A Contextual and Taxonomic Study of the “Divine Marvels” and “Strange Occurrences” in the *Mengxi bitan*

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Shen Gua’s *Mengxi bitan* 夢溪筆談 (Brush talks from the dream brook) has long been a focus of attention and even fascination for historians of Chinese science. An enormous amount of materials of scientific interest have been dug out from this *biji* 筆記 (“jottings”) which consists of some six hundred jottings composed around the end of the eleventh century. What kind of text is the *Mengxi bitan* (hereafter called simply the *Bitan*), and what is its textual structure? Can we simply treat it as Shen Gua’s jottings on medieval Chinese science and technology? What is the “context” of the *Bitan*? Is there a similar textual

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structure in other jottings like the Bitan written from the perspective of Northern Song gentry-officials-intellectuals?

These questions are meant to suggest the orientation I intend to take in this article. Rather than categorize various subjects arising in the Bitan, as many modern studies of the Bitan have done, I shall try to avoid any reference to twentieth-century taxonomies or classifications of knowledge. Instead, a fundamental strategy of this article is to take seriously Shen Guā's own taxonomy or classification of jottings in the Bitan, to appreciate and then evaluate Shen's discussions of things/phenomena through his own (and probably many of his contemporaries') taxonomy of knowledge. To study the Bitan from a twentieth-century taxonomy of knowledge only tends to misrepresent and distort the meaning of the original text, whereas approaching the Bitan through Shen's own categories of phenomena should help us to appreciate the Bitan's internal coherence and account for what may seem contradictions or historical complications.


2 Most modern studies of the Mengxi bitan that are guided by twentieth-century taxonomies or classifications of knowledge have been the products of historians of science in mainland China. Although many of them (especially Hu Daojing 胡道靜) have made important contributions to our understanding of the Bitan, they have generally not paid sufficient attention to the internal taxonomy and historical context of the Mengxi bitan. The taxonomy and context of the Bitan is the subject of this article. A recent Master's thesis by Xiao Shihui 蕭世輝 at Tsing-hua University in Taiwan tries to understand the historical context of the rise of the discipline of Chinese history of science and technology in early twentieth-century China. Xiao specifically chose the rise of the Shen Guā research industry in China as the major case study in his thesis. See Xiao Shihui, Zhongguo kexue jishu yanjiu shi de xingqi Shen Guā yanjiu weilǐ 中國科學技術史研究的興起沈括研究為例 [Shen Guā studies as a precedent for the rise of studies of the history of Chinese science and technology] (July 1992).

3 I have used Hu Daojing's 1985 edition (Shanghai guji chubanshe), which is based on the Yangzhou zhouxue kanben 揚州學刊本 edition sponsored by Tang Xunian 湯修年 in 1166, and his numerical ordering of some five hundred jottings (entries), as the standard frame of reference in this article. Hu's numerical ordering in this edition is the same as in his previous editions (1956, 1957, 1959). The Japanese critical edition of the Bitan edited by Umehara Kaoru 梅原郁 (Tokyo: Tōyō bunko, 1979) follows the same numerical order as Hu's editions. The English renderings here of the 17 men of the Bitan are borrowed from the appendix to Nathan Sivin, "Why the Scientific Revolution
easy to give a simple explanation of the *Bitan*’s 17 taxonomic divisions and their interrelations; some Qing scholars, such as Zhang Wenhu 張文虎, even doubted whether this taxonomy was devised by Shen Gua himself. From careful textual study of this taxonomy, however, it seems that it does indeed turn out to be (or at least is very close to) Shen’s original taxonomy. Evidence supporting this claim is provided in the Appendix.

This article discusses the historical context of the *Mengxi bitan* by comparing it with other Northern Song jottings and what might be called the major “classificatory books” in terms of their taxonomies. The contextual and historical position of the *Bitan* will emerge from this comparison. Secondly, I compare the position and the treatment of the specific categories of Divine Marvels and Strange Occurrences in the taxonomy of the *Bitan* with the same categories in other jottings in various traditions. I compare and trace the genealogical links between the *Bitan* and the Tang dynasty *Youyang zazu* 酉陽雜俎, a major *biji* in a different tradition from that of the *Bitan*. Through this second stage of more focused comparison, I seek to show the strategic position of the *Bitan*’s discussions of Divine Marvels and Strange Occurrences vis-à-vis other jottings in different traditions. Shen Gua’s original discussions of Zhong Kui 鍾馗—taken up later in this article—familiar since the Song, would probably be considered very strange and curious if seen from the perspective of some of the Tang traditions of ghosts and strange occurrences. Finally, I focus on the jottings within the two categories of Divine Marvels and Strange Occurrences, emphasizing the unity of each jotting and the higher order unity of each category. Some underlying “structures,” embedded networks of conceptions, and certain specific “principles,” all of which are guides to the meaning of every jotting under a particular category, are uncovered through a study of similarities among jottings under the same grouping or category. From this line of inquiry, I interpret some of the famous jottings in the category of Strange Occurrences, not as discussions of “fossils” in the modern sense of this word, but rather as instances of a special conception of bianhua 变化 (change) belonging to Shen Gua.

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4 Zhang Wenhu’s doubts about the seventeen taxonomic divisions of the *Bitan* are stated in his *Shuyishi zazu* 舒巖室雜著 (Jindai Zhongguo shiliao congkan edition, 正編, 第 97 輯) vol. 1, section 3, “First Note after reading the *Mengxi bitan*” 書夢溪筆談後一. My criticism of Zhang’s concerns will be elaborated in the Appendix to this article.
The Historical Context of the Bitan: Two Taxonomic Traditions in the Northern Song

One way to begin to understand the taxonomy of knowledge in the Northern Song is to consult the taxonomy and classificatory schemes of the leishu 類書 (grand classificatory or taxonomic books). Two major official leishu of the early Song are the Taiping yulan 太平御覽 and the Taiping guangji 太平廣記, both of which were compiled in the time of Taizong 太宗. The taxonomy of the Taiping yulan (hereafter Yulan) can be considered representative of the more official kind of classificatory scheme which sets the basic order of knowledge for the initial horizon of the Northern Song. It also echoes some of the official taxonomies in Tang dynasty leishu, such as the Yiwen leiji 藝文類聚 or the Chuxue ji 初學記. The basic taxonomic rubrics of the Yulan are actually very fragmented and difficult to combine into more fundamental taxonomic concepts, as is usually the case for many other

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leishu since the Sui and Tang. For the sake of argument, however, I shall suggest here some analytic categories to represent the Yulan's classificatory scheme. The order and taxonomy would go roughly like this: Heaven and Earth 天地; Emperors, Kings, and their Administrative Empire 皇親官職; Human Affairs 人事; Rites, Music, Buddhism and Daoism 禮樂釋道; Daily Necessities and Resources 食衣住行器; Omens, Ghosts and other Strange Phenomena; Birds, Beasts, Fishes, Trees and Flowers. Analytically, this order could be conceived of as a chain of seven fundamental categories, but historically, the chain consists of many small categories. Some secondary leishu of the Northern Song, such as the Shishi leiyuan 事實類苑 (Leiyuan hereafter), omitted some major categories (Heaven, Earth, and Animals, Vegetables) and elaborated the rest, but basically deployed a taxonomy based on the Yulan. The taxonomy of the Yulan also served as a basic point of reference for the taxonomies, explicit or implicit, of many jottings of the Northern Song, including the Bitan. Although the compilation of the Yulan was meant to educate the emperor, contextual and taxonomic comparisons of the Yulan and many other jottings show a great deal of similarity between the taxonomies of the Yulan and a major group of jottings of the Northern Song. I therefore take the convenient name "Yulan" to refer to the underlying taxonomy which governs the classification of knowledge in the Yulan, some other leishu, and a major group of biji.

Another major leishu of the early Song, the Taiping guangji (hereafter Guangji), was based on an enormous amount of "unofficial histories and stories." Dating from before the Tang, the Guangji follows a taxonomy quite different from that of the Yulan: Deities and Spirits in Daoism and popular religions, Priests; Omens and Portents of various kinds; Human Affairs, Disposition and Temperament, Arts; Spirits, Ghosts and other Strange Phenomena; Rebirth, Tombs, Thunder, Stones and Water; Animals and Vegetables; Miscellaneous Stories.6 This taxonomy seems to have a strong connection with various unof-

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6On the difficult problematic of the relationship between Daoism and Chinese popular religion see Nathan Sivin, “On the Word ‘Taoism’ As a Source of Perplexity with Special Reference to the Relations of Science and Religion in Traditional China,” History of Religions vol. 17, no. 3-4 (1978), esp. pp. 318-323. Later studies of the complicated history of Daoism, however, raised new perspectives: (1) in contrast to the argument of both Creel and Strickmann for the disunity of the Daoist religious vision of life found in the ancient classics, and in the liturgical tradition after Chang Taoling, K. Schipper has argued for the “remarquable continuité” of these two (see, N. Girardot, “Let’s Get Physical!: The Way of Liturgical Taoism,” History of Religions vol. 23 [1983-4], pp. 169-180), and (2) in contrast to the two-tier theories of Chinese “elite/folk” religions and their interactions, the term “popular religion” was appropriated to designate an emphasis on social unity, or served as a medium for unity above and across social boundaries (see, C. Bell, “Religion and Chinese Culture: Toward an Assessment of Popular Religion,” History of Religions vol. 29 [1989], pp. 35-57). Since my discussion here concerns Daoism and popular religion more on the phenom-
ficial traditions in the Tang dynasty, be they aristocratic or popular. We may also see interesting genealogical links from the taxonomy of the Guangji back to the famous Tang Youyang zazu 西陽雜俎 (hereafter Youyang) and even to the Wei-Jin Bo wu zhi 博物志. Through a similar procedure of comparison between the Yulan and the group of jottings mentioned above, I have also found a certain similarity between the taxonomies of the Guangji and a minor group of jottings of the Northern Song (discussed below). Again for convenience, I called this underlying taxonomic scheme the tradition of the Guangji.

By and large, in the of Northern Song, the taxonomy of the Yulan acquired a dominant position over that of the Guangji, and exerted considerable influence on the worldview of the gentry-official class newly established on the ruins of Tang aristocratic culture. As a newly risen gentry-official class, intellectuals of the Northern Song also cultivated a “leisure” culture of their own. The growing number of “miscellaneous notes” or jottings written in their leisure hours, the so-called biji, was but one form of recreation for this new class. Most of these biji cover a wide range of materials, recording, commenting on, and cultivating the world of the newly risen official-intellectual class of the Northern Song. Some of the more famous biji also seem to symbolize and partly define this newly risen culture. The remains of the Tang unofficial aristocratic-folkloric culture, which was more deeply embedded in its day among the leisured and common classes than was ever the case with the Song culture of leisure, largely declined or was pushed to the margins of society.\(^7\)

Many of the biji that I have examined, dating from both before and after the Bitan, are organized according to a taxonomy similar to that of the Yulan, and more precisely to that of the Lei yuan.\(^8\) The category of Heaven and Earth is usually missing, as are the categories of Animals and Vegetables, no doubt a reflection of the restricted learning and interests of the authors of the various enological level without touching upon some historical or social “deep unities,” my uses of these notions here would be closer to those of Sivin. I use a flexible and historical distinction between elite and popular religion, but allow for various ways of interaction among different social classes or levels.

