt ;

2. *the Mycenaean factor* : this Greek civilization was first influenced by Crete and would eventually conquer the island and recast Linear A (no vowels) into Linear B (syllabic). Although there are no direct sources available, evidence suggests the presence of (a) an original Greek Pantheon (with a focus on the sky god) and (b) an organized society. Traces of the typical "philosophical" questions posed by the Ionians have not been found. However, the stern, linear, and fortified constructions of these Greeks and their grim, shadowy funerary expectations suggest the discontent and martial attitudes of the Classical Greeks (thought as crisis and catastrophe), starkly contrasting with both Cretan myth and Egyptian thought.

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3. *Third Intermediate Period Egyptians* : although the "Age of Empire" (the New Kingdom) was over, Egypt stood, ca. 1075 BCE, in comparison with other nations, still at such a high point of cultural development that its decline took another millennium, during which time Egypt continued to be outstanding and inspiring. The Ptolemaic kings erected most of the Egyptian temples we can visit today. The marvel of its temples and the erudition of its priests astonished the Greeks, who quickly "approved" these insights to readapt them to their linear mentality ;

4. *Mediterranean cultural formations*: the Phoenicians, Babylonians, Hittites, Jews, etc., also influenced the Greek travelers, but the affiliation *qua philosophical intent* was not as marked as the Egyptian influence.

By the end of the Dark Age (ca. 750 BCE), the Greek cultural form had already acquired persistent "Aryan," Indo-European features of its own. Although mythical, they were outstanding enough to leave archaeological traces. The Greek mentality had been around before the collapse of the *Pax Minoica* (in ca. 1530 BCE, the Thera volcano on Santorini erupted) and at least emerged at the beginning of the Mycenaean Age (ca. 1600 BCE).

These Myceneans were Helladic warlords entertaining an active commercial economy and a high level of mostly imported craftsmanship.

They had *tholos* burials with their dome-shaped burial-chambers. Their palaces followed the architectural style of Crete, although their structure was more straightforward. Their Linear B texts reveal the names of certain gods of the later Greek Pantheon : Hera, Poseidon, Zeus, Ares, and perhaps Dionysius. There are no extant theological treatises, hymns, or short texts on ritual objects (as was the case in Crete). Their impressive tombs indicate their funerary cult was more developed than the Minoan, and in the course of their history, outstanding features ensued.

Despite the Dorian devastations and their obliterating and repressing effects, these factors persisted :

1. *linearization* : Mycenaean *megaron*, geometrical designs, mathematical form, *peripteros* ;
2. *anthropocentrism* : warrior leaders, individual aristocrats, poets, *sophoi*, and teachers ;
3. *fixed vowels* : the real sound is written down and transmitted ;
4. *dialogical mentality* : the Archaic Greeks enjoyed talking, writing, and discussing ;
5. *undogmatic religion* : these Greeks had no sacred books and hence no dogmatic orthodoxy ;
6. *cultural affirmation* : they were a "young" people who needed to affirm their identity ;
7. *cultural approbation and improvement* : they were eager to learn.

The Egyptian sage (*saa*) never relinquished the religious. The divine was a given and speculative thought, at all times, an expression of the deity. Although profound, remarkable, and vitalizing, Egyptian philosophy remained contextualized and defined by a "milieu" it could not escape. Exceptional individuals, like Akhenaten, may have had access to formal thought. The Ramesside *Hymns to Amun* and the *Memphis Theology* also reveal this. Although more than one aspect of Egyptian thought, like the virtual adverb clause<sup>(6)</sup> and its pan-en-theist henotheism, may assist speculative naturalism, no *systematic* approach of wisdom is present.

The Indo-European mentality of the Archaic Greeks differed from the African tradition (of which Ancient Egyptian thought was the best example). Between ca. 750 and 600 BCE, their city-states were built hand in hand with the rise in power of the non-aristocrats, allying themselves with frustrated noble families and putting the hereditary principle under pressure. The leitmotifs of this age are discovery (literal and figural) and the process of settlement

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and codification. In some towns, a leisure economy ensued, and with it, free time to speculate. The mentality of the Greeks (prefigured in the rigid Mycenaean *megaron*, as well as in the intricate geometrical design of Dorian pottery) was stern, courageous, young, and geometrizing. However, just like the rigid Myceneans had been fascinated by Minoan Crete and its "African" natural scenery, the Archaic Greeks were awestricken by the formidable grandeur of Egyptian culture. One should take their insistence on this seriously. There was more than intellectual opportunism at work here. Of course, as Indo-Europeans, the Archaic Greeks had typical features of their own :

1. *individuality / authority* : at the beginning of the Archaic Age, there was a "crisis of sovereignty" (Vernant, 1962). It implied a new political problem : Who should rule and by what authority ? The collapse of the Mycenaean palace civilization was followed by returning to the small tribal organization (*ethnos*). This tension between individuality and social unity is fundamental to understand Greek philosophy (culminating in the judgment of Socrates). The view an individual had the right to rule by virtue of divine lineage was undermined. Heroic individualism was slowly replaced by an *egalitarian* ideal, in which archaic aristocratic authority was challenged.

