
**Augustin Berque**

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As noted in the acknowledgments, “this volume originated in a conference on ‘Understanding Nature in China and Europe until the Eighteenth Century: A Cross-Cultural Project’, held in the city of Rheine in Westphalia, Germany, from March 22 to 25, 2000” (p. vii). It gathers together 17 articles by 15 authors, under the editorship of a sinologist (Hans Ulrich Vogel, University of Tübingen) and a philosopher and sociologist (Günter Dux, University of Freiburg), with a considerable help from another sinologist (Mark Elvin, Australian National University at Canberra), who contributes a substantial overview (pp. 1-55) and a synopsis of each contribution (pp. 56-101). Thus, added to his own chapter (pp. 400-468), Elvin alone writes nearly one third of this huge collective work.

The following themes are addressed in the book: “The Genesis of Philosophy in the History of Mind: A Cross-Cultural Comparison between Classical Greece and China” (Günter Dux); “The Universe as Cosmos: On the Ontology of the Greek World Image” (Julián Pacho); “The Notion of Causality in Aristotle and the Medieval Philosophy of Nature: A Developmental Approach” (Ulrich Wenzel); “Cosmology and Concepts of Nature in Traditional China” (John B. Henderson); “On Nature and Culture in Zhou China” (Heiner Roetz); “Towards a Conceptual History of Some Concepts of Nature in Classical Chinese: zi ran 自然 and zi ran zhi li 自然之理” (Christoph Harbsmeier); “Mathematics, Nature and Cosmological Inquiry in Traditional China” (Karine Chemla); “When Shen Gua Encountered the ‘Natural World’: A Preliminary Discussion on the Mengxi bitan and the Concept of Nature” (Fu Daitie); “Becoming Acquainted with Nature from the Odes: Sidelights on the Study of Flora and Fauna in Song Dynasty’s Shi jing 詩經 (Classic of Odes) Scholarship” (Achim Mittag);
“Concepts of Nature in Traditional Chinese Materia Medica and Botany (Sixteenth to Seventeenth Century)” (Georges Métailié); “The Investigation of Things (gewu 格物), Natural Studies (gezhixue 格致學), and Evidential Studies (kaozhengxue 考證學) in Late Imperial China (1600-1800)” (Benjamin A. Elman); “Personal Luck: Why Premodern China—probably—did not Develop Probabilistic Thinking” (Mark Elvin); “‘That Which Soaks and Descends Becomes Salty’: The Concept of Nature in Traditional Chinese Salt Production” (Hans Ulrich Vogel); “The Myriad Things: Random Thoughts on Nature in China and the West” (Wolfgang Kubin); “On the Relationship between Man and Nature in China” (Helwig Schmidt-Glintzer).

Needless to say, discussing all of this variegated, and often extremely detailed material is beyond the scope of a single book review. I will concentrate, therefore, on some general ideas. First of all, let us render thanks to the three editors for having gathered and organized such rich reflexions on the cross-cultural analysis of the concept of nature. In the last quarter of a century or so, there have been many international conferences comparing the conceptions of nature (ziran guan 自然観) in the East and in the West, but seldom has the matter been explored so methodically. This work without doubt serves as a reference book on the question of nature in China (clearly more than in Europe), both for its texts and for the huge amount of bibliographical data concluding most of the chapters (e.g. 136 titles in Vogel’s).

Let us also thank Elvin for having written such a balanced synthesis of all that material, overcoming the inevitable discrepancies between nearly a score of different points of view on the cross-cultural analysis of the concept of nature. In the last quarter of a century or so, there have been many international conferences comparing the conceptions of nature (ziran guan 自然観) in the East and in the West, but seldom has the matter been explored so methodically. This work without doubt serves as a reference book on the question of nature in China (clearly more than in Europe), both for its texts and for the huge amount of bibliographical data concluding most of the chapters (e.g. 136 titles in Vogel’s).

First of all, the choice of historical period, ending in the eighteenth century, is intended of course to limit the question to within a time frame when the European mode of relating to nature had not yet overwhelmed, in the form of the industrialized world, all the other modes, including traditional European ones. Before the industrial revolution, indeed, China and Europe might be compared more fairly, and, as is well known, this comparison might advantage China more often than the reverse. Accordingly, for the sake of comparison, there are good reasons for having excluded the nineteenth and twentieth centuries. Yet, what had been going on before 1800 is precisely that which explains what happened later. This is particularly the case for the scientific revolution, which took place in Europe in the seventeenth century, and without which—at least to my mind—the industrial revolution would not have been possible.
This is certainly a controversial point, one that the book does not delve into systematically enough. For sure, many of the articles give us precious clues about the lack of a really scientific (in the modern Western sense) approach to natural phenomena in China; this is, for example, clearly expressed by the very title of Vogel’s article. Yet, this does not amount to a direct discussion. On the whole, this lack of a direct appraisal of the scientific revolution reminds one of Kenneth Pomeranz’ *The Great Divergence: China, Europe and the Making of the Modern World Economy* (Princeton University Press, 2000), the interpretation of which might easily lead one to think that, after all, the industrial revolution could be explained without the factor of modern science.

