BOOK REVIEWS

Elise B. Misiorowski, Editor

HARRY WINSTON, THE ULTIMATE JEWELER, 2nd edition

*By Laurence Krashes, 218 pp., illus., publ. by Harry Winston, Inc. (New York) and the Gemological Institute of America (Santa Monica, CA), 1986. US$75.00**

Dedicated to the memory of Harry Winston, this book is a lavish tribute to his skill and imagination. Vivid and alluring, it is a spectacle of treasures and certainly a complement to any library.

The book is well organized into three main sections. The first unfolds the fascinating life of Harry Winston, tracing the chronology of his most notable achievements in the jewelry trade. The second section presents descriptions, and in most cases illustrations, of 48 historically important diamonds handled by Winston at one time or another. Although the introduction states that "the original intention of this book was to reproduce those entries [relating to Winston stones] in the Gemological Institute of America's *Diamond Dictionary*," this second section alone surpasses that intention by providing an updated, readable guide that rivals any reference now available on the subject. The third section is devoted to the genius of Winston's jewelry designs. A succession of full-color photographs and drawings illustrate Winston's commitment "to place emphasis on the beauty of the gemstones themselves." Of these photos, fewer than 10% have ever appeared in print before.

The author should be commended for his engaging style and skillfulness in adding a sense of drama and excitement to the intriguing anecdotes. The depth of information provided, especially regarding the provenances and subsequent histories of Winston's major transactions, indicates that much thorough research was involved. To its benefit, this second edition has been slightly re-arranged and expanded from the original version. Having the contents page closer to the beginning allows the reader to reference more quickly, and additional footnotes bring more depth and clarity to the text; approximately 20 of the color pieces are new to this edition. Over 130 color and 30 black-and-white illustrations are included.

It is difficult to find any significant flaws in this book. Although there are problems with the reproduction of a few of the color illustrations, this is probably due to the quality of the original photographs, since several of the pieces date back to the 1950s and early 1960s. Otherwise, it appears that no detail has been overlooked in the production. Priced at $75.00, the book is undeniably a worthwhile investment.

CAROL P. ELKINS, G.G.
Sotheby's, Beverly Hills, CA

ALEXANDRE REZA: DREAMS OF YESTERDAY, REALITIES OF TODAY.

*by Arlette Seta, 120 pp., illus., publ. by Editions d'Art Monelle Hayot, Paris, 1985; trans. by Christine Jones. US$50.00**

Written as a showcase for the work of master jeweler Alexandre Reza, this book also provides an overview of jewelry design throughout history. Reza's jewels demonstrate once again what modern designers often forget: that there is a timelessness about jewelry. Historically, designs in jewelry are rediscovered and imitated in successive centuries. Modifications are made with advances in technology, but the initial beauty of a classic jewel remains unchanged with the passage of time. Reza's jewels are all replicas or adaptations of jewelry designs found in archaeological sites, Renaissance paintings, and jewelry design books from the 17th through 19th centuries.

Incorporating modern methods of gem cutting to maximize the color and brilliance of the gemstones, and using current technology in precious metalsmithing, Alexandre Reza's workshops in Paris produce sumptuous suites of jewelry that are both current and fresh and yet echo back to earlier centuries.

The text describes the evolution of jewelry design throughout history, focusing on those styles that Reza has replicated. Peppered with quotes and anecdotes of the royalty who commissioned these jewels and the masters who designed and fabricated them, the book provides much interesting information about the symbiosis of art and power. Although emphasis is naturally placed on French jewelry design, German, Austrian, Italian, Russian, English, Persian, and Indian designs are also represented.

Unfortunately, the original overly florid French text has been inexpertly translated and the result is difficult to read and at times unintentionally humorous. A too-literal translation has given rise to stilted expressions that obscure rather than clarify the meaning of the text, along with a few words that are totally new to the English language.

The book was apparently compiled to document an exhibition at the Jacquemart-André Museum, but further details about the exhibit are not given. A foreword by Reza himself and an introduction by René Huygue, director of the Jacquemart-André Museum, give a glimpse into the character of the otherwise enigmatic artist who has produced these luscious jewels. A scholarly bibliography and 80 exquisite illustrations, 48 in color, are themselves sufficient reason to acquire this book.

ELISE B. MISIOROWSKI, G.G.
Research Librarian, G.I.A.

**This book is available for purchase at the GIA Bookstore, 1660 Stewart Street, Santa Monica, CA 90404.*

CRYSTAL GROWTH PROCESSES

*By J. C. Brice, 298 pp., illus., publ. by Blackie/Halstead Press, Glasgow, 1986. US$61.95**

John Brice is a veteran of over 25 years in the field of crystal growth in the United Kingdom laboratories of the giant Philips Company. A major contributor in the field, he has been particularly concerned with electronic materials, including materials for optical devices. He has authored two previous books, *Crystal Growth from the Melt* and *Crystal Growth from Liquids*, which cover more specialized aspects of the subject and have been quite popular within the crystal-growth community. This third book, *Crystal Growth Processes*, is directed at scientists and engineers who are required to grow crystals, but it is basic enough to serve as an introduction to the whole field of crystal growth for students and others who have an interest in this subject.

Brice's main expertise is in the often gray area between the theory and the practice of crystal growth. The book contains a set of theoretical models that attempt to specify parameters such as the crystal growth rate as a function of the system variables. The systems now used to grow crystals commercially are often extremely complex, and are difficult to describe by relatively simple equations. However, Brice does a good job of setting out equations that can guide the researcher or engineer to make quantitative predictions about the effects of changing the system variables. The underlying principles are also well described.

The book has three main sections. The first, comprising roughly one-third of the text, discusses the uses of single crystals and methods of growth. The author estimates that 900 tons of crystals are grown each year for the jewelry industry. The major part of this section discusses basic concepts—chemical bonding, defects in crystals, phase diagrams, the crystal surface, growth kinetics, transport processes, and an approach to a generalized (mathematical) description of crystal growth. The next section, which makes up more than half the book, is devoted to each of the major methods of crystal growth—liquid, vapor, and solid sources—with emphasis on electronic materials. However, only two pages are devoted to Verneuil's flame-fusion process, the most popular for the economic growth of some gem materials such as sapphire. The comment that "Verneuil-grown crystals tend to be rather imperfect and suitable for uses where imperfections do not matter (e.g., jewellery) . . ." illustrates the author's perspective. The skull-melting method, which is used to make cubic zirconia crystals, receives a one-page description.

The final chapter is concerned with the selection and optimization of methods of crystal growth, and includes a short review of the techniques of crystal characterization. This useful section, which is not usually found in a book of this kind, discusses the economics of crystal production.

In summary, *Crystal Growth Processes* is a book for the serious practitioner of the subject, especially one who is comfortable with applying equations to compare theory with practice. It is probably the best introduction to the subject of crystal growth for an engineer or advanced student, and will be of value to the experienced crystal grower who has been used to a "seat-of-the-pants" approach and wants to try something more quantitative. Even someone who does not want to get involved with the equations will benefit from the discussion of fundamentals. For the most part, however, the gemologist who wants to know more about the ways in which synthetic *gem* crystals are produced will find more on this specialized topic in *Gems Made by Man* by Kurt Nassau, or in this reviewer's (unfortunately more expensive) *Man-made Gemstones*.

DENNIS ELWELL, Ph.D.
President, Elwell & Assocs. Materials Synthesis and Crystal Growth, Carlsbad, CA