Chapter One

Defining Animals

Provided that one is prepared to allow for certain fundamental generalities that apply to most if not all living species, notions of humanity and animality, like the concept of nature itself, are to be perceived as cultural constructs. The boundaries between what is seen to belong to the realm of human culture and what is assigned to the natural world are variable and historically contingent. Whether one’s focus of enquiry lies in tracing developments in the history of a science of nature, or whether one wishes to examine the cultural roots behind natural imagery, any investigation into the perception of animals in ancient and contemporary societies must take stock of this variability. In exploring the perception of animals in early China, we must therefore give heed not to assign the animal kingdom to a context of analysis that remains absent from early Chinese writings. While the modern Western mind may be impelled to view animals as subjects or objects belonging to a natural world detached from human concerns, such naturalist perception of the animal world may not have been present in the minds of the Chinese authors who compiled the texts that make up our source material. As Geoffrey Lloyd recently observed, “what we must at all costs avoid is the assumption that there is a single concept of nature towards which both Greeks and Chinese were somehow struggling, let alone that it was our concept of nature as in ‘natural science.‘”

One term frequently associated with Chinese concepts of nature is *zi ran* which can be translated as “so of itself” or “so of its own accord.” This term implies an emphasis on spontaneity rather than on physical and objectifiable reality. “So of itself” is in essence an adjectival qualification, it describes a state of being rather than an essential quality and is therefore not equivalent to nature as a physical world that exists of itself and by its own laws. From the outset, any investigation into Chinese perceptions of the natural world requires dealing with an ambiguity innate in its object of study itself. First, if what is natural is conceptually formulated as the mere spontaneous existence of things “of themselves,” the natural world does not necessarily constitute the equivalent of what we understand as the physical world. While the world of physis can be understood as the physical world, the world of *zi ran* is just the way of things as they are and does not exclude elements one would habitually assign to the realm of human society or culture in general. Second, if
the natural world is perceived as the world of that which spontaneously exists rather than a biological reality functioning according to a set of natural laws, it need not prompt definition, analysis, or explanation. In short, the natural world is a negotiated reality. As Claude Lévi-Strauss has pointed out, the researcher never engages in a dialogue with a uniform and pure concept of nature but with “a certain condition of the relationship between nature and culture, defined by the historical period in which he lives, his own civilization, and the material means he has at his disposal.” In several ways the analysis of Chinese animal references in this study will therefore necessitate a methodological as well as a conceptual compromise: methodological in that my analysis and interpretation of animal material in Chinese texts has been guided by structural imperatives either innate to or absent from the body of texts under investigation; conceptual in that I am trying to explicate something which in the Chinese sources has remained implicit; namely, the animal notion itself.

Problems of Definition

The initial step of an investigation into the perception of animals within the cultural context of early China may seem obvious; namely, to address the question of how Chinese authors have tried to define the animal and examine the available theoretical discourse on animals. Such exercise however does not prove to be very fruitful. Whereas the philosophical treatment and textual documentation of animals in ancient Greece began at least as early as Pythagoras (sixth cent. B.C.E.), Chinese texts from the Warring States and early imperial era remain relatively silent on animal theory. Questions regarding the physiology of animals, the classification of species, the interpretation of animal behavior, or the economic and social relationship between humans and animals figured in the margins of Warring States and Han philosophical discourse. While the surrounding world of the Chinese observer, like that of his Greek or Roman counterpart, was dotted with an equally rich fauna of flying, running, swimming, and crawling creatures, the motivations behind the observation of the natural world and the way in which these were recorded and put to analytical scrutiny were of a different nature. In early China, the notion of the animal was generally not a self-evident category, and observations of animals and animal behavior did not find their way into a collective body of analytical writings.

One area that illustrates the low share of theoretical discourse on animals in early China is that of the basic terminology used to refer to animals as either a generic category or a collective of different species or groups. The classical Chinese language lacks a linguistic equivalent for the term “animal.” “Animal” or “animated being,” with its origins in the Platonic notion of “zoon” (ζῶον), implies a notion of animacy and inanimacy as a distinctive criterion. As a con-
cept including everything that partakes of life, including humans and animals, as opposed to inanimate mineral and plant life, it may not be entirely compatible with classical Chinese equivalents such as wu 物, shou 獸, qin 禽, chong 蟲, or even the modern generic term for animals, dongwu 動物 (“moving being”). The difficulty in tracing the ontological status of animals as evinced in the writings of early China is reflected in the bleached terminology used to denote an animal or animal group in Chinese. Compare the following entry for “animal” in the Oxford English Dictionary, which provides a tentative summary of definienda associated with animals in the Western tradition. Echoing Aristotelian gradualism in biology, it contains elements such as the inferiority or superiority of species, generic typicality, and formal differentiation from opposites:

A living being; a member of the higher of the two series of organised beings, of which the typical forms are endowed with life, sensation, and voluntary motion, but of which the lowest forms are hardly distinguishable from the lowest vegetable forms by any more certain marks than their evident relationship to other animal forms, and thus to the animal series as a whole rather than to the vegetable series.5

No one single denotative definition that summarizes the essential ontological properties of a being that approximates the Greek or Western notion of an animal can be found in early Chinese writings. Even if one is prepared to stretch semantic categories, it remains problematic to build a consensus around a graph or word in classical Chinese that covers a concept similar to the “animal” in the aforementioned dictionary entry. This is not to say that a Chinese terminology for animals is absent or less developed. The opposite is true. Several graphs in classical Chinese function as generic referents that approximate the category animal. However a general feature of most of these graphs is that they embrace plural meanings, often partly overlapping with each other.