As said above, I do not agree with this view. This is not only for the reason that what has become technoscience is nowadays inherent to industry, but rather because modern science and industry both stem from the same conception of nature as an object; and this is precisely the paradigm which the scientific revolution definitely established.

This exceeds the question of defining what the modern scientific method properly is; it rather becomes an ontological and logical problem, and in this respect, what is peculiar is the European historical path, not the Chinese one. What the Chinese knew about nature has a decisive trait in common with India, the Arab world, or Europe before the Galilean-Newtonian paradigm: this knowledge did not leave aside human existence. This is expressed in the notion of *cosmos*, that is, a comprehensive order including both nature and the human. Of course, each culture expresses this common condition (*viz* Cosmicity) in its proper terms. Much of the content of *Concepts of Nature* shows that, in various ways, the Chinese view of nature kept an analogical or correlative bent, reflecting the human onto the natural. Even though the systematic correlations between natural and social facts established by Dong Zhongshu during the Han dynasty may have been discussed later (resulting in a progressively more profane worldview, as shown by several of the articles), physics never became independent from political and moral considerations. Yet this is precisely what happened in modern Europe—at least in principle—, not elsewhere.

The said principle is nothing other than dualism, which simultaneously absolutized the object (the *res extensa*) on the one hand, and the subject (the *res cogitans*) on the other. This radically abstracted the human subject out of nature, which became, by the same token, a pure object. As Descartes wrote in the *Discours de la méthode*, the *cogito* exists in itself: “(...) I knew then that I was a substance (...) which, in order to be, does not need any place (*n’a besoin d’aucun lieu*) (...)”.

As one of the articles notes (Fu, pp. 306), it may indeed be contested that modern dualism ever existed, as Bruno Latour did in his controversial *Nous*
n’avons jamais été modernes (We Have Never Been Modern, Cambridge, MA: Harvard University Press and New York: Harvester Wheatsheaf, 1993). To my mind, such arguments amount to confusing what Plato distinguished, an ideal paradigm on the one hand, and actual practice on the other. This distinction is precisely what, much later, made the scientific revolution possible; and this is because paradigms are that which leads practice into a certain historical direction. That is also what happened with modern dualism as a paradigm: it has entailed such historical phenomena as the industrial revolution, although no modern scientist, might he be Galileo or Newton, ever realized in his practice the cogito’s ideal abstraction. Newton in his practice as a historical person never transcended the contingencies of concrete space (which is heterogeneous, anisotropic and limited by a horizon), although his physics postulates an absolute, homogeneous, isotropic and infinite space. It may then be that Newton was not modern, but the principles of his cosmology indeed were, and that is what historically proved to be important. It later entailed, for example, the abstraction of “universal space” in architecture.

Both absolute space and time presuppose dualism. Without this condition, both remain related to human existence. Dualism in its turn logically presupposes the law of the excluded middle: either the subject (A) or the object (non-A), but no intermediate entity, which would be both A and non-A. Western logic, from Aristotle to Hegel and beyond until Lupasco, has clung to this law (Hegel’s synthesis overcomes the contradiction of the thesis and the antithesis, it does not make them coexist). Several chapters in Concepts of Nature deal with Aristotle, but none with this question. Yet, it is a decisive one, because the law of the excluded middle did not only entail dualism; it forcluces (rules out) symbolicity, a symbol being precisely that which makes A and non-A coexist in one and the same thing. This forcluision of symbolicity has been inherent to Western rationalism at least since Plato’s Republic, from which the poets—in other words mythical thought—are banned because “reason made that a duty for us” (ho gar logos hēnas hērei, I, VIII, 609 b 3).

In China, contrary to Europe, the most elaborate form of logic—that of Buddhism—not only did not exclude the middle, it explicitly included it in the form of the Nagarjunian tetralemma: 1) affirmation (A); 2) negation (non-A); 3) neither affirmation nor negation (neither A nor non-A); 4) both affirmation and negation (both A and non-A). Particularly in Zen (Chan) Buddhism, this form of logic is also known, in Suzuki Daisetz’s 鈴木大拙 terms, as the “logic of sokuhī” (sokuhī no ronri 即非の論理). This may sound exotic, but it is in fact the very logic of symbolicity. Indeed, what the fourth lemma expresses is nothing other than what a symbol concretely embodies: the principle of the included middle, at the same time A and non-A.
Now, since a human is *zoon logon echôn* (a living being who possesses language), the human world is necessarily fraught with symbolicity. That is what the Greeks called *kosmos*, the Romans *mundus*, and the Chinese *yuzhou* 宇宙. Conversely, what the law of the excluded middle and its forclusion of symbolicity eventually entailed, in the form of modern dualism and mechanicism, is a universe alien to human existence—that universe about which Pascal wrote “the eternal silence of these infinite spaces frightens me (*le silence éternel de ces espaces infinis m’effraie*)”. And the reason why this universe, born from the scientific revolution, never appeared in China until brought in from the industrialized West, is fundamentally that Chinese reason did not ban poets and symbols.

