THE ANCIENT MEDICINAL USES OF GEMS AND PRECIOUS STONES.*.1

BY A. RICHARD BLISS, JR.2

The love of precious stones has always been deeply implanted in the human heart, and the cause of this is found not only in their coloring and brilliancy, but also in their durability. The beautiful colors of flowers and foliage, and even the blue of the sky and the glory of the sunset clouds only last a short time, and are subject to continual change, but the sheen and coloration of precious stones are the same to-day as they were yesterday and will be to-morrow. In a world of change this permanence has a charm of its own that was early appreciated by man.

The object of this paper is to discuss and to illustrate the various ways in which precious stones have been used at different times and among different peoples, and more especially to explain some of the curious ideas and superstitions that have gathered around them. Many of these ideas may seem strange enough today, and yet when we analyze them we find that they have their roots either in some intrinsic quality of the stones or else in an instinctive appreciation of their symbolical significance. Through manifold transformations this symbolism has persisted to the present day.

Our scientific knowledge of cause and effect may prevent us from accepting any of the fanciful notions of physicians and astrologers of olden times; nevertheless, the possession of a necklace or a ring adorned with brilliant diamonds, fair pearls, warm, glowing rubies or celestial-hued sapphires will make a modern woman's heart beat faster and bring a flush of pleasure to her cheek. Life may seem better worth living to her; and, indeed, life is what our thoughts make it, and joy is born of gratified desire. Nothing that contributes to increasing the sum of innocent pleasures should be disdained; and surely no pleasure can be more innocent and justifiable than that inspired by the possession of beautiful natural objects.

From the earliest times in man's history gems and precious stones have been held in great esteem. They have been found in the monuments of prehistoric peoples, and the civilization of the Pharaohs, of the Incas or of the Montezumas did not alone invest these brilliant things from nature's jewel casket with a significance beyond the mere suggestion of their intrinsic properties.

The magi, the wise men, the seers, the astrologers of the ages gone by found much in the matter of gems that we have almost forgotten. With them each gem possessed certain planetary attractions peculiar to itself, certain affinities with the various virtues, and a zodiacal concordance with the seasons of the year. Moreover, the early sages were firm believers in the influence of gems in one's nativity, and that the evil in the world could be kept from contaminating a child properly protected by wearing the appropriate talismanic, natal and zodiacal gems. Indeed,

^{*} Section on Historical Pharmacy, A. Ph. A., Portland meeting, 1935.

¹ A contribution from the Laboratories of Pharmacology, Howard College of Birmingham, Alabama, and the Reelfoot Lake Biological Station at Reelfoot Lake, Tennessee.

² Professor of Pharmacology and Dean of the School of Pharmacy of Howard College of Birmingham, Alabama; Director of The Reelfoot Lake Biological Station, Reelfoot Lake, Tennessee.

folklorists are wont to wonder whether the custom of wearing gems in jewelry did not originate in the talismanic idea instead of in the idea of mere adornment.

In medieval times the influence exerted by precious stones was assumed without question, but when the spirit of investigation was aroused in the Renaissance period, an effort was made to find a reason of some sort for the traditional beliefs. Strange as it may seem to us, there was little disposition to doubt that the influence existed; this was taken for granted, and all of the efforts expended were devoted to finding some plausible explanations as to how precious stones became endowed with their strange and mystic virtues, and how these virtues acted in modifying the character, health, fortunes or fate of the wearer.

Autosuggestion possibly affords an explanation of much that is mysterious in the effects attributed to precious stones, for if the wearer be firmly convinced that the gem he is wearing produces certain results, this conviction will impress itself upon his thoughts and upon his very organism. He may really experience the influence, and the effects may manifest themselves just as powerfully as though they were caused by vibrations or emanations from the precious stone.

This may serve to explain in the past the persistence of the belief in magic arts.

