International Gemological Symposium

June 30th 1982

Dear Joe,

I am delighted to send you your copy of the Proceedings of the Symposium. It comes together with an expression of my personal appreciation of your contribution to the success of the whole event.

We are currently planning for the Second Symposium to be held following the Tucson Show in 1984 and I do hope you will be able to participate on that occasion again.

With kind regard and wish for all success in your new venture

Yours sincerely

Vince Manson

International Gemological Symposium

50

March 18, 1982

Mr. Joseph O. Gill
210 Post Street, Suite 612
San Francisco, CA 94108

Dear Joe,

We would like to extend our gratitude and sincere appreciation for your participation in GIA's first International Gemological Symposium.

A symposium is defined as a "formal meeting at which several specialists deliver short addresses on a topic or on related topics"—certainly you, as well as other speakers, accomplished this. But beyond this contribution, we are particularly appreciative of the quality and intellectual excellence you brought to your presentation which helped to provide a solid base of credibility for the Symposium as a whole.

We thank you for your considerable effort in preparing and presenting your lecture, as well as for the expense of your valuable time to join us for the International Gemological Symposium.

Sincerely,

GEMOLOGICAL INSTITUTE OF AMERICA

D. Vincent Manson

D. Vincent Manson, Ph.D.
Symposium Chairperson

Dianne Eash
Symposium Coordinator

Gemological Literature in the English Language

BY JOSEPH O. GILL, G.G.
Gill & Shortell, Ltd
San Francisco, California

Gems and jewelry have figured in the histories and literatures of many peoples, but there are also many books devoted exclusively to gems. This paper discusses gem books written in English over the last 300 years. It describes English translations of antique texts and concludes with a survey of the histories and subject ranges of major English language gemological journals.

Joseph O. Gill, G.G.
Gill & Shortell, Ltd.
San Francisco, California

Joseph Gill recently resigned as head of the jewelry department of Sotheby Parke Bernet, Los Angeles to form a new company in partnership with his former Sotheby co-worker, Richard Shortell. The new firm is called Gill & Shortell, Ltd., and specializes in the appraising and buying of fine jewelry.

In the year Gill was with Sotheby Parke Bernet, he more than doubled the net jewelry sales of the Los Angeles gallery. He came to Sotheby's from the wholesale firm of J. & S.S. De Young, Inc., Boston where he had served as chief gemologist for five years.

He has written numerous articles and two books, including "Gill's Index."

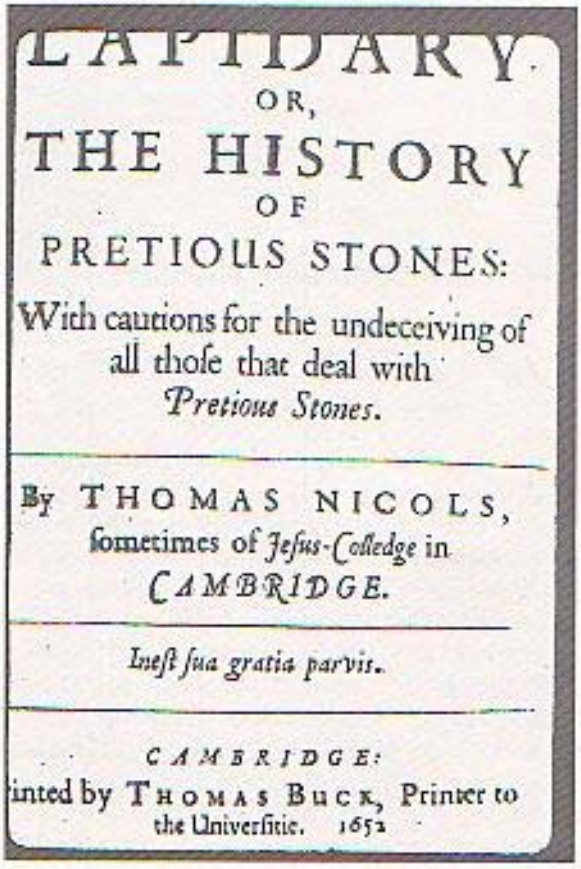
Gemological Literature in the English Language

My avocation has been the collecting of gemological literature in the English language. Over a period of the last thirteen years I have been collecting for a library all books, papers and journals relating to gems and jewelry. Since I read only English and I wanted a usable research library, the only limitation I placed on my collecting was that all publications had to be in the English language.

Once I really got involved in collecting I began to understand how our subject of gemology is interwoven with so many other subjects. Because gems have been used for thousands of years they have affected many aspects of our history in one way or another. Gems are often referred to in the Bible as well as in the writings of Shakespeare, Chaucer and others. Travelers who dealt in gems wrote of strange places, long ago. The old north-south Roman amber and pearl trade routes in Western Europe are still used today for modern trade. Historically, gems have been used in medicine and for talismans and amulets. In modern industry they are used for cutting dies and grinding other gems. History is recorded in the carvings of jade and in the style of antique jewelry. Information on all these subjects and many more can be found in the gemological literature.

The first book on gems written in the English language was *A Lapidary, Or the History of Precious Stones* by Thomas Nicols, 1652 (Figure 1). This book was so much used that most copies were worn out and discarded long ago. The book gives a thorough account of superstitions, lapidary and the science of gems. Included is a rare account of the varied recipes for foil backing many different gems as done in most jewelry of that time. Nicols also gives the first classification of gems which is based on physical characteristics such as hardness and color (Figure 2). Today we classify gems with regard to chemistry as in the silicates, carbonates, etc. The two later editions of this book, published in 1653 and 1659 are even more rare than the first edition.

