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# CLIMBING A TREE TO CATCH FISH: SOME REFLECTIONS ON PLATO, ARISTOTLE, AND CHINA

Scholarly opinion differs on the number of scientific traditions that developed in the history of mankind. Frits Staal (1993: 16) is of the opinion that there are three such traditions: the West Eurasian tradition which includes the European and Islamic scientific traditions<sup>1</sup>, the Indian tradition, and the Chinese tradition. The Indian cultural tradition, as the Greek, and to the exclusion of the Chinese, is characterized by the accentuation of formal logic<sup>2</sup>. This made some scholars claim that only two rational traditions can be differentiated: the Western and the Indian. We further may not overlook the impact of cultural (philosophical) borrowings in genuine developments. Some scholars have claimed that, e.g., Greek philosophy is indebted to Indian philosophy<sup>3</sup>. Richard Garbe (1897: 39-46) ascribes a definite Indian influence to Pythagoras (6th. century BC) via way of Persia<sup>4</sup>. Jean Przyluski (1932: 286) has laid emphasis on the Iranian borrowings in both the Greek and the Indian culture. This would practically reduce the number of scientific traditions to two: the Indo-Greek tradition and the Chinese tradition. For the Chinese tradition, we further have to take the impact of Indian Buddhism into account<sup>5</sup>.

<sup>1.</sup> The Greek tradition, which formed the first focus of Western historians of science, is indebted to the Egyptians, Babylonians, Hittites and Phenicians. See also Needham (1974): 55. Also Hu (1963) differentiates three traditions.

<sup>2.</sup> Staal (1989): 308. Also Lindtner (1997): 66-67 points to the strong similarities between early Indian and Greek philosophy: "Most of the Presocratic philosophers are said to have written not only about nature but also about purification. Spiritual purification is also what classical Indian philosophy is largely about".

<sup>3.</sup> See Garbe (1897): 36-39; Conger (1952): 103, 105, 107, 109-110.

<sup>4.</sup> On Persia, see also Conger (1952): 124.

<sup>5.</sup> See Zürcher (1972), Ch'en (1973), Frankenhauser (1996) and Harbsmeier (1998) to mention only a few.

Around the 6th. century BC, in the Western, Indian and Chinese cultural spheres, similar philosophical theories on the origin of the universe and of mankind were proposed<sup>6</sup>. These theories were developed in similar geopolitical situations<sup>7</sup>. It is Greek science and philosophy that westerners are most familiar with. Western philosophy to a great extent belongs to the Aristotelian tradition. As Plato (428-348 BC) before him, Aristotle (384-322 BC) defined 'sophia' as 'theoria' (observation, consideration). The concept of 'theoretical knowledge' is hereby opposed to practical knowledge, which primarily concerns ethics, politics and economy. This makes practical knowledge a kind of knowledge relating to human (social) behavior. It is the kind of knowledge attained at when seeking for knowledge for the sake of something different from knowledge itself (e.g., satisfying one's needs). The best and actual knowledge, according to Aristotle, is theoretical knowing. Theoretical knowledge is knowledge for the sake of knowledge itself. It may appear as a paradox that he favors theoretical knowledge 'for the sake of practice': theoretical knowledge is the most useful kind of knowledge for practical aims, as this kind of knowledge requires an absolute abstraction of the practical aim. At this point we reach at the 'scientific objectivity'. This implies that, according to Aristotle, theoretical knowledge is not by definition — contradictory to practical knowledge<sup>8</sup>.

Of the philosophers prior to Plato and Aristotle, we have to draw our attention particularly to the Milesians Anaximander and Anaximenes<sup>9</sup>. Anaximander (610-547) wrote a universal history and geography that sketches the history of the cosmos from the moment of its incipience to the author's time. He lays the origin of everything in the 'unlimited' ('apeiron': 'a,' absence; 'peras,' boundary) which he defines as the 'arche'<sup>10</sup>. This is explained by it that "everything either is an origin or has an origin: the unlimited has no origin, for that would be a limit of it<sup>11</sup>." As there is no limit to it, it, naturally, is immortal

<sup>6.</sup> On the notion 'similarity': see Scharfstein (1978): 28ff.; Conze (1975): 160.

<sup>7.</sup> Needham (1974): 94; Graham (1978): 8; Ommerborn (1998): 906.

<sup>8.</sup> On theory and practice: See Bowra (1958): 86.

<sup>9.</sup> It is remarkable that neither Anaximander nor Anaximenes are mentioned by any writer prior to Aristotle. See Guthrie (1962): 72 and Wöhrle (1993): 31.

<sup>10.</sup> See Guthrie (1962): 83-85. The term 'apeiron' has a temporal meaning ('arche' is immortal and imperishable), a spatial meaning (without spatial boundary), and an inward meaning (no line of demarcation can be drawn between the constituant parts of the whole).

<sup>11.</sup> Aristotle, *Phys*, 203b6.

and imperishable. Having no origin, all other things find their origin in it. This implies that no distinction is made yet between dead matter and the cause of movement<sup>12</sup>. The elements (water, earth, fire, air) are secondary manifestations or modifications, obtained by a process of 'separating out'<sup>13</sup>. Anaximander's pupil, Anaximenes (ca. 550-480 BC)<sup>14</sup> saw in 'air' the 'arche,' the principle of the world<sup>15</sup>. It is that to which all things owe their being, and it is also to air that all things finally return. Everything is made of the one substance air and this air is the substance of life itself. It is imperishable and divine<sup>16</sup>. That Anaximander saw in 'air' the 'arche' is logically explained by the fact that when cosmogony is something natural, it is only 'natural' that the same process is still active in the present world. Of the basic elements, air is the most obvious cause of movement: rarefied, it becomes fire; condensed it becomes wind, which in turn becomes clouds and leads to water. Still further condensed, it, according to Anaximander, becomes earth and stones<sup>17</sup>.

<sup>12.</sup> See Wöhrle (1993): 11.

<sup>13.</sup> It are Plato and Aristotle who first distinguished substance from attribute. They said that the elements water, earth, fire and air are characterized by one or more of a series of contrary qualities hot, cold, dry and wet (See Guthrie (1962: 78-79)). This trait is also seen in Buddhist Abhidharma literature: e.g., \*Samyuktābhidharmahrdaya, T.1552: 872c11-19: "The sense-field tangible is elevenfold: the four elements and the seven forms of derivative form. The seven forms of derivative form are harsh, polished, light, heavy, cold, hunger and thirst [...] because of increase of water and fire, there is polished; because of increase of earth and wind, there is harsh; because of increase of earth and water, there is heavy, because of increase of wind and fire, there is light; because of increase of water and wind, there is cold; because of increase of wind, there is hunger; and because of increase of fire, there is thirst". (Translation: Dessein (1999a): vol.1, 26-27). Guthrie (1962): 119 correctly remarks that "The creation of a cosmos as the separation of what had previously been mingled was at the bottom of many early mythological and poetic cosmogony, both Greek and other". For some similarities between Anaximander and Indian philosophy: see Garbe (1897): 33-34.