Perhaps the most general referent to a living being is comprised in meanings associated with the graph wu 物. Although the wu graph stands out as one of the most polysemic terms in Chinese, its origins and some of its definienda in early texts appear to link it with animals. In the Shuowen jiezi 説文解字, Xu Shen 許慎 (30–124 C.E.) gives the following gloss:

[Wu] means the ten thousand beings (wan wu 万物). The ox is a big being (da wu 大物). The calculation of heaven and earth (tian di zhi shu 天地之數, i.e., the astronomical record of the universe) starts from the Cowherd constellation. Therefore the graph consists of the element niu 牛 and the sound wu 物.6

If we read this gloss through the eyes of later commentaries, the analogy between niu 牛 and the graph wu is that between the physical size of an ox and the all-encompassing semantic range of wu as a denominator for indeterminate
“things.” Likewise the function of the cowherd constellation as a primal point of orientation in the astronomical description of the cosmos is compared to the function of wu as the most common and functional linguistic referent to phenomena in general. The direct association with the ox element is probably Xu Shen’s own fictitious rationalization as the archaic wu graph is linked more generally with the emblematic use of animals as early as the Shang and Zhou. Some scholars have interpreted the wu graph as a pictographic representation of a man holding a knife and killing an ox. This has lead to the suggestion that it may represent a sacrificial animal or animal offering. The locus classicus for wu in the sense of an animal offering is a Guoyu passage explaining the role of shamanic mediums using ritual vessels and animal offerings to communicate with the spirits. Additional early evidence that may link wu to animals occurs in a passage that mentions armor decorated with animal designs, and another passage advocating the presentation of animal sacrifices to a spirit. Other more generalizing statements can be found in Warring States texts, none of which however relate wu exclusively to animals. The Zhuangzi for instance paraphrases wu as “everything that has appearance, image, sound and color.”

Other characters used to denote animals reflect a similar polysemy. First there are the graphs shou 鼻 and qin 鳥, traditionally translated as “beasts” and “birds.” Again, a uniformity of definition is hard to trace. In its gloss for shou the Shuowen states that creatures with two feet are called qin, and quadrupeds are called shou. According to another early lexicon, the Erya 頼, a creature is called a shou when it has four feet and hair, and a qin if it has two feet and feathers. Xu Shen further defines qin as a common denomination for “walking beasts” (zou shou 走獸). A text fragment ascribed to a Han compilation known as the Bohutong 白虎通 defines qin in a pun on its secondary meaning as a verb “to capture” and states that the graph is “a general name for birds and quadrupeds, illustrating that they are ‘imprisoned’ (qinzhi 僅制) by man.” According to Zheng Xuan 鄭玄 (127–200 C.E.) qin denotes birds and quadrupeds that are not yet impregnated. While these sets of definienda refer to the number of feet and the presence or absence of feathers or hair, other definitions are mere paronomastic glosses. Thus Xu Shen further qualifies shou as “that which guards and protects” (shou bei 守備), a definition based on the homophony of the characters 守 *sjeu and 守 *hrejewx, and the inclusion of the dog radical (quan 犬), the dog being the exemplary guardian animal. He Xi 何休 (129–82 C.E.) glosses the graph referring to the winter hunt, shou 符, as 獸, the idea being that in winter game animals are fat and ready to be hunted. Shou 獸 is also connected with the idea of the wilds. The Erya for instance distinguishes shou “wild animals” from chu 畜 “domesticated animals” in two separate chapters. Kong Yingda 龔頤達 (574–648 C.E.) comments elsewhere that what is fed at home is called a chu “domestic animal,” while what lives in the wilds is called a shou “wild animal.” Together with the isolation of domestic animals as a dis-
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distinct group the use of the term *liu chu* 六畜 “six domestic animals” emerges. The origins of the term *liu chu* are uncertain. The expression occurs as early as the *Zuo zhuan* but may be older. It is specified regularly into six concrete animals in sources from the third century B.C.E. onward. The Qin daybooks or *rishu* 日書 (dated ca. 217 B.C.E.) excavated at Shuihudi 睡虎地 (Hubei; discovered in 1975–1976) contain a list including the horse, ox, sheep, pig, dog, and chicken, and frequently use the term *liu chu*. The *Zhouli* mentions the terms *liu shou* 六獸 “six beasts,” *liu qin* 六禽 “six birds,” and *liu chu* 六畜. According to Zheng Xuan *liu chu* refers to the same set of animals as those covered by the term *liu sheng* 六牲 “the six sacrificial animals,” with *liu chu* referring to animals during the initial process of breeding and *liu sheng* to animals that are about to be used in sacrifice. No further information on the origins of these collective terms for wild and domesticated animals is preserved in contemporary sources.

Another red herring is the character *chong* 蟲, which is a polysemantic word comprising animals in general, insects or invertebrates in particular. The earliest etymological definition of the graph *hui* 鬥 occurs in the *Shuowen*, where it is glossed as the name for a viper and explained as a term for any small animal that creeps or flies, is hairy or naked, and has a shell or scales. The polysemantic nature of *chong* is further illustrated by its usage in early medical literature where it can cover anything from bugs, worms, reptiles, and insects to other parasitic vermin.

Finally there is little evidence that the binome *dongwu* 動物 “moving beings,” which also functions as the generic name for animals in modern Chinese, was used as a consistent referent to animals in early China. Possibly the earliest occurrence of *dongwu* as a generic reference for animals occurs in the *Zhouli*, where it is juxtaposed against plants (*zhiwu* 植物) and humans (*min* 民). To my knowledge there are no other passages where this binome distinguishes animals from plants and human beings, or where it exclusively refers to animals rather than moving phenomena in general.

This brief survey of terminology is not exhaustive. Several other classifying terms that refer to specific groups of animals could be added such as *lin* 鱗 for scaly animals, *jie* 介 for armored species, *mao* 毛 for hairy animals, *yu* 羽 for feathered species, and *luo* 裸 for naked animals. Yet as is the case with the definitions surveyed above, diverging opinions exist among early commentators and modern scholars as to the precise body of creatures these terms refer to, not in the least as to whether humans are consistently referred to as naked animals. It may be clear from the above outline that the early Chinese corpus, or at least those texts which have survived, contains few attempts at authoritative definition or at developing a univocal animal terminology that sought to delineate the formal and behavioral characteristics of the main animal groups. Chinese writings of the Warring States and Han periods rarely collect observations from nature in order to evaluate that knowledge with a view to establishing a
vocabulary that could claim universality and contribute to a theoretical model of the animal world.\textsuperscript{27}

One way of circumventing the problem could be to side with scholars who seek to attribute the absence of denotative description to the particularity of the Chinese language, which may or may not provide the linguistic tools to articulate formal definitions. Philosophers and linguists have argued that the notion of definition itself needs to be qualified in the Chinese context. In a recent study Christoph Harbsmeier notes that “the Chinese tended to be interested in definitions not in a Socratic way and for their own sake as descriptions of the essence of things, and they were very rarely interested in definition as an abstract art in the Aristotelian manner.”\textsuperscript{28} David Hall and Roger Ames express a similar caution against the search for natural essences in Chinese definitions:

The Chinese don’t seem to know what a definition is! . . . The confusion is easy enough to overcome, however. Once we recognize that there is no basis for appeal to objective connotation in the sense that there can be no effort to characterize all of the essential properties common to the members of a class, then we shall understand that there can be no objective denotation in which, presupposing the connotative properties, we could point out all the members of a class. Once we understand this, we shall avoid demanding a definition and remain content with asking for concrete examples and models.\textsuperscript{29}

While definitions, even when presented in their culturally specific reincarnation as exemplary models, may provide a source of knowledge of the Chinese conceptual world, one should note that their absence, as in the case of generic animal terminology, can be an equally rich source of insight. In short any attempt to address animals as a category runs the inherent danger of resorting to a terminology that is not paradigm-free, and colored Greek or Western for that matter. Any endeavor to integrate precarious notions such as “definition,” “classification,” or “species” should therefore be veiled in a cautious caveat. While one should try to avoid imposing modern schemes of biological and philosophical logic on ancient Chinese texts, the lack of a compatible terminology for the study of animals will on occasions necessitate the use of Western, culturally specific terminology. In this study I will have to revert to terms such as “animal,” “animated being,” or “creature,” although such choice of words might not always accurately reflect the original Chinese concepts they intend to represent. My reservation is that they be used in as much a paradigm-free manner as possible.

Stepping away from the issue of definition in early Chinese epistemology, another test to measure attitudes toward the definition of animals in early China and assess the reception of animal terminology is to examine how later Chinese scholars themselves perceived the issue. It then appears that not only do we find comments on the subject to be extremely scarce, but also that obser-
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vations regarding the absence of a theory of animals are not exclusive to the Western observer. For instance, in a work entitled *Bian wu xiaozhi* ("Short Treatise on the Discrimination of Things"), the Ming scholar Chen Jiang 陈绛 (fl. ca. 1530) points at the polysemy of terms used to refer to the main animal groups. The following extract illustrates his confusion regarding the ways in which the ancients used animal terminology:

Bipeds with feathers are called *qin* 鷟. Quadrupeds with hair are called *shou* 獠. Thus a *shou* can also be called a *qin* [having four feet implies having two]. The *Changes* (Yi 易) states that if one approaches deer without a hunter, one follows the *qin*. A deer hence is also a *qin*. In the Quli 曲禮 (chapter of the Liji 礼記) it is said that although the ape can talk, it is not different from the *qin* and *shou*. An ape hence is also a *qin*. The *Yili* 李儀 takes *qin* to constitute the six gifts. In the case of a minister the gift is a lamb; a lamb is therefore also a *qin*. The duodenary animals in Cai Yong’s 蔡邕 *Yueling wen da* 月令問答 ("Questions and Answers about the Monthly Ordinances")—being the rat, ox, tiger, rabbit, horse, sheep, monkey, chicken, dog, pig, dragon and snake—are all *qin* . . . A *qin* is also called a *shou*. According to the *Zhouli* . . . there are five classes of big *shou* under heaven, including the naked, feathered and scaly animals. This means that birds, dragons and snakes are all *shou*.30

Chen constructs a circular argument in order to demonstrate that *qin* and *shou* are mutually overlapping categories. Rather than making a statement on the natural world, his method is lexicographic and follows a model often used by modern scholars trying to explain classical animal terminology; namely, tracing the occurrence of certain key terms and comparing the semantic fields of similar graphs in different contexts. The results are, as can be seen in Chen’s statement, equally variant and confusing. His statement suggests that in order to gain any understanding of early Chinese animal theory, one must start by recognizing its low share within Warring States and Han intellectual discourse and acknowledge the polysemantic nature of many of the basic animal terms.

**Animals in Texts**

From animal terminology, we proceed to the textual record of animal theory. One only needs to take a bird’s-eye view of the transmitted Warring States, Qin, and Han textual corpus to determine that the received record has hardly transmitted any textual material that deals with animals in a systematized or exclusive manner. As in the case of the absence of a denotative animal terminology, the fact that early Chinese writings did not single out animals as an autonomous topic of discussion or topos in itself reveals much about the status of
animals as subjects of intellectual debate. While animal material is omnipresent in early Chinese texts, this material did not evolve into systematized zoological theorization. This relative scarcity of zoological theory and the absence of a (proto)zoological corpus implies by no means that the physical fauna was a topic not worthy of disputation. It does however reflect on the biological and sociological standing of animals and their relationship with the human world in early Chinese thought. Both individual comments on the kind of knowledge a human observer can draw from the animal kingdom as well as the genre of texts in which animal material has been recorded show that the protoscientific inquiry of animals remained secondary to discussions of their practical use and explanations of animal nomenclature.

Few early Chinese texts engage in a theoretical discussion on whether and how the human observer should gather information about and organize data from the natural world. On the contrary, an expertise in the detached observation and analysis of the natural world does not appear to be considered a trademark of the human sage. A passage in a Han work known as the *Chunqiu fanlu* ("Luxuriant Dew of the Spring and Autumn") states that "being able to explain the species of birds and beasts (shuo niaoshou zhi lei 說鳥獸之類) is not the desire of a sage. The sage wants to explain benevolence and righteousness and regulate those..."

This rare epistemological statement on the human sage’s approach toward the animal world suggests that the human sage should not engage in taxonomic definition and in the differentiation of categories in the animal world. Instead the sage should devote his efforts to regulating and elucidating human values. The sage here is said not to be preoccupied with the explanation of categories (lei 類) in the natural world but with the clarification of ethical principles in human society. That the author traditionally associated with this text, Dong Zhongshu (董仲舒 179–104 b.c.e.), may have been renowned for his agnostic attitude toward the animal world is exemplified in an apocryphal anecdote. It accounts that Dong was so earnest in his study that, during a period of three years, he did not throw a glance at the parks, and when riding a horse he did not know whether it was a mare or a stallion.