In 1664 the great 17th century scientist, Robert Boyle, turned his attention to gems when he wrote "A Short Account of Some Observations About a Diamond That Shines in the Dark." This was a chapter included in his book *Experiments and Considerations Upon Color*, published in London. The chapter refers to an unusual diamond in Boyle's possession found to become


LAPIDARY.
OR,
THE HISTORY
OF
PRETIOUS STONES:
With cautions for the undeceiving of all thoſe that deal with *Pretious Stones.*

By THOMAS NICOLS,
ſometimes of *Jeſus-Colledge* in
CAMBRIDGE.

Ineſt ſua gratia parvis.

CAMBRIDGE:
inted by THOMAS BUCK, Printer to the Univerſitie. 1652

Figure 1.

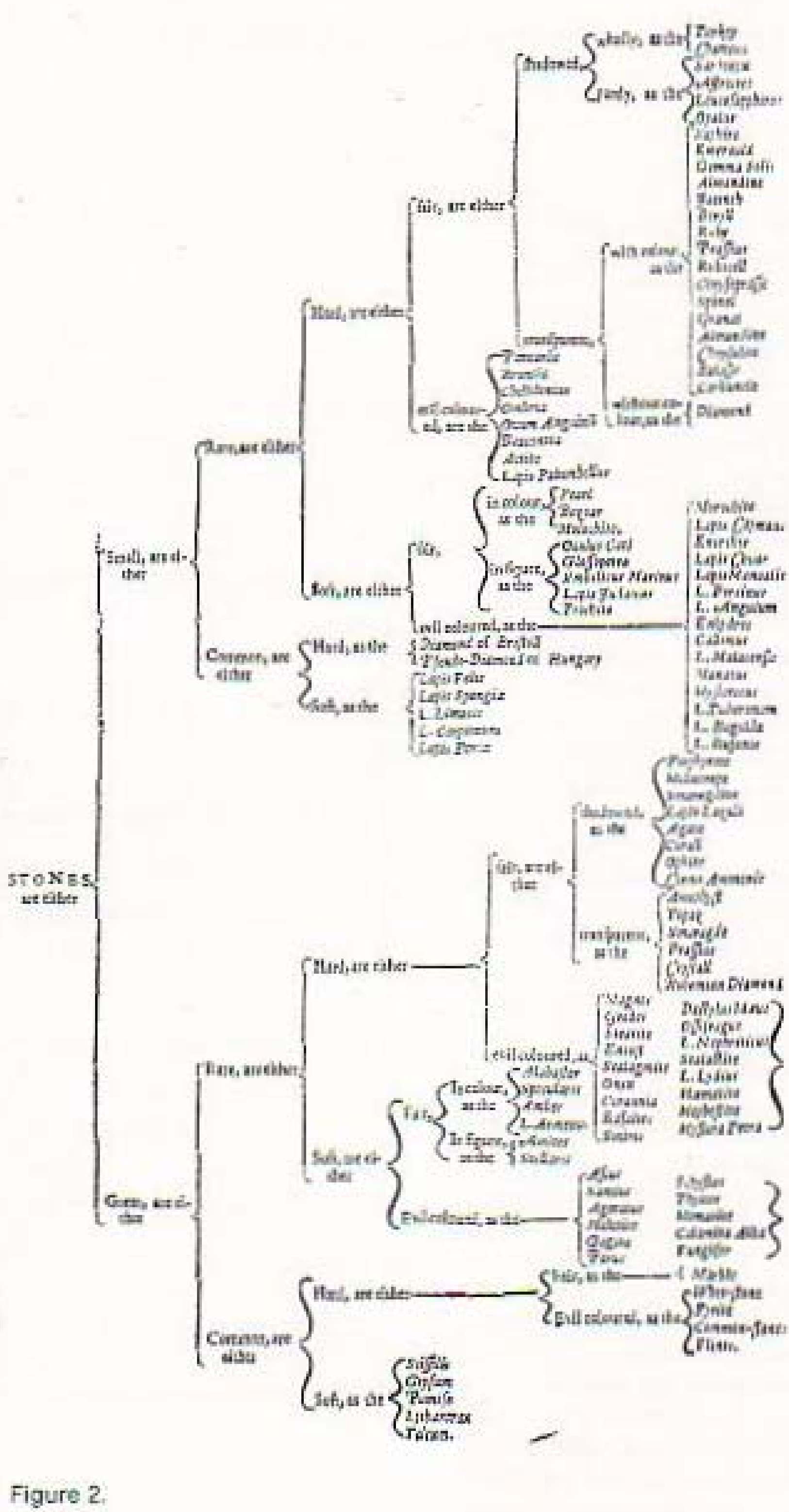
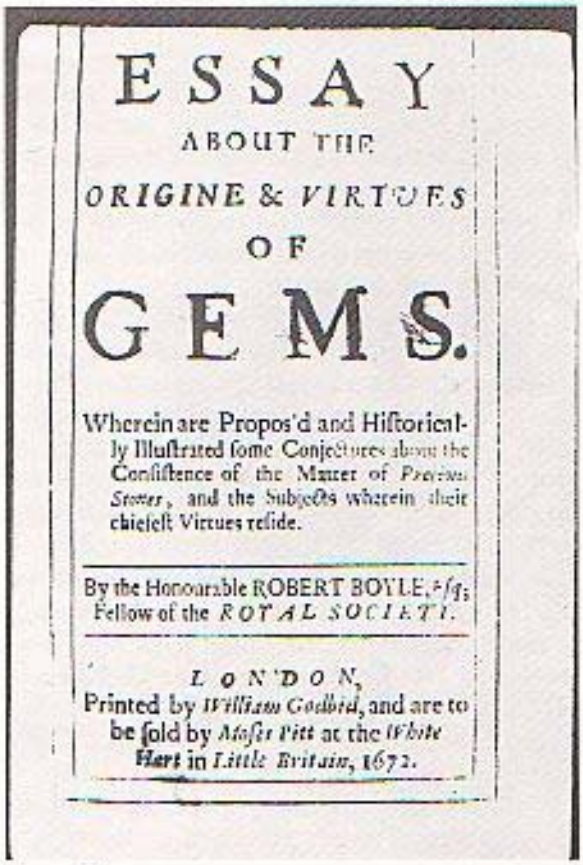