<sup>14.</sup> For reflections and discussion on the dates of Anaximenes: see Wöhrle (1993): 7-8.

<sup>15.</sup> Wöhrle (1993): 10: "...dass die Luft in ihrem Normalzustand, wenn sie ganz gleichmässig sei, nicht zu sehen sei, sie sich aber durch ihre Kälte, Wärme, Feuchtigkeit und Bewegung manifestiere".

<sup>16.</sup> See Guthrie (1957): 49 and Guthrie (1962): 114.

<sup>17.</sup> Aristotle, *Phys.* 24.26. This is also reminiscent of the Chinese 'wu-hsing' theory that explains the history of mankind as moving with the continuous proces of five elements (wu-hsing) that succeed one another: earth, wood, metal, fire and

Around the same period of this development of Greek (and Indian) philosophy, also in China, philosophical systems that are concerned with the position of man in the world emerged<sup>18</sup>. This period that in Chinese history is known as the period of the Warring States (481-221 BC), was characterized by an unprecedented vivid philosophical activity. The fifth to the third centuries BC are a period of political unrest in which officialdom was almost completely closed for new officials. In this situation, many intellectuals lost their interest in practical politics and devoted themselves to philosophy. A variety of philosophers thus tried to give an analysis of and provide a solution for the political turmoil of the moment. These schools became known as the 'One Hundred Philosophical Schools'. Lao-tzu<sup>19</sup>, the father of Taoism, explained that there is an all-embracing first principle underlying the universe. He called this first principle 'tao'. It is described as follows in the "Tao Te Ching": "There is a thing, mingled and complete, arisen prior to heaven and earth. Silent and without substance, it is independent and does not change. It is all pervading and unfailing. It is to be considered as the mother of all beneath heaven. We do not know its name, but we term it 'tao'20." The creation of the things of the material world is described as follows: "The ten thousand things depend on [tao] to arise and do not decline it21", and "Tao produces oneness. Oneness produces duality. Duality produces trinity, and trinity produces the ten thousand things<sup>22</sup>." Lao-tzu's system thus has some remarkable resemblance with the 'arche' principle of the Milesian philosophers in Greece, and with the Brahman principle of Brahmanism<sup>23</sup>. Lao-tzu's theory on the creation of objects further resembles Anaximander's idea of "separating out".

As Aristotelian philosophy, also early Buddhist philosophy — that can to a large extent be understood as a reformation of Brahmanism<sup>24</sup>

water.

<sup>18.</sup> Hu (1969): 10: "With the dawn of the sixth century B.C., China passed from the age of the Poets to the age of the Sophists."

<sup>19.</sup> On the dates of Lao-tzu: See Fung (1994): 170-172.

<sup>20.</sup> Chapter 25, Erh-shih-erh Tzu, 3b6-10.

<sup>21.</sup> Chapter 34, Erh-shih-erh Tzu, 4b9-10.

<sup>22.</sup> Chapter 42, Erh-shih-erh Tzu, 5b21.

<sup>23.</sup> See Guthrie (1957): 48.

<sup>24.</sup> See Lindtner (1997): 45-46. For the relationship of Buddhism with Vaiśeṣika: see Lindtner (1997): 56-57. For the relationship of Buddhist logic with other Indian systems: see Stcherbatsky (1996): vol.1, 15-27; vol.2, 114, note #2, 121-122, note #2, 163, note #1, 318, note #9, 355-356, note #2, 364, note #7, 412-413, note #6.

— is concerned with determining the position of man in the universe<sup>25</sup>. Where Greek and Indian philosophy differ is in their ultimate aim: Brahmanist and Buddhist wisdom  $(praj\tilde{n}\bar{a})$  are transcendental, aimed at getting free from the world, while Greek 'sophia' finds its aim 'in' the world<sup>26</sup>.

During the Indian king Aśoka's time (reigned ca.270-230 BC), Buddhism spread to the South and North-Northwest of the Indian subcontinent, and reached the area that had been under Hellenistic influence since the time of Alexander the Great (356-323 BC). It is around the time of Aśoka that philosophical debates (*Abhidharma*) began to develop within Buddhism<sup>27</sup>. E.J. Thomas (1933: 159) makes the interesting remark that all Abhidharma-works recognize a system of logical analysis (*pratisaṃvid*). This analysis is divided into an analysis of meaning of terms (*arthapratisaṃvid*), an analysis of causes of things (*dharmapratisaṃvid*), and an analysis of grammar (*pratibhāṇapratisaṃvid*)<sup>28</sup>. Also Greek philosophy had, already by the time of Plato (428-348) and Aristotle (384-322 BC), become an intellectual discipline occupied with 'causes' leading to wisdom

<sup>25.</sup> Conze (1975): 163. See also Dessein (1999b).

<sup>26.</sup> Bowra (1958): 89; Bugault (1968): 110-111; Roccasalvo (1980): 83. See also Ommerborn (1998): 899-900.

<sup>27.</sup> For a review of scholarship on the origin and development of Abhidharma: see Willemen, Dessein, Cox (1998): 5-16. Buddhist philosophy as Greek philosophy is based on a method of classification and systematization. See in this respect Needham (1969): 178.

<sup>28.</sup> See also Dessein (1999a): vol.1, 432-436. It may be an interesting sidethought that the matrices (mātrkā) from which Buddhist philosophical literature most likely is derived (see Bronkhorst (1985)), are also used to indicate Indian alphabet, and influenced Chinese linguistics starting from the period of Tengyün-hsüeh: 'classified rhyme' (Sung Dynasty (960-1279)). The latter is described as follows by Norman (1993: 29): "An attempt to classify and systematize the phonology of the Qieyun using concepts borrowed from Indian phonological theory". Renou and Filliozat (1985): 668 remark that phonological studies that are reflected in the Indian scripts were only possible at a time when there were no such scripts yet. Not only phonological studies, but also other fields of science in India developed independently of writing (See Staal (1989): 303)). This implies that it is not the Chinese writing system that hindered the development of theoretical sciences in China. Staal (1963: 25-31; 1989: 301 and 1993: 22) correctly remarks that, also for the Indian tradition, Brahmins cannot be characterized as 'literate,' for they are primarily masters of ritual. (See also Bugault (1968): 105; Needham (1972): 37-39). In the Indian tradition, the first writing was confined to the field of economy and practical politics (see, e.g., the edicts of Aśoka). The Indian script is not originating from India, but was brought from the Middle East by Aramean merchants (see Goody (1987): 113).

(sophia). For Plato, wisdom is the harmony of intellect and will based on self-knowledge; for Aristotle, wisdom is the knowledge of the first causes and principles of things. In Platonean and Aristotelian philosophy, this wisdom is concerned with the practical lives of humans in society. With this, Platonean and Aristotelian philosophy have traits in common with Buddhist philosophical thinking<sup>29</sup> and — in their concern with practical lives of humans in society — also with traditional Chinese philosophy.

