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PREFACE

 BETWEEN the years 1870 and 1880 I became much interested in Chinese and Japanese art, and soon found the field as wide as the study was fascinating. My interest increased and I extended my researches to metal-work (including arms and armor), porcelain, lacquer, carving in wood and ivory, painting; and not least to the beautiful lapidary work of the Chinese in jade and other hard stones. It is to jade that I wish to confine myself in this book.

 I was fortunate in finding some exceptionally fine objects of jade that had been brought from China to New York and Boston. These included many remarkable objects from the loot of the Imperial Summer Palace, near Peking, in 1860, and thus carried with them a certain historic interest. One piece especially, No. 679, an extraordinary work of art, so intensified my interest in jade, and my desire to possess other examples of importance, that I resolved upon a special visit to England and the continent of Europe, where I knew that most of the beautiful pieces had been taken by members of the returning Anglo-French expedition and others.

 Many objects had found their way into the shops of dealers in antiquities and “curios,” but many were still held by the families of members of the expedition. I found that some pieces had been carried to Frankfurt-on-the-Main, Amsterdam, Dresden, Berlin, and Vienna. At St. Petersburg, Moscow, and Constantinople I also obtained some beautiful specimens that had come direct from China.

 Having secured all the finest specimens obtainable in Europe that were suitable for my Collection, I went to China, and was fortunate in obtaining there many objects of great interest and of a degree of excellence impossible now to find.

 At first my researches were confined to art objects only, and chiefly to those from China and India. Then my interest turned toward the general subject of jade, both mineralogically and archeologically, and I added many specimens of crude material and worked prehistoric objects to my ever-increasing Collection. In this connection I visited Alaska, British Columbia, Oregon, California, and Mexico, and again different parts of Europe.

 Early in my studies I became impressed with the meagerness of our knowledge in regard to the nature, origin, and distribution of jade, notwithstanding the learned labors of Frenzel, Von Fellenberg, Arzruni, Damour, Bereuther, Fischer, Meyer, and many others. An interesting “jade question” had arisen, and it seemed to me that the large collection I had made might well be used to settle, or at all events to contribute materially to a settlement of this question. Having had no experience myself in scientific pursuits, I endeavored to enlist the interest and secure the cooperation of scientists. The mineralogical section was placed in the hands of the eminent mineralogist, Mr. George F. Kunz, and I am happy to state that he was able to secure the assistance of many well-known specialists; and the results of his and their labors, and of my own studies, are now respectfully given to the public in these two volumes. The investigation has extended over several years, and has been most thorough. Readers will find that the work does not dwell on suppositions and theories, and that it is not based on the works of others,—with no intention, however, to
JADE

GENERAL INTRODUCTION

The name Jade has been popularly given to several distinct kinds of ornamental stones, although it is scientifically restricted to the minerals nephrite and jadeite, including in the latter term chloromelanite, a variety of jadeite rich in iron, of dark color and high specific gravity. The qualities and distinctive characteristics of these minerals are fully discussed by competent authorities in the Mineralogical Part of the book and need not detain us here. But it should be premised that scientific accuracy is hardly to be expected from the older writers on the subject, who lived in an unscientific age, nor even from the modern Chinese, who rank jade as the most precious of materials for artistic work and for personal decoration, although they know nothing of its chemical constitution or microscopic details.

There is no word of jade in European literature before the discovery of America by Columbus in 1492. The earlier Spanish navigators brought back specimens of green stones which were highly valued by the natives of Central and South America, and were worn by them as badges of rank or as amulets against certain diseases. For this last reason it was given the name of piedra de híjada, “hypochondriac or colic stone,” which first occurs in the works of Monardes, a physician of Seville, in 1565. He describes it as of emerald-green tint mingled with milky white, the darkest being the best, and dilates on its occult curative properties. He also alludes to its synonym piedra de los riñones, or “kidney-stone,” and to its reputed value in renal diseases. Hence the name of nephrite, from γέφρη, the kidney, and that of lapis nephriticus, which is so frequently used by the older writers.