\(^7\)There was no total taxonomic “break” between the Tang and Song. As I have already indicated, the official grand taxonomy of the Yulan in the early Song echoes or follows some important Tang official taxonomies such as the Yiwen lei jiu or the Chuxue ji. Rather, it is the themes of and fascination with ghosts and strangeness in the “unofficial” aristocratic-folk culture of the Tang leisured and common classes, that, I believe, are relatively stronger than those in Song. The newly ascendant official-intellectual class (Shen Guang included) of the Northern Song played an important role in weakening and marginalizing those unofficial themes, fascinations, or even sub-cultures inherited from the Tang.

\(^8\)It is possible to conceive of the taxonomy of Jiang Shaoyu’s 江少虞 Shishi lei yuan as an inductive summary of many biji. Thus the taxonomy of the Lei yuan is by no means new or different from that of the Yulan or many other more orthodox jottings.
bijii. Some biji focus on a more limited range within the full taxonomy, but the
fundamental taxonomic framework, even if implicit, still falls within that of the
Yulan or Leiyuan. Consider such biji as the Shengshui yantanlu 涤水燕談
錄, Qingxiang zazhi 青箱雜誌, Zhushi 歷史, and Dongxuan 俘本
錄 as examples. Although some of these works contain no explicit taxonomic
categories (e.g., the Qingxiang and the Dongxuan), all of them arrange things
and classify recorded events according to a standard taxonomic framework. The
four authors of this group of biji were all typical gentry-official intellectuals of
the Northern Song, and their standard perception of the order of things perme-
ated their descriptions and classifications. Personal touches are nevertheless
visible in these biji: for example, the Shengshui has a major category, Notes on
Occurrences and Events 事 誌, for curiosities of nature; the authors of both the
Qingxiang and the Dongxuan were fascinated by the intricacies of official
careers, but the former was also immersed in fashionable glyphomancy,
particularly that related to the imperial examinations. Nonetheless, all these biji
were firmly built on the standard taxonomy of the Northern Song (i.e., the
Yulan).

More specialized and famous biji such as the Guitian lu 歸田錄, Rongzhai
wubi 容齋五筆, Jile pian 鬚肋篇, and the Wenchang zalu 文昌雜錄,
may also be viewed from the dominant taxonomic outlook prevalent during that
time. The four authors of this group of biji were more or less famous official-intel-
tlectuals of the Northern Song or later; their particular social status makes
these biji especially interesting and distinctive in certain aspects. We are not
sure if the existing Guitian lu is the one originally conceived by Ouyang Xiu 歐
陽修 as a “bijii” after retirement from his brilliant career as an official.
Interesting even to the emperor, the Guitian lu is strictly confined to miscella-
neous notes and anecdotes taken from the orthodox side of the official-intellec-
tual culture. An important protagonist in the emerging intellectual culture of the
Northern Song, Ouyang concluded his biji with the following famous remarks:

In the preface to the Guoshi bu 國 史 補 (A supplement to the country's his-
tory) by Li Zhao 李肇 of the Tang, it reads: “All those notes on prophesying
rewards and retributions, on narrating gods and ghosts, on telling dreams and
omens, and on lustful things, have been deleted. All those notes recording facts,
exploring the foundation of things, differentiating certainties from doubts, ex-
pressing advice and issuing admonitions, collecting [observations on] customs,
and contributing to the fun, have been written down.” The way that I have com-
posed [the Guitian lu] mostly follows the principles of Li Zhao. The only slight
difference is that I would not mention other's faults or wickedness, for I am not
an official historian, and keeping silent on bad things and praising goodness are
duties of a gentleman (junzi). You readers would know this as you carefully read
through it.

9The authors of these four jottings are, respectively, Wang Pizhi 王闕之, Wu
Chuhou 吳處厚, Wang Dechen 王得臣 (1036-1116), and Wei Tai 魏泰.
By promoting the special example of the Guoshi bu, a biji perhaps more orthodox than not in the Tang, Ouyang’s remarks were to have the power of drawing territorial lines for subsequent more orthodox biji, including the Mengxi bitan, as we shall see later. The five biji of Rongzhai, written by Hong Mai 洪邁, who was noted for his historico-evidential (kaozheng, 考証) erudition, concentrated primarily on the nature of historical learning and evidential (kaozheng) research. While there seem to be no explicit taxonomic classifications in his five jottings, the scope (and limits) of his erudition were actually firmly reflected in the taxonomy of the Leiyuan and the normative territory staked out by Ouyang Xiu as quoted above. Although Hong Mai also wrote the immensely popular multi-volume ghosts stories known as the Yijian zhi 夷堅志, he kept them strictly separate from the orthodox five jottings in terms of text, discourse, and motivation—a distinction and separation unusual from a Tang perspective. The famous 31 prefaces to the 32 volumes of the Yijian zhi are filled with apologies, justifications, and explanations appealing to historical traditions, citing famous ancient precedents, and orthodox figures (e.g., Sima Qian 司馬遷), even the sage, or resorting to psychological analyses of the author, of his old age, or to the enthusiasm of his friends and neighbors, and so on. Hong mentioned that he often regretted having undertaken this enterprise, and in fact did so only after intense inner struggle. He confessed to his readers that even he himself was dazzled by the incredible speed with which he was able to finish new volumes. In some prefaces Hong even criticized the credibility of the stories in the volumes with a tone similar to the one he used so skillfully in his orthodox Rongzhai.

As for the Jile pian and the Wenchang zalu, the former is mostly concerned with reporting the years of turmoil during the transition from the Northern to the Southern Song; the latter concentrates on imperial and civil service affairs during a short period of the Northern Song. The Jile pian has no taxonomies, explicit or implicit, which is possibly indicative of the confusion and turbulence of the empire’s collapse and retreat to the south, but as a whole, a sense of struggle in maintaining loyalty and order and in preserving the official-intellectual values and worldview served as an organization principle in Zhuang Chuo’s 莊绰 otherwise extremely “miscellaneous” jottings. The Wenchang zalu by Pang Yuanying 郎元英, on the other hand, focuses on the categories of the Yulan tradition such as the civil service 官政 and imperial rulings. Omens, divinations and odd occurrences are described throughout these two biji, but in general they are treated as marginal curiosities or occasional amusements rather than serious subjects as in the Bitan. Since the imperial examination system was firmly established in the Northern Song, a special fascination with omens and

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10 In the preface to the Yijian, Hong Mai reported how one reader criticized him for indulging in such a “lowly” enterprise, collecting stories from such a “base” class. The strategy for writing this kind of preface is reminiscent of what is done in the preface to the Guitian lu.
divinations came to be associated with the examinations, perhaps reflecting a special feature in the taxonomic tradition of the Leiyuan.\cite{11}

It is against this dominant trend of the biji genre, developed in consonance with the orthodox leishu tradition as represented in works like the Yulan and the Leiyuan, that a minor trend of biji stands out in the Northern Song. The jottings within this trend were, no doubt, related to the tradition of the Guangji, although their connections with the dominant taxonomic tradition were complex, and usually varied from writer to writer. Many of the authors, although official-intellectuals themselves, were connected with Daoist, Buddhist, or other popular religious traditions. A sizable fraction was actually associated with various small states in the Five Dynasties before the reunification of China under the Song; most of them, for one reason or another, failed or suffered ill luck in their careers as officials in the Song court.\cite{12} The Dongpo zhilin 東坡志林 (hereafter, the Zhilin), Chunzhu jiwen 春渚記聞 (hereafter, the Chunzhu), Jishen lu 稽神錄, and Yuhu yeshi 玉壶野史 would be examples of this minor trend.

Although both Su Shi 蘇軾 and He Wei 何薳 were official-intellectuals, the taxonomies of Su's Zhilin and He's Chunzhu were unorthodox. The taxonomy of the Zhilin in a sense is the reverse of the dominant orderings in more standard biji. Divine marvels and ghost stories are plentiful; sophisticated discussions of alchemical or medical topics are mixed with stories of close friendships with religious figures of various kinds all over China. But in addition to the usual impression made by Su Shi's celebrated poems and his hilarious, jovial character, there is another side to the Zhilin. Frequently slandered by his political enemies, constantly snubbed the self-interested, Su Shi cultivated a unique realm of sensitivity and the order of things in the Zhilin. His studies and discussions of "Daoist" learning and medicine, in particular, accorded well with his interest in divine marvels of various kinds. Similarly, the entire first four sections of the Chunzhu were devoted to various divine marvels, which was very unusual in biji of the Song. He Wei was an associate of Su Shi, and section six was devoted to him. Besides this special order and one additional section on alchemical studies (section ten), the rest of the Chunzhu contained categories not significantly different from other, more orthodox biji. However, a very detailed study concerning the classifications and descriptions of ink sticks 墨 (mo) and inkstones 石 (yan) was included. It seems that the Chunzhu occupied

\footnote{11On the culture of examinations in the Song and related “private rituals" (involving omens and prayers) for the prospective literati, see John Chaffee, The Thorny Gates of Learning in Song China: A Social History of Examinations (New York: Cambridge Univ. Press, 1985), chap. 7., esp. pp. 177-81. Chaffee notes that omens and spirits appear more often in the form of “dreams” than in any other form (p. 179).

12The learned and versatile monk Zan Ning 贊寧 had a very successful career in the court of the early Song. However, his reputation declined and his writings were rapidly forgotten as the new official-intellectual class, represented by men like Fan Zhongyan 范仲淹, emerged toward the middle of the Northern Song.
a very peculiar place in the biji genre, and yet, unlike Hong Mai’s strategy of separating his orthodox writings from his ghost stories, He Wei literally juxtaposed textual elements from both the Yulan and the Guangji traditions, and thereby stood in a neutral position with respect to the dominant vs. marginal relationship between the two traditions.

Although the fundamental position of the Zhilin and the Chunzhu might fall short of the tradition of the Guangji, the Jishen lu was a constitutive part of that tradition. The Jishen lu, the first major biji of the Northern Song devoted to “ghosts and spirits,” was written by the learned and versatile Xu Xuan 徐鉉, a former high literary official of the Southern Tang. Xu’s own stories were even recorded in some other biji (e.g., the Yuhu).13 Since there is some doubt that the classificatory scheme of the text (津逮 edition) was actually Xu’s making, probably the entire 174 jottings could easily be rearranged into the standard taxonomic orderings of the Guangji. With the emperor’s devastating ruling banning the Guangji, Xu’s Jishen and probably the Jianghuai yiren zhuan 江淮異人傳, written by his son-in-law Wu Shu 吳叔, 14 were quickly pushed out of the center into the margins of the official-intellectual culture of the Northern Song. Dominated by the state-centered categories of the Yulan, the Jishen and other similar jottings nonetheless represent a minor trend in the cultural history of the Northern Song. They were noted and commented upon by later high intellectuals such as Hong Mai.