The contacts between the Indian and the Greek world are well reflected in a famous philosophical discussion between the monk Nāgasena and the Greek king Menander who ruled ca.115-130 BC in Sāgala or Silyākot in the area of the Punjab in northern India<sup>30</sup>. This philosophical discussion is called "Milindapañha". In its Chinese version, which reflects the interpretation of Buddhist philosophy according to the Sarvāstivādins, the work is to be dated around the beginning of the Christian era. The Sarvāstivādins were the philosophically most dominant group in the Northwestern region of India in the first centuries of the common era. The "Milindapañha" is presented as the account of an encounter between a king who is said to be familiar with the Greek rhetoric and sophistic tradition<sup>31</sup>, while Nagasena clearly features in the Buddhist Abhidharmic tradition<sup>32</sup>. If the work is the account of a true encounter, it is interesting to deduct in how far the two people of a *different* cultural tradition understood one another: it has been noticed by O. Bopearachchi (1990: 47) that it is only in the second part of the "Milindapañha", which is an addition to the original text, that Menander appears as converted to Buddhism by Nāgasena. When the encounter between Menander and Nāgasena did not really take place, the work remains interesting as an example of how Buddhists defended their position against their Hellenistic opponents. In both cases, the work can serve as an early example of rational debate.

There thus appears to be good argument for claiming that starting from around the 6th. century BC, European, Indian and Chinese phi-

<sup>29.</sup> See Roccasalvo (1980): 78.

<sup>30.</sup> Potter (1996): 471.

<sup>31.</sup> The Pali text describes him as one "who was fond of wordy disputation, and eager for discussion with casuists, sophists, and gentry of that sort." (Translation: Rhys Davids (1963): vol.1, 7). Trenckner (1962): 4.

<sup>32.</sup> See Roccasalvo (1980): 76, 80; Willemen, Dessein, Cox (1998): 104-105. See also Conze (1959): 146-162.

losophy developed along similar lines. Somewhere along this line, however, the Chinese started to show an explicit rejection for logic and morally indifferent reasoned debate<sup>33</sup>. What is it then, that made Chinese philosophy take a separate way?

\* \* \*

The book Mencius contains a well-known passage (Bk I, pt.1, ch.7)<sup>34</sup> that reflects much of the Chinese world view and reveals some peculiar characteristics of the traditional Chinese society<sup>35</sup>. A right understanding of these elements is primordial for a good comprehension of the development of 'rationality' interpreted as 'rational inquiry' in China. When Mencius asks king Hsüan of Ch'i (ruled from 319-301 BC<sup>36</sup>) what the king is most desirous of, food, clothing, colored objects, voices and tones, or attendants, the king does not answer. From this, Mencius deducts that, hence, the king is bound to be desirous of enlarging his country. Then follows the underneath discussion between Mencius and King Hsüan:

Mencius said: "In that case, it is to be known what [you,] king greatly desire: to *increase* [your] territory, to summon the princes of Ch'in and Ch'u to [your] court, to rule over the central states, and to pacify the barbarians of the four directions. When you strife for this aim the way you do now, it is like climbing a tree to catch fish."

The king said, "Is it as serious as that?"

Mencius replied: "It is even more serious than that. Although, when climbing a tree to fish, you may not obtain any fish, no further harm is done. When you [however] strife for your aim with all your heart the way you do now, further calamities are bound to follow.

'[...] If you, king, would exert political power with benevolence, this would cause the officers in the country to want to be established in the king's court; farmers to want to farm in the king's fields; merchants to want to have their stores in the king's market-places; travelers to want to go out on the king's roads; and all those who feel aggrieved by their masters will all want to come to the king to complain. When this is the case, who will prevent them?

'[...] If you, king, want to effectuate your aim, you will have to turn

<sup>33.</sup> Harbsmeier (1998): 346. See also Needham (s.d.): 1.

<sup>34. &</sup>quot;Meng-tzu", Szu-shu Wu-ching: 7-8.

<sup>35.</sup> See Creel (1970): 377.

<sup>36.</sup> Fung (1994): 107. With this, Hsüan of Ch'i is the successor to Hui of Liang who ruled 370-319 BC.

yourself to the fundaments for it. When the homesteads of five acres are planted with mulberry trees, those of fifty years of age will be able to wear silk; when in raising fowls, pigs, dogs and swine, due seasons are not neglected, those of seventy years of age will be able to eat meat; when in cultivating [farms of] one hundred acres, due seasons are not taken away, families of eight people can be without hunger, when care is taken of education in the schools — when [education] is extended with the justice of filial piety, the gray-haired ones will not have to carry heavy loads on the roads. It has never been so that when the old ones wear silk and eat meat, and when the common people neither suffer from hunger nor from cold, there was no royal dignity."

If we accept that Meng-tzu wrote the "Meng-tzu" together with some of his disciples<sup>37</sup>, the dates of Meng-tzu traditionally being accepted as 372-289 BC<sup>38</sup>, we cannot exclude that the above passage is the report of a discussion between Mencius and king Hsüan of Ch'i as it actually took place. This places Mencius in the period of the Warring States (481-221 BC). This period and the subsequent Ch'in Dynasty (221-206 BC) had a decisive impact on the formation of the Chinese culture in general and on the further development of Chinese philosophy in particular.

Till the fifth century BC, China consisted of a varying number of kingdoms, living on neighborly terms. These kingdoms had from the earliest times gradually developed from loose clan federations to confederations of political unities, each centralized around an urban center<sup>39</sup>. As these kingdoms further developed, this led to an increase in population and to a scarcity of economic resources (farming land). The surplus of workers on the labor market that was thus created could, given the Chinese agrarian society, not be absorbed by other sectors of economic activity. This tension on the labor market made the kingdoms that had once lived in perfect harmony claim territory from neighboring countries starting from the fifth century BC: only an increase of the own farming land could guarantee social stability in the own country. Eventually, one state succeeded in conquering all other states: Ch'in. In 221 BC, the ruler of Ch'in united the whole of the then Chinese territory into the first Chinese empire, and proclaimed himself the first emperor of China: Ch'in Shih Huang-ti.

<sup>37.</sup> Legge (1970): 11-12.

<sup>38.</sup> Legge (1970): 16.

<sup>39.</sup> van der Horst (1987): 21. See also Needham (1974): 94.

Now the unity of the Chinese empire was effectuated, it was task for Ch'in Shih Huang-ti to preserve that newly-founded unity. In order to solve the problem of contending states once and for all, he carried through drastic reforms in the administrative division of the Chinese territory by abolishing landed nobility<sup>40</sup> and by reorganizing the whole country in districts under supervision of the central government<sup>41</sup>. In China, the first unification of the empire thus gave place to what Joseph Needham (s.d.: 2) calls 'bureaucratic feudalism,' and not to a form of mercantile capitalism, as was the case in the West<sup>42</sup>. In China, something resembling mercantile capitalism only started to develop in the Sung Dynasty (960-1279). The creation of a unified bureaucratic state contradicts the Platonian concept that, seeing monarchy as the ideal state form, esteems this system only effective for city-states: according to Plato, a state that is limited in its territory, will constitute a more perfect unity than a state of larger expansion<sup>43</sup>. The political unity of the Ch'in empire was further secured by uniformizing script, regulations, measures and weighs<sup>44</sup>. Even thought was uniformized. Of the various philosophical schools that came into existence during the period of the Warring States, Legalism was favored by the first emperor. Legalism, the philosophical system of Han Feitzu (ca.280-ca.233 BC), stipulates that all doctrines that disagree with Legalist concepts have to be forbidden. This monopoly of Legalist thought, to the degree that under the first emperor a decree was issued to ban all literature that does not agree with Legalist concepts<sup>45</sup> (thus taking away all possible philosophical opponents and, by consequence, the reason of being of philosophy itself), may have been a first setback for the development of rational inquiry that had set in with the Mohist school of philosophy<sup>46</sup>.