The building of temples became a good "argument" to appropriate civic authority. It helped keep control of the economic power of the landowners, the aristocrats. They secured their claim by drawing a particular connection between themselves and a given deity and integrated the divergent factions of the community through the regularity of worship.

This swing of the pendulum between the particularism of the aristocrats and the egalitarianism of the democrats remained a core ingredient of Greek culture, which would also animate the Classical Greek *polis* ;



2. *exploring mentality* : at the beginning of the Archaic Age, the population quadrupled, and citizenship was increasingly connected with land ownership, triggering competition for land, which motivated colonization. However, besides these external causes, the fact remains that the Greeks were a curious people, always eager to learn more by approving new ideas and linearizing them according to their abstract frame of mind. The dynamic nature of the Greek cultural form assisted a decontextual approach (while in Egypt, a sedentary mentality reigned) ;

3. *unique dynamical script* : the importance of their new writing system should not be underestimated : by fixating the vowels, the Greeks could describe a state of affairs with a precision no other script of Antiquity possessed. This referential, objective linguistic capacity enabled them to communicate through writing with more ease, precision, and objective validity ;

4. *linearizing, geometrizing mentality* : proportion, spatial organization, measurement, number, cyclical processes, etc., "reveal" the structure, form, order, organization of the cosmos. Numbers were more than practical tools to categorize, for they reflect the genuine, authentic, essential features of any object. A number never stands alone, for it entertains numerous fixed mathematical relationships with other numbers and spatial characteristics. These are described in general, universal, abstract terms (*theoria*), to be distinguished from their particular, local, concrete applications in architecture, sculpture, poetry, etc. (*technē*) ;

5. *anthropomorphic theology* : deities had a human face, and in the Mycenaean age, they were at times combined in one cult. At the beginning of the Archaic Age, the Pantheon was systematized by Homer and Hesiod. Each deity received its task (as in human society). However, the Greek religion was undogmatic, for no sacred texts existed (as in Egypt).

Xenophanes (ca. 570 – ca. 475 BCE), among others, was critical of Greek anthropomorphic and anthropocentric polytheism, instead proposing One Supreme God who was unlike anything human. Typical for Greek soteriology (salvic theory) is the insistence that the human soul had to liberate itself from the physical body through purification (cf. *ascesis* in Orphism) or somehow trigger its own release (cf. *katharsis* and *ekstasis* in the Dionysian cult). Most major Greek emancipatory theories will return to this and understand the body as the “prison of the soul” (cf. Plato and Plotinus). This would become the cornerstone of the Greek Mysteries, as opposed to the Egyptian approach.

The Greek philosophical mentality had unique features reflected in their language. Although they played no meaningful role in forming their alphabet, they added a crucial dimension : *the five vowels*. Indeed, Phoenician, Aramaic, and Hebrew used the Semitic alphabet. It consisted of 22 letters, written from right to left, with only consonants. Semitic languages remained written from right to left, while archaic Greek inscriptions had both directions before fixating the opposite direction (from left to right).

Moreover, the order of the letters was also fundamentally Phoenician, and the Hebrew meaning given to the individual letters corresponded with the Greek name for the letter : *aleph / alpha* (ox), *beth / bèta* (house), *gimel / gamma* (camel), *daleth / delta* (door), *he / epsilon* (window), *vau / upsilon* (nail), *zain / zèta* (sword), *cheth / èta* (fence), *teth / thèta* (serpent), *yod / iota* (hand), *kaph / kappa* (hollow hand), *lamed / lambda* (ox-goat), *mem / mu* (water), *nun / nu* (fish), *sameth / xi* (prop), *ayin / omicron* (eye), *pe / pi* (mouth), *tzaddi* (fishhook), *qoph* (back of hand), *resh / rho* (head), *shin / sigma* (tooth), *tau / tau* (cross-mark). Seven Phoenician consonants (cf. *phoinikeia grammata*, the “Phoenician letters”) were unnecessary in Greek (identified by their Hebrew names): *aleph*, *he*, *vau*, *yod*, *ayin*, *tzaddi*, and *qoph*.

These were used to represent the vowels. The consonants *tzaddi* and *qoph* were dropped. The *aleph* was used for "a," the *he* was used for "e," the *vau* was used for "u," the *yod* was used for "i," and the *ayin* was used for "o." Finally, they added four Greek sounds : the *phi*, for "ph," the *chi*, for "ch," the *psi*, for "ps," and the *omega* for "oo."

This alphabetic system provided the Greeks ca. 750 BCE with seven vowel sounds : "a," "e," "ee," "i," "o," "oo," and "u." The complete alphabet ensued : (a) *alpha*, (b) *bèta*, (g) *gamma*, (d) *delta*, (e) *epsilon*, (z) *zèta*, (è) *èta*, (th) *thèta*, (i or j) *iota*, (k) *kappa*, (l) *lambda*, (m) *mu*, (n) *nu*, (x) *xi*, (o) *omicron*, (p) *pi*, (r) *rho*, (s) *sigma*, (t) *tau*, (u) *upsilon*, (f or ph) *phi*, (ch) *chi*, (ps), *psi* and (oo) *omega*.