STONES, are either
Small, are ei-ther
Great, are ei-ther
Rare, are either
Common, are either
Hard, are either
Soft, are either
Hard, as the
Soft, as the
Soft, as the
Diamond of Bristol
Pseudo-Diamond of Hungary
Pearl
Bezoar
Marble
Flints.

Figure 2.



ESSAY

ABOUT THE

ORIGINE & VIRTUES

OF

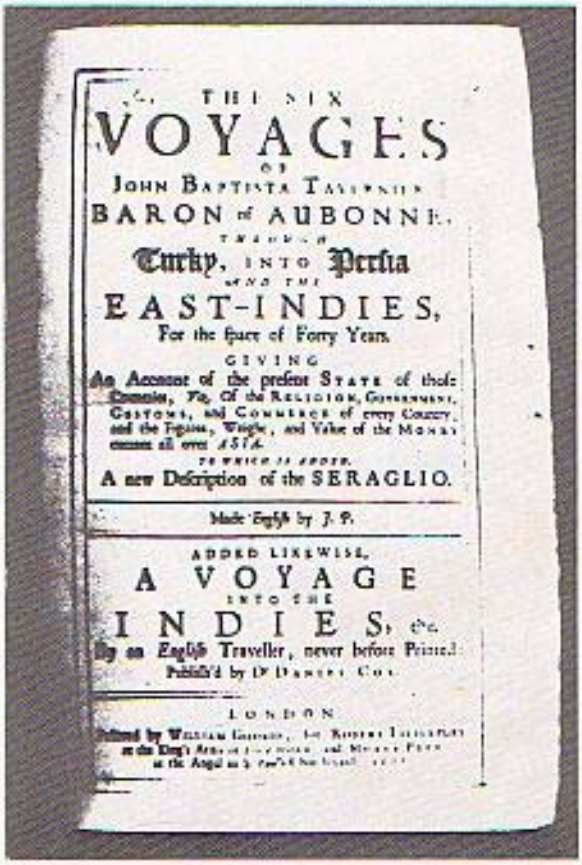
GEMS.

Wherein are Propos'd and Hiſtorically Illuſtrated ſome Conjectures about the Conſiſtence of the Matter of *Precious Stones*, and the Subjects wherein their chiefeſt Virtues relide.

By the Honourable ROBERT BOYLE, *Eſq;* Fellow of the *ROYAL SOCIETY.*

LONDON,
Printed by *William Godbid*, and are to be ſold by *Moſes Pitt* at the *White Hart* in *Little Britain*, 1672.

Figure 3.



THE SIX

VOYAGES

OF

JOHN BAPTISTA TAVERNIER

BARON of AUBONNE,

THROUGH

Turky, INTO Perſia

AND THE

EAST-INDIES,

For the ſpace of Forty Years.

GIVING

An Account of the preſent STATE of thoſe Countries, *Viz.* Of the RELIGION, GOVERNMENT, CUSTOMS, and COMMERCE of every Country, and the Figure, Weight, and Value of the MONEY current all over *ASIA*.

TO WHICH IS ADDED,

A new Deſcription of the SERAGLIO.

Made *Engliſh* by *J. P.*

ADDED LIKEWISE,

A VOYAGE

INTO THE

INDIES, &c.

By an *Engliſh* Traveller, never before Printed.

Publiſh'd by *D. Daniel Cox.*

LONDON

Printed by William Gilbin, for Robert Littlebury at the Dog's Head in Exchange-Alley, and Moſes Pitt at the Angel in S. Paul's Church-Yard. 1677.

Figure 4.

luminescent upon holding tightly and rubbing on cloth. A similar account is given by George F. Kunz in his book The Curious Lore of Precious Stones, 1913.

In 1672 Robert Boyle published An Essay About the Origin and Virtues of Gems (Figure 3). This remarkable book explains for the first time how crystals form in the earth from various liquids. Boyle explains how color in gems is caused by the presence of metals in these liquids. He attributed the well known medical uses of gems to these metal impurities while he discounted any of the magical properties that had been credited to gems.

Jean Baptiste Tavernier, (Figure 5A) the greatest of all early gem traders, made six major voyages to India and Persia, each trip encompassing from two to five years.

