Research Note

Four Points to Be Considered when Writing “A History of Science and Civilisation in Korea”

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Abstract: A research project entitled “A History of Science and Civilisation in Korea” is planning to publish an English-language monograph series that endeavours to learn from established scholarship on the history of science by benefiting from its accomplishments and overcoming some of its shortcomings. This paper argues that the following four points are important for Korean historians of science to consider: (1) overcoming ‘presentism’ – to avoid writing history from a contemporary standpoint and to

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justify present-day Korea, (2) adopting a cross-cultural approach—to avoid unjustified nationalistic and ethno-centric interpretations of historical data, (3) considering both elite traditions and folk traditions in Korea—to present a more balanced view on different traditions in Korea, and (4) adopting traditional Korean concepts and categories of knowledge, if necessary; that is, that when no Western concepts are suitable for reference but indigenous Korean concepts are, adopting traditional Korean concepts is preferable. For example, the adoption of p'ungsu (geomancy) as a category of the Korean body of scientific knowledge. In this paper these four points will be discussed with supporting evidence, and I believe that using these four points as guidelines will enhance the quality of new writings on the history of Korean science by overcoming some of the shortcomings of existing scholarship on the history of science, technology and medicine in Korea or elsewhere.

Introduction

A Korean research project entitled “A History of Science and Civilisation in Korea” is preparing for the publication of an English-language monograph series of the same name. This project endeavours to learn from established scholarship on the history of science in East Asia. By using some monumental works, such as Joseph Needham’s Science and Civilisation in China, as benchmarks, this research project should benefit from their accomplishments and overcome some of their shortcomings. Books and journal articles written in English and published in the Western world on the history of science, technology and medicine in Korea are currently extremely limited in scope and number. This monograph series, to be published by a well-known publisher, will provide much needed access for Western scholars to quality discussions on the history of science, technology and medicine in Korea. In fact, the works in this series may become key references for Western scholars in this field of research. For these reasons the works included in this series are expected and required to be high quality discussions on the subjects they deal with. As a way of ensuring this and encouraging the authors carrying out research on their diverse subjects in this series, the following four points are suggested for consideration.
Four Editorial Guidelines for Authors

During the planning stage of research into a topic relating to the history of science, technology and medicine in Korea, as well as during the investigation process, it is important that writers reflect on their research by considering the following four points:

(1) Overcoming ‘presentism:’ avoid writing history from a contemporary standpoint or to justify the present situation in Korea and around the world.

(2) Adopting a cross-cultural approach: avoid unjustified nationalistic and ethno-centric interpretations of historical data by considering historical events in Korea in isolation. Reviewing Korean history in light of its relationships with other countries and regions is desirable for a more balanced and less biased understanding of historical events.

(3) Considering both elite traditions and folk traditions in Korea: present a more balanced view on different traditions of Korea. All cultures have subcultures consisting of ruling elite traditions and folk traditions. Knowing both traditions is important in writing the history of science, technology and medicine in Korea, because the characteristics of these two can be quite different, yet both interact with each other. For instance in Yangdong village during the pre-modern Chosŏn dynasty period, the Yangban (the elite) class adhered to Neo-Confucian culture, while the commoner (karapjip) class followed shamanistic traditions.

(4) Not refraining from using traditional Korean concepts and categories of knowledge, if necessary: When no Western concepts are suitable for reference but indigenous Korean concepts are, adopting traditional Korean concepts for interpreting Korean history of science is preferable, rather than insisting on a standard Western concept for that purpose. For example, adopting p’ungsu (geomancy) as a category of the Korean body of scientific knowledge, rather than classifying it as geography or environmental management.

I believe that using these four points as guidelines will be useful in enhancing the quality of new research on the history of Korean science by providing a balanced and less biased perspective on the historical data being dealt with. These four points will help the authors in overcoming the shortcomings and adopting the merits of existing scholarship on the history of science, technology and medicine in Korea or elsewhere. The following is a discussion of the four points with some supporting evidence.
(1) Overcoming Presentism

In our documentation and interpretation of history (past events) it may well be impossible to remove all present-day viewpoints, for we are living in the present-day world. However, it is wrong to select historical data and manipulate it to justify the current situation. Such an action misleads readers into wrongly interpreting historical events and historical trends. Instances of ‘presentist’ history that is written to justify ‘the present’ is common in regional or national histories in many parts of the world. This ‘presentist’ approach can easily be found among research into the history of science, because historians of science often select and interpret historical data that is useful for explaining the present. This is to say that, the presentist uses ‘the present’ as the yardstick by which to measure ‘the past,’ and ‘the present’ is the basis for the interpretation of ‘the past.’ Selection of more important historical data is inevitable, but interpreting it has to be fair and unbiased, as argued by Ernst Mayr, who declared “selectivity is a necessity in developmental historiography,” but “the historians must avoid the well-known faults of bias, chauvinism, falsifications of priority, and finalistic interpretations.”