Sir Walter Raleigh is said to have been the first to bring the stone to England. He always refers to it in his books under the Spanish name of híjada.  

*The Discoverie of the Large, Rich and Beauliful Empire of Guiana, with a Relation of the Great and Golden City of Mazon (which the Spaniards call El Dorado), etc. Performed in the year 1595, by Sir W. Raleigh, Knight, Captaine of her Maiesties Guard, Lo. Warden of the Stannaries, and her Highnesse Lieutenant generall of the Countie of Southwark. Imprinted at London by Robert Robinson, 1596. (p. 34)*
JADE IN CHINA

INTRODUCTION

HAVE been asked to write a few words on Chinese Jade, by way of introduction to the learned "Discourse on Jade," by my friend Tung Jung-lo, which is remarkable not only for its research into the vast store of native literature, but also for the knowledge it shows of ancient and modern work in Jade. It has been written to illustrate the remarkable collection of Mr. Heber B. Bishop, who requested "a condensed article on jade by a native Chinese scholar, treating upon its uses in China from the earliest period down to the present day; stating what appreciation it obtained when first brought into use, and for what purposes it was used; a general statement of the estimation in which it was held, and of the general sentiment associated with it on the part of the Chinese, especially regarding it in its crude condition, as well as when worked into forms for implements or artistic purposes. If they have any particular religious associations with it, that should also be stated; and then also to what extent it was used and appreciated by the Imperial Government; and to what extent it is now mined, and for what purposes."

In Chinese names the surname comes first, the next two syllables connected by a hyphen being the personal name. Chinese is a strictly monosyllabic language, and in the transcription of foreign names, in the same way as in that of the native Mandarin, each syllable must be rendered by one or more Chinese characters, e.g. Bishop for Bishop. I have followed the Thomas Wade's system of orthography, which is now so generally adopted, as by my friend Mr. Hippisley, in the Catalogue of his Collection of Chinese Porcelain published by the Smithsonian Institution, Washington, 1890. Professor Giles, in his large Chinese dictionary, uses the same system of transliteration.

With regard to pronunciation, the consonants are generally pronounced as in English, with the exception of k, which is nearly the French k in kress, the English k in justice or k in korean. The initials ch, p, f, b, m, occur also aspirated, and the aspirate which intervenes between them and the vowel following is indicated by an apostrophe in preference to x, lest the English reader should pronounce xx as in trixx, xxx as in mouth, and so on. To pronounce ch, drop the italics before in such cases, for c's drop the italics in ital. The initial, b, or a slight aspirate preceding and modifying the alveolar, is a peculiar sound which can be acquired only by practice.

The vowels and diphthongal sounds are pronounced as in Italian, in accordance with the following table:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Symbols</th>
<th>Pronunciation</th>
<th>English Value</th>
</tr>
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<tbody>
<tr>
<td>a</td>
<td>ɑ</td>
<td>as in father</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>ɛ</td>
<td>as in get</td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>i</td>
<td>as in fire</td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>ɔ</td>
<td>as in sore</td>
<td></td>
</tr>
<tr>
<td>u</td>
<td>ʊ</td>
<td>as in sure</td>
<td></td>
</tr>
<tr>
<td>ɔ̃</td>
<td>ɔ̃</td>
<td>as in heart</td>
<td></td>
</tr>
<tr>
<td>ʊ̃</td>
<td>ʊ̃</td>
<td>as in grace</td>
<td></td>
</tr>
<tr>
<td>ɛ̃</td>
<td>ɛ̃</td>
<td>as in German &quot;hence&quot;</td>
<td></td>
</tr>
<tr>
<td>ɔ̃</td>
<td>ɔ̃</td>
<td>between ɔ in lot and ɔ in ob</td>
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For the last vowel sound, ɛ̃, which is found only with the initial ɔ, ɔ, ɔ̃, we have no equivalent in English. In the diphthongal sounds each of the vowels is separately pronounced in the Italian fashion; thus, sɔ, nearly our eye, is better represented by the Italian a, in alto, as in pace; ɔ̃, by the Italian a, in mora; ɔ̃ is pronounced as in the Italian stante, stante, etc. Each Chinese monosyllable has its own special tone or musical intonation, but for this the inquirer must be referred to special works on the subject.
華夏處士大興唐榮祥錫五甫