At first reading, the *Chunqiu fanlu* statement seems to suggest that the animal realm was a topic not worthy of a sage-ruler’s scrutiny. However, this is not necessarily the case. The text states that the sage does not “explain” (shuo 說) the species of birds and beasts. The verb shuo has the connotation of “analysis” and is glossed by Xu Shen as shi 釋, “to explain, unravel (a meaning).” A constituent graph in this last character, bian 碑, likewise conveys the meaning of “discriminating” or “separating one (category) from another.” Xu Shen glosses it as “to discriminate and separate” (bianbie 辨別) and suggests that its pictographic origins resemble the “distinction and separation of animal toes and claws,” an image that echoes Cang Jie’s 蒼頡 legendary invention of the character script based on the foot tracks of birds. The etymologies underlying the
use of *shuo* here may therefore refer to one particular notion of discrimination; namely, a process in which the differentiation between animal categories or species consists of the enumeration of *differentiae* between species A and B. In other words, while the sage may not preoccupy himself with distinguishing species differentiae, the author by no means infers that sages should simply disregard the animal world. In fact the *Chunqiu fanlu* devotes considerable attention to the classification of animals and sacrificial victims within its correlative models. Implied in the *Chunqiu fanlu*’s agnostic statement is the idea that taxonomic differentiation constitutes only one particular and, hence, partial way of gaining knowledge of the animal world. As we will see, taxonomy is a hermeneutic process which, in early China, was deeply entrenched in lexicography, as can be seen, for instance, in the titles of the “zoological” chapters of the *Erya* (*shi chong* 釋蟲, *shi yu* 釋魚, *shi niao* 釋鳥, *shi shou* 釋獸, *shi chu* 釋畜).

A second significant reference that comments on the relationship between sagacity and the *episteme* of the natural world needs to be addressed. In the *Lunyu* 论语, Confucius admonishes his pupils to study the *Shijing* and argues that through the study of the Odes one would acquire, among other qualities such as the capacity for observation and communion, a “wide knowledge of the names of birds and beasts, plants and trees” (*duo shi yu niaoshou caomu zhi ming* 多識於鳥獸草木之名). Confucius alludes here to the rich body of animals and plants used as rhetorical “stimuli” or “comparisons” (*bi*) in the Odes. While the identification of animal and plant names constitutes only one element in a longer series of human qualities one can obtain by studying the Odes, this passage remains important both in terms of its advocacy of the Odes as a source of exegesis of the natural world and in its indication as to how natural imagery is “knowledgeable.” First, Confucius notes that the Odes are to be taken as a basic thesaurus and authoritative lexicon for the understanding of the animal world. Second, such knowledge is not specified as a process of discrimination between species but as a recognition of names (*ming* 名). Rather than referring to an act of differentiation between species and kinds, Confucius proposes an epistemology of the living species that consists of knowing their names. Joseph Needham has argued that this quote should oblige us to believe that “in the closing years of the sixth century B.C., canons of botanical and zoological nomenclature were being actively discussed by the learned.” This proposition is questionable. The *Shijing* is certainly the oldest extant and most extensive textual source of animal lore. This is already noted by Sima Qian 司馬遷 (ca. 145–86 B.C.E.) who qualifies the Odes as a record of “mountains and rivers, valleys and gorges, birds and beasts, herbs and trees, female and male animals, and female and male birds.” The importance of the Odes as a source of botanical and zoological lore is also reflected in titles of later lexicons, encyclopedic treatises, and dictionaries that focused on classifying and annotating its rich fauna and flora. The earliest among these is Lu Ji’s *Lüshì* (ca. 222–280 C.E.) *Mao shi caomu niaoshou chongyu shu* 毛詩
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(“Explanatory Notes on the Plants, Trees, Birds, Quadrupeds, Insects and Fish in Mao’s Shijing”), which sparked the compilation of many similar works in later periods.39 The ﬁrst lexicons and their commentaries as well as later commentaries to historical and ritual texts by Eastern Han and post-Han exegetes primarily based their explanations of animal nomenclature on precedents from the Shijing. However, two other signiﬁcant points follow from Confucius’s observation; namely, the question of the genre of literature in which this animal imagery was incorporated, and the emphasis put on animal nomenclature and the act of naming.

While Needham presumed that scholars actively discussed animal nomenclature and possibly wrote them down in zoological compendia now lost to us, it seems to me that Confucius’s instruction reveals a more important point. As a primary reference tool for the knowledge of animals, Confucius refers to a book of poetry and folk songs rather than to a zoological compendium or analytical treatise of some kind. This suggests that, rather than being an exercise in the recognition of animals and plants, the identiﬁcation of animal and plant names in the Odes was more likely, as Steven Van Zoeren has pointed out, “a natural outgrowth of the sort of textual exegesis that went on in a pedagogical setting.”40 In other words, if animal nomenclature were actively discussed by the learned, why write them down in poetry? Although active discussions of animal nomenclature were part of a larger project of poetical exegesis, they present rather weak evidence to authenticate the existence of a living tradition of protozoological enquiry.

The qualiﬁcation of a textual genre by Confucius is signiﬁcant, since the nature of the surviving literature available for the study of the animal in early China reveals something about the animal concept itself and the place of animals as a topic of intellectual discourse. As I have already indicated, the corpus of surviving Warring States and Han texts has transmitted hardly any records dealing with topics that approximate the concerns of early Greek or Roman zoological writings.41 Zoology, in its sense of a science or protoscience that deals with the animal world and its members as individuals and classes, and with animal life and morphology, does not form an autonomous topic of scholarly discourse in received early Chinese writings. Chinese philosophers did not develop a body of texts that systematized or articulated empirical data from the animal kingdom.42 This is not to say that, as will be shown in chapter 3, certain texts do not contain a considerable amount of animal data or that a naturalistic interest in the animal world is entirely absent in the works of the masters of philosophy in Warring States and early imperial times. To give one example, a work such as Wang Chong’s (27–ca. 100 C.E.) Lunheng (Disquisitions Weighed in the Balance) contains large sections as well as several chapters that deal speciﬁcally with animal topics (“Encountering Tigers,” “Discussing Insects,” “Untruths about Dragons,” and others).43 However, to identify these text pas-
sages as zoological or objectivity-oriented discussions of the animal world would be problematic. Most of Wang Chong’s argumentation aims at refuting popular beliefs and superstitions regarding certain animals and daemonic creatures. While much valuable information regarding the perception of animals is transmitted in Wang’s rebuttals, the prime motivation of his discourse does not stem from an intrinsic interest in analyzing animals.