<sup>40.</sup> On landed nobility: see Creel (1970): 310.

<sup>41.</sup> See "Shih-chi", Erh-shih-wu Shih, 29c32-36.

<sup>42.</sup> See also Needham (1972): 191.

<sup>43.</sup> See Ommerborn (1998): 906.

<sup>44.</sup> See "Shih-chi", Erh-shih-wu Shih, 29d3-4.

<sup>45.</sup> Zufferey (1998): 933, *Shih-chi* 6: "Je propose que tous les ouvrages historiques, à l'exception des Annales de Qin, soient brûlés; que les Classiques et les ouvrages des Cent Ecoles non indispensables aux Erudits dans leurs fonctions officielles, qui ne sont gardés qu'à des fins privées, soient remis aux préfets ou aux commandants militaires afin qu'ils les fassent brûler; que tous ceux qui oseraient se grouper pour discuter des Classiques soient exécutés sur la place publique". See "*Shih-chi*", *Erh-shih-wu Shih*, 30d35-37.

<sup>46.</sup> See Watson (1963): 13-14; Hu (1969): 61; Crombie (1975): 213.

Despite the similarities of the Chinese Taoist philosophy with early Greek and Indian philosophy, it is principally the Mohist school of thought (and the affiliated Military school)<sup>47</sup> that shows elements that could have developed into a tradition of scientific knowledge<sup>48</sup>. The founder of the Mohist doctrine, Mo-tzu (5th-4th century BC)<sup>49</sup>, is sometimes seen as a 'heterodox' Confucianist<sup>50</sup>. As Confucius, he was to all probability a native of the state Lu<sup>51</sup>. This setting implies that, from the outset, Mohists had to defend themselves against Confucianism that was at the time of Mo-tzu already well-established in Lu<sup>52</sup>. It is therefore not surprising that the Mohists are the first Chinese thinkers to defend their principles by debate, and that it is especially within the Mohist school that logic has developed<sup>53</sup>. The Mohists set up three arguments for the acceptability of a claim: (1) the opinion of the authorities of the past; (2) the observation by the people; (3) the beneficiality or harmfulness to society<sup>54</sup>. Especially this last argument is important for the further development of the Mohist philosophy: as with the other Chinese philosophers, also Motzu's philosophy is not primarily characterized by formal logic, but is directed towards problems of social life. This is also seen in the fact that the father of Chinese logic, Teng Hsi, who died in 501 BC, was a specialist in law<sup>55</sup>. Chinese logic originated on this legal ground and in connection to legal rhetoric. Also Hui Shih (ca.370-310) who, as Kung-sun Lung (ca.325-250 BC) ascribed to what is sometimes called the 'school of logicians,' was a legal specialist<sup>56</sup>. That Chinese lo-

<sup>47.</sup> There is a story in the "Mo-tzu", Chapter 50, in which Mo-tzu serves the state of Sung as a military engeneer: Erh-shih-erh Tzu, 270b21-271a9. See Graham (1978): 3. Creel (1970): 349 mentions the existence of a body of military law in Chou China. See also Watson (1963): 2.

<sup>48.</sup> Hu (1969): 20: "The age of Sophistry was fading into the age of Logic [...] Lao-tze, had necessitated and hastened the rise of Logic.". See also Needham (1972): 148.

<sup>49.</sup> On the dates of Mo-tzu: see Hu (1969): 55-56; Graham (1978): 3, note #3. On the authenticity of the "*Mo-tzu*": see Hu (1969): 54.

<sup>50.</sup> See "Huai-nan-tzu", Chapter 21, Erh-shih-erh Tzu, 1308a11-12; Fung (1994): 77.

<sup>51.</sup> Fung (1994): 77.

<sup>52.</sup> See Graham (1978): 3.

<sup>53.</sup> See Hu (1969): 72; Graham (1978): 4.

<sup>54.</sup> See Watson (1963): 3; Harbsmeier (1998): 267. See also "Mo-tzu", Chapter 20: Erh-shih-erh Tzu, 241b22-24.

<sup>55.</sup> Harbsmeier (1998): 263-264 and 286-290.

<sup>56.</sup> On the relationship of Hui Shih and Kung-sun Lung with the Mohists: See Hu (1969): 12-13; Graham (1978): 61-62. See also "Chuang-tzu", Chapter 33,

gicians use the argument of the authority of the past makes Chinese logic fundamentally different from Greek logic. To quote Harbsmeier:

In a scientific context the crucial notion is that of proof and of the art of plausible reasoning. The art of formal proof was little developed in China by comparison with Greece [...] One unique feature of intellectual life in Greece was precisely the demand for formal proof in formal contexts. [...] In China, such rigid rationalism remained a marginal phenomenon<sup>57</sup>.

and:

Rationality and argumentation arise when a thinker seriously contemplates the pervasiveness of the possibility that he may be wrong, that he needs reasons and arguments to support the validity of his views<sup>58</sup>.

The death of the first emperor led to a struggle for power among his possible successors. Given the great displeasure with the new government that undoubtedly existed among the population, this invoked the fall of the Ch'in empire. The Ch'in empire was succeeded by the Han Dynasty (206 BC - AD 220). The first emperors of the Han kept some of the elements of Ch'in politics, but, on other points, stepped back from the reforms of Ch'in Shih Huang-ti. One of such decisions was a semi reintroduction of landed nobility. To prevent new rivalry among landed nobility who was only interested in its own economic profits, it was necessary that the Han authorities had political and economical power over them. To achieve this aim, Confucianism<sup>59</sup>, equally formulated in the period of the Warring States, offered a possible method.

The philosophical doctrine of Confucius (ca.551-ca.479 BC), who glorified the period of the Western Chou (ca.1122-722 BC), was declared state ideology by the Han emperor Wu Ti (140-86 BC)<sup>60</sup>. This victory of Confucianism not only implied that argument from the

60. Kracke (1964): 312.

Erh-shih-erh Tzu, 87b11-12.

<sup>57.</sup> Harbsmeier (1998): 265.

<sup>58.</sup> Harbsmeier (1998): 261

<sup>59.</sup> Note that the word 'Confucianism' does not exist in Chinese. The word used in the sense of what we generally call 'Confucianist' is 'ju'. See Fung (1994): 48. Zufferey (1998): 965: "[...] on ne trouve pas de "confucianisme" au début des Han, mais seulement une "doctrine des lettrés" (ru shu), qui n'est au mieux qu'un programme minimum de diffusion des lettres et de la culture, de promotion du wen comme principe de gouvernement, par des fonctionnaires employés par le pouvoir politique".

authority of history was even more accentuated, but that Mohism moved farther to the background of philosophical activity<sup>61</sup>.