David Livingstone expounded elegantly on this issue:

Selection, then, is inescapable. But manipulation is a quite different matter. The great evils of unrestrained presentism surface when partisans seek self-justification from the heroes of the past; when they suppress those parts of the story that do not enjoy contemporary respectability; and when they impose an altogether fabricated order on the past as it ‘foreshadows’ current orthodoxy.

When the British historian, Herbert Butterfield defined and critiqued “Whig history,” he regarded it as an interpretation of history as a story of progress toward the present (a progressive development of human rights), and the characteristics of its interpreting method is a study of the past with reference to the present. Livingstone went further on the nature of presentist history by arguing that:

The past, in other words, is only contemplated in terms of the present. The result is that history is written backward-

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4 Herbert Butterfield (1963), *The Whig Interpretation of History*, London: G. Bell and Sons, Ltd.
from the present to the past and this is what historians refer to as 'Whiggish' or 'presentist' history.5

David Hackett Fischer in his seminal book, Historians’ Fallacies argued that the mistake of presentism is anachronism, and thus that interpreting and evaluating the past is to be done with reference to its consequence on the present. He continued that the ‘proper’ way of writing a presentist history is by removing all the historical events that are not related to and relevant to the present as follow in the manner of using a parable:

The fallacy of presentism is a complex anachronism, in which the antecedent in a narrative series is falsified by being defined or interpreted in terms of the consequent. Sometimes called the fallacy of nunc pro tunc, it is the mistaken idea that the proper way to do history is to prune away the dead branches of the past, and to preserve the green buds and twigs which have grown into the dark forest of our contemporary world.6

While Fischer judged the sin of presentism in a poetic turn of phrase, George W. Stocking, Jr. bluntly identified the fallacies of presentism in a solemn judgemental statement:

Inevitably the sins of history written “for the sake of the present” insinuate themselves: anachronism, distortion, misinterpretation, misleading analogy, neglect of context, over simplification of process.7

It is not difficult to find some examples of history, especially history of science, written with some significant aspects of presentism present. Joseph Needham, who produced monumental works on the history of science in China, surely provided one clear case of exercising presentism when he declared that:

Before the river of Chinese science flowed, like all other such rivers, into this sea of modern science there had been remarkable achievements in mathematics.8

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Needham’s statement is a finalistic interpretation assuming that all traditional sciences in China and elsewhere progressed toward present-day modern universal science, which is, in fact, modern Western science. Justification of the existence of past traditional science in light of modern science is an oversimplification of historical processes and an exercise of ‘presentism.’ Needham’s dogmatic presentist view is further elaborated when he said:

Surely it would be better to admit that men of the Asian cultures also helped to lay the foundations of mathematics and all the sciences in their medieval forms, and hence to set the stage for the decisive break-through which came about in the favourable social and economic milieu of the Renaissance.9

Needham’s goodwill toward non-Western culture is clear, when he declared “Modern universal science, yes; Western science, no!” although “modern science was born in Europe and only in Europe.”10 If modern science was born only in Europe, isn’t it fair to call it Western science? Even if some other civilisation may have contributed something toward it, isn’t it basically European science if it is born in Europe and based on European tradition? In addition to that, some may wonder whether there is something rather patronising in Needham’s appeal for “Modern universal science, yes; Western science, no!” Another aspect of Joseph Needham’s practice of presentism is his documentation of relevant historic data in the history of Chinese science and technology that fit into modern categories of Western science, such as mathematics, physics, chemistry and engineering.