With the masters of philosophy remaining largely silent on the collection and interpretation of data from the animal world and with protozoological works virtually nonexistent, what about more practical and technical works on animals? The analysis of data from the natural world and natural philosophy in the Warring States period was predominantly the domain of natural experts such as astrologers, physicians, diviners, the makers of almanacs, and practitioners of related specialties. The excavation of new manuscripts over the past three decades increasingly reveals the wide range of specialist literature in which magicoreligious and naturalistic views of the world are blended. New discoveries are sure to follow and shed new light on the contents of these specialist texts and the extent to which they circulated. It is noteworthy however that among this body of technical texts, writings dealing with animals and animal material in general are relatively scarce. Texts and manuals dealing with the mundane preoccupations of the Warring States farmer or herdsman—such as animal breeding, animal domestication and husbandry, animal physiognomy, and animal medicine—have only been preserved in small number. While this may partly be due to the selective survival of texts, the limited reference to a technical literature on animals in the received corpus suggests that such literature did not flourish or, alternatively, that the technical discourse on animals may have been deemed unworthy of canonical survival.

Judging from the reproduction of Liu Xin’s 刘歆 (46 B.C.E.–23 C.E.) catalogue of the imperial library at Chang’an 长安 preserved in the Hanshu 汉书, few substantial writings on animals other than lexicographic materials (surveyed below) and a series of technical works dealing with animal physiognomy, tortoise divination, and fishing appear to have circulated or gained the recognition that earned them a place in the imperial bibliography. These include a lost work entitled Xiang liu chu 相六畜 (“Physiognomizing the Six Domestic Animals”) in six scrolls, and a text entitled Zhao Mingzi diao zhong sheng yu bei 昭明子釣種生魚鱉 (“Zhao Mingzi’s [manual] on Fishing, Planting, and Raising Fish and Turtles”) in eight scrolls. Zhao Mingzi is unknown in the received record. The first text is listed under the bibliographic division “Xing fa” 形法 (“Configuration Models”), the second under the division “Za zhan” 雜占 (“Miscellaneous Divination”).

A similar work on fishing entitled Yangyujing 養魚經 (“Classic on Fish Farming”), whose putative authorship is attributed to Fan Li 范蠡, is mentioned in the bibliographic treatise of the Jiu Tangshu 舊唐書. The figure of Fan Li, a grandee from the state of Yue 越 active during the first half of the fifth
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century B.C.E., is also linked to manuals on ﬁsh breeding under his honoriﬁc name of Taozhu Gong 陶朱公. A work entitled *Taozhu Gong yang yu fa* 陶朱公養魚法 (“Taozhu Gong’s Methods for Fish Farming”) is preserved in fragments in a sixth-century C.E. manual on agriculture. Fan Li’s association with aquatic creatures is further attested in an exchange in the *Guoyu*, where he puts the people of Yue rhetorically on a par with animals and refers to his Yue ancestry as unaccomplished vassals of the royal house of Zhou living on the shores of the eastern sea amidst tortoises and ﬁsh.

In a section entitled “Shi gui” 菊龜 (“Milfoil and Turtle”), the Han bibliographic catalogue further contains a series of works related to tortoise divination. Tang bibliographic treatises contain other titles on animal physiognomy, some of which are attributed apocryphonically to earlier authors. They include a work entitled *Xiangniujing* 相牛經 (“Classic on Cattle Physiognomy”) whose putative author was Ning Qi 甯戚, a grandee at the court of Duke Huan 桓 of Qi 齊 (685–643 B.C.E.); a work entitled *Xianghejing* 相鶴經 (“Classic on the Physiognomy of Cranes”) attributed to the legendary immortal Fu Qigong 伏丘公; and anonymous technical works such as a *Xiangbeijing* 相貝經 (“Classic on the Physiognomy of Shells”), a *Yingjing* 鷹經 (“Classic on Falcons/Falconry”), and a *Canjing* 螃經 (“Classic on Silkworms”). A shepherd from Henan by the name of Bu Shi 卜式 (fl. ca. 111 B.C.E.) is accredited with the authorship of a work entitled *Yang yang fa* 養羊法 (“Methods for Sheep Farming”).

Although no body of early veterinary literature has been transmitted, reference to animal healers as well as to the medicinal treatment of animals in several texts suggests that such technical literature may have been circulating. The idealized description of the ofﬁces in the royal state of Zhou preserved in the *Zhouli* includes the ofﬁce of an animal doctor and a horse sorcerer. In addition to the use of animal physiognomy, which may have been part of early veterinary practice, animal practitioners most likely used a combination of shamanic and medicinal healing. A mural depicting the castration of a bull has been recovered from an Eastern Han tomb in county Fangcheng 方城 (Henan). Reference to animal healing occurs most frequently in relation to the horse, which conﬁrms that in Warring States and Han China, as elsewhere, horses were considered a particularly valuable asset. One legendary horse healer was Ma Shihuàng 马師皇 who was allegedly active at the time of the legendary Yellow Emperor. According to one account, his healing skills were so efﬁcient that a dragon spontaneously gave itself up to receive Ma’s needle treatment. In general, animal doctors were probably deemed quite low on the social ladder. Xunzi 荀子, for example, accuses those who adhere to paradoxical sophist theorems as being stupid by stating that their attitude does not even amount to making a reputation for oneself by physiognomizing chickens or dogs. A story in the *Liezi* 列子 mentions a horse doctor together with a beggar and suggests that both professions received the scorn of the nobility.
Other, less technical writings may have included substantial information on animals, animal lore, and magicoreligious beliefs and practices associated with animals. These include titles of lost works such as the Ren gui jingwu liu chu bian-guai 人鬼精物六畜變怪 ("Human and Demonic Spectral Entities and the Mutant Prodigies of the Six Domestic Animals"),\(^6\) and a work entitled Za qinshou liu chu kunchong fu 雉禽 六畜昆蟲賦 ("Miscellaneous Rhapsodies on Birds, Beasts, the Six Domestic Animals and Various Insects").\(^6\) This last work presumably included poetic expositions on the animal theme or didactic morality tales such as the one that appears in a recently discovered late Western Han manuscript recovered from a tomb at Yinwan 尹灣 (Jiangsu; excavated in 1993). In this piece, entitled Shen wu fu 神鳥賦 "Rhapsody on the Spirit Crows," crows are praised for their sense of benevolence as they egorge their food to their parents, practice righteousness, and grasp the way of humans. It tells the story of a bitter rivalry between a foraging pair of crows diligently searching for materials to build their nest and a robber crow attempting to steal their nest provisions. Despite having chosen to build their nests in a tree at the residence of an official whose "kindness reached to the insects and worms," the couple is not spared from the robber crow’s intrusion. A bitter fight ensues in which the female crow gets injured. The male bird is left to wail because it cannot follow its partner in death.\(^6\)