He brought jewels from Paris and Spain (including emeralds from Colombia) and traded for pearls in Persia and in turn for diamonds, rubies and sapphires in India. On all his trips he kept a detailed log of his journeys which he intended to be printed as a book. It is interesting to note that after his fifth voyage to India he gave all his notes to a scribe in Geneva named Samuel Chappuzeau who, thinking Tavernier would never return from his sixth voyage, took it upon himself to publish many of these notes under his own (Chappuzeau's) name. This book, extremely rare, appeared in English as *The History of Jewels, and of the Principal Riches of the East and West*, translated by Hobart Kemp in London, 1671 (Figure 4). When Tavernier

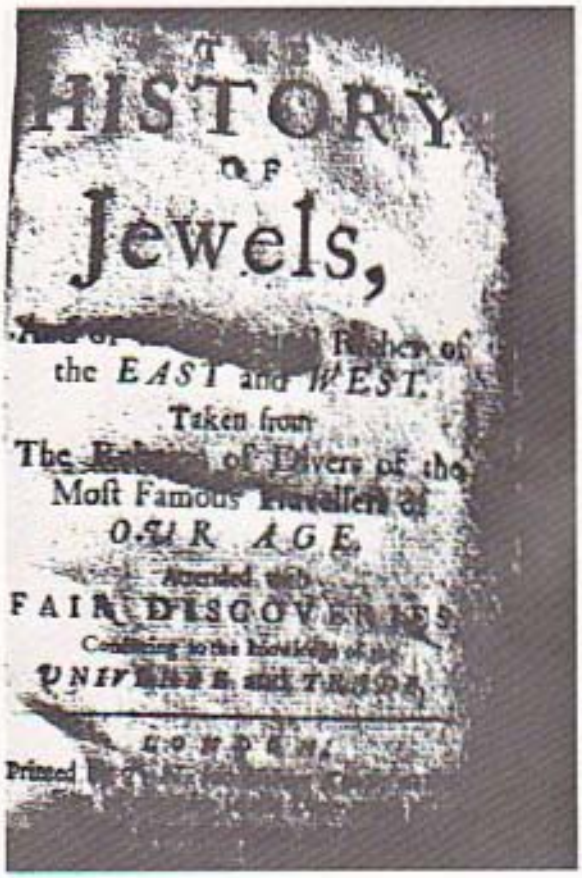


Figure 4a.

returned from his sixth and last voyage he greatly expanded these notes and his book first appeared in English in 1677 (Figure 4a). The Six *Voyages of John Baptiste Tavernier* was translated by John Phillips of London. There have been many reprintings of the book since the first English edition. It is the most explicit report of what a gem trader's life was like in those early days. Tavernier was highly regarded by the Great Mogul of India and was able to see and record the finest gems of the East such as the Great Mogul diamond, the French Blue diamond and the Koh-i-noor diamond (Figure 5). He described the peacock throne as well as many fine rubies and pearls. His descriptions of the diamond mines are the most extensive of any of the early travelers.

In collecting these older books one can realize the pleasure of owning a "piece of history." Even more fascinating, while reading these first-hand accounts, one is carried back to another time and learns about living conditions and ways of thinking in those early days. Many of you would be astounded as to the extent of knowledge in those early days in regard to gems and jewelry.

The oldest surviving text on gems from classical times was written by a student of Aristotle, Theophrastus, in 300 B.C. This was first translated into English by John Hill in London in 1746 and called Theophrastus's *History of Stones* (Figure 6). The book that is most often mistaken for the oldest work on gems was published in 77 A.D. as Volume 37 in a multi-volume set of books entitled The *History of the World* by E. Plinius Secundus, more commonly referred to as Pliny the Elder. This book was translated into English by Sydney H. Ball and published by the GIA in 1950. Both these ancient works give much insight into the early gem and jewelry trade.

In the past it was believed that many living things supplied gems, as shown by the names given to them: toadstone, snakestone, pigstone, carpstone, crab eye stone, hyena eye stone, stag's tear stone, eaglestone, cockstone and the porcupinestone.

The magical lore of gems as amulets, talismans and charms is very nearly endless. It seems quite hard for us to understand how people could possibly believe the idea depicted (Figure 7) which shows an airship being held aloft by the magnetic powers of the coral and agate in the net. Do diamonds grow and mature and have offsprings? Do emeralds help your eyes or tell if your wife is true? Do rubies darken when their owners are ill? Is the sky a giant sapphire? Does turquoise break a fall? Is rock crystal frozen water of the mountains? Is opal unlucky, or is it as lucky as all the gems whose colors are reflected from within it? An alphabetical list of the powers of more than 200 gems was first given in The *Mirror of Stones* by Camillus Leonardus, 1750 (Figure 8).