The Yuhu yesi, written by the monk Wen Ying 文瑩, was organized in a way that resembles neither the Yulan nor the Guangji. Clearly the Buddhist tradition was an influential factor in the Yuhu. There seems to be no internal structure or implicit taxonomy in the Yuhu except that the last two sections (out of ten) are specifically historical recollections of a former empire in southeast China: the Southern Tang, where Buddhism flourished and enjoyed the patronage of the court. A general preference for Buddhism and a sometimes sympathetic attitude toward Daoism are visible in the Yuhu, coupled with Wen Ying’s immense interest in diverse subjects and various personalities in the official-intellectual culture of the Northern Song. The Yuhu was clearly not a biji devoted to Buddhism itself, rather it sought to relate a certain kind of Buddhism to the emerging official-intellectual culture. It was a minor or marginal form of discourse just like many other jottings in the tradition of the Guangji; interestingly enough, it contained far fewer divine marvels and showed less fascination with them than the more common biji in the Guangji tradition.

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13 Shen Gua praised Xu Xuan for his skillful calligraphy known as xiao zhuan 小篆 (jotting 289), but in the Bitan mentioned nothing related to Xu’s famous Jishen. This lacuna accords well with Shen’s general strategic position toward the Tang ghost subculture.

14 It is interesting to note that Wu Shu also constructed a new leishu, the Shi lei fu 事類賦, whose taxonomy was quite different from that of the orthodox Yulan, and can be characterized as standing in between the Yulan and the Guangji.
Having situated the *Mengxi bitan* within the historical contexts of *leishu* and *biji* very briefly treated in this section, it is possible to appreciate the historical position of the *Bitan* at least from the perspective of the fundamental taxonomies of the Northern Song. Judging from the general taxonomic structure of the *Bitan*, namely the ordering of its 17 categories or *men*, it seems clearly to have stood in the taxonomic tradition of the *Yulan* and the *Leiyuan*, and to have fit in very well with other *biji* of its time (such as the *Shengshui*). The textual structure of the 17 categories in the *Bitan*, on the other hand, is very different from that of the jottings in the tradition of the *Guangji* discussed above. This should become clearer when we compare (in the next section) the treatment of divine marvels and strange occurrences in the *Bitan* with those in the *Youyang* and other related jottings. This does not mean that the specific taxonomy of the *Bitan* is easy to understand; rather it means that we can better understand its taxonomy and the relationships of most categories to one another through an understanding of the *Yulan* and *Leiyuan* tradition, and through an appreciation of the contextual relationships of this dominant tradition with minor or marginal traditions.

Important differences, however, must be noted between the taxonomic structure of the *Bitan* and other *biji* in the dominant tradition of the *Yulan*. Of the 17 categories of the *Bitan*, some are clearly unusual compared with other more orthodox *biji*: for example, *Music and Mathematical Harmonics* 樂律, *Numerological Regularities Underlying Phenomena* 象數, and *Materia Medica* 藥譜 (*yaoyi*). In a sense, the *Bitan*’s 17 categories convey a sense of abundance, packed as they are with all-around information. Indeed, the *Bitan* is one of the richest *biji* of its kind in its time. While these differences certainly display the immense learning and erudition of Shen Gua, subtle judgments must be made in determining how Shen related these categories to other more traditional ones and the difficulties his taxonomy may present. To these questions, we are not prepared to give answers in this article. It should be noted, however, that these three categories, though esoteric, were in principle in harmony with the taxonomic order of the *Yulan*.

But this is not the case for the curious categories of Divine Marvels 神奇 (*shenqi*) and Strange Occurrences 異事 (*yishi*) in the *Bitan*. These look more like categories in the tradition of the *Guangji*. Except for some highly selective passages, many historians of Chinese science since Zhu Kezhen 竺可桢 have usually dismissed them as “superstitions,” or ignored them entirely. How should categories such as Divine Marvels and Strange Occurrences be recon-

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15In a sense, Zhu Kezhen’s “The Contributions to and Descriptions of Geology by Shen Gua of the Northern Song” 北宋沈括對地學之貢獻與記述 published in *Kexue* vol. 11, no. 6 (1926), set up the paradigm for future studies in mainland China of the history of Chinese science and technology, and of the *Bitan* in particular. See the Master’s thesis of Xiao Shihui (mentioned in Footnote 1). In his article, Zhu Kezhen oriented his study of *shenqi* and *yishi* of the *Bitan* in ways questioned here.
ciled with the general taxonomic structure of the Bitan? Were there two distinct, even epistemologically contradictory, texts in the Bitan? What could be the relationships and affinities between these two categories in the Bitan, and those categories of divine oddities in the biji that are unorthodox or even “heretical”? It is on questions such as these that a “Chinese history of science” interpreted from the perspective of modern Western science will perhaps differ most from a study considered from the perspective of traditional Chinese cultural and historical contexts. It is to these questions, specifically, that the following two sections of this article are devoted.

The Strategic Position of Divine Marvels and Strange Occurrences in the Bitan,
Especially Compared to the Tang Youyang zazu

Although many selected jottings (條) or even some favored sentences of a single jotting in the Divine Marvels and Strange Occurrences categories have been discussed by modern historians of science, the entire categories themselves have rarely been explored. This is understandable given the tradition of studying the Bitan from the viewpoint of modern Western science. A problem with this approach, of course, is that it distorts our fundamental perception of the scientific characteristics of the Bitan, and it also precludes seeing the Bitan's strategic position within the intellectual milieu of the early Northern Song. The Northern Song had inherited a great portion of the unorthodox culture of spirits, ghosts and strangeness which had been relatively strong in the Tang.

While the Confucianism of the Northern Song was emerging, and the new intellectual-official class was consolidating itself, it was not uncommon for intellectual-officials of the Song (the Northern Song in particular) to write in biji of various kinds about their fascination with spirits and strangeness. The fascination and tradition of the Guangji still influenced them; entire volumes, such as the Jishen lu and the famous Yijian zhi, were devoted to oddities. And many other popular biji have special categories reserved for curiosities. As stated earlier, the fundamental taxonomy of the Bitan is located roughly in the taxonomic

16See Teraji Jun, “Shen Gua no shizen kenkyu to sono haisui,” which includes a good general discussion of Shen Gua’s “view of nature” 自然觀 with special attention to the subject of strangeness in the Bitan. Sivin’s “Shen Kua,” pp. 385-387 elaborates on Teraji’s discussion. Neither, however, addresses the taxonomic differences among the categories of shenqi, yishi, and “Numerological Regularities Underlying Phenomena.” Lei and Fu, “Language and Similarity in the Dream Brook,” discuss Shen Gua’s ideas about prognostication with attention to the taxonomic differences in the Bitan, especially in the categories of “human affairs,” shenqi and yishi.
tradition of the *Yulan*; it contains no major digression from other orthodox *bijī* of the Northern Song. However, the curious categories of Divine Marvels and Strange Occurrences, the seemingly familiar (to the tradition of the *Guāngjī*) objects and themes contained in them, were all indicative of the specific historical context and position of the *Bitan*. Care must be taken, to be sure, not to read too much similarity to the *Guāngjī* into Shen's treatment of these two categories. Shen's conceptions of *shen* 神 (divine), and *yī* 聖 (strange), opened new spaces and offered a novel way of describing these subjects, albeit not in terms of a modern scientific perspective. From a broader perspective, between the decline of the great Tang traditions of Buddhism, Daoism, popular religions and their deities, ghosts, and oddities, and the formation of neo-Confucianism in the Southern Song, Shen Gua and his *Bitan* appear to occupy an important middle position.¹⁷ This position, to be sure, was not a transitional one. Rather, the *Bitan*'s position was both consistent and promising in its development, and its treatment of and its strategy for writing about *shenqī* and *yīshī* also offer us a key to understand how some of the Northern Song's best minds approached what today could be called "nature."

The category of *shenqī*, i.e., divine or prodigious marvels, in general refers to marvelous events or phenomena that inspired, or were celebrated by, Buddhist, Daoist or other popular religious traditions. *Yīshī*, i.e., strange events or occurrences, on the other hand, refers to the domain of objects that are supposed to be "less" divine but nevertheless strange in nature or ordinary life.¹⁸ The *Bitan*, whose taxonomy is more akin to that of the *Yulan*, nonetheless seems to be more explicit about and focused on these two categories than are many other Song *bijī* in the tradition of the *Yulan*. This does not mean, however, that Shen Gua more than authors of other *bijī* was interested in, or fascinated by, divine oddities or miracles of various kinds. In most *bijī*, the subjects of divination, portents, and divine oddities are usually more diverse and spread

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¹⁷This middle position does not mean to ignore other important learning in the Northern Song which might also be considered as "middle positions": for example, the schools of Wang Anshi (the learning of "affairs of government," 政事) and Su Shi ("learning from culture," 文學). See Peter Bol, "Culture and the Way in Eleventh-Century China" (Ph.D. dissertation, Princeton Univ., 1982) and his "Chu Hsi's Redefinition of Literati Learning" in T. de Bary and J. Chaffee (eds.), *Neo-Confucian Education* (Berkeley: Univ. of California Press, 1989), chap. 6. The learning of Shen Gua has not received the attention it deserves from Song scholars outside the field of the history of Chinese science, although John Chaffee touches upon this area of Song learning in his mention of Hong Mai in *The Thorny Gates*, p. 170.

¹⁸Concerning the subtle difference between these two categories in terms of the "similarity" principle among jottings within each category, see Lei and Fu, "Language and Similarity in the Dream Brook." In this article, Lei and I sought to show that there is no basis for Zhang Wenhu's suspicions about the "interchangability" of the jottings within these two categories (thus presumably the categorization of jottings in terms of different rubrics is unimportant).
throughout many other categories than in the *Bitan*. This suggests that Shen Gua was more sensitive to these domains taxonomically, and he thereby restricted his discussions on them mainly to these two categories.