The practice of presentism is seen in the history of geography. Modern geography consists of bifurcated branches of human geography and physical geography. Assuming the current bifurcation is inherited from the past, scholars sometimes attempt to explain the discipline by assuming that past geography has always consisted of two branches. It is generally held by many students of geographic thought that Alexander von Humboldt is attributed with the title of ‘the father of physical geography,’ while Carl Ritter is acclaimed as ‘the father of human geography.’ This labelling implies that the two sub-disciplines are equally important and the two scholars of the same calibre. However, in the past the division between human geography and physical geography was not as it is today, and the scholarship of Alexander von Humboldt is far more significant than that of

9 Ibid., p. 149.
10 Ibid.
Carl Ritter. The titles attributed to these scholars is a case of imposing present values on the past and an example of practising ‘presentism.’

Elements of presentism can also be found in Korean and Chinese historical writing. Koguryŏ 高句麗 (37 BC–668 AD) was an independent kingdom of the Koguryŏ people, and has been claimed by the Korean and Manchurian kingdoms as a part of their past. Koguryŏ history has always been considered an integral part of Korean history, and is treated as one of the three Korean kingdoms in Samguk sagi 三國史記 (The History of the Three Kingdoms Period) compiled by Kim Pusik 金富軾 in 1145. This fact has never been in dispute until the People’s Republic of China recently claimed it to be a part of Chinese history. Most of the former Koguró territory is now claimed to have been a part of China, and in the Chinese introduction to the Koguryŏ ruins in Manchuria, Koguryŏ people are labelled as one of the minority nationalities of China. Koguryŏ was never a part of China—the Chinese territory at that time was not as great as it is today and did not include the Koguryŏ territory. For China to claim that the Koguryŏ dynasty existed within Chinese territorial boundaries, and that Koguryŏ people are a minority nationality of China, is a case of exercising presentism by imposing the image of the national territory of present-day China and the composition of people within its territory to the time of the Koguryŏ Period (especially the fifth till seventh centuries).

In the study of Chinese geomancy (fengshui 風水 in Chinese, p’ungsu in Korean), there seem to be some explanations of the past that use conjecture from present-day practices of geomancy. An example of such practice can be seen in the suggestions of J. J. M. de Groot and Chen Huaizhen that geomancy developed from ancient people’s attempts to find auspicious gravesites. In modern times, both in China and Korea, grave geomancy has been much more important and popularly practiced than house geomancy. However, when one carefully examines the principles applied to gravesites and house sites, the key principles are more or less the same and are actually more relevant to the conditions of houses. If scholars argue that grave geomancy developed before house geomancy, they cannot explain why, in the examination of gravesites and house sites, more or less the same geomantic principles are applied and they are more relevant to house site conditions. Thus, to claim that grave geomancy developed earlier than

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house geomancy without closely reviewing the geomantic principles applied to them would seem to be a practice of presentism by conjecturing the past from observations of the more popular present-day practice of grave geomancy.

David Livingstone argued that the greatest evils of unrestrained presentism surface when partisans seek self-justification from the heroes of the past. In other words, some academics attempt to elevate the prestige of their field of study unreasonably by strenuously trying to connect their academic genealogy to the famous scholars of the past. This type of exercise actually exists in Korea. In the study of geomancy in Korea, some scholars promote the idea that the famous geomancer-monk Master Tosŏn 道詵, who lived at the end of the Silla dynasty (57 BC–935 AD), is the father figure of Korean geomancy (the inventor of Korean geomancy). To contend that Master Tosŏn’s *pibo* 裨補 geomancy (the reinforcement of geomantic landscapes by making up the shortcoming of some landscape elements) was the beginning of indigenous Korean geomancy, or even that he is the father of Korean traditional geography, smacks of ‘presentism,’ as well as being evidence of the manipulation of historical data. In fact, *pibo*-geomancy is not indigenous to Korea. It developed in China and was introduced to Korea during the late Silla dynasty. Some Korean geographers also want to promote Master Tosŏn as the father figure of indigenous Korean geographical tradition. However, although Korean geomancy may well be a minor part of applied Korean geographic tradition, it does not represent pre-modern Korean geographic tradition. The traditional Korean concept of geography (*chiri* 地理, *chiriji* 地理志) was regional geography or local gazetteers in modern terms, and did not represent geomancy, which was called *p’ungsu* 風水 or *kamyŏ* 堪輿. Thus, Master Tosŏn should never be considered the father-figure of traditional Korean geography. Attempts to promote Master Tosŏn as such is a case of manipulating historical data to promote the status of the study of geomancy in Korean geographic tradition.