According to Confucius, the phenomenon of 'Warring States' was due to the fact that the ruler was no longer the person who most excelled in moral virtue. This situation, according to Confucius, had led to it that the different feudal lords had taken the initiative themselves. and only sought for their own profit. From this simple analysis, the remedy for the political turmoil was easy to give: "There is government when the prince is prince, the minister is minister, the father is father and the son is  $son^{62}$ ." In Chinese philosophy, this is referred to as the concept of 'rectification of names' 63. The concept is found in all major schools of Chinese philosophy, however, is most accentuated in Mohist logic. While Aristotelian logic: "Is essentially and mainly concerned with the relation between concepts, relations of exclusion, inclusion, etc., Mohist logic, on the other hand, rarely touches on this and focuses almost entirely on the relation between names (ming) and objects (shih) 64." This explains the Chinese name of the 'school of logicians' to which Hui Shih and Kung-sun Lung belong: 'hsing-ming chia': the 'school of name and form,' or more simple: 'ming chia': the 'school of names'. A third name for the school is 'pien-che': 'disputators'65.

The idea that only when each person behaves according to his proper social position, peace would come back to the country was, by later Confucian philosophers, supplemented with the concept of the five cardinal relations among mankind: the relation between sovereign and subject, between father and son, between elder brother and younger brother, between husband and wife, and between friend and

<sup>61.</sup> Forke (1922): 53; Graham (1978): 64. Graham (1978): 66 remarks that in the 3rd and 4th centuries AD, interest in Mohist logic existed especially in Neo-Taoist circles. See also Ommerborn (1998): 887.

<sup>62.</sup> Analects, Bk. XII, Ch.11: 2-3, "Lun-yü", Szu-shu Wu-ching: 51; Legge (1971): 256.

<sup>63.</sup> See Scharfstein (1978): 27.

<sup>64.</sup> Harbsmeier (1998): 325.

<sup>65.</sup> Probably the most famous thesis of the logicians is that "a white horse is not a horse". This saying is based on a play on the fusion of the 'archetypes': color and shape. Also early Buddhist logic is concerned with this matter: see, e.g., \*Saṃyuktābhidharmahṛdaya, T.1552: 871c1: "The sense-field matter is threefold: colour, configuration and their combination." (Translation: Dessein (1999a): vol.1, 25); Abhidharmakośa, T.1558: 2b24: "Matter is twofold: one: colour, two: form" (see de La Vallée Poussin (1923-1931): vol.1, p.16, note #3). See further Matilal (1986): 250-254.

companion. In the Han Dynasty, a book was compiled dealing with these relations: the "Hsiao Ching" ('Classic of Filial Piety'). This work is conceived as a dialogue between Confucius and one of his disciples. It deals with obeisance and with piety children owe their parents. Symbolized in the piety of master to disciple, this work also is an outline of the relationship between the king and his ministers, and, more generally, between superiors and inferiors. The work became one of the standard works in Confucian education. The reason this book was so highly estimated is obvious: officials who are permeated with the concept of Confucian piety were to guarantee stability in the empire that was in constant need of personnel. The saying of Confucius that "when right principles prevail in the kingdom, government will not be in the hands of the Great officers", is related to this 66. To keep the Chinese economical and political system going, state institutions had to make sure they continued to appeal intellectuals. As soon as an official position was no longer appealing (because of corruption, quarrels at the court,...), officials might turn away from politics — as had been the case with Confucius himself. Confucian officialdom, consequently, was especially aspired in powerful dynasties that could guarantee political stability and grandeur<sup>67</sup>.

Connected to the idea that everyone has to behave according to his proper position in order to prevent social turmoil, is the concept of the Confucian social hierarchy. According to Confucianism, and in common with Legalism, there is a fundamental distinction between the primary professions and the secondary professions in society. Primary are the officials — who hold the highest position on the social ladder — and the farmers; secondary are the artisans and merchants<sup>68</sup>.

<sup>66.</sup> Analects, Bk XVI, Ch.2: 2, "Lun-yü", Szu-shu Wu-ching: 70; Legge (1971): 310. Zufferey (1998): 917 remarks that "les boshi font partie de la bureaucratie impériale (ils y occupent un rang bien défini), et sont employés [...] dans des tâches qui n'ont parfois qu'un rapport éloigné avec leurs compétences en matière de textes". Wang Ch'ung (ca.27-ca.100 AD): "Celui qui ne maîtrise pas les Cinq Classiques et se montre donc incapable de comprendre les innombrables affaires [de ce monde]." (Translation: Zufferey (1998): 922).

<sup>67.</sup> In Chinese history, this primarily were the Han Dynasty (206 BC - AD 220), the Sui Dynasty (589-618), the T'ang Dynasty (618-907), the Yüan Dynasty (1279-1368), the Ming Dynasty (1368-1644) and the Ch'ing Dynasty (1644-1911).

<sup>68.</sup> See Ommerborn (1998): 906. On the origin of the two fundamental classes: see Creel (1954): 278-279, 314. On the position of the merchants and artisans in Chou times, see Creel (1954): 284, 315-316. Bodde (1990): 27 claims that the four classes are probably of Legalist origin, and more precisely of the

Farmers hold the second position on the social ladder because in an agrarian society, farmers are of primordial economic importance: they are the economic power of the empire and have to economically support the officials. Their economic importance not only ensures them of a social position higher than the one of artisans and merchants, it necessitates the central government to continually engage in waterworks, as, to feed itself, farmers are in constant need of irrigation works, and taxes levied on them by the authorities, further, have to be transported over waterways. The aristocracy hence has to constantly possess of workers who keep waterways navigable and have to engage in damming rivers. This crucial importance of waterways may be a further reason why in China a bureaucratic type of civilization developed<sup>69</sup>. It has been a further decisive factor in the economic history of China that the social order was already firmly established 'before' the coming of iron into China, event which is situated around the sixth century BC<sup>70</sup>. In this way, the development of this technology brought about different effects than the ones we can see in the Indus valley, in the Islamic world or in Europe<sup>71</sup>.

In an agrarian society, artisans and merchants are only of secondary importance as they, actually, do not much more than processing of and trading in what the primary sector of the country's economy (farming) has produced<sup>72</sup>. There is, however, a small number of merchants who occupy a financially important part of the national trade. Most important are the trade in salt and iron. The national government obtains up to 90% of its income from the taxes levied on salt<sup>73</sup>. This makes the traders of this financially important good a de facto power group in the Chinese empire, competing in wealth with the elite. The danger exists that merchants, in their competition with officialdom, would dominate the mass of farmers and have them, for better wages, work in their business enterprises. Also artisans could possibly em-

economically-oriented chapters in the "*Kuan-tzu*" (1990: 35). He further argues (1990: 32 and 34-35) that it is beginning with the second century BC that the standard sequence of four classes became firmly established. Bodde (1990): 36: "The Kuan-tzu goes back to the scholars attached to the Chi-hsia Academy founded in the captial of the Ch'i state by King Hsüan at around 302 BC.".