To talk about divine marvels and strange occurrences—phenomena usually well-tested and confirmed by Shen Gua—is not thereby to commit oneself to the cultural tradition of the *Guangji*. This is evident if we compare those relevant descriptions in the *Bitan* with Song *biji* in the tradition of the *Guangji*, or with the Tang *Youyang zazu*. Shen Gua was very familiar with the *Youyang*, a fascinating Tang *biji* covering an enormous range of observations and learning that rivals the *Bitan* in breadth. But the *Bitan* was highly critical of the *Youyang*, both explicitly and implicitly.\(^1\) With its wide range of stories of deities, ghosts, omens and divinations, etc., the *Youyang* seems to me constitutive of the tradition of the *Guangji* that stemmed from the Tang dynasty and even earlier. Confronted with this grand, admittedly declining, tradition (which was by no means easy to repudiate on grounds considered rational by the standards of the Northern Song), Shen's attitude is both curious and interesting. Unlike *biji* that were perhaps more inclined towards Confucianism, the *Bitan* seems pleased to acknowledge divine oddities once they were "confirmed" or "witnessed" to Shen's own satisfaction. Compare, for example, the *Bitan*'s discussions of *Xiexian huo* 謝仙火 ("thunder's signature," i.e., the trace or "signature" left by the strike of lightning; jottings 362) with those in the *Jigulu* 集古錄 and the *Zhushi*;\(^2\) or the *Bitan*'s discussion of *Fo ya* 佛牙 ("Buddha's teeth," jottings 343) with those in the *Yanfan lu* 演繁露;\(^3\) and recall as well the *Bitan*'s fascinating description of *Zigu* 紫姑 ("purple female spirit," jottings 367).\(^4\) To be sure, the *Bitan* rests firmly in the taxonomic tradition of the *Yulan*. Divine oddities are fine, entertaining and ontologically acceptable, but oddities they remain. I hesitate to suggest that objects and

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\(^1\)For explicit criticisms, see jottings 44, 391, 397, 594 in the *Bitan*. As for implicit allusions and criticisms, in footnote 29 (below), I provide about twenty instances in my close comparisons of descriptions of the same themes in the *Bitan* and the *Youyang*.

\(^2\)See Ouyang Xiu's *Jigulu bawei* 拔尾 section 10, and *Zhushi* section 2 on *Xiexian huo* and *Beijie* 碑碣. Ouyang quickly dismissed the "thunder spirits" 雷神, whereas Wang Dechen 王得臣 made greater efforts than Shen Gua to ingeniously debunk the legendary *Xiangu* 仙姑.

\(^3\)See the *Yanfan lu* section 6 for a quick refutation of the legend of *Fo ya*. Shen Gua's fascination with this legend is impressive, and he had good reason for being fascinated: he and his literati friends saw it with their own eyes.

\(^4\)Shen Gua's description of *Zigu* based on what he personally witnessed as a child is famous. For a summary of the legends of this purple female spirit, see Yu Zhengyan 俞正燮, *Guisi cun gao* 女已存稿 (Taipei: Yinshuguan, 1971), section 13. Contemporaries of Shen also spoke about her, but with less enthusiasm. See the *Chunchu jiwen*, section 4, "The purple female spirit wrote big characters" 紫姑大書字, and the *Dongpo jilin*, section 3, "Note on female spirits" 記女仙.
occurrences like these are marginal in the *Bitan*’s taxonomy, but certainly they are not central as they are in the *Guangji* taxonomic tradition.

Whereas it is correct to say that the *Bitan* tolerantly appreciated such things, there is an outstanding exception to this appreciation, and that is its remarkable silence on a subject which was central to the *Guangji* tradition: ghosts in the Tang style. The tradition of ghosts which stemmed from the Wei-Jin period and developed in the Tang was quite different from the understanding of ghosts in the pre-Han Confucian tradition. Nurtured by Buddhism, Daoism, and popular religion since the Wei-Jin, a new tradition of ghosts emerged from the interaction of aristocratic high culture and folk culture. The consciousness and perception of, and discourse on, ghosts permeated both a great part and many levels of Chinese society, as amply testified to in many famous *biji* or *zhiguai* 志怪 (jottings or stories of strangeness or unorthodoxies) dating from the Wei-Jin period and after.\(^{23}\) In this tradition, the realm of ghosts seems usually independent of, or to be a kingdom of “other” to, the realm of human beings. The relationship between ghosts and men is complicated but roughly on equal footing, often mediated by rules and hierarchies either of the human world or of ghostly kingdoms. A ghost may frighten a man, but a man may also cheat or even “sell” a ghost. Human life may be difficult and filled with injustice, but a ghost’s life (justice for ghosts notwithstanding) has its own miseries and problems too. In general, both realms have their own central authorities and hierarchies, although the boundary between the human and ghostly realms is not very strict, and many stories of boundary-crossing are familiar in this tradition.

Only against this background is it possible to understand Shen Gua’s attitude toward “oddities and strangeness” vis-à-vis the tradition of the *Guangji*, and to appreciate Shen’s silence on Tang ghosts in particular. Under the influence of Ouyang Xiu and Wang Anshi 王安石, the *Bitan* mentions only a special kind of ghost and deity, described in the tone and style of Han and pre-Han Confucianism, but not of the Tang.\(^{24}\) Nevertheless, Shen Gua located his references to these ghosts partly outside the categories of strangeness (therefore not considering them as being strange), and in effect assigned them to other more formal categories dealing with ancient rituals, numerology, artifacts, imple-

\(^{23}\)Instead of the familiar “literary values” prevailing in modern literary criticism, I propose to follow a historical perspective in terms of the “knowledge of nature” in considering many early jottings of unorthodoxies in *zhiguai*. For an interesting account of the relationship between these unorthodoxies and Tang, or even earlier, historiography see Lu Yaodong 魯耀東, “Wei-Jin zhiyi xiaoshuo yu shixue de guanxi” 魏晉志異小說與史學的關係 [The relationship between Wei-Jin *zhiyi* and historiography], *Shihuo 食穀* vol. 12, no. 4-5 (new series; 1982), pp. 135-145.

\(^{24}\)In the *Bitan* see jottings 54, 82, 319, 320, 337, 341, 348, 359, 367, 372, 432. Jotting 348 contains an interesting report from the famous literatus Shi Lu 騰魯 after he allegedly returned from the “realm of death”: “There was no ghost-deity, no horror either.” This is quite a different picture from that presented in Tang ghost stories, and obviously Shen Gua liked it.
ments and the like. By excluding Han ghosts from the categories of strangeness, Shen Gua partly deprived them of their traditional supernormal qualities.

There is one important exception to Shen’s silence on Tang ghosts, however, which indicates the Bitan’s strategic position on strangeness. In jotting 573 of the Supplement to the Bitan (Bu bitan 補筆談; see Appendix) Shen discussed the ghost Zhong Kui. Shen went on at great length telling the story of Tang emperor Xuanzong’s dream about ghosts and of Zhong Kui, a typical Tang ghost, in particular. The story has an exceptional narrative structure. Zhong Kui claimed loyalty to the Tang emperor in the human realm and volunteered to “exterminate all the monstrous ghosts in the world.” In his dream, the emperor saw Zhong Kui devour two small ghosts who had greatly annoyed the emperor only a little while earlier.

This ghost story is very different from those in the Tang ghost tradition. By claiming loyalty to the emperor in the human realm, Zhong Kui became an “exterminator” in the realm of ghosts. In this respect he was a traitor, breaking the rules and hierarchies of the ghostly realm, submitting himself instead to the rules and authorities of the human realm. Although he delighted in describing divine marvels, yet was silent about Tang ghosts, why did Shen break his silence, as it were, by telling such a strange ghost story? Of course, from the Bitan on, Zhong Kui gradually emerged as a very popular ghost in Chinese folklore, but not so in the Northern Song. It is significant that the Bitan was probably the first biji to popularize this “humanized” ghost story, whereas several other Song biji only talked about Zhong Kui in the context of paintings by Wu Daozi 吳道子, a famous Tang painter. Against the declining tradition of Tang ghosts, the Bitan reflected the efforts of a significant group of of-

25Zhong Kui is mentioned in Zhang Yanyuan 張彥遠, Lidai minghua ji 历代名畫記 (Tang dynasty), section 9; Guo Ruoxu 郭若虚, Tuhua jian wen zhi 圖畫見聞誌 (1075), section 6 “Recent happenings,” and Zhao Yi 趙翼, Gaiyu congkao 詭餘叢考 section 35. See also Gu Yanwu 顧炎武, Rizhi lu 日知錄 section 32 on “Zhong Kui” 程龑. It is very probable that the Bitan is the first to “write down and popularize” this strange ghost story, which amply shows the strategic position of the Bitan toward strangeness. Zhang Yue 張詠 and Liu Yuxi 劉禹錫 in their Xiecu Zhong Kui li ribiao 謝賜錫履日表 (Tang dynasty) briefly mentioned Zhong Kui as a deity 神, but do not provide any narrative, and thus their mention is quite different from Shen’s vivid Tang ghost story. Moreover, though there are a few beings in the past that do devour ghosts—Chi Guo 尺郭 in Shen yi jing 神異經, Shen Tu 神荼, Yu Le 郁律 in Lunheng 論衡, and Fei Jian 符漁 in Xianshi zhi 宣室志—all of them are invariably human beings (人) and their stories do not have any narrative structure like Shen’s strange ghost story. Moreover, those “godlike” humans usually did not serve any emperor in the human realm. On the historical relationship between Zhong Kui and the pre-Han and Han ghost Fang Xiang 方相 see Hu Wanchuan 胡萬川, Zhong Kui shenhua yu xiaoshuo zhi yanjiu 鐘馗神話與小說之研究 [A Study of the Mythology and Novels Concerning Zhong Kui] (Taipei: Wenshizhe, 1980).
ficial-intellectuals (a new intellectual class perhaps) which emerged in the middle Northern Song to strip ghosts of their power of enchantment.\(^{26}\)

Nevertheless, the *Bitan*’s strategic treatment of ghosts, whether in a Tang or pre-Han style, was of a piece with its vivid descriptions of divine oddities on various levels, and with the important categories of *shenqi* and *yishi* themselves in the *Bitan*’s taxonomy. Care must be taken, therefore, not to confuse the “disenchantment” with ghosts expressed in the *Bitan* with the emerging (neo-) Confucian rationalistic outlook which culminated later in the works of Zhu Xi 朱熹. Although indebted to the *Bitan*, what Zhu Xi accomplished in his discussions of ghosts and oddities in the *Yulu* 語錄\(^{27}\) was the creation of a philosophical system intended to absorb or dismiss oddities and strange things, while preserving at the same time the significance of the rituals of ancestor worship. Although a fascination with marvels can be found here and there in the *shenqi* and *yishi* categories of the *Bitan*, Zhu Xi’s *Yulu* offers philosophical and defensive strategies for excluding oddities that still enjoyed a prominence in the writings (such as the *Yijian zhi*) of some high intellectuals. And yet, it may well have been Shen Guan’s fascination with strangeness that made possible the immense range of recorded observations and “learning” in the *shenqi*, *yishi* and *zazhi* 雜誌 (miscellany) categories of the *Bitan*.