(2) To Adopt Cross-cultural Perspectives

A well-known scholar of cultural history, Arnold J. Toynbee, advocated the view that it is not possible to write a national history without considering the cultural history of the international community that the nation belongs to. He argued that within the European cultural community it is imposs-

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ble to write a history of a nation as a historical unit without considering its relationships with other European nations it has interacted with. To do so would not be a sound approach to writing a nation’s history. The following are Toynbee’s own words on the issue he raised:

Historians generally illustrate rather than correct the ideas of the communities within which they live and work, and the development in the last few centuries, and more particularly in the last few generation of the would-be self-sufficient national sovereign state has led historians to choose nations as the normal fields of historical study. But no single nation or natural state of Europe can show a history which is in itself self-explanatory. If any state could do so it would be Great Britain. In fact, if Great Britain (or, in the earlier periods, England) is not found to constitute in herself an intelligible field of historical study, we may confidently infer that no other modern European national state will pass the test.15

On this issue, Toynbee presented the following eloquent statement, an authoritative assessment from a great scholar:

It seems, then, that British national history never has been, and almost certainly never will be, an ‘intelligible field of historical study’ in isolation; and if that is true of Great Britain it surely must be true of any other national state a fortiori.16

Toynbee’s above comment on British and European history is apposite advice for the study of Korean and East Asian histories. A sound cultural history should necessarily be a cross-cultural study, even if it deals with a nation or an ethnic group. It is inevitably so because at least some cultural exchange must have occurred between a nation and its surrounding neighbours. The history of science in Korea is a part of the socio-cultural history of Korea. In the study of Korean socio-cultural traditions, it is essential to consider Korea’s relationships with neighbouring countries such as China and Japan as well as Europe and North America (especially for modern periods). If one examines Korea in isolation, the results can be chauvinistic, uninformed and prone to naïve assertions or unjustifiable distortions.

The Tonghak 東學 movement ("Eastern Learning," now known as Ch’ŏndogyo 天道教) is an indigenous religious movement in Korea, but the religion was formed partly as a reaction to Catholicism (then, known as Sŏktak 西學 or “Western Learning”), which at that time was newly intro-

15 Ibid.
16 Ibid., p. 3.
A core religious doctrine of the Tonghak movement is Innechŏn thought 인내천, 人乃天 ("Heaven is in humanity," humanity represents heaven). Some scholars like to consider this Tonghak concept to be an original and indigenous Korean one, but it may well reflect the influence of Catholicism, when we consider the well-known Catholic doctrine of ‘Christ in you or God is within you.’ The original name of the church, Tonghak (Eastern learning), implies that it was aware of and a reaction to Sŏhak (Western Learning).Acknowledging the influence of foreign ideas (science or technology, for instance) from other nations, does not necessarily de-value the country’s own (scientific) heritage. Such acknowledgement can even enhance the value of the country’s heritage by providing valuable hints about the process of cultural diffusion among the nations of the world.

Traditional Chinese medicine was introduced to Korea and influenced the development of its medicine. Although Korean medicine has a Chinese base, Koreans have developed their own medical tradition as exemplified by Tongŭibogam 東醫寶鑑 (Encyclopaedia of Korean Medicine, literally “Valuable Mirror of Eastern Medicine”), which was compiled and edited by the famous Korean Royal Court Physician Hŏ Jun 許浚 in 1613. This medical treatise was reprinted many times in Korea following its initial publication, a testament to its importance in the provision of healthcare in Korea. This book was exported to and reprinted several times in China and Japan as well. This case highlights the view that East Asian medical science can be better understood in a cross-cultural context.

A cross-cultural approach was useful in my study on the cultural history of geomancy (p’ungsu) in Korea. The characteristics of geomantic attitudes toward nature are more easily identified when they are contrasted with non-geomantic attitudes toward nature, for example Western European attitudes as reflected in the Garden of Versailles, France. The traditional Chinese-style formal garden with a pond in front (southward) of a house seems to reflect Chinese geomantic principles relating to vital energy or shengqi 生氣, because a key geomantic principle is that vital energy flows underground through soil, and cannot cross water. This means that vital energy flows from the background hills to the house, and stays there, blessing the residents, for it cannot dissipate due to the water in the garden pond. Traditional Korean and Japanese palace gardens often feature ponds in the front courtyard, which is the south of the main palace.