<sup>69.</sup> See Needham (s.d.): 2; Chi (1970): 1-2, 5-6, 10-13, 66-71; Needham (1972): 181; Stover (1976): 150-174.

<sup>70.</sup> Needham (1964): 285.

<sup>71.</sup> Needham (1964): 293 and (1974): 173.

<sup>72.</sup> See Lewin (1973): 156; Bodde (1990): 33.

<sup>73.</sup> Exploitation of salt mines in Sichuan province started as early as the 2nd century BC. See Needham (1964): 290.

ploy farmers in their factories. This would not only mean that a part of agricultural taxes would be lost for the elite, but, even more important, the elite was threatened by loss of power over the farmers. It is precisely in order to diminish the power of merchants that in the Confucian social system this group is at the bottom of the social ladder<sup>74</sup>. This is also the reason why the central government tried to maintain power over the guilds the traders, starting from the Sung Dynasty, organized themselves in. Also the Confucian idea that salt and iron have to be state-owned<sup>75</sup>, is rooted herein. About this phenomenon, another Chinese classic exists: "Yen-t'ieh Lun" ('The Discussion on Salt and Iron'). This economic treatise is a highly Confucian oriented report of a discussion at the court in 81 BC.

Because of all these economical and political facts, the organization of the Chinese society took a completely different road from that of the European world. Joseph Needham expressed it as follows (s.d.: 3): "The *environment* was against science and technology in China". The roots of this economical and social model that became peculiar for China, date back to the period of the feudal states, prior to the fifth century BC. In these economical and social conditions, something comparable to the Greek or Italian city-states never developed<sup>76</sup>. This situation explains that while Indian and Greek knowledge can be categorized with Aristotelian theoretical knowledge, Chinese intellectual history shows to be largely the history of technical development<sup>77</sup>. This explains why even fields of science that would be ideal for the development of theoretical knowledge, were, in the Chinese cultural sphere, applied to the practical domain. While, e.g., Plato claimed that access to wisdom depends on mathematical skills<sup>78</sup>, in China, mathematics served for such practical matters as the calendar, the prerogative of the (Confucian) emperor<sup>79</sup>. Consequently,

<sup>74.</sup> See, e.g., Chi (1970): 4; Needham (1972): 39-41, 182-183.

<sup>75.</sup> State monopolies on salt and iron date back to the 7th. century BC (See Dobson (1963): 4).

<sup>76.</sup> Needham (s.d.): 2.

<sup>77.</sup> See Needham (1972): 150; Staal (1993): 17.

<sup>78.</sup> See Harbsmeier (1998): 266.

<sup>79.</sup> Needham (1972): 31. Needham (1974): 28, 31-32, 35, remarks that the Chinese were especially strong in algebra. The level of this field of science was comparable to the level of mathematics in India. While algebra was extremely well developed, mathematics for the sake of mathematics, as represented in the Greek tradition, was left quite unpractised. Staal (1993): 21 claims that "India is richer than China in abstract and theoretical sciences such as mathematics and logic.".

from the 5th century BC onwards, Chinese technical knowledge by far exceeded that of any other region in the world, while this was not the case for its scientific knowledge<sup>80</sup>.

China's political history which had its effect on its internal social organization was, to the disadvantage of the development of theoretical knowledge, embedded in its peculiar geographical setting<sup>81</sup>. In contradistinction to the Ancient cultures of Egypt, Mesopotamia, and India, the heartland of the Chinese culture lies in isolated regions, surrounded by high mountains and deserts. This logically implies that all who are not living within the borders of the Chinese empire are designated as 'barbarians' — as is also seen in the quoted passage of Mencius about king Hsüan of Ch'i. This model and the fact that, until the Renaissance (15th.-16th. century), the level of technology in China was superior to any country in the world, have made the Chinese spread their culture to the other regions of East and Southeast Asia, and have made these countries recognize the Chinese cultural superiority. This fact is very well reflected in the "Shih-chi" in a passage where intellectuals ponder over the name to be given to the new ruler of China in 221 BC<sup>82</sup>.

Ever since the formation of the Han Dynasty, contacts with the outer world were established by way of the Silk Road that crossed China's Western frontier, a line of demarcation that runs North to South and crosses Bactria and goes down to the Arabian Sea. There were two roads between the Indian and the Greek world, as there were

<sup>80.</sup> Needham (1974): 94. See also de Solla Price (1971): 18. Graham (1978): 53 remarks that the Mohist researches are a very remarkable exception, and deserve to be classed with similar brief episodes in Greece and Mediaeval Europe among the movements which in retrospect look to us like abortive efforts in the direction of modern science. See also Hu (1963): 63 and Bauer (1975): 470.

<sup>81.</sup> van der Horst (1987): 17.

<sup>82. &</sup>quot;Shih-chi", Erh-shih-erh Shih, 29b30-c2; Zufferey (1998): 929: "Le Premier Ministre Wang Wan, le Secrétaire Impérial Feng Jie, le Commandant de la Justice Li Si, avec d'autres, dirent: 'Autrefois, les Cinq Empereurs régnaient sur un territoire de 1000 li; au-delà, c'étaient les territoires des feudataires, puis ceux des barbares. Certains de ces feudataires venaient faire allégeance à la Cour, d'autres non, mais le Fils du Ciel n'avait pas de moyen de les y forcer. Aujourd'hui, Votre Majesté a levé une juste armée pour punir les brigands et les fauteurs de troubles, elle a pacifié le monde, elle a divisé l'espace entre les mers en commanderies et districts, elle a unifié les lois; voilà qui ne s'était jamais produit dans le passé, voilà ce que les Cinq Empereurs n'ont pu réaliser. Vos serviteurs, d'entente avec les boshi, ont soigneusement discuté de tout cela [et nous sommes arrivés à la conclusion suivante]: dans l'Antiquité, il y eut le Souverain

two between India and China. Between India and the Hellenistic world, there was the searoad via the Arabian Sea to the Persian Gulf or Red Sea, and then on to the Mediterranean or Aegean Sea. The landroute went through the Iranian plateau and the Mesopotamia river valleys<sup>83</sup>. To China, the southern route arrived in Yü-men-kuan from the territory of the Yüeh-chih by way of Yarkand. The northern route went from Sogdiana to China by way of Merv, Kashgar, Turfan and Yü-men-kuan in Kan-su. A third route, still farther to the North, was only in use for a short period around the beginning of the common era<sup>84</sup>.