The curious strategic position of the *Bitan* toward strangeness—a fascination with marvels combined with an effort to dispel the supernatural aura of ghosts—may be appreciated from another vantage point, namely the *Bitan*’s attitudes toward the *Youyang*. Although good studies of the *Youyang* in terms of the history of Chinese science are regrettably few, Shen Guan, for one, seems to have been very familiar with the *Youyang*.\(^{28}\) The explicit citations of the *Youyang* in the *Bitan* (jotting 44, 391, 397, 594) are all highly critical if not amounting to a total rejection. The *Youyang*, famous for its descriptions of oddities of various kinds, is not categorized in the *Bitan* with oddities, but criticized in the categories of Philological Criticism 辯證 and Errors 謬誤. Remarkably, if one considers implicit references to the *Youyang* (in the sense that both the *Bitan* and the *Youyang* deal with the same themes), one finds more

\(^{26}\)I do not mean to imply that there was no “unorthodox ghost culture” in the Song. However, the emerging new literati class from the middle of the Northern Song deliberately kept a distance from it. For a summary sketch of the “Song ghost,” see Shen Zhongxian 沈宗憲, “Songdai de dixia shihou shijie zhuo shuo” 宋代的地下死後世界傳說 [The legendary underworld after death in the Song dynasty], *Shiyuan* 史原 no. 18 (Taipei, 1991), pp. 29-54. Even Shen Guan himself wrote a few ghost stories, such as in the *Qingye lu* 清夜錄 (which reminds us of the “separation” strategy of Hong Mai). But this was very rare for Shen Guan; the *Qingye lu* contains only one *juan*, now lost, although some fragments of it were collected in *Yongle daguan* 永樂大典.

\(^{27}\)See Zhuzi yulei 朱子語類 section 2 and section 3 (on guishen 鬼神).

\(^{28}\)This is not surprising if we consider the fact that the *Youyang* is one of a very small group of Tang jottings which in scope and depth is comparable to the *Bitan*. 
than twenty jottings in the Bitan's categories that mainly deal with nature and oddities. From this group of implicit allusions one can infer how Shen Gua might have sought to transform themes that were discussed in the Youyang—often very learned discussions in Tang contexts—and what the Bitan's strategic position was toward the Tang special learning that permeates the Youyang.

A major portion of the themes arising in the Youyang were relegated in the Bitan to categories outside shengqi and yishi. Many themes considered as "curiosities" in the Youyang were relocated (and to some extent transformed) in more familiar categories in the tradition of the Yulan. For example, odd wells of various kinds were a frequent source of curiosity in the past, but there is a very interesting note in the Youyang (a group of Daoist methods called Tai qing waishu 太清外術 in the category of guangzi 廣智) meant to deal with the deadly danger presented by some odd wells or tombs. It reads:

During the autumn and summer, tombs and wells often produce deadly poisonous gas. Before one enters, one should throw a chicken feather down into them. If the feather drops down in a straight path, it means there is no poisonous gas. If the feather descends in a spiral, it shows that it is too dangerous to enter. Only after having poured in several dou 斗 [pecks] of vinegar, is one able to enter.

This secret technique was later mentioned in a famous jotting in the Bitan, which recorded an engineer who solved the deadly problem of old wells in a concrete historical context in the Northern Song. This theme was stripped of its colorful secrecy, and was relocated in the category of Wisdom in Emergencies 權智 in the Bitan. Some other themes concerning odd things or occurrences,
such as “stone fat water” (shizhishui, 石脂水), “The sun and the moon are like balls” (riyue ru wan, 日月如丸),\(^{31}\) or the legendary divinations by Luoxia Hong 落下闳 (in the category guaisu, 怪術), were also transformed, developed in detail, and placed into more orthodox categories (such as zazhi and xiangshu 象数) in the Bitan (jottings 421, 130, and 126 respectively in the Bitan). A number of themes in the Youyang’s category of bianwu 貢獻 (“critical documentation of various sayings or stories”), the only category of the thirty in the Youyang to provide explicit critical documentation for a diverse range of sayings, such as cursong 觐戎, tanqi 畲箭, and jianfu 奸婦, were highly elaborated with historicico-evidential and practical details, and then placed in orthodox categories in the Bitan such as jiyi 技藝 (technical and artful skills) and guanzheng 官政 (civil service) (jottings 302, 305, and 214 respectively). While explicit critical documentation was restricted in the Youyang to limited areas such as bianwu, historicico-evidential learning was widely deployed in many categories of the Bitan. While Duan Chengshi 段成式 of the Tang, the author of the Youyang, was confident of the self-sufficiency of the Youyang, Shen Guo of the Song was strategic in his emphasis on historicico-evidential Han learning in order to help build a new Song official-intellectual culture that was to surpass Tang learning about strangeness.

As to the immensely learned, exhilaratingly exotic, grand category of guangdongzi 廣動植 (“An expanded recording of animals and vegetables”) and its supplements in the Youyang, many genealogical links may be traced down to the categories of the Bitan as well. Drawing upon his wide knowledge, Shen further developed and discussed a number of themes in the category of guangdongzi, and relocated these jottings in the categories of Miscellaneous and Materia Medica of the Bitan (about twelve themes in all). Two themes in guang

of the engineer responsible for this wisdom (not mentioned by Shen Guo): Yang Zuo 杨佐, who is mentioned in the official Songshi 宋史. However, the wisdom of Yang Zuo and others like him has its origins (or at least interactions) in folklore and popular religious traditions. And the example I just cited from the Youyang must be one of its origins. The original wisdom of using vinegar contained in Taiqing waishu was actually taken by Duan Chengshi 段成式 (the author of the Youyang) from Tao Hongjing 陶弘景, Dengzheng yinjue 登真隱訣, which was discussed in the commentaries by Imamura Yoshio 今村正雄 in the Tōyō bunko edition of the Youyang zazu 東洋文庫 no. 389; Tokyo: Heibonsha, 1980-1981; 5 vols.), vol. 2, p. 221. Although the text of this edition consists of a Japanese translation, it is clearly the best edition of the Youyang zazu available. The commentaries of Imamura are especially valuable.

31 In the Youyang, these first two themes were “insights” into the realms of strangeness and heaven: section 10, wuyi 物異, and section 1, tianzhi 天咫 (remote heaven) respectively. Shen’s famous discussion of the shape of the sun and moon in the category xiangshu 象数, it was pointed out by Cheng Dachang 程大昌 of the Southern Song in his biji Yanfan lu 演繁錄 (section 8, riyue shouguang 日月受光), stemmed from the Youyang.
**dongzhi** (section 17 and section 8 in the Supplement) were actually linked implicitly to two jottings concerning carp and cats in the category of Calligraphy and Painting in the *Bitan*. An interesting theme concerning the strange spectacle of one kind of animal eating another occurs both in section 16 of the *Youyang* ("strange birds" 異鳥) and in jotting 443 of the *Bitan*. Both refer to the *zifang* chong 子方蟲 (an insect: Naranga difftusa), but while the *Youyang* records three similar spectacles, the *Bitan* mentions only one.

The author of the *Bitan* seems especially familiar with the category of *guang dongzhi*, as his criticism of this category—which is surprisingly harsh—suggests. Shen Gua criticizes Duan’s claims concerning a certain “tree with five scents” —木五香 in jotting 391, by charging that “most of the observations [about vegetables and strange things] were supposed to originate in foreign countries, in order to avoid being checked and refuted.” This may seem overly critical, although the real historical situation and the merits of the *guang dongzhi* are certainly debatable, to say the least. But here we are interested primarily in the nature of Shen’s charge. Although indebted to the *Youyang* (and having a strong genealogical link to it), the *Bitan* was created in a historical context quite different from that of the *Youyang*. Standing at the top of a newly emerging official-intellectual culture of the Northern Song and ready to exorcise Tang ghosts and even cast aside the old aristocratic high culture (cf. jotting 440), it might have been natural and “strategic” for Shen Gua to draw a sharp line between the *Bitan* and the *Youyang*. When convenient, strong criticism was lev-

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32 According to *Jingkang xiangsu zaji* 靖康綱索雜記 (Song dynasty; Baibu congshu jicheng edition, Taipei: Yiwen yinshuguan, 1966), section 6, “On Cats” 說貓, Shen Gua’s comments on cat eyes in jotting 278 stemmed from the *Youyang*, but without acknowledgment. In the *Youyang*, a jotting on cats is in section 8 of the supplement, or jotting number 1132 in the Inamura edition.

33 A recent preliminary study of Duan Chengshi’s category of *guang dongzhi* by Dr. Shiu-Ying Hu of the Arnold Arboretum, Harvard University, supports my suspicion of the controversial character of Shen’s charge. I am grateful for Dr. Hu’s many helpful communications. One should also be reminded that in a long string of fine and pioneering studies from B. Laufer’s *Sino-Iranica* to Edward Shaffer’s *The Golden Peaches of Samarkand* and *The Vermilion Bird*, the *Youyang zazu* has stood as an outstanding source on Tang views of nature. As for “a tree with five scents,” there is a history behind this which predates Duan Chengshi. See Yu Yiqi 俞益期, *Yu han kangbo jian* 與韓康伯箋 (Eastern Jin era); Xiao Yi 蕭繡, *Jinlouzi* 金樓子 (Liao era). Probably the original statement came from Yu Yiqi, but with an additional note indicating where it originated: “old foreigner Hu said that” (外國老胡說). The *Jinlouzi* retained a similar cautious note: “People from the Fu-Nan kingdom said that” (扶南國人言). The Tang era *Fayuan zhulin* 法苑珠林 (section 49) had partly omitted that qualification, and of course so did the *Youyang zazu*. See also Miu Qiyu 籌啓愉 et. al., *漢魏六朝嶺南植物志錄輯釋* Han Wei liuchao Lingnan zhiwu Zhilu jishi [Lingnan Vegetables Explained and Collected from the Zhihu in the Han, Wei, and Six Dynasties] (Beijing: Nongye chubanshe, 1990).
eled against Duan. While genealogical connections were undeniable, in the Bitan Shen wrought substantial transformations, through both taxonomic relocations and historico-evidential elaborations.

Nor would Shen’s attitude have been different as he considered the many genealogical connections to the Youyang evident in the Bitan’s categories such as Divine Marvels and Strange Occurrences. Eleven jottings in these two categories are genealogically related to about ten themes in various places of the Youyang, mostly in section 10, wuyi 物異 (“things strange and unusual”). Unlike some modern historians of science who are eager to explain away “superstitions” of the past, Shen tacitly accepted a number of themes in the Youyang, and then reformulated or retained them in the Bitan in such categories as shenqi and yishi. In fact, most of the jottings related to Divine Marvels in the Bitan were previously classified by Duan in ways quite different from what Shen chose. In the Youyang, examples of “strange and unusual things” were all singular occurrences, and no attempt seems to have been made in drawing together things that were unusual in ways similar to one another, something Shen certainly tried to do as we shall see in the next section. As for singular occurrences, various themes in wuyi were implicitly sub-classified into a number of seemingly generic objects (familiar in various religious traditions) which possessed unusual potentialities to change or be transformed: e.g., wood, stone, gold, wells, tombstones, etc. Supernormal agents were de-emphasized in wuyi, but the unusual potentialities of certain generic objects were amply shown by a series of singular occurrences radiating from them. Furthermore, being singular occurrences, they seem ontologically more important than their detailed descriptions, and therefore, the question of the credibility of the “reports” of such occurrences simply would not have arisen on this level. From a comparative example relating to the theme of “words in wood” 木字, it is clear how Duan’s enunciation differed from Shen’s detailed description and verification (jotting 363 in the Bitan, one hundred and twenty characters) and how Shen transformed the theme inherited from the Youyang. Duan’s assertion in wuyi reads simply (twenty-nine characters):

34 Shen sometimes was favorably disposed to Tang works, such as Liu Xun’s 劉恂, Lingbiao yilu 隕表異錄. Many themes in the Bitan can be genealogically traced to Liu’s work, but not in such a substantial way as the Bitan’s relationship with the Youyang. I have found links to the Lingbiao yilu in the following jottings of the Bitan: 338, 369, 381, 442, 450, 593, 594.