The most exhaustive studies of the powers

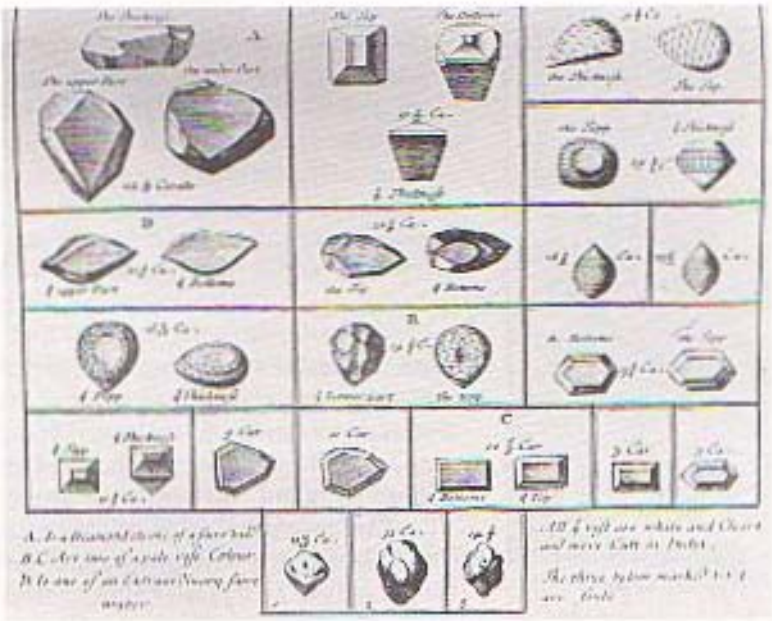
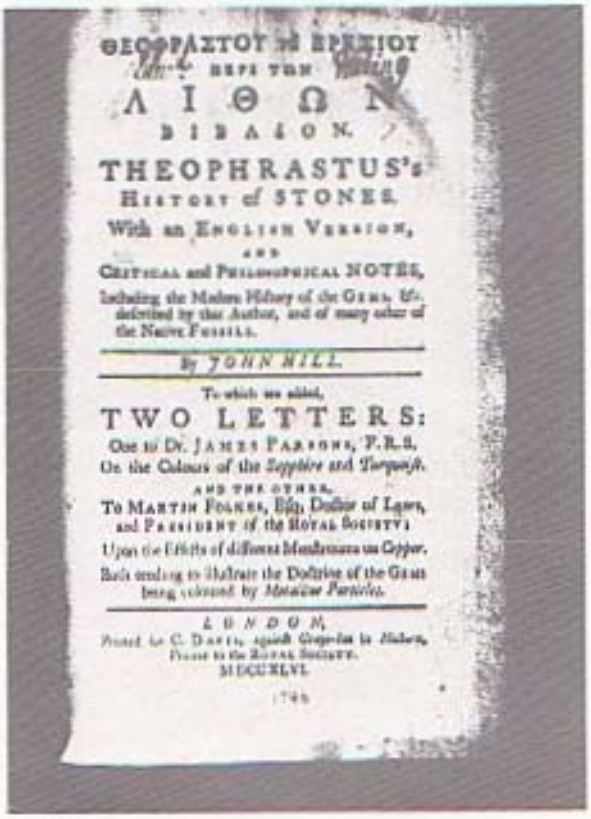


Figure 5.


ΘΕΟΦΡΑΣΤΟΥ ΤΟΥ ΕΡΕΣΙΟΥ
περὶ τῶν
ΛΙΘΩΝ
ΒΙΒΛΙΟΝ.

THEOPHRASTUS's
HISTORY of STONES.
With an ENGLISH VERSION,
AND
CRITICAL and PHILOSOPHICAL NOTES,
Including the Modern History of the GEMS, &c.
described by that Author, and of many other of
the Native FOSSILS.

By JOHN HILL.

To which are added,

TWO LETTERS:
One to Dr. JAMES PARSONS, F.R.S.
On the Colours of the *Sapphire* and *Turquoise*.
AND THE OTHER,
To MARTIN FOLKES, Esq; Doctor of Laws,
and PRESIDENT of the ROYAL SOCIETY:
Upon the Effects of different Menstruums on Copper.
Both tending to illustrate the Doctrine of the Gems
being coloured by *Metalline Particles*.

LONDON,
Printed for C. DAVIS, against Gray's-Inn in Holborn,
Printer to the ROYAL SOCIETY.
MDCCXLVI.

1748

Figure 6.

in gems were done by George F. Kunz in two volumes. The first was *The Curious Lore of Precious Stones*, 1913, 406 pages, followed by *The Magic of Jewels and Charms*, 1915, 442 pages. Both of these volumes have recently been reprinted and are easily available.

The first practical handbook on gems for the jeweler was done by David Jeffries in 1750 (Figure 9). This book discusses weight calculations and how to determine the value of pearls and of diamonds, both rough and cut. Jeffries' book also contains a brief discussion of diamond cutting and diamond deposits in India and the earliest lengthy discussion of the new deposits in Brazil. The book contains numerous plates with illustrations of diamonds and price lists. There were four editions of this very popular work, the fourth edition being printed in 1871 and merely a reprint of earlier editions.

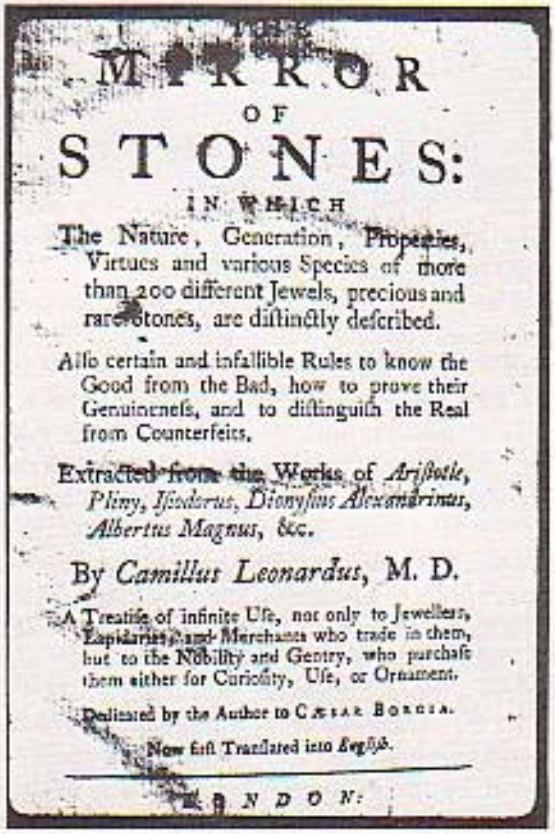
In the early 1800s John Mawe, the well-known mineralogist and jeweler, was commissioned by the Portuguese government to do a book on diamond mining in Brazil. In 1816 Mawe published *Travels in the Interior of Brazil and the Gold and Diamond Districts of that*

Figure 7.