China's western border was not only a political border, it also was an intellectual border. While such Chinese inventions as printing, gunpowder and the compass — all products of the Chinese technical superiority at that time<sup>85</sup> — did, for sure, cross that same western border starting from the beginning of the common era, and products from the Western regions crossed the same border into China, intellectual discoveries that crossed it, did only in seldom cases influence higher cultural strata of Chinese society<sup>86</sup>. The most important of the foreign influences undoubtedly was Buddhism with which the Chinese first came in contact because of the mission of Chang Ch'ien. This military mission took place in the beginning of the Han empire, when the Han government sent the envoy Chang Ch'ien to the West, in order to seek an alliance with the Yüeh-chih who lived in Bactria, the region that had been entered from the West earlier by the Greeks under Alexander the Great. Shortly after Alexander's death, his Greek empire collapsed, but interaction between the Greek and Indian civilization continued for some time<sup>87</sup>. As the Yüeh-chih, known by the Greeks as Indo-Scyths<sup>88</sup>, were enemies of the Hsiung-nu, the Chinese

Céleste, puis le Souverain Terrestre, puis le Souverain Suprême - ce dernier étant le plus vénérable. Bravant la mort, nous proposons que Vous preniez le titre plus noble de 'Souverain Suprême', que vos commandements soient appelés 'édits', vos ordres 'décrets', et que le Fils du Ciel s'appelle désormais lui-même 'Nous'."

- 83. See Conger (1952): 103-104.
- 84. See Chavannes (1905): 519-520, 528-529 and 556.
- 85. Needham (s.d.): 1. Cfr. Staal (1993): 5. For an overview of Chinese technical achievements and some reflections: see Needham (1964).
  - 86. See Needham (1974): 59.
- 87. See Tarn (1951): 376; Conger (1952): 106. The extent of Greek influence is a matter of scholarly discussion.
  - 88. Gernet (1990): 111-112.

hoped that they would be willing in an attack against the Hsiung-nu who were now forming a threat at the northern border of the Chinese empire. This military operation is one more example of how the Chinese attempted to preserve their own culture against foreign endeavors. Although Chang Ch'ien did not attain to any military successes, his mission was important for the Chinese knowledge of the outer regions. It also allowed the Chinese to deploy further economic power and political strength to the neighboring states. This policy was upheld until the end of the nineteenth century. We can here refer to, e.g., Han Yü (768-824) who in his "Memorial Discussing the Buddha's Bone", refers to Buddhism and the Buddha as follows (own italics B.D.):

One of Your Majesty's officers speaks. I am of the opinion that Buddhism is nothing more than a religion of the outlying tribes. [...] The Buddha was originally a tribesman from *outlying regions*. His language is incomprehensible to those who inhabit the *heartland*, and his clothes were of a strange fashion. He did not speak the *exemplary words of the early kings*, [...] If there is any divine power in the Buddha that can bring down curses, whatever calamity should befall, let it fall on me. Heaven will observe me from above, and I will feel no ill will or regret. Deeply stirred and filled with the utmost loyalty, I respectfully offer this memorial for Your Majesty's ears. Your Majesty's officer trembles with awe<sup>89</sup>.

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The first centuries of Chinese philosophical history were mainly centered around Confucianism as state ideology and Taoism that serves for satisfying individual religious needs<sup>90</sup>. When, around the beginning of the common era, Buddhism entered China by way of the silk road, the foreign faith was at first restricted to the foreign merchants on Chinese territory. Not only some basic concepts of Buddhism must undoubtedly have been recepted as barbarous, (e.g., while — as reflected in the "Hsiao Ching" — birth is in China seen as a reward of virtue, in Buddhist context, it is seen as a karmic punishment<sup>91</sup>), but also the highly developed Buddhist logic may be a reason that Buddhism only gradually gained influence in the official circles of Chinese society, and finally also among the common populace. The

<sup>89.</sup> Translation: Owen (1996): 598-600.

<sup>90.</sup> Graham (1964): 56; Needham (1969): 89.

<sup>91.</sup> See Zürcher (1980): 108.

period that was decisive in the acceptance of the foreign faith in Chinese society was the period of division between the Han and Sui Dynasties (220-589 AD). This period — as all periods of political disunity in Chinese history — is characterized by a decline of Confucianism and a consequently vivid philosophical activity in Taoist circles, from the 3rd century AD onwards characterized by a revival of interest in speculative philosophy and in some Chinese logic<sup>92</sup>. In the 3rd to 11th centuries AD, also alchemy that belongs especially to the domain of Taoism, knows a huge technical development<sup>93</sup>. Of the indigenous religions, logic and disputation being rejected as "morally frivolous, politically irrelevant and intellectually sterile" in Confucian circles<sup>94</sup>, it was primarily Taoism that was influenced by Buddhism<sup>95</sup>, but also these influences remained confined to the domain of monasteries where, e.g., Ch'an Buddhism developed. The bureaucratic dominance of Confucianism led to it that while in India and in the Central Asian countries, Buddhist logic — the result of rational inquiry — had known an important development, logic schools of Indian philosophy never took foot in China. Here, the devotional schools were more popular. A famous example of such a school of Buddhist logic is the Chinese San-lun school, the Chinese variant of Indian Madhyamaka, that in China only survived as an independent school from the beginning of the fifth to the seventh century<sup>96</sup>. It was only in the second half of the 7th century (and during the renaissance of Buddhism in the early 20th century) that Buddhist logic made an important impact also on Chinese intellectuals<sup>97</sup>. The Yogācārin Vasubandhu, who at first was an adherent of Sarvāstivāda, as well as Hsüan-tsang (602-664) and his disciple K'uei Chi (632-

<sup>92.</sup> Harbsmeier (1998): 353.

<sup>93.</sup> Schipper (1994): 219. The invention of gunpowder is said to be invoked by this development of alchemy: Schipper (1994): 130. See also Needham (1964): 245-249. Needham (1972): 158 dates the earliest references to alchemy back to 130 BC.

<sup>94.</sup> Harbsmeier (1998): 347-350.

<sup>95.</sup> On borrowings of Buddhism in Taoism: see Zürcher (1980): 129, 135, 141-146. Zürcher (1980): 143: "Taoism was not influenced by 'professional' Buddhism, but through the distorting and simplifying filter of *lay* Buddhism [...] not [...] in the monasteries of the *ch'ing-t'an* salons where learned monks were present to explain the doctrine [...] but rather in lay societies where Taoists and Buddhist devotees met."

<sup>96.</sup> See Liu (1994): 36, 84.

<sup>97.</sup> Harbsmeier (1998): 359-360.

682) are crucial in this<sup>98</sup>. The Chinese Fa-hsiang School they founded was the carrier of Chinese Buddhist logic for over three centuries<sup>99</sup>. Although the Chinese term used for Buddhist logic is '*yin-ming*,' which literally means 'explanation of causes ( $hetuvidy\bar{a}$ )', from its incipience, this method was not aimed at winning new knowledge and correctness of thinking (as would be the case with formal logic), but was aimed at bringing the opponent to understand the own thesis<sup>100</sup>. Buddhist logic was not liberated from its religious context to develop into formal logic, but remained a religious tool aimed at reaching  $nirv\bar{a}na$ , a tool for religious insight<sup>101</sup>. To quote Harbsmeier (1998: 375):

Logical sciences were obviously used in the service of Buddhism [...] Chinese Buddhist logic is essentially concerned with the justification of orthodox Buddhist claims against unorthodox opponents. It is concerned with promoting reasoned, rational discourse, but within this specific area.