35 The Youyang is situated in the same taxonomic frame of reference as the Tang dynasty’s Tu Guangting’s 杜光庭 Luyi 讀異記 (論芬樓) in which objects such as stones, tombs, and caves figure prominently as taxonomic categories. Note the interesting preface to the Luyi 讀異記 where the notion of “change” (bianhua) is central. A modified notion of bianhua also served as an important underlying principle in the yishi category of the Bitan, as we shall see below. Needless to say, like the Youyang, the taxonomy of the Luyi 讀異記 is a paradigmatic example of the taxonomic tradition of the Guangji.
Words in wood. In the ninth year of the Yongming era of the Qi dynasty, an old tree in Anming temple in Moling was cut down for firewood. The wood grain revealed three characters: “Following the Great Virtue.”

Only against this vaguely Daoist taxonomic background is it possible to understand how Shen Gua dispensed with the Guangji’s taxonomic conceptions of strangeness on the one hand, and on the other reformulated themes inherited from the Youyang, and then transformed them into new taxonomic conceptions of Divine Marvels and Strange Occurrences in the Bitan. But what precisely were these new taxonomic conceptions of shenqi and yishi?

Looking at Marvels and Oddities:
The Underlying Structure and Principles
of Shen Gua’s Fascination

Rarely were the objects or occurrences described in the categories of shenqi and yishi unfamiliar in the intellectual context of the Northern Song. As I have suggested, Northern Song official-intellectuals enjoyed chatting and reading about oddities. The categories of shenqi and yishi stood more as markers, in contrast to other categories in the Bitan, than as degraded or superstitious categories marginal to the taxonomy of the Bitan. Seen from a twentieth-century perspective, they are indeed weird and bizarre if one insists that every jotting be taken as an integrated unity. Nevertheless, within the intellectual milieu of the Northern Song, which still retained various inheritances from the Tang, almost every jotting in these two categories (and the themes with which they deal) can be traced back genealogically to various traditions, in particular that of the Guangji.

The great spectacle of oddities manifested in the writings of these two categories, however, needs further analysis. Shen Gua often looked at marvels and strange occurrences with both delight and seriousness, but his attentive curiosity cannot simply be characterized by saying that he noted the time and place of the odd occurrence in question in order to gain credibility. In fact, his curiosity as shown in shenqi and yishi is not naive or arbitrary, but highly sophisticated and historically structured. Consider first the “site” or position of the witness of a given oddity, a matter which is not arbitrary here. Shen Gua’s own observations were usually credited as reliable, but since he could not observe everything, how did he extend the scope of reliability? As I have commented earlier on the newly emerging official-intellectual class of the Northern Song, it was perhaps natural for Shen to include many reports in the Bitan from his friends, other intellectuals or those in the civil service, from famous officials of the recent past, from members of his family, and even from his own eye-witness ob-
servations when a child. Rarely was a report from a peasant or someone in the lower classes explicitly cited. Sometimes Shen simply described an odd occurrence innocently, without offering a reference, but these are exceptions. Of the 19 jottings in the shenqi category, 18 are based on reports from persons in Shen’s social class; of the 31 jottings in the yishi category, 24 come from reports from members of his class. Notwithstanding his strong curiosity, even fascination, with marvels and oddities, Shen Gua’s gaze was socially privileged, a view from the top as it were.36

Apart from the social conditions which directed Shen Gua’s gaze, a highly elaborate and systematized grid was also at work in guiding his curiosity. In confronting divine marvels, Shen was not a passive observer, waiting for stimuli. A whole series of interconnected conceptions were deployed in order to observe, and to comment upon, the spectacles he chose to include in the Bitan. This system includes the concepts of li 理, xin 信, yan 驗, ji 跡, yi 疑, shi 識, lei 類, and guai 怪, and was used in describing or commenting upon 34 jottings out of the total of 51 jottings included in the shenqi and yishi categories. Comments in some jottings were elaborated with the help of more than one concept in Shen’s system.

Li (understanding) usually amounts to a deep explanation or “understanding” in Shen’s effort to grasp the divine marvel in question. It was elaborated with related notions like “Buddhist” understanding, “ultimate” understanding, and shu 數 (numerological regularities). I suggest that the concept of li was used in jottings 341, 347, 348, 350, 357, 358, 360, 364, and 384.

When li was not obviously applicable to some oddity, and yet there were thoughts or tales which Shen wished to relate about such an oddity, he had to decide whether some tales (hypotheses as it were) were “believable,” thus his notion of xin 信 (belief, or truth) and its opposite yi 疑 (doubt) were brought into play. Xin and yi were employed in jottings 338, 342, 347, 357, 363, and 372. In jotting 347, “monstrous thunder” 暴雷, and jotting 357, “a rainbow drinks water” 虹飲水, the concept of li was also applied.

36My usage of “gaze” is influenced by Foucault. Although Foucault originally characterized his use of “medical gaze” as an “act,” he also emphasized that as modern medicine fixed its own date of birth and its new gaze, “it meant that the relation between the visible and invisible—which is necessary to all concrete knowledge—changed its structure, revealing through gaze and language what had previously been below and beyond their domain.” Michel Foucault, The Birth of the Clinic, transl. by A. M. Sheridan (London: Tavistock Publications, 1973), p. xii. In other words, this gaze is never simply or merely an act; it is embedded and “structure”-laden. In this respect, Foucault’s characterization is similar to Kuhn’s discussion of the relationship between scientists’ perception and their shared paradigm. Although the term “gaze” is used here, my discussion, however, does not explore in depth the “visual” aspects of the shenqi and yishi categories of the Bitan. Also, this gaze is not “class-determined,” though it does have a strong connotation of being “power/cognition structured.” It certainly does not follow that elites of the same class as Shen Gua necessarily had the same “gaze.”
As to divination or portents reported by men of special ability or with special faculties, who for various reasons did not reveal their “method” or “understanding,” the issue then was to check whether the divinations or portents ever came true. The famous notions of yan 驗 (verify), and xiao 效 (intended effect), and questions related to these notions, were raised in jottings 342, 348, 349, 351, 365, 379, and 387. But jotting 342, “immortal deities” 神仙, and 348, Yin Shilu 尹師魯 (a famous intellectual), were also considered in terms of “believability” or “understanding.”

Despite his privileged position of observation, and the careful consideration of divine marvels in terms of the above set of three concepts of li, xin, and yan and xiao, most of the odd occurrences described in the jottings referred to above were “believable” or “confirmed” to the satisfaction of someone like Shen Gua. In jotting 338, old tales had it that “thunder axes” 雷斧 could be found where lightening had struck. Shen considered such tales believable from his own experience. Similarly, on the subject of “a rainbow drinks water” in jotting 357, Shen took the trouble of making a series of planned observations in order to determining that the tale in question was believable too. Examples like these are numerous, and I have found no obvious scientific reason to object to Shen’s procedures. In general, Shen Gua seems to have had no particular interest in attempting to refute tales about phenomena recorded in the shenqi and yishi categories, something a modern scientist would doubtless take for granted. The epistemological and political distinction between the rational and scientific as opposed to the occult and superstitious, followed in the West since the Enlightenment, does not apply here.

In addition to the set of three concepts (i.e., li, xin, yan and xiao) discussed above, there are a number of other important concepts embedded in what I have called Shen’s gaze of curiosity. Shen describes a series of more or less accidental, even isolated, divine marvels witnessed by credible eyes, in terms of “divine oddities” (linyi, 靈異), or “divine vestiges” (ji, 跡). These were occurrences naturally revealed through divine causes or deities beyond any reasonable doubt. They are recorded, with admiration, in jottings 343, 344, 355, 358, 364, 373, and 383. Attempts to explain some singular occurrences in terms of li were made in jotting 358, “the word omen zai 在, and jotting 364, “mysterious light” 異光, but Shen admitted his failure to understand them. A small number of odd occurrences having no clear connection with divinities of various kinds were also chosen for inclusion in the yishi category in terms of the “bizarre” (guai, 怪)—for example, jotting 376 and part of 373. The bizarre was a subject

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37 One question, however, might be raised. Why did Shen not try to verify the notion of the “thunder ax” on other occasions when the phenomenon of thunder was again addressed, as in jotting 347 “monstrous thunder” and jotting 361 “words cast by thunder”? If Shen had assiduously cross-checked his sources, he might indeed have found it difficult to verify the existence of the “thunder ax.”
concerning omens and fate which fascinated many authors of biji even in the Song, but Shen was not much interested in this subject himself.

A further set of concepts, lei 類 (a classificatory unit, a kind), shi 譜 (to recognize), and wei 謂 (to name, to call), emerges as Shen Gua tries to characterize another group of odd objects—usually found in nature—in the yishi category. These three concepts arise in jottings 363, 364, 366, 368, 370, 371, 372, 374, 375, 377, 378, and 382, which together comprise a coherent section. At the beginning of jotting 364, “mysterious light,” Shen reasoned “If things resemble each other, they must be of the same category.” When an extraordinary thing was found somewhere, and no explanations or tales about it existed, Shen tried to see if it was similar to things that were more familiar, or if several other strange things might at least be similar to it. Often he asked further if the strange thing in question was similar to something recognizable perhaps only in ancient times. If all these attempts at classification failed, then Shen would admit his inability to “recognize” the strange thing, with a mixed sense of frustration and amazement. Without insistently trying to relate strange things to supernormal agents and moral stories, a persistent attempt to classify, to name, or at least to lump together strange things similar to each other into a new group is clearly detectable in the cognitive structure underlying Shen’s curiosity. It may be appropriate to say that, through the yishi category, Shen was carving out new classes of things in nature, subjecting them to his own classificatory grid. Instead of being marginal superstitions in the taxonomy of the Bitan, the jottings in the category of Strange Occurrences could be considered as the frontier of Shen Gua’s investigative sensitivity toward the “unknown” of the Northern Song.