Country (Figure 10). This was the first book to ever fully describe diamond and other gem mining in Brazil. This subject was again confronted in 1869 by the famous Captain Richard Francis Burton in his two-volume work *Exploration of the Highlands of Brazil and a Full Account of the Diamond and Gold Mines.*

John Mawe is, however, most noted for his book *A Treatise on Diamonds and Precious Stones* published in 1813 (Figure 11). This was the first written and illustrated account of closely guarded lapidary methods. Both diamond and colored stone cutting is discussed, including weight retention methods. Mawe produced an even more complete second edition in 1823.

In the early 1850s the number of works related to gems and jewelry increased very dramatically. The most prolific writer of this era


MIRROR
OF
STONES:
IN WHICH
The Nature, Generation, Properties, Virtues and various Species of more than 200 different Jewels, precious and rare stones, are distinctly described.

Also certain and infallible Rules to know the Good from the Bad, how to prove their Genuineness, and to distinguish the Real from Counterfeits.

Extracted from the Works of *Ariſtotle, Pliny, Iſidorus, Dionyſius Alexandrinus, Albertus Magnus, &c.*

By *Camillus Leonardus*, M. D.

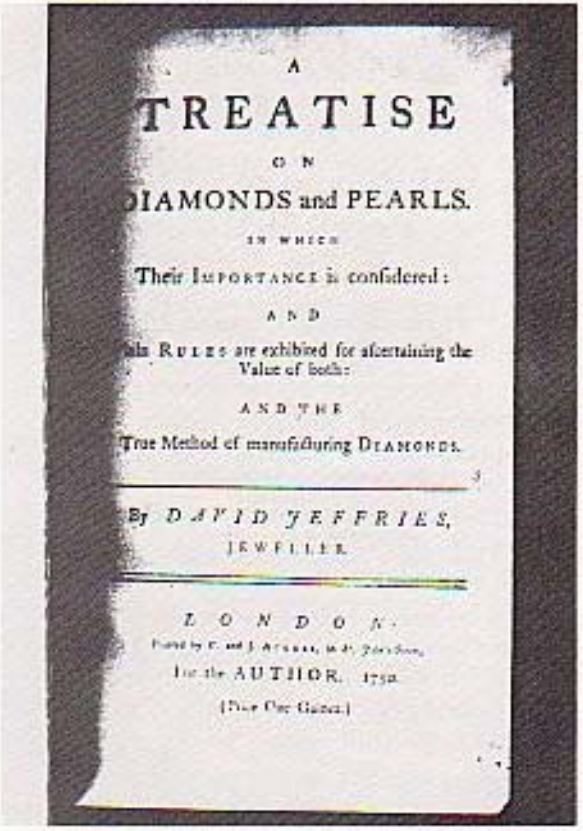
A Treatiſe of infinite Uſe, not only to Jewellers, Lapidaries, and Merchants who trade in them, but to the Nobility and Gentry, who purchaſe them either for Curioſity, Uſe, or Ornament.

Dedicated by the Author to CÆSAR BORGIA.

Now firſt Tranſlated into *Engliſh*.

LONDON:

Figure 8.


A
TREATISE
ON
DIAMONDS and PEARLS.
IN WHICH
Their IMPORTANCE is conſidered:
AND
plain RULES are exhibited for aſcertaining the Value of both:
AND THE
True Method of manufacturing DIAMONDS.

By *DAVID JEFFRIES*,
JEWELLER.

LONDON:
Printed by C. and J. Ackers, in St. John's-Street,
For the AUTHOR. 1750.
(Price One Guinea.)

Figure 9.

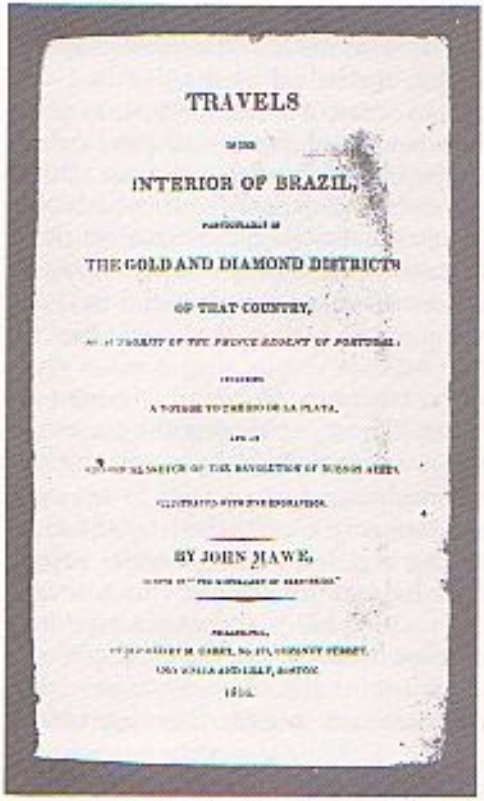
was Reverend Charles William King, the author of six books and many articles. King was probably the most scholarly of any writers on gems and he specialized in engraved gems and their use as talismans and amulets. His books covered nearly all aspects of gem knowledge through the 1870s and could be found quite useful even today. Many of his books have been reprinted within the last ten years.

A very special and quite rare book that is the most complete done on early occult and mystic beliefs in gems in India was compiled by Sourindro M. Tagore. The book, called *Mani-Mala* (Figure 12) and published in 1879, means "circle of gems" and consists of two large volumes (1056 pages) in two languages, Sanskrit and English. There is a complete account of the class structure of gems and their interrelating powers.

In 1888 the notable jeweler, C. R. Ashbee, presented the first English translation of The

Figure 12.

Figure 10.