The titles of technical literature transmitted in the received canon can be supplemented with a series of recently excavated manuscripts. The excavation of two manuscripts on dog physiognomy have been reported at the sites of Yin-quezhan 銀雀山 (county Linyi 至沂, Shandong; second century B.C.E., discovered in 1972) and Shuanggudui 雙古堆 (Fuyang 阜陽, Anhui; burial dated ca. 165 B.C.E., excavated in 1977).\(^6\) The Yinqueshan manuscript is severely damaged. One scholar has speculated that it mainly deals with hunting dogs.\(^6\) Furthermore, mention should be made of a text known as the Xiangmajing 相馬經 ("Classic on the Physiognomy of Horses") excavated at Mawangdui 馬王堆 (Hunan).\(^6\) An early Western Han manuscript assigned the title Wanwu 萬物 ("Myriad Things") excavated at Fuyang in Anhui contains technical and medical material and includes devices for catching animals and expelling venomous pests. The Mawangdui medical corpus likewise contains a rich thesaurus of animal drugs.\(^6\)

Finally data on animals have been preserved in administrative and legal texts. Among Han administrative documents excavated in the northwestern frontier region of Juyan 居延, a fragmentary cattle register has been recovered from a site at Taralingin-durbeljin (Dawan 大渾).\(^6\) Considerable attention is given to animals in the Qin daybooks and legal documents excavated at Shuihudi and Longgang 龍崗 (Hubei; discovered in 1989–1991). Calendrical and legal texts comprised a broad set of topics pertaining to daily life, and legal disputes regarding animals covered a wide range of issues. The Qin legal codes refer to the theft of animals, dissatisfactory results or malpractice in the breeding of cattle and
horses, the suitability of horses for the army, rules regarding the breeding of chickens and pigs, animals in private parks, the tiger hunt, and the wounding of carriage horses. The Longgang slips contain legislation on private parks and the management of horses, sheep, and cattle. For instance one article that deals with trespassing animals stipulates that the attribution of legal liability to animals should depend on the status of the owner and the behavior of the animals: “When dogs belonging to the black-haired (common) people enter into the Forbidden Parks but do not chase nor kill its (resident) animals, they do not (need to be killed). But if they do chase and catch animals . . . kill them.”

Compared with the output of other technical Warring States and Han writings—texts that deal with astronomy, medicine, calendrical calculation, and divination—this is a relatively small number of texts, many of which are now lost or have been preserved only in fragmentary manuscript form. It is difficult to assess whether such specialized literature might perhaps not have survived the 213 B.C.E. burning of the books. I believe that the output of both “zoological” and “zootechnical” literature was probably relatively small. Writings that dealt with the practical observation and management of animals would hardly have been considered a potential danger to Qin’s legalist ideology. If writings on animal husbandry, animal physiognomy and divination, or veterinary practice were in circulation in large numbers in pre-Qin times, they were likely to survive the bibliocaust along with works on medicine, divination, arboriculture and agriculture. To be sure, the chance survival of texts does not provide a sufficient explanation for the absence of a zoological corpus or clarify why, to paraphrase Edward Schafer, in ancient China goat antelopes hobnobbed with gibbons as if modern ecology did not exist. But while absence of evidence does not necessarily constitute evidence of absence, the record currently available suggests that it is unlikely that a large body of systematized textual material dealing with animals was in circulation in the period in question. As such, the early Chinese corpus contrasts with the situation in ancient Greece where, by the late fourth century, Aristotle (384–322 B.C.E.) had compiled a considerable body of zoological treatises, still predating the first Chinese dictionaries that contained entries according to “zoological” headings—mainly the *Erya* and *Shuowen jiezi*—by more than two hundred years.

Another reason for the scarcity of transmitted animal material may be the absence of a record of animal domestication in early China. Animal husbandry played a minor role in traditional Chinese agriculture. Livestock was certainly kept by Chinese farmers, but in far smaller numbers than in Europe. Among the domesticated animals, dogs and pigs have the longest history. Meat itself constituted a relatively minor share in the traditional Chinese diet, in which grains and vegetables constituted the main food. While evidence suggests that a large variety of hunted game was consumed, one can assume that these products predominantly ended up in the kitchens of the elites and the nobility. Food remains and stomach
contents from Mawangdui suggest that a wide variety of hunted animals were thought to be fit for human consumption. These include wild rabbits and sika deer, pheasants, cranes, turtledoves, wild geese, partridges, magpies, and ringed pheasants. But even allowing for the consumption of game animals among elites, the Chinese diet was nowhere as carnivorous as its European counterpart.

From a zoohistorical point of view, the omnipresence of animals in the received record as well as in archaeological and art historical evidence indicates that this scarcity of specialized or systematizing texts does not suggest a priori that the animal was a marginal subject in early Chinese texts, nor that the use of animals in early China was somehow peripheral. Apart from multiple animal references in literary, historiographic, lexicographic, and technical sources, a detailed attention to animals is also attested in ritual canons (mainly the Zhouli, Liji, and Yili). As chapter 2 will show, ritual texts document in great detail the use of animals as sacrificial viands and their presentation as exchange gifts or as symbols of social and ritual status, and they reflect a detailed attention to the role of animals in early Chinese religion.

In sum, if we are to gain a balanced picture of how animals were perceived in early China, they should be examined through the lens of the various textual genres in which they appear. We should refrain from confining our conclusions to the small number of texts or text fragments which at first sight approximate “zoological” writings, a concept which in itself is culturally specific. Given the number and nature of transmitted textual sources or title references from the Warring States and early imperial period, there is room to infer that the vast majority of the extant texts are characterized by the absence of a conscious effort to dissociate animal nomenclature and specialized discourse regarding animals from the literary contexts in which they appear by integrating them into separate canons. This is a significant background for the further study of the animal theme in early Chinese texts. Not only does it indicate that concepts of what was perceived as an animal or animalistic being have to be derived from a variety of sources including literary, historiographical, and philosophical texts, the absence of an elaborate attempt at (proto)zoological theorization also suggests that animals and their relation to the other living species were viewed within different paradigms. The next section will show that a model of names deeply influenced the early Chinese representation and interpretation of the animal world.