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17 A copy of the original wood-block edition of Tongŭibogam is held in the Jangseogak Archive, Academy of Korean Studies.
building. This may well be an application of geomantic principles in the landscaping of the palace and its vicinity. Therefore, the appearance of such garden features may indicate the importation of geomancy, and a comparison of such gardens in China, Japan and Korea can help identify the diffusion pattern of geomancy in East Asia.

Some scholars in Korea advocate the idea that there is a form of geomancy indigenous to Korea, and suggest various types of geomantic landscapes that are often treated as living organisms or functioning systems of artefacts. They are named after animate and inanimate objects, such as a sailing boat, a floating lotus flower or a jade woman playing a string instrument. It is easy to note that such treatment of landscapes is well known in Chinese geomantic textbooks, and the numerous names of such landscape types are known to Koreans. While I was researching and preparing a paper on the geomantic landscape of the “Sailing Boat” (行舟形), I couldn’t find that landscape type in the well-known Chinese geomantic classic of the Ming dynasty, *Dili renzi xuzhi* (Facts that All Humanity Must Know about Geomancy). Although the book introduced a number of other geomantic landscape types, the one I was researching was not there. I thought that this particular landscape type could be indigenous and thus unique to Korea. Alas, I discovered that the landscape type also exists in China: a well-known Buddhist Temple near Nanjing is claimed to be located in such a landscape—clear evidence that it is not unique to Korea. A cultural element that seems to be unique to a nation or an ethnic culture is often shared with others. A well-known axiom is that innovation is hard to come by, while diffusion is easier and faster than we think.

(3) To Consider Both Folk/Little Tradition and Elite/Great Tradition

When writing a cultural history of a nation, there exists a tendency to rely on official sources, such as government documents or scholarly writings on socio-cultural issues. Writing a history of science based on the ‘official’ tradition makes it easy to document sources, and is more convenient for collecting historical data than investigating ‘unofficial’ commoners’ folk traditions. However, historical data on Korean scientific tradition is not only contained in the ‘official’ tradition of Korean society, but is scattered in the folk traditions that are maintained by commoners. Folk traditions, comprising oral traditions, customs, tools used in daily life, and wisdom reflected in the procurement of resources from the environment, are often

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19 For example, see Choi Changjo (1997), *Han’gugŭi Chasaengp’ungsu* (Indigenous Geomancy of Korea), Seoul: Minŭmsa, “Introduction,” p. 6.
more difficult to document clearly. The research on geomantic tradition that I conduct requires collecting data from official or elite tradition as well as from folk tradition. The authors of geomantic classics or the court geomancers who passed the government examinations for geomancers should belong to the official cultural tradition, while commoner-geomancers who may be illiterate, but learned geomantic skills from other geomancers and advised villagers on the selection of auspicious sites for fees, belong to the folk tradition or commoners’ tradition. In geomancy studies these two traditions exist side by side, and the folk tradition, especially geomantic folklore regarding the practice of geomancy, can effectively reveal the raw and unpolished genuine features of people’s lifestyle, ways of thinking, or attitudes toward nature, because they do not, unlike the scholarly or official tradition, reveal the authorship of their writings. Thus folk tradition often reveals people’s uncensored and untamed ideas and behaviour.20

If we borrow Robert Redfield’s expression, the elite tradition or great tradition is ‘the reflective few’ and is held by relatively small groups of people, but their tradition is potent and can influence society powerfully. In Korea the writings of Sadaebu or Yangban scholars belong to this tradition. The folk tradition is ‘the largely unreflective many’ and includes folk beliefs, legends and folktales that are held by many members of society but with limited influence.21 The products of elite cultures are refined and self-censured works with clearly identified authorship, while those of folk culture were unpolished and unedited works, such as legends and folktales, often of anonymous authorship. However, elite tradition and folk tradition are not completely distinct and independent systems, but are mutually interacting and dependant each other. Robert Redfield argued that the great (elite) tradition, characterized by more formal education and greater influence, interacts with the little (folk) tradition, largely with little formal education and lower social status:

The two traditions are interdependent. Great tradition and little tradition have long affected each other and continue to do so … The ethics of the Old Testament arose out of tribal peoples and returned to peasant


communities after they had been the subject of thought by philosophers and theologians. 22

Great writers of literary works or composers of music are said to have been inspired by folklore or folk music in the process of producing their creative works. A well-known example is Johannes Wolfgang von Goethe’s Faust. As indicated by Robert Redfield, the codes of social ethics in “Genesis” were originally derived from oral tradition, but became a written form. Later scholars then interpreted and arranged it before reintroducing it to followers of the Judeo-Christian religion. Some of the fables and legends that appear in Buddhist sutras underwent a similar process.