TRAVELS

IN THE

INTERIOR OF BRAZIL,

PARTICULARLY IN

THE GOLD AND DIAMOND DISTRICTS

OF THAT COUNTRY,

BY AUTHORITY OF THE PRINCE REGENT OF PORTUGAL;

EXHIBITING

A VOYAGE TO RIO DE LA PLATA,

AND A

CENTRAL SKETCH OF THE REVOLUTION OF BUENOS AYRES.

ILLUSTRATED WITH FIVE ENGRAVINGS.

BY JOHN MAWE,

AUTHOR OF "THE MINERALOGY OF DERBYSHIRE."

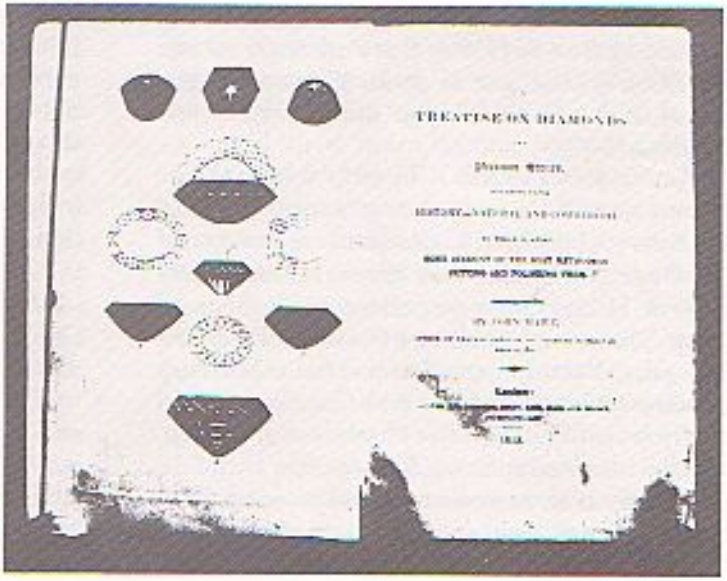
PHILADELPHIA,

PUBLISHED BY ABEL, NO. 171, CHESNUT STREET,

AND KILLA AND LILLY, BOSTON.

1816.

Figure 11


TREATISE ON DIAMONDS

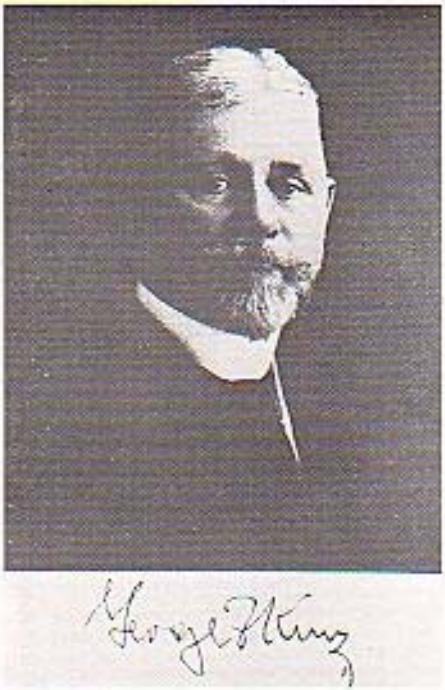


Figure 13.

Treatise of Benvenuto Cellini on Goldsmithing and Sculpture. This book, originally in Italian and published in 1568, is the oldest account of various recipes for making paste jewelry, how to cut gems, and how to set stones, including diamonds. It is surprising that such trade secrets could have been put to print. This very interesting and rare translation has recently been reprinted.

Dr. George Frederick Kunz (Figure 13), for whom kunzite is named, was appointed Vice President of Tiffany & Company at the age of 23. During his illustrious career he assembled several of the most important collections of gems. The most notable was the James Pierpoint Morgan collection, later donated to the Museum of Natural History in New York City. Kunz could easily be called the father of modern gemology. He was involved in some fifty notable societies, had many honorary degrees and was the most prolific writer ever on gems and jewelry. His famous *Gemstones of North America*, published in 1890, was almost completely done through his own independent research. Kunz's *Gemstones of North America* was, according to Dr. Max Bauer, the inspiration for his own book, *Precious Stones*, translated into English in 1904. Bauer's book of 627 pages was the greatest single monograph on gems until Robert Webster's book, *Gems*, 931 pages, was published in 1975.

Kunz was responsible for nine books and over 500 papers on gems. *The Book of the Pearl*, published in 1908, will probably always be the greatest book ever on this subject. From 1885 until his death in 1932 he wrote annual reports of world gem production, first for the U.S. Geological Survey and, later, for the *Mineral Industry Annals*. These reports are the best source for first-hand accounts of major gem finds, including gems such as hiddenite, kunzite, benitoite, etc. They also include information on diamonds—production figures and the discovery of diamonds in almost every state in the U.S., Canada, Mexico and the world over.

I wish that time permitted me to continue to describe more books on our subject of gems. In *Gill's Index*, published by the GIA in 1978, I have tried to create a reference text for publications on gems and jewelry in the English language. The index includes well over 12,000 individual references, many of which are extracted from the various gemological journals produced since 1882 through the present. In perusing the six major journals listed in *Gill's Index*, you quickly realize that each has its strong areas and seldom do they conflict with each other. In regard to the history of gemological literature, the importance of the contributions of the major gemological periodicals cannot be overemphasized.