As a whole, the latter two sets of concepts—linyi, ji, and guai, and lei, shi, and wei—do not have epistemological status lower than the first three concepts, i.e., li, xin, yan and xiao. In the Bitan, the categories shenqi and yishi suggest that all of them stand on the same level, and together they may be taken to constitute an underlying network or web. Far from the superficial impression of an arbitrary glance at bizarre events, Shen’s gaze of curiosity was highly elaborated, indicating that the categories of shenqi and yishi were not taken less seriously than other categories, more respectable from a modern viewpoint. A further indication of the “elaboration” should be added here by noting that all odd occurrences or objects described in terms of linyi, ji, or guai are indeed singularities, that is, things that are unique, and thus could not be characterized in terms of “classificatory units” (lei).\(^{38}\) In jotting 377, “strange beasts,” a beast sent by barbarians as tribute to the Song emperor was not “recognizable,” hence it was tentatively called yishou (strange beast). Later Shen declared, trium-

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\(^{38}\)One possible exception to this claim is jotting 364, “mysterious light,” where the notions of yi and lei were both used. But this is only an apparent exception. Jotting 364 described a single “mysterious light” in terms of yi and two “duck eggs” in terms of lei. Jotting 364 might originally have been two separate jottings.
phantly, that the beast should be called tianlu 天祿, since it looked “very similar” to a stone beast known by that name found in a remote place. The name of that place and of the stone beast were precisely indicated—thus providing further confirmation—in the orthodox History of the Han 漢書.

Let us see more closely how Shen Gua operated his conceptual network in pondering the problem of the classification of this strange beast. Jotting 377 reads in part:

During the Zhihe era, Jiaozhi presented a lin to the emperor. It looks like an ox but is much bigger, and is covered with scales and has a horn on its head. Checking the historical documents, we found that it is not similar to the lin, so some people then suggested that it be called Mountain Rhino. However, a rhino was never said to have scales, so nobody knows the final answer. In the emperor’s edict of acknowledgment, if it were called a lin, the emperor was afraid of being cheated by the barbarians; if not, then we have no way to check it. So the most prudent and proper way of naming it was “strange beast.” Now according to my observations, it should be called tianlu...[Shen Gua then revealed how he found its true name]...Since we know well how it looks and find it is very similar to the strange beast presented by Jiaozhi, it must be a tianlu.

As one can see from this passage, it was crucial to distinguish between “strange and singular” (yi) and “similar to each other as a kind” (lei) in classifying strange new things. In addition to drawing this distinction, Shen Gua also manipulated a series of related notions—such as “to name” (wei), “to check” or “to examine” (zhi 質, kao 考), “to observe” (guan 観), “to know well how a thing looks” (xiang qi xing, 詳其形)—in an ordered way to carve out new classes of things from the unknown.

Given Shen’s analysis of singularity and similarity in terms of yi and lei, what were the underlying principles that served to guide Shen in deciding whether a “strange thing” should be recorded in the category of yishi? Many of the things that could be classified either as singular or similar were familiar to Shen, or things that presumably should not be categorized as strange occurrences. A number of unusual or interesting kinds of things were actually recorded in the category of Miscellaneous (zazhi). Without claiming a principle that would demarcate things exclusively as yishi from other more common categories, I would suggest there is an underlying conception which characterizes a major portion of the jottings in the yishi category.

This is the conception of bianhua 變化 (“change,” “metamorphosis,” “transform,” “become”), which was a familiar concept in the tradition of the Yulan and especially of the Guangji. It was usually associated with categories such as shenqi, yishi, deities and, of course, the entire group of ghostly themes

\[39\] For a discussion of bianhua in a much wider context than the Mengxi bitan, and with a strong Daoist orientation, see Isabelle Robinet, “Metamorphosis and Deliverance from the Corpse in Taoism,” History of Religions vol. 19 (1979), pp. 37-70.
of the past. Typically the concept of change was causally connected with deity-like, supernormal agents of various kinds. But in the yishi category, there is an underlying conception of a special kind of change (from one category of thing to a remote or distant category of things, measured by the entire taxonomy itself), but not causally connected with supernormals.

In jottings 364, for example, duck eggs are said to “grow bright.” In jottings 365, raw beef becomes a small cow, and the small cow grows bigger, etc. In jottings 366, dirt changes into gold; in 368, a sick man shrinks and a straight thing curves; in 370, a mountain trembles; in 372, dragon’s breath turns into humans and horses; in 373, bamboo shoots turn to stone; in 374, a dragon changes into stone; in 375, a stone grows and gains weight; in 376, a precious sword stretches or bows at will; in 381, crocodile eggs hatch into fish or turtles; in 382, a strange sea animal with a tiger’s head becomes a tiger; in 383, a clay Buddha trembles; in 385, a whirling wind assumes the shape of a goat horn; in 386, ice grows into the shape of flowers; in 387, hail forms into the shape of the human head; and so on. More than half of the jottings in Strange Occurrences may be characterized in terms of this special concept of bianhua.

With this in mind, consider the well-known jottings 373 (which is concerned especially with the problematic notion of “fossils”) in the yishi category. I wish to suggest a new way of interpreting this jotting. Jotting 373 reads as follows:

In recent years [ca. 1080] there was a landslide on the bank of a large river in Yongning guan near Yanzhou. The bank collapsed, opening a space of several dozens of feet, and under the ground a forest of bamboo shoots was thus revealed. It contained several hundred bamboo with their roots and trunks all complete, and all turned to stone. A high official happened to pass by, and took away several, saying that he would present them to the emperor. Now bamboo does not grow in Yanzhou. These were several dozens of feet below the present surface of the ground, and we do not know in what dynasty they could possibly have grown. Perhaps in very ancient times the climate was different so that the place was low, damp, gloomy, and suitable for bamboo. On Jinhua shan in Wuzhou there are stone pine cones, and stones formed from peach pits, stone bulrush roots, stone fishes, crabs, and so on, but as these [i.e., pine trees, peach trees, etc.] are all native to that place, people are not very surprised when they [find these kinds of “stones”]. But these stone bamboo usually do not appear under the ground, and bamboo is not produced in that place today. This is a very strange thing.\(^{40}\)

In terms of traditional categories like bianhua (in the Yulan or the Guangji), it was common to include accounts of animate objects, even humans, changing into stone. Most of these episodes were associated with moral stories or supernormal agencies. From the Shuijing zhu 水經：資水注, and the Youyang (in

\(^{40}\) This translation is adapted, with minor changes, from Joseph Needham, Science and Civilisation in China vol. 3 (Cambridge: Cambridge Univ. Press, 1959), p. 614.
at least three places), through the Bitan, to the Yunlin shipu 雲林石譜 卷中 魚龍石 and the Shaoshi wenjian houlu 邵氏聞見後錄 (juan 4), the special theme of animate objects changing into stone was disassociated from moral stories and supernormal agencies. Several jottings in the Bitan (373, 374) that centered on the theme of living objects changing into stone, again subsumed under the general theme of bianhua, were not “special” at all if judged from the point of view discussed above. In jotting 373, the reason underground bamboo shoots turned to stone was not known, but apparently it was not thought to be similar to that of other changes mentioned in the same jotting 373. Shen’s resort to ancient climate was in the nature of a wild guess, since he did not know the reason for changes in climate. This is unlike what he did know, Shen believed, about other geological questions: e.g., jottings 430 and 433, in category of Miscellaneous. Nor was the implication that such things dated from “ancient times”—namely, that an immense period of time was needed for a thing to become “fossilized”—anything important for Shen since there was no such requirement for other things that changed into stone, as long as they were indigenous. Stone bamboo shoots, therefore, are “very strange” things in that area. As for other living things changing into stone, they were not thought to be “extremely bizarre” because their situations (all being indigenous things) were similar to one another (jiewou, benyou 皆有, 本有) and therefore constituted a kind (lei) of change which might also include the case of a dragon changing to stone mentioned in jotting 374. Again, we see here Shen’s strict contrast between “strange” (yi) and “a kind” (or “it is always

41 The three mentions are in section 10, p. 4, and section 18, p. 2 (of the Xue jin tao yuan 學津討原 edition of the Youyang), and section 1, p. 9 of the Youyang Supplement.

42 Although jotting 430 in the zazhi category includes a dubious description of living things “changing into stone,” this was not the central concern of Shen Gua there. For quite a different interpretation of jotting 430, see Footnote 46, below.

43 Christopher Cullen has suggested to me that the description of a “fish dragon stone” yulong shi 魚龍石 in section 2 of the Yunlin shipu 雲林石譜 reflects a nearly modern conception of “fossil.” However, the description (“山頗塞久土凝爲石”) does not mention the temporal process of a fish becoming stone at all. Rather, the discussion is compatible with the general principle of “change”—sudden or otherwise. Moreover, interpreting this jotting in terms of “change” accords perfectly well with other jottings in the very same section (thus the same category): in songhua shi 松化石 where “a pine suddenly changed into stone overnight,” and in zhongru shi 瞳乳石 where snakes, crabs, and the like were “turned into stone by touches or drippings from stalactites” 黙化成石. Richard Rudolph asserted that there are many Chinese “references” to fossil fish, but this certainly does not mean that there were early Chinese conceptions of fossils. See his “Early Chinese References to Fossil Fish,” Isis vol. 36 (1946), p. 155.

44 The notion of “living” things here might be problematic. See jotting 374, “living things” (shengwu 生物).
like this”) (lei, benyou 類, 本有) in the conceptual operations underlying his look at the strange.

With this interpretation of Strange Occurrences, it now seems clear that, contrary to what many historians of science have said, the Bitan contains no notion of fossils in the ordinary (modern) sense of the word.\textsuperscript{45} The general conception of bianhua in the yishi category admits no ontological difference between the special "change" of living things turning into stone and other changes. Shen Gua, moreover, seemed to admit only a limited group of things which under special conditions—being indigenous, on strange occasions—might change, suddenly or not, into stone. These were all living things: pine cones, peach pits, bulrush roots, fishes, crabs, and possibly "snake-dragons." Oyster shells and bird eggs, however, were excluded, given the ambiguous wordings in jotting 430.\textsuperscript{46} The fact that a certain group of things might turn to stone was for Shen as strange as other bianhua in many jottings in the yishi category mentioned above. Attributing the modern notion of fossils to Shen Gua without due caution, not only is anachronistic, but fails to appreciate the highly original and elaborate system that underlies his gaze of curiosity.

While Ouyang Xiu avoided writing on the subject of spirits and strangeness by following the example of Li Zhao, Zhu Xi constructed an elaborate philosophical system to reinterpret oddities, virtually all of which were known to him only by hearsay. Other authors of more orthodox biji such as the Shengshui yantan lu, the Dongxuan bilu, and the Jile pian only occasionally played with oddities. Thus Shen Gua was undertaking path breaking work in developing an elaborate conceptual network for confronting odd phenomena of various kinds. Furthermore, Shen's strategy in discussing Strange Occurrences is definitely different from that followed by authors of biji in the tradition of the Guangji. For the latter, many sentences and entire jottings were devoted to divine oddities, deities and ghosts, the bizarre and the inconceivable in such Guangji-influenced biji as the Chunzu, or the Jishen lu, or the Zhilin. Nevertheless, the authors of such biji were pursuing a strategy fundamentally different from Shen's in professing personally to have seen things, and odd things in particular. Whereas Shen Gua tried to "observe" things by restricting his observation to a limited class of privileged gaze, they wished to participate in things with a philosophico-religious fascination in which detached observation had only secon-

\textsuperscript{45}The specific content of living things "changing" into stone in Song China is very different from the Western pre-modern (or neo-Platonic) notion of fossils as well. See M. J. S. Rudwick, The Meaning of Fossils (2nd. edition) (Chicago: Univ. of Chicago Press, 1985), chaps. 1 and 2. There is no single cross-cultural notion of "pre-modern."