In our study of geomancy (p’ungsu in Korean) we needed to utilise both materials from the great tradition, such as the Annals of the Chosŏn Dynasty (Chosŏn wanjjo sillok 朝鮮王朝實錄), as well as from folk tradition, such as oral tradition, including legends and folktale. It is plain to see that Korean geomantic tradition consists of the great tradition and the little tradition: geomantic principles were developed by elites (professional geomancers) and were practiced by common folk. For example ‘where and what kinds of plants should be planted’ in Korean garden making was discussed in Imwŏn kyŏngjeji 林園經濟志 (Records on Forest and Garden Economy), an encyclopaediac work by a Chosŏn dynasty scholar, So’ Yugu 徐有榘. 23 However, it is important to look at gardens of the traditional period to see how this Korean elite geomantic tradition of garden making was applied in residences.

Traditional astronomy in Korea was consumed by the people through the calendar they adopted or astrological divinations they consulted. Nowadays most Koreans use the official solar calendar for planning and organising their life. However, until 50-60 years ago, the upper (elite) class in cities more commonly used the modern solar calendar, while people in rural areas mainly relied on the traditional lunar calendar. As for healthcare systems, the elite and folk traditions in Korea demonstrated the

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22 Ibid., pp. 71-72.
23 So’ Yugu 徐有榘 (1764-1845), Imwŏn kyŏngjeji 林園經濟志. Copies of manuscript versions are found in the libraries of Korea University, Seoul National University Kyujanggak Library and Osaka Prefecture Naganoshima Library. A complete translation of the book into modern Korean is in the process of being published. Three sections of the book that are related to house building and garden making have been translated into modern Korean and published: So’ Yugu 徐有榘, translated into modern Korean by An Tae-hoe (2005), Sansugan e chip ul chitko: Imwŏn kyŏngjeji e tungin yet saram u’i chip chimnul poji 산수간에집을짓고: 임원경제지에담긴옛사람의집짓는법, Seoul: Tol Pegae. Pages 159-162 of the book are about garden making and planting trees.
following two different patterns: the more educated upper class preferred to use modern medical services, while the lower classes relied heavily on traditional herbal medicine and folk medical practices.

Some fields of Korean science, technology and medicine may not have a heritage that includes both the great and little traditions. Some fields belong to just one of the two traditions, or originate from both but have no clear division between the two. Thus it can be difficult to identify the two traditions in the study of some scientific fields. For instance, in the study of the Korean fishing industry or agricultural science and technology, it is difficult to sort the great tradition from the little tradition. Folk tradition may provide vital information, while inventions such as the *ch’u’gugi* 测雨器 (rainfall measuring instrument) or the Korean alphabet *Hani’gul* (including the development of phonetics) were related to the royal family of King Sejong, and thus originate from the great (elite) tradition. Therefore, the consideration of both traditions in the study of the history of science is only ideal in some cases and not practical for all. However, active attempts to consider both the great and little traditions in the study of the history of science are important so as to make sure not to neglect the contributions of folk traditions.

(4) Use of an Indigenous Korean Category in Preference to a Standard Western Tradition, if it is More Suitable

It is important to encourage scholars to use an indigenous Korean category in preference to a standard Western tradition, if it is more suitable. One of the reasons for this suggestion is that a number of traditional Korean and other East Asian concepts and categories cannot easily be fitted into the modern western scientific categories.

The *Science and Civilisation in China* series included volumes based on mid-twentieth century modern (Western) scientific categories, such as mathematics, physics and physical technology (including mechanical engineering, civil engineering, etc.), chemistry and chemical engineering, biology and biological technology, etc. Needham used the modern scientific category as a yardstick by which to measure traditional Chinese science, technology and medicine. He documented and categorised the traditional Chinese scientific tradition according to modern (Western) categories of knowledge. For this reason, some argue that his approach to a history of science in China cannot adequately accommodate the traditional Chinese cultural values and thus has an element of presentism.