**Naming Animals and Animal Names**

As indicated in the aforementioned Lunyu quote, Confucius's exhortation to study the Shijing as a window on the animal world was an appeal to study their names. According to Confucius, knowledge about animals was to be acquired through the exegesis of their names in a literary text. While the detached analysis
of animals appears to have been of minor importance to scholars and philosophers, the role of naming and the mastery of animal nomenclature were central elements in the early Chinese perception of the animal world. Rather than studying animal behavior, animal physiology, or the mutual relationships among species in the natural world, scholars focused on taxonomizing the textual thesaurus used to represent this world. This is reflected first and foremost in a recurring emphasis on the etymological classification of animal nomenclature. It can also be seen in passages that present the comprehension of names as the epistemological means to comprehend and control the workings of the animal world. While this focus on the clarification of nomenclature did not relegate the biological animal to the margins of protoscientific interest, identifying animals through names and naming, in addition to providing the underlying principle for the lexicographic classification of animal graphs, also figured as a way in which one could exert an intellectual command over the natural world.

Texts that filtered animal lore out of their literary contexts were mainly lexicographic in nature and not discursive or argumentative. In several of these works, explaining animals is synonymous with explaining their names. A brief survey of the *status quaestionis* of transmitted texts and text chapters dealing with animals as a more or less autonomous subject matter up to the end of the Eastern Han will illustrate this. Works such as the *Erya*, *Ji jiuj pian*, *Fangyan*, *Shuowen jiezi*, and *Shanhaijing* illustrate how the early Chinese “zoology” of the natural world amounted to a “nominology” of the textual referents available to describe its animal inhabitants.

The main and oldest transmitted lexicon that devotes substantial sections to animal nomenclature is the *Erya*. Scholarly consensus situates its compilation between the fourth and second centuries B.C.E. It contains five chapters on animals dealing with insects, fish, birds, wild animals, and domestic animals, and it may be the first source that dissociates domestic animals (*chu*) from others as a separate category. Following the research of Naitô Torajirô 内藤虎次郎, Joseph Needham submits that its chapters on natural history were composed between 300 and 160 B.C.E., with the chapter on domestic animals slightly later between 180 and 140 B.C.E. He further notes the close association of its animal nomenclature with the Odes, the Mao Heng 毛亨 commentary of which reached its definite form around the same time (ca. 220–150 B.C.E.). In the preface of the principal subcommentary to the work, Xing Bing 邢昺 (932–1010 C.E.) emphasizes its importance as a compendium of animal nomenclature by alluding to Confucius’s canonical *Lunyu* quote on the *Shijing*. He states that the work “enables one to have a broad comprehension of things and be without doubts. For an extensive knowledge of the names of birds, beasts, plants, and trees, nothing comes near the quality of the *Erya*.”

Although clearly distinguishing between five groups of animals in its chapter titles as well as utilizing the classifier *shu* 節, the *Erya* gives no definitions of
the principal classifying terms *chong*, *yu*, *niao*, *shou*, and *chu*. One of its rare generic comments is included in the chapter on *chong*, which ends with a statement that “those with feet are called *chong*, and those without feet are called *zhi*.” The *Erya* is predominantly a list of names and focuses on the explanation of graphs/names. Its main preoccupation lies, as Wang Guowei 王國維 (1877–1927) has pointed out, with the explanation of *ming*. Most entries are *definiendum*-definiens pairs (e.g., 鰻 *[is/means] [a/the] L“white fish”) and thus much of the *Erya* is in fact a synonymicon.

The *Erya* animal chapters do not provide a zoological differentiation of the animal world. Its general categories appear to be distinguished on the basis of a mixture of biological and lexicographic criteria. Recurring biological criteria include differentiae such as male-female, great-small, and the use of *zi* to indicate the young or fledglings of a species. The *chong* chapter includes reptiles, amphibians, crustaceans, piscines, and turtles, as well as insects. The *yu* chapter includes tortoises, snakes, and geckos, as well as several graphs with a *chong* radical. The chapter on *shou* includes a reference to humans. The *niao* chapter includes the bat (bianfu 蝙蝠) and the wushu 鼠 rat, presumably because both have wings. Because of their wings bats were known as “immortal rats” (xianshu 仙鼠) in the state of Qi. Other dialectal variants in the eastern part of the empire included feishu 飛鼠 “flying rat” and laoshu 老鼠 “old rat.”

Occasionally, the *Erya* includes a short biological generalization or description of an animal’s behavior. Although this is usually limited to a record of color, size, shape, or habitat, in some entries more detailed information is given. For instance we learn that the guanzhuan 鶃鶇, or furou 竹鸟 bird, looks like the magpie, has a short tail and, when being shot at, will catch the arrow in its beak and shoot it off at humans. Elsewhere a list is included of terms describing mastication and, in the case of birds, ways of flying. The chapter on birds also contains a statement on how to distinguish male from female birds:

In case one cannot distinguish between female and male birds, do it by means of the wings; if the right wing covers over the left wing then it is a male bird, if the left wing covers over the right then it is a female bird.

The main emphasis in the *Erya* animal chapters however is on the recognition of an animal and the association of the right name (graph) with the appropriate creature, rather than on the cognition of the biological properties of the animals themselves. The latter is further illustrated by an entry on the identification of a bird and rat that share the same biotope: “If a bird and a rat reside in the same hole, the bird is a *yu* and the rat is a *tu*.” This gloss gives data on particular animal behavior in order to assist the reader to connect a name with two creatures in the same habitat. Knowledge of the name of one animal leads to knowing the name of the other. No comment is given as to why these two
creatures choose to live together. Throughout the *Erya* biological information is subjected to the explanation of nomenclature.\(^93\)

A second, much overlooked, source is a short work with the title *Ji jiu pian* 急就篇, identified by Needham as a “Handy Primer.”\(^94\) The bibliographic treatise in the *Hanshu* lists it (in one scroll) under the category of the “Minor Studies” 小學 (i.e., language, text, and script studies, “philology”) and attributes its compilation to Shi You 史游 (ca. 48–33 B.C.E.), who was active at the Han court as Director of Eunuch Attendants under Emperor Yuan 元帝 (49–33 B.C.E.).\(^95\) Judging from the extant version, the book consists of a series of mnemonic character lists in tri-, tetra-, and heptasyllabic verses often ending in alternating end rhymes. Interspersed throughout the text are mnemonic lists of animals. In line with the primer’s objectives indicated in its introduction—“to set out and order the names, surnames, and styles of all things” (*luo lie zhu wu ming xing zi* 羅列諸物名姓字)\(^96\)—the structure of the entries is aimed at the recitative memorization of various groups of names including animals, plants, cloths, tools, titles, and diseases. A few examples illustrate the format in which its animal material appears:

Among the six domestic animals are nourished:
sucking pigs, hogs, swine,
boars, gelded pigs, hounds and dogs,
wild chickens and chicks . . .