產玉

乾坤之靈秀，凝為山川之積英，每凝為寶玉，故凡產玉之區，多在山川之間。

域厥貢璆，産縉儀者，璆璆皆美玉也，又雍州之域，厥貢璆，璆璆皆美玉，可為圭璋之用。周禮夏官正西曰雍州，其利玉。石之上者，云山有者，玉南子，亦可折者，有玉。玉銘圖，云二月山中草木生，光下垂者，玉之精，如美色玉書。云玉有山，元元者，玉之精，亦可折者，有玉。玉銘圖，見於山川也。博物志，云山有者，玉南子，亦可折者，有玉。玉銘圖，區中國之玉，多在山，而于闐之玉，則在河，本草宏景曰，玉出藍田，及南陽日南，盧容水，玉出于闐，功德唐，唐，皆山川之物也。陽白如玉，如白，如玉，如石，玉之精，如美色玉書。云玉有山，元元者，玉之精，亦可折者，有玉。玉銘圖，相似宜精別之異。物志云，玉出崑崙，別寶經云，凡石，玉但將石，映鑑之內，有紅，光明即初日，便知有玉也。頃之今，藍田，南陽，日南，不聞有玉，惟于闐國出之後，晉天福中，廬湖耿張，郭使于闐，作行程記載，其國，采玉之地，曰玉河，在于闐域外，諸玉源出崑崙，西流一千三百里。至于闐，牛頭山，乃疏為三河，一日白玉河，在東二十里。
禮云玉不琢不成器是則玉性奇偉如必得良工材適用
依法琢磨方能以成其器也今英國醫士卜君在中華歷二十餘載性愛
古玩凡中華之磁鋼玉器採買甚夥公餘之暇隨心撿閱將所買上極好
各品玉器付照畫作圖板復請榮作唐先生選作刻印成書公諸同
好惟惜無人工琢磨之圖未免閱書者聊有不屑之意遂囑余俯瞰玉作
琢磨各式繪以成圖想闕書者將欣然而有喜色也卜君之舉雖屬閒情
然於格物致知之學不無小補云爾是為序
 FOXarb十七年癸未四月
燕都居士石泉李澄洲書並序
目錄
一拾沙圖二研沙圖
三開玉圖 四扎玉圖
五作圖
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燕都居士石泉李澄洲書並序

JADE AS A MINERAL

GENERAL DEFINITION

Jade is a term generally employed to designate a number of minerals of tough, compact texture and of color varying from nearly white to very dark green, which have been used from the earliest times in worked forms as weapons, utensils, and ornaments. The term, however, properly includes only two species, jadeite and nephrite, and it is to a study of these minerals that the greater part of the following pages is devoted.

Jadeite and nephrite are chemically quite distinct substances, but notwithstanding this fact they are strikingly alike in many of their properties. Both are hard and compact and usually of distinctly fibrous texture, owing to which they are exceedingly tough, and may be carved into very delicate forms. Both are more or less translucent in most of their varieties, and are of various colors, although shades of green are most characteristic for both. In thin sections all varieties of both minerals appear nearly or entirely colorless and quite transparent. Both minerals are susceptible of taking a high polish, and the polished surfaces frequently exhibit a very characteristic sheen.

In addition to the many characters shared by both minerals, each has properties peculiar to itself, which may be briefly stated.

Jadeite is a silicate of aluminium and sodium. It almost always contains in addition small quantities of iron, calcium, and magnesium; in the variety called chloromelanite the iron amounts to as much as ten per cent. Its chemical composition and crystalline character make it a member of the pyroxene group of minerals. It occurs very rarely in distinct crystals, its usual form being a crystalline aggregate of more or less density. Its hardness is about 7, or that of quartz. Its specific gravity is close to 3.33. It fuses readily before the blowpipe to a clear glass, and is not decomposed by hydrochloric acid until after having been fused.

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