According to the original proposal and design of *Science and Civilisation in China*, a history of zoology in China was planned for the series, although preparing a volume on a history of zoology in China has not yet been
possible. This omission seems due to the fact that pre-modern studies on zoology (on wild animals) in China are lacking, although rich knowledge on animals exists in fields relating to agriculture, veterinary medicine and pharmacology. This situation may indicate that China’s pre-modern literati had little interest in or need to study wild fauna that offered little practical value to human life.

Contrary to Chinese scholars, European scholars, especially ancient scholars and Medieval Christian scholars had great interest in studying wild fauna and flora, even if it had little economic value and did not directly benefit people. Thus, pre-modern European zoology was a popular subject to study, as evidenced by Medieval Bestiaries, although they were not separated from theological and folkloristic traditions. Believing that the animal world represents the human world, scholars endeavoured to provide sinful humans with morality lessons gleaned from the behaviour of wild animals, or at times regarded the natural world as a book that revealed God’s will. An important motivation for Christian scholars (topologists) studying wild fauna and the natural world was to understand humanity’s place in nature, while there were no such religious incentives for Chinese scholars to engage in the study of wild fauna as their Western counterparts did. In Judeo-Christian tradition, God created Humanity giving us dominion over the creatures of the Earth, as stated in “Genesis” 1: 28. Ancient and medieval scholars with religious devotion documented and interpreted humankind’s mission (duties and rights) as God’s faithful stewards over the natural world, including all kinds of creatures. Thus, rich historical materials and knowledge about wild animals exist in the European tradition. It is understandable that a European scholar aware of their own rich zoological heritage, such as Needham, may have expected China to have the same. Such an assumption or expectation is quite understandable. However, in China and other East Asian countries there were no such Christian theological incentives for studying wild creatures that offered little direct benefit to human life. Thus, zoological knowledge from China that can match its European counterpart is lacking, although China had

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24 Joseph Needham’s original plan published in Science and Civilisation in China, volume 1 (1954), page xxxv, indicated that the single book originally planned to appear as volume 6, covering ‘Biology, Agriculture and Medicine,’ would contain sections 38 to 45, of which section 39 ‘Zoology’ was one. In the ‘State of the Project’ pamphlet published and widely circulated 25 years later, in 1979, Volume 6 had been expanded into four physically separated parts, with parts 1 & 2 planned to include sections 38 to 42, and parts 3 & 4 to include sections 43 to 45. So zoology would have been one of the five topics distributed between the two first parts of the volume. However, although material on all the other parts allocated to volume 6 has appeared in various forms, nothing has been published on zoology.
rather a rich knowledge on domestic and wild creatures that are related to human healthcare and agriculture. Therefore, to a modern scholar of Chinese scientific tradition who knows much about the Chinese situation, to attempt to write a book on the history of zoology in China would not be a reasonable and informed plan.

In some fields of scientific tradition Western Europe might have a rich heritage, while East Asia’s is poor, while in other fields the other way around may be true. Some East Asian scientific knowledge and concepts do not fit into Western categories or the Western classification system, while the other way around is also true for some West European concepts and East Asian categories. Therefore, if some aspects of traditional East Asian knowledge are explained by unreasonably classifying them into and artificially equating them with the Western concepts and categories, such attempts can lead to misunderstandings. As we all know, there are a number of well-known cases of attempts to translate Chinese concepts into English using Western concepts that have not proved satisfactory. One such case is the Chinese concept of xia 孝 (hyo in Korean). Western scholars attempted to find an equivalent concept in a Western language, but it was not possible, eventually resulting in the use of Latin words to coin a new term, filial piety. Likewise, scholars tried to find an equivalent Western concept with which to translate the concept of dao 道 (tao), such as ‘way,’ ‘principle,’ ‘universe,’ etc., all of which have proved unsatisfactory, and thus a transliteration of the Chinese pronunciation, dao, came to prevail. The concept of qi 氣 followed a similar path. Terms such as energy, matter, ether, pneuma and others were used to translate it, but none of them were satisfactory, and the transliteration of the Chinese pronunciation, qi (chi), is now generally accepted.