When pigeon, dove, quail or speckle bird hit the net they die.
Kites, magpies, harriers and owls stare at each other in alarm . . .

Flying Dragon and Phoenix follow each other.
Child Demon Shooter (*sheji* 射矢/魅) and Expeller of Evil (*bixie* 喟邪) will eradicate all bane.

What can be brought about by accumulated study
is not a question of ghosts and spirits.\(^97\)

The first two extracts are couplets enumerating domestic and wild animals. The third example deals with two well-known sacred animals whose names also refer to constellations. The next example deals with two fabulous monsters known from demonographic literature. The last extract reveals some of the pedagogical philosophy behind the work. The young reader is advised not to rely on the favors of the gods to achieve wealth and social status and instead to depend solely on diligent study. By appealing to the power of recitative learning, the reader will not be deluded and seek recourse to ghosts or spirits. The understanding of the world is translated as the mastery of nomenclature. As one would expect for a primer addressed to a young readership, the *Ji jiu pian* does not offer any theoretical discus-
sion on the nature of the creatures or their mutual (zoological) relationships, nor does the text relate the animal terms to the recognition of animals in the natural world. The manual is centered around the mastery of names.

The enumerative and evocative use of animal nomenclature as a powerful literary device had precedents in the pre-Han period, notably in early poetry. One example is a hymn from the state of Lu ("Jiong") 風, Mao 297, preserved in the Shijing, which lists no less than sixteen different terms to denote horses. Each stanza is introduced by an evocation of the physical well-being of Duke Xi’s 喜 (659–627 B.C.E.) horses. This is followed by an enumeration of all the colored varieties of horses.

Fat and sturdy are the stallions, in the distant open grounds; among those stallions, fat and sturdy, there are white-breached black ones and light-yellow ones, there are pure black ones and bay ones, with their chariots they go bang-bang, he thinks of them endlessly, may these horses be good!

Fat and sturdy are the stallions, in the distant open grounds; among those stallions, fat and sturdy, there are grey-and-white ones and brown-and-white ones, there are red-yellow ones and black-mottled grey ones, with their chariots they go strongly, his thoughts are without end, may these horses be strong!

Fat and sturdy are the stallions, in the distant open grounds; among those stallions, fat and sturdy, there are flecked ones and white ones with black manes, there are red ones with black manes and black ones with white manes; with their chariots they go grandly, his thoughts never weary, may these horses be active!

Fat and sturdy are the stallions, in the distant open grounds; among those stallions, fat and sturdy, there are dark-and-white ones and red-and-white ones, there are hairy-legged ones and fish-eyed ones; with their chariots they go vigorously, his thoughts do not swerve, may these horses be swift!98
Deﬁning Animals

The final couplet of each stanza ends with a mnemonic act: the duke thinks of his horses, and thus they become good, ﬁne, active, and swift. The enumerative recital of horse terms viviﬁes the strength of the stallions and the duke’s mnemonic act of channeling his mind (si) empowers their strength. The recitative character of the poem together with its elaborate horse terminology has led some to speculate that the poem was chanted as a prayer during a sacriﬁce to a horse spirit. Its style preﬁgures a use of language common with that of later incantatory literature. The association of quasi-magical effects with mnemonic namegiving, which will be discussed in more detail in chapter 7, are commonplace in early demonographic texts. Word magic also ﬁgures prominently in the Han rhapsody, which draws its strength from the linguistic power of naming. Wang Yanshou’s (fl. mid-second cent. B.C.E.) Meng fu 夢賦 (“Nightmare Rhapsody”) is a prime example of a text built around the apotropaic use of names. The perfunctionary use of namegiving as an attribute of empowering control has its counterpart in the early Christian West, notably in the role of Adam as ultimate “nomothete” (namegiver) of all creatures. Among the popular depictions of animals in early Christian art is the portrayal of Adam naming the beasts. Once God has given Adam dominion over the animal world, Adam shows that, by naming all creatures, he understands their nature and is able to control and use them.

A focus on names is perpetuated in the only extant dialectal lexicon of the early imperial period. Yang Xiong’s (53 B.C.E.–18 C.E.) Fangyan 方言 devotes one chapter (juan 8) to regional variants of animal names. It contains seventeen entries, starting with the regional variants for “tiger” (hu 虎). All entries follow the same idiomatic format: [in region A] [animal] X “is called” (wei zhi 謂之) [animal] Y. Little additional information is given on the behavior or appearance of the animals and all is focused on the listing of dialectal variants and synonyms that could aid in the recognition of animal names in the languages of different regions.

As China’s oldest preserved comprehensive character dictionary, Xu Shen’s Shuowen jiezi is a source of paramount importance for the identiﬁcation and explanation of animal names. Since explaining the pictographic origins and phonetics of a graph entails the attribution of semantics to a character, the elucidation of a graph’s origin often implies the explication of its use as a name. Moreover, in a large number of animal entries Xu Shen includes additional data beyond the etymological analysis of a graph. For a number of animal graphs he supplies details concerning the appearance and behavior of the animal in question, and often this information stems from a concern to explain its name. In many cases, animal names reﬂect the natural behavior of the creature they denote. Explaining a name frequently consists in identifying characteristic features of the creature such as its color, size, alimentary habits, its morphology or physiognomy, and the nature of its locomotion. For instance the graph shi 耳 is glossed as the “Five Skills Squirrel” (wujishu 五技鼠):