Mineral Resources, published by the U.S. Geological Survey, was a long annual report containing chapters on each major mineral including a review of U.S. and world activities and production records. George F. Kunz was invited to contribute the chapters on precious stones and continued to write this report from 1882 until 1905. Kunz's reports were well-researched, comprehensive accounts of many

early gem discoveries in the United States and the world. From 1906 through 1914 Douglas B. Sterret of the U.S. Geological Survey was called upon to write the "Precious Stones" chapter. Sterret was recognized for his careful, scientific research of each new gem locality. From 1915 through 1918 Ealdemar T. Schaller served as contributor for the chapters on "Gems and Precious Stones." Schaller is best remembered for his particular interest in the pegmatite gem of Southern California. From 1919 through 1921 Dr. B. H. Stoddard continued the annual chapter on gems and precious stones, but his reports were not as comprehensive as earlier contributors. After 1921 *Mineral Resources* ceased publication.

A government report on gems was not available again until 1932 when the U.S. Bureau of Mines began publishing annually the *Minerals Yearbook*. In order to bridge this gap, however, one has only to read the "Precious Stones" chapter from the *Mineral Industry Annals*, annual reports of private industry edited by G. A. Roush and written by George Kunz.

As previously stated, government annual reports on the gem industry resumed in 1932 with *Minerals Yearbook*, published by the U.S. Bureau of Mines. The most notable contributor to this annual report was Sydney H. Ball, a very well-known geologist and gem expert for the U.S. Bureau of Mines who wrote the "Gem Stones" chapters from 1934 through 1948. With respect to production records and new locations, these chapters on gems are much briefer than those from earlier reports reviewed above, but there is no doubt about the importance of their contribution. The "Gem Stones" chapters in *Minerals Yearbook* include a tremendous amount of data in first-hand accounts (going back to the mid-1800s) of gem finds all over the world, with strong emphasis on the United States. Many libraries contain full runs of these publications for your reference.

The Gemologist, published monthly in London from August, 1931, through December, 1962, by the National Association of Goldsmiths Press Ltd. with Arthur Tremayne as editor, was the first periodical to be entirely devoted to gemology. *The Gemologist* was made the first official journal of the Gemological Association, a branch of the National Association of Goldsmiths, known after 1938 as the Gemological Association of Great Britain. *The Gemmologist* remained the official journal of that association through October, 1934. Economic reasons forced *The Gemmologist* to be bound into the *Goldsmith's Journal* for a period of time between 1937 and 1946, but thereafter it resumed its original independent format. With the death of editor, Arthur Tremayne, in 1954, his assistant, Eric Bruton, assumed the position of editor through December, 1962. Commencing in January, 1963, *The Gemmologist* was bound into the *Horological Journal* as a small supplement. At this point the journal, as a source for gemological information, was superseded by other gemological journals. *The Gemmologist*, unlike the other periodicals, included many articles covering the entire subject of gemology, from gem sources to advanced scientific testing.

Gems & Gemology, published in Los Angeles from January, 1934, to the present, was started as a bi-monthly periodical for American Gem Society members. From January through November of 1934 it was published by the Gemological Institute of America (G.I.A.). From January, 1935, through the winter issue of 1937, the American Gem Society published the journal for its members. *Gems & Gemology* became a quarterly journal as of spring, 1936, and has remained as such to this date. The GIA, in the spring of 1938, again became the publisher of the journal for the AGS and its members. Commencing with the Summer 1943 issue, the GIA published the journal as the official organ of the GIA and this is still true today. With the Summer 1947 issue, the journal showed a large improvement because a new five-man editorial board was formed to oversee each article. The board positions were filled by the most eminent people in the subject of gemology and have been changed periodically. Starting with the Winter 1958 issue, there were two special reports presented in each issue, one from the Gem Trade Lab of the GIA in Los Angeles, and the other

from the Gem Trade Lab in New York City. These reports contain the latest discoveries of the Labs. Spring, 1981, marked the beginning of a much more expanded and enlarged journal. *Gems & Gemology* has directed most of its emphasis toward scientific gemology with somewhat less interest in locations of gems.

The Journal of Gemmology has been published quarterly in London from January 1947 to the present. The Gemmological Association of Great Britain, from 1931 to 1946 had used several outside publications as their official journal, but with their incorporation and independence from the National Association of Goldsmiths, they began publication of their own journal in 1947 and entitled it *The Journal of Gemmology*. The Journal has always been known for its high standard of professionalism, its strongest emphasis being in the area of scientific gemology. Since 1949 *The Journal of Gemmology* has included in each issue a section called Gemmological Abstracts in which important articles from other periodicals are briefly reviewed. This is followed by the reviews of recently published books related to gemology and jewelry.

Lapidary Journal was founded in April, 1947, by Lelande Quick in Hollywood, California. It was issued bi-monthly until 1962 when it became a monthly publication remaining so to this date. The Journal now boasts the largest distribution of any hobby periodical in the world, and its authors are among the most noted in the fields of lapidary and gemology. *Lapidary Journal* is now published in San Diego and is edited by Pansy D. Kraus. As for its subject content, it is closest in nature to *The Gemmologist* with its tremendous variety of articles ranging from gem location to highly scientific gemology, with its strongest emphasis on lapidary. *Lapidary Journal* is the only publication for the amateur represented here; it is included because of the vast amount of unique information it contains and the respect it commands from the most professional of gemologists.

The Australian Gemmologist was published in Australia as a monthly journal from July, 1958, through June, 1967, and as a monthly, it included articles on general scientific gemology, locations of Australian gems, and announcements of the branch meetings of the Gemmological Association of Australia (GAA). From August, 1967, through the present, the journal has been published as a quarterly. When the journal went quarterly, the subject matter broadened and improved greatly, including original studies on scientific gemology, with an emphasis on opals and other Australian gems and their locations. *The Australian Gemmologist* began as and always has been the official organ of the GAA.