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A dynasty that has been of great importance for the political, economical and social development of China, is the Sung Dynasty (960-1279). With the Sung Dynasty begins what Jacques Gernet calls the "Renaissance" of Chinese civilization<sup>102</sup>. The Sung court had to live under the constant military threat at the northern frontiers of its empire<sup>103</sup>. As the court of the Sung was concerned more with this threat than that it could exert power in the Chinese empire itself, it is within this historical context not surprising that private trade developed and that something that we may define as 'bourgeois culture' started. Private trade flourished especially in the coastal areas of Southern and Southeastern China, a region where the power of the central govern-

<sup>98.</sup> See Matilal (1986): 229-230; Harbsmeier (1998): 360.

<sup>99.</sup> Frankenhauser (1996): 3. In Ming (1368-1644) and Ch'ing (1644-1912) times the Fa-hsiang school of Hsüan-tsang and K'uei Chi enjoys a renewed interest. (Zürcher (1964): 59).

<sup>100.</sup> Frankenhauser (1996): 9-10; Harbsmeier (1998): 404 ff.. Frankenhauser (1996): 10: "Während im Syllogismus durch Deduktion ein Schluss gewonnen wird, wird im yinming ein Schluss bewiesen. Neues Wissen wird nicht gewonnen."

<sup>101.</sup> See Frankenhauser (1996): 10-11, 15-18.

<sup>102.</sup> Gernet (1990): 262. See also Hu (1963): 45.

<sup>103.</sup> Gernet (1990): 264.

ment has traditionally been weaker, and was even less strong now. This economic growth led to an increasing number of well-off families in the 11th century, and the increase of inland demand caused a growing trade in luxury products<sup>104</sup>. Starting from the Sung Dynasty, the increase of population was attracted to the army (the threat at the northern frontier), the artisanat (with industrial allure)<sup>105</sup> and, very important, to the commercial agglomerations, where they engaged in all kinds of commercial activities<sup>106</sup>. Also the roads that connected the commercial cities were lined with a variety of commercial enterprises that escaped from the controlling power of the government. Commercial taxes and state income from monopolies exceeded the income from agrarian taxes starting from the twelfth century onward<sup>107</sup>.

This new political and economical situation necessitated some institutional reforms. Many of these reforms were originating from the southeastern region of the Chinese empire, where the economic growth had provoked a great circulation in goods and money<sup>108</sup>. Due to these reforms, in the 11th century, rivaling political factions were formed, centered around the reformer Wang An-shih (1021-1086) and the conservatist Szu-ma Kuang (1019-1086)<sup>109</sup>. Although many of the reforms of Wang An-shih were withdrawn by the faction of Szu-ma Kuang, on the field of education, candidates for the examinations started to be tested also in their knowledge of such practical things as economy, law and geography<sup>110</sup>.

It may be no surprise that in this new socio-political circumstances, the Sung Dynasty knows a flight of philosophical activities<sup>111</sup>. The embryonal rational culture that had developed in early Taoism and in Mohism is — after a gap of many centuries — taken up again in Neo-Confucianism. Neo-Confucian philosophers made the "*Ta-hsüeh*"

<sup>104.</sup> Gernet (1990): 279-283.

<sup>105.</sup> See Lewin (1973): 86: "die handwerkliche Arbeit hatte sich über das Stadium der Produktion für den eigenen Bedarf hinaus zu einer gewissen Stufe der selbständigen Warenproduktion entwickelt."

<sup>106.</sup> Gernet (1990): 278.

<sup>107.</sup> See Lewin (1973): 158-159.

<sup>108.</sup> Gernet (1990): 270. During the Sung, paper money was issued based on salt produced as government monopoly. See Wood (1996): 125.

<sup>109.</sup> Gernet (1990): 269.

<sup>110.</sup> Gernet (1990): 271. See also Needham (1972): 179, note #1.

<sup>111.</sup> Graham (1978): 72 remarks that in such a period of technological and economic advances as the Sung, highly creative in philosophy, science and mathematics, the canons would certainly have found appreciative readers if they had been available and intelligible. See also Hu (1969): 1.

('Great Learning'), originally a chapter of the Han Dynasty Confucian classic "Li-chi" ('The Book of Etiquette'), to one of the so-called "Four Books" (Szu-shu) of Neo-Confucian thought. The reason they promoted the "Ta-hsüeh" may lie in it that it is the only Confucian work that provides a scheme for a logical working method: "When things are thoroughly investigated, knowledge will be extended to the utmost. When knowledge is extended to the utmost, our ideas will be made true<sup>112</sup>." This quotation can be understood as that to extend our knowledge, we have to investigate things exhaustively as to their causes. However, the reason this investigation is done remains "to make our ideas true". This implies that, as had been the case with early 'yin-ming', also Neo-Confucianists restricted themselves to moral and political philosophy<sup>113</sup>.

In fact, Neo-Confucianism was also aimed at winning back intellectuals who had, in the period of decline of the Chinese empire after the T'ang Dynasty, sought their refuge in intellectual Buddhism. Where Buddhism, at its first presence in China, had been restricted to non-Chinese emigrants and had gradually been accepted in Chinese society, philosophical activity in Sung China, inspired by a new socio-economical situation, is aimed at merging the foreign doctrine with the traditional indigenous Taoist and Confucian systems.

According to Chu Hsi (1130-1200) in whom the Neo-Confucian philosophy finds its full-grown formulation, we have to distinguish 'what is within forms' (hsing erh hsia) and 'what is above forms' (hsing erh shang). He characterizes the 'tao' of Taoism as belonging to 'what is above forms;' it is manifested in the ten thousand things of the world in the form of 'te'. The ten thousand things of the world belong to 'what is within forms'. The 'arche'-idea of Taoism for which we found similarities in the theories of the Milesian philosophers Anaximander and Anaximenes is taken up again here. The idea of two levels of reality also resembles the Buddhist concepts of the ultimate truth (paramārthasatya) and the conventional truth (saṃvṛtisatya), the ultimate truth equaling Buddhist suchness (tathatā; dharmatā), and the conventional truth referring to the things as they appear before us in the conventional world<sup>114</sup>. We can here also quote Han Fei-tzu who says: "Tao' is that whereby all things are so, and with which all

<sup>112. &</sup>quot;Ta Hsüeh", Szu-shu Wu-ching: 1. See also Hu (1963): 67; (1969): 1-2.

<sup>113.</sup> See Graham (1964): 54; Hu (1969): 5.

<sup>114.</sup> See Matilal (1986): 242.

principles ('li') agree. Principles are the markings ('wen') of completed things 115."

The interpretation of Buddhist concepts in conformity with a predominantly Confucian system once again shows how the history of Buddhism in Chinese society remained a history of adaptation, with, in the best case, Buddhism tolerated as a metaphysical complement to the social and political teachings of Confucianism<sup>116</sup>.

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<sup>115. &</sup>quot;Han Fei-tzu", Chapter 20, Erh-shih-erh Tzu, 1138c13.

<sup>116.</sup> Zürcher (1964): 59.

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