There is not much about Buddhism in *Concepts of Nature*, and nothing about tetralemmas. To be sure, there are some discussions about logic, especially in Dux’s article, which puts forward, concerning China, a “subjectivistic logic”. However, this article remains ambiguous about what the word “subject” actually means. A subject in logic (S: *zhuti* 主題 or *zhuyu* 主語) is opposed to a predicate (P: *shuyu* 述語); it is not opposed to an object (O: *keti* 客體 or *duixiang* 對象). On the contrary, what for the logician is the subject is precisely that which for the physicist is the object, i.e. that which the problem is about. Dux does not make this distinction, nor is he concerned with predicates. Now, reality, be it in the human or animal world, is the way a subject (in the psychological sense, i.e. a certain being) interprets an object (i.e. a subject in the logical sense, S) by dint of some predicate (P); that is, puts it within a certain category (in Aristotle’s terms, a predicate is a *katêgorêma*). In other words, S is taken as P, through the subject’s senses, thoughts, words or action; and reality amounts to the relation S/P.

Aristotelian logic is based on the identity of S, in which it is linked with the law of the excluded middle. This is also why modern dualism could absolutize the subject’s consciousness (the *cogito*) on the one hand, and the object on the other: they are two different substantial S, one being A and the other one non-A, with their respective identities. If one follows Dux’s expression, this might be called an “objectivistic logic”, as opposed to the “subjectivistic” Chinese one. Yet in fact, there is not much objectiveness in that dualistic absolutization of S; because in reality (S/P), there can exist no S unless taken (predicated) as some P by a certain being. A pure S is a pure abstraction. And it is exactly such an abstraction which the modern Western scientific paradigm amounts to.

In contradistinction, Chinese logic appears as a logic of concreteness, that of a world actually inhabited by human beings, who feel, think, speak and act about the objects (S) in a certain way (P), making them real things (S/P). This logic, out of the universe (S), makes a cosmos (S/P), which speaks through symbols to the person’s mind. It differs from those “eter-
nally mute and infinite spaces” which were born from the scientific revolution. In other words, the Chinese did not decosmize their world, as did the Europeans with their respective world—at least paradigmatically, entailing in the long run tremendous practical effects. This process is what Heidegger has called Entweltlichung, “deworlding”, adding that this gave rise to “Natur” (as an object). It goes without saying that the Chinese ziran 自然, zaohua 造化 and the like (Harbmeier’s article is particularly enlightening about this terminology) did not become such a “Natur”.

As Concepts of Nature does not pay much attention to Heideggerian phraseology, let us put this in a more precise way. What the process of decosmization means is that modern dualism has, at least in principle, reduced our ambient world or milieu (Umwelt, in Uexküll’s vocabulary) to an objective environment (or Umgebung). At about the same time when Uexküll, dealing in Germany with animals in general, established this essential distinction between Umgebung (which exists only for the scientist) and Umwelt (which is reality for any living being, and is always specific to that being, e.g. proper to a certain animal species), Watsuji, in Japan, established a strictly homologous distinction between shizen kankyō 自然環境 (the natural environment, as objectified by the natural sciences) and fūdō 風土, i.e. the milieu proper to a given society.

Here and there, in Concepts of Nature, one can catch a glimpse of that essential difference between environment and milieu, or Umgebung and Umwelt; but it is not systematized, nor even explicitly addressed. For example, Kubin is perfectly right when he writes (p. 522), “I do not differentiate between nature and landscape in the Chinese context”. By the way, he might have added that one should not differentiate between nature and fengshui (a topic not addressed by the book, though eminently distinctive of the Chinese conception of the natural environment). This means, in fact, that in China, the environment was not reduced to the Umgebung; it remained a milieu (an Umwelt). Or, to put it logically, reality remained a concrete S/P; it was not decomposed into two dualistic abstractions, A (a certain S, in this case the res cogitans) and non-A (another S, in this case the res extensa), forcluding (ruling out) the fact that human existence necessarily predicates the environment (S) into a milieu (S/P), and that reducing S/P to S (i.e. the milieu to an objective Umgebung) amounts not only to decosmize, but to dehumanize the environment.

If I have insisted here on these logical and ontological aspects of the question of nature, it is, needless to say, because I should have liked the book to have established more firmly these general and structuring aspects of the human relationship with the environment. Be that as it may, Concepts of Nature is an extremely rich source of detailed information, enabling one to elaborate that very problematic in its historical actualization. After
reading the book, one has plenty of concrete illustrations at one’s disposal, showing the respective merits and demerits of keeping nature as an appropriate cosmos, or of changing it into an alien, indifferent universe. In that sense, *Concepts of Nature*, though ending before the industrial revolution, has much to teach us about our present environmental crisis, and gives us many hints about the ways to overcome it.