\textsuperscript{46}In jotting 430, I interpret Shen as having meant real oyster shells (not "fossilized shells") and pebbles or "egg-like" stones (erluan shi, 雉卵石) usually found on river banks or on a pebble beach. Bird eggs do not easily become fossilized (even if fossilized dinosaur eggs have been found), especially on such a scale as to constitute an entire "band." In this interpretation, there is no "change" in jotting 430 as there is in the yishi category, and it is quite right to locate this jotting in the zazhi category.
dary value. As the process of participation is engaged, the lines that separate the authors of the Guangji-style biji—mostly members of the elite themselves—from folklore, popular religions, and the world of strangeness become blurred and easy to cross. As they immersed themselves in marvels and strangeness, an elaborate conceptual network as found in the Bitan was far less important to them than the temporal process, the details of that immersion, which resulted in a temporal or narrative structure filled with human, moral, and religious fascination.

In the category of Strange Occurrences (yishi) in the Zhilin, there are many jottings with themes similar to those in the Bitan. The “Note on the strange realm in Luo Fu” 記羅浮異 境, 異事上, which contains no indication of the source of the story it relates, probably referred to a mirage like those known as haishi 海市 (Bitan, jotting 372). However, the central moral of this jotting was that since even many devout Daoists could not see such a divine spectacle, then the fact that a minor official experienced it must show he had a predestined divine link (縁, yuan) with it. “Note on a strange occurrence” 記異, 異事上, again with no indication of the source, referred to prodigious alchemy (similar to jotting 342 in the Bitan). While Shen Gua commented on the credibility of the event reportedly experienced by himself, Su Shi narrated the interesting details of a legendary alchemist without commenting on the alchemical process itself. “Mountain Taibai was granted the title of duke” 太白山舊封公爵, 異事下, Su Shi’s own story, referred to how Su cleverly “bribed” the rain deity of Taibai shan to do his job. This story is similar to a problem encountered by Shen in jotting 134 of the Bitan. Whereas Shen Gua recounted his successful prediction of rain by employing the cosmo-medical method of wuyun liuqi 五運六氣, Su Shi was proud of his successful manipulation through his own direct contact with the rain deity. As for the strange “goat horn wind” 羊角風 (i.e., a tornado) in jotting 385 of the Bitan, Su Shi recounted a similar story, “Pond fishes leaping up” 池魚躍起, 異事下, but in very different terms. Although both Shen and Su chose the same term—yangjiao 羊角—to refer to the phenomena of a tornado, their approaches were fundamentally different. Like most other jottings in the yishi category, the divine oddities which fascinated Shen Gua were well contained in his underlying conceptual network. Seeing a whirling wind assume the shape of goat horn (reflected in the principle of bianhua discussed above), he refrained from attributing a cause of any kind to the event itself. Su Shi, although recounting in unusual detail the environment where the tornado occurred, engaged in a spiritual and causal discourse in which he debated with his friend concerning the precise state of the fishes’ spirits under this environment. The

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47On this topic and different ways of making contact with nature, see A. Cohen, “Coercing the Rain Deities in Ancient China,” History of Religions vol. 17, no. 3-4 (1978), pp. 244-265.
detailed description of the environment was precisely designed to strengthen the plausibility of that discourse.

Perhaps Shen Gua was more “learned” than his contemporary Su Shi, but that is not the issue here.\textsuperscript{48} The learned Song intellectual Hong Mai, famous for his historical erudition manifested in \textit{Rongzhai wubi}, displayed a great interest in ghosts in his equally famous \textit{Yijian zhi}. Unlike Su Shi however, Hong Mai managed to separate the two discourses and kept them in different social and cultural contexts. As previously indicated, Shen Gua’s gaze of curiosity was a privileged gaze, based on the position and credibility of a privileged class, but such is probably not the case in the \textit{Zhilin} and certainly not the case in the \textit{Jishen lu}. The usual stereotyped, modern distinctions such as rational/sentimental or scientific/literary are inappropriate for understanding the profound differences between Shen Gua and Su Shi. The nature of the distance from Shen’s eyes to his observed objects was quite different from the relationship between Su Shi and his engaged narrative world. The detached gaze assumed in the \textit{Bitan} was a view from “above,” even if benevolent. The narratives in the \textit{Zhilin} or \textit{Jishen lu}, on the other hand, were engaged from a point of view directly inside the discourse and the world of Divine Oddities, a world that was also distinct from the ordinary official-administrative world. The writings of Strange Occurrences by Su Shi were thus accounts from the “inside,” even if unorthodox. Naturally, I do not mean that Su Shi or Xu Xuan could literally escape from their position in an elite social class in ways that Shen Gua could not. Being social elites themselves of course, Su and Xu sometimes nonetheless engaged in the imaginative process of participating in discourses and narratives that probably did not stem from their elite social class. Shen Gua, on the other hand, looked upon oddities from a distant position, contained his fascination within his own underlying conceptual network, and refrained from leaping into the discourse of strangeness.

\footnote{Su Shi seems very learned in the area of Daoist or popular religious medicine. It is perhaps not an accident that people mixed Su’s medical writings with Shen Gua’s \textit{Liangfang 良方}, and called the mixed treatise \textit{Su-Shen liangfang 蘇沈良方}. See also Peter Bol’s discussion of “The Su Learning” in his “Chu Hsi’s Redefinition of Literati Learning.”}
APPENDIX

The Debate over the Taxonomy of the *Mengxi bitan*

In the past, Zhang Haipeng 張海鹏, Zhang Wenhu, and Hu Daojing all believed that the original text of the *Bitan* consisted of 30 sections (juan), instead of the current 26-section text (which dates from 1166). The current text may have been completely "re-edited" by others so that its taxonomy does not reflect the order of things in Shen Gua's mind. The problems with Zhang Wenhu's arguments have been briefly mentioned above (in Footnotes 4 and 18). Usually his arguments are quite brief and sometimes even arbitrary. Although the Supplement to the *Bitan*, i.e., the *Bu bitan* 補筆談, was meant to supplement the 30-juan text, both the *Zhaode xiansheng* 昭德先生 (1151) and Chen Zhengun's 陳振孫, *Zhitai* 直齋 of the Northern Song referred to the 26-juan text. Although many Song *biji* record jottings of the *Bitan* that do not occur in the current extant text, this does not necessarily support the idea that the original text is the 30-juan version.

Li Yumin 李裕民, "Notes Concerning the Writings of Shen Gua" in *Shen Gua yanjiu* 沈括研究 (Hangzhou: Zhejiang renmin chubanshe, 1985), quoted the following interesting statement from the *Biography of Zou Hao* 鄒浩傳 in the *Yangzhou fu zhi* of the Kangxi era 康熙: 揚州府志: "浩在揚州 [no later than 1087] 刻沈存中<夢溪筆談> 于郡齋" ("In Yangzhou, Hao ordered the carving and printing of Shen Gua's *Mengxi bitan* at the county office"). This 1087 version of the *Bitan* ought to be the original copy of the Yangzhou gongju jiuben text (揚州公庫舊本) which Tang Xiunian 湯修年 reissued—without any re-editing—as the Yangzhou zhouxue kanben (揚州州學刊本) text in 1166. Secondly, all the events recorded in the 26-juan text of the *Bitan* occurred no later than 1087, but many events recorded in the *Bu bitan* occurred from around 1090 to 1093. In general, according to Li's research, the order of the compilation and publication of the *Bitan* should be: first, the 26-juan *Bitan* (1087), then an expanded version of 30-juan (1091), then the writing (by Shen Gua) of the *Bu bitan* to supplement the 30-juan *Bitan* (1093). Although the source of this *Biography of Zou Hao* is still unknown, the current 1166 edition of the *Bitan* seems indeed to reflect the original order of things in Shen's mind. Incidentally, the *Biography of Zou Hao* in the *Yangzhou fu zhi* of the Yongzheng era of the Qing (雍正：揚州府志) no longer contains this piece of information.

Hu Daojing's collection of the "lost jottings" 逸文 (in Hu's 1985 edition of the *Mengxi bitan*) of the *Bitan* from Song minor leishu, supports Li Yumin's chronology. There are roughly 36 lost jottings in all. Thirteen came from the *Jinxiu wanhua gu* 錦繡萬花谷 (1188); twenty-one came from the *Shishi lei-yuan* 事實類苑 (1145), but 10 of these latter 21 lost jottings probably came from *Chun ming tui chao lu* 春明退朝錄 (1070; i.e., earlier than the *Bitan*).
and were mistakenly taken as jottings from the Bitan. There is only one lost jotti-
ning that probably came from the Moke huixi 墨客 揮 翦 (Northern Song), but
no lost jottings were found either in the Shihua zonggui 詩 話 總 龜 (1123) or
the Gujin shihua 古今 詩 話 (Northern Song). Considering the distribution of
these lost jottings chronologically, we see that the closer in time those leishu
collections were compiled to the publication date of the Bitan (i.e., 1087), the
fewer lost jottings there were. (Note: all the leishu collections mentioned above
included many jottings from the 26-juan Bitan, and are thus considered valuable
sources for editing and correcting the current extant 26-juan Bitan.) Therefore,
we have no lost jottings of the Bitan from the leishu of the Northern Song. This
suggests that the original 26-juan text (1087) was popular in the Northern Song
but declined very quickly toward the end of the Northern Song (1127), whereas
the 30-juan text (1091 and later) became popular in the Southern Song.

Even if we concede a slim possibility that the extant 26-juan text of the
Bitan is not the original version, Zhang Wenhu's dismissal of the 26-juan text
(with the standard 17 categories) still seems arbitrary and groundless. He claims
that "An ignorant and presumptuous person (wangren, 妻人) once got a copy
of the Mengxi bitan by chance. He cut it into 17 parts without due care, and
made it into a book of 26 juan. Tang Xunian saw this re-edited copy later, and
without hesitation he ordered it to be carved into print." This leaves the
impression that the original version of the Bitan has a taxonomy and a distribution
of jottings quite different from those of the extant text. I have tried to establish
the distribution patterns of jottings of the Bitan in Jiang Shaoyu's Shishi leiuyuan
(1145, obviously using texts of the Bitan before 1166) and have found that
Zhang Wenhu is quite wrong. There are many parts the Shishi leiuyuan that seem
to have been taken as a whole directly from the 1166 26-juan text. Every such
part has many jottings with exactly the same ordering as those in the 26-juan
text. Only a few have a slightly different ordering from those in the 26-juan
text. This means that the extant 26-juan text reveals almost no differences in
distribution of jottings and in taxonomy from earlier texts of the Bitan. Zhang's
story about an "ignorant and presumptuous person" seems far-fetched.