There are numerous East Asian scientific concepts that have no equivalent in the West, and thus scholars who explore East Asian scientific tradition often encounter problems when they introduce these concepts into the Western world. The Chinese concept of geomancy (fengshui) is one such case. The English term, geomancy, has been used as a translation of the Chinese term by Western scholars more popularly than the Chinese transliteration, fengshui. However, recently the term fengshui has been more commonly used, partly because the original meaning of geomancy in an English dictionary did not include a meaning referring to geomancy in China. However, geomancy should now be used as the English term for fengshui, because English dictionaries now list one of two meanings that clearly references fengshui in China. Thus, the Oxford English Reference Dictionary gives “The art of siting building etc. auspiciously” as one of the two definitions of geomancy, while the The New Shorter Oxford English Dictionary has “the art of sitting cities, buildings, tombs, etc., auspiciously” as one
of two definitions. In any case, fengshui means Chinese geomancy as practiced in China, and when we refer to the art as used in Korea, it should be called p’ungsu, as Koreans call it.

Geomantic knowledge and its practice are difficult to categorise according to Western classifications of knowledge. Western scholars classify geomancy as superstition, quasi-science or rudimentary natural science. These comments on the nature of geomancy seemed to be based on Western categories of knowledge, such as science, religion and superstition. In my view such classifications (or labelling) are not satisfactory, because geomancy has elements of all three categories, and thus it cannot be classified distinctly into science, religion or superstition.Geomancy is a unique East Asian system of selecting auspicious places involving all three Western categories of knowledge. Thus, I concluded in my book, The Culture of Fengshui in Korea, that:

After studying it [Korean geomancy], one is likely to ask whether it is a superstition, a religion, or a science. My conclusion is that geomancy is none of these things. There is no concept equivalent to geomancy in the West, nor can it be understood in terms of any Western notion. Geomancy is a unique and comprehensive system of conceptualising the physical environment that regulates human ecology by influencing human beings to select auspicious environments and to build harmonious structures such as graves, houses and cities on them.

In most cases Korean knowledge relating to science and technology can be classified into modern Western categories without serious problems and be explained accordingly. However, some fields of Korean scientific knowledge are difficult to classify into Western categories. In such cases, using traditional Korean categories and concepts rather than adopting the Western categories can be advantageous. According to modern classification of

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academic disciplines, the study of geomancy is closely related to geography, environmental science, architecture, town planning, landscape architecture, religious studies, folklore and other disciplines. In Korea, scholars from such diverse fields engage in the study of geomancy. However, geomancy cannot sit comfortably in any one of those modern (Western) academic disciplines, nor can it be reduced to being a religion, science or superstition. Geomancy or fengshui (p’ungsu in Korean) is its own category, and does not fit into any modern Western classification of academic subjects. Modern classifications of academic disciplines are basically a product of Western civilisation, developed for the classification of Western fields of study.

**Conclusion**

I have proposed four points to be considered by scholars of Korean history of science, technology and medicine that include (1) overcoming presentism, (2) adopting cross-cultural perspectives, (3) considering both folk/little tradition and elite/great tradition, and (4) use of an indigenous Korean category in preference to a standard Western tradition, if it is more suitable. I believe that these four points are commonsensical ones and well known facts of a self-explanatory nature. Considering all four aspects in the study of all facets of Korean scientific tradition is simply an ideal, and may not be practical or realistic. However, research that has attempted to consider these four points and that which has not may show marked differences in quality of discussion and narration. The consideration of these four points should be beneficial not only for Korean history of science, but also for other countries such as Japan and elsewhere.
References


Choi Changjo (1997), *Han’gugūi Chasaengp’ungsu* 한국의 자생풍수 (Indigenous Geomancy of Korea), Seoul: Minûmsa.


Eitel, Ernest J. (1873), *Fengshui: Or the Rudiments of Natural Science in China*, Hong Kong: Lane, Crawford & Co.


Hŏ Jun 許浚 (1613), *Tongŭibogam* 東醫寶鑑 (Valuable Mirror of Eastern Medicine), held by Jangseogak Archive, Academy of Korean Studies, Korea.


Sŏ Yugu 徐有榘 (1764-1845), Imwoŏn kyŏngjeji 林園經濟志 (Records on Forest and Garden Economy), copies of handwritten manuscript. Three sections of the book that are related to house building and garden making are translated into modern Korean and published: Sŏ Yugu (徐有榘), translated into modern Korean by An Tae-hoe, Sansugan e chip ul chitko: Imwoŏn kyŏngjeji e tangin yet saram u i chip chinniŭ pop 산수간에집을짓고: 임원경제지에담긴옛사람의집짓는법 (Building a House in Landscape: The Method of Traditional House Building as Discussed in Imwoŏn kyŏngjeji), Seoul: Tol Pegae, 2005.