In ancient Semitic languages, vowels were omitted. Even in Ancient Egyptian, only the *consonantal structure* was recorded. Vowels are dynamic and constitute the variety of a script, and their adaptability to concrete situations like gender, number, and measurements is pertinent. In Linear B, vowels (a and o) were used to define gender and were recorded. By adding vowels to their alphabet, the Archaic Greeks allowed the written language *to reflect the spoken one*. In this way, the written text seemed *a fixating copy of the concrete, living situation* (in Egypt, the difference between the spoken word and the "sacred" glyphs was considerable). Thanks to vowels, the event could be *more accurately recorded* and made present *in abstracto* as text. Hence, Greek cultural forms could be transmitted with more precision, which triggered the formation of a "historical memory" based on records deemed to reflect the past *as it was* (devoid of the ante-rational connotations and contexts needed to decipher non-voweled texts). Literacy meant thus much more than access to the sacred (as in Egypt). By writing down their language using a vowelized alphabet, the Greeks could *captive and describe the living context, so the text better represented the real or ideal thing*.

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To bind vowels fits well the linearizing and defining intent of the Greek mind. In Mycenæan Linear B, the system was still syllabic, joining each vowel with a consonant. In Cretan Linear A, the pictogram ruled, but the phonetic value might have been present. However, Linear B offered a clear advantage : it was sound-based and fixated the vowels, though not absolutely.

With the adaptation of the Phoenician script at the beginning of the Archaic Age, the Greeks took a *fundamental cognitive step forward*. They eliminated the exclusive consonants, identifying each vowel with an alphabetic sign of its own !

One may link the ante-rational evolution of cognition in Ancient Greece with these various scripts :

1. hieroglyphic script : the mythical mode : loose pictograms on Crete ;
2. Linear A : the mythical mode : pictorial system ;
3. Linear B : the pre-rational mode : syllabic system with relatively fixed vowels ;
4. Archaic Greek : the proto-rational mode : alphabetic system with fixed vowels.

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The fixation of the Greek vowels in an absolute, phonographic sense allowed the Greeks to define categories remaining outside the scope of any other script of Antiquity. The vowels could write down gender, verbal inflections, and suffixes, making the language fluid. Suddenly, about 750 BCE, the Greeks had an excellent tool to define meaning with unprecedented precision and clarity, adapted to the spoken tongue.

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At the beginning of recorded Greek literature stand two great epic stories, the *Iliad* and the *Odyssey*, attributed to Homer, and the works of Hesiod, like the *Theogony*. Some features of the Homeric poems reach far into the Mycenaean age, perhaps as far as 1500 BCE, but the written works are traditionally ascribed to Homer.

In their present form, they probably date to the 8<sup>th</sup>-century (recorded ca. 750 BCE). The elaborated compositional framework evidenced in these masterpieces proves the existence of an oral tradition. Implicit references to Homer and quotations from the poems date to the middle of the 7<sup>th</sup>-century BCE. Archilochus, Alcman, Tyrtaeus, and Callinus in the 7<sup>th</sup>-century and Sappho and others in the early 6<sup>th</sup>-century adapted Homeric phraseology and meter to their own purposes and rhythms. At the same time, scenes from the epics became popular in works of art. The pseudo-Homeric *Hymn to Apollo of Delos*, probably of late 7<sup>th</sup>-century composition, claimed to be the work of "a blind man who dwells in rugged Chios," a reference to a tradition about Homer himself.

That Homer was a native of Ionia (the central part of the western seaboard of Asia Minor) seems a reasonable conjecture. The poems themselves are predominantly in the Ionic dialect. Although Smyrna and Chios began competing for the honor, and others joined in, no authenticated local memory survived anywhere of someone who, oral poet or not, must have been remarkable in his time ...

With Hesiod, the farmer-poet from Ascra, apparently of the 8<sup>th</sup>-century BCE, described as a forerunner of the Pre-Socratics, we encounter a lay poet taking upon himself the task of systematizing myth.

He saw the world as a messy, confusing, chaotic place where the only hope lay in the hands of the Pantheon, one's fellow men, and natural factors around him. The barely

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controllable essence of the world springs to the fore. Brute necessity is more critical than Homeric ideals, and the individual emerges desperately out of the collective. Here grim might is right. Zeus, however, has the gift of justice or *Δίκη* (*dikē*), and crime does not pay.

Hesiod stands midway between Homer and the Milesians.

The use of leather, combined with a sea climate, makes it unlikely to discover original Mycenaean texts. The Linear B tablets found survived because of catastrophic fires that destroyed the buildings they were stored in (for the original were Sun-dried). The Myceneans and Dorians likely transmitted the bulk of Homeric and Hesiodic ideas orally. It starkly contrasts with Ancient Egyptian literature. The desert, the sacrality of writing, and the use of stone to record made it possible to possess a vast *corpus* of original texts.

Unfortunately, in Archaic Greek literature, these conditions did not exist.