Two or three hundred years ago, a Hungarian woman was accused of having murdered several hundred young girls, and at her trial she confessed that her object was to use the blood of her victims to renew her youth and beauty, for the blood of innocent virgins was supposed to have wonderful restorative and curative properties. In many parts of the world to-day there is a superstitious belief that an article of clothing worn by a person, or anything he has habitually used, absorbs some of his individuality. Therefore, a handkerchief, for instance, may be stolen and pinned down beneath the surface of a stream or pond on a toad, the pins marking the names of the enemy, the belief being that as the cloth wastes away, so will the body of him who has worn it. In medieval times sorcers made crude wax figures rudely resembling the persons against whom the spell was directed, and then thrust pins into such figures or allowed them to melt away before a slow fire, the enchantment of the sorcerer having supposedly caused some essence of the personalities to enter into the images, and therefore the living and breathing felt sympathetically the effects of the ill-treatment inflicted upon their counterfeits. This, doubtless, represents the origin of "burning in effigy."

The persistence of the cruel and perverted practices of old-time sorcery is illustrated by the fact that only a few years ago, in Cuba, three women were condemned to death for murdering a white baby so as to use the heart and blood as a cure for disease. It is not surprising that in half-civilized Haiti the Voodoo priests and priestesses demand from time to time a human sacrifice to appease their serpent-god. Several years ago a strange case was exposed in which a stupefying draught, capable of inducing a state of apparent death, was secretly administered to a sick man. When the attending doctor pronounced him dead, he was duly buried; but, two days after, the grave was found open and empty. The Voodoo worshippers had carried the man away so as to revive him and then sacrifice him at their unnatural rites.

Doctor DeBoot, Court Physician to Rudolph II of Germany, in 1609 gave the following opinion regarding the power inherent in gems:

"The supernatural and acting cause is God, the good angel and the evil one; the good by the will of God, and the evil by His permission. What God can do by Himself, He could do also by means of ministers, good and bad angels, who, by special Grace of God and for the preservation of men, are enabled to enter precious stones and to guard men from dangers or procure some special grace for them. However, as we may not affirm anything positive touching the presence of angels in gems, or to repose trust in them, to ascribe undue powers to them is more especially pleasing to the spirit of evil, who transforms himself into an angel of light, steals into the substance of the gem, and works such wonders by it that some people do not place their trust in God but in a gem, and seek to obtain from it what they should ask of God alone. Thus it is perhaps the spirit of evil which exercises its power on us through the turquoise, teaching us, little by little, that safety is not to be sought from God but from a gem.

"That gems or stones, when applied to the body, exert an action upon it, is so well proven by the experience of many persons, that anyone who doubts this must be called over-bold. We have proof of this power in the carnelian, the hematite and the jasper, all of which when applied, check hemorrhage. However, it is very necessary to observe that many virtues not possessed by gems are falsely ascribed to them."

In the middle of the seventeenth century Thomas Nichols wrote the prevailing opinion in England at that time as follows:

"But it cannot truly be so spoken of gems and precious stones, the effects of which are said to be the making of men rich and eloquent, to preserve men from thunder and lightning, from plagues and diseases, to move dreams, to procure sleep, to foretell things to come, to make men wise, to strengthen memories, to procure honors, to hinder fascinations and witchcrafts, to increase friendship, to hinder difference and dissension, to make men invisible, as is feigned by the poet concerning Gyges ring, and affirmed by Albertus and others concerning the ophthalmius lapis, and many other strange things are affirmed by them and ascribed to them, which are contrary to the nature of gems, and which they, as they are material, mixed, inanimate bodies, neither know nor can effect, by the properties and faculties of their own constitutions: because they being natural causes, can produce none other but natural effects, such as are all the ordinary effects of gems: that is, such effects as flow from their elementary matter, from their temper, form and essence; such as are the operations of hot and cold, and of all the first qualities: such as are hardness, heaviness, thickness, color and taste. These are all the natural faculties of gems, and these are the known effects of the union of their matter, and of the operation of the first qualities one upon another."

Some writers are of the opinion that the hypnotic influences possibly exercised by gems have not been subjected to careful, adequate investigation. The long-continued concentration of vision on an object tends to produce a partial paralysis of certain functions of the brain. This effect, it is said, may be observed in the helplessness of a bird when its gaze is fixed upon the glittering eyes of a snake. Likewise, those who gaze for a long period and without interruption on a crystal or glass ball, a diamond or other sparkling gem, may become partially hypnotized or even fall into an hypnotic sleep. Many believe this condition imparts an insight into the future.

During the early part of the eighteenth century Madam Frederike Hauffe, the "Seeress of Prevorst," a woman thought to possess remarkable and unusual clairvoyant powers, gave a series of interesting demonstrations of the effects produced upon a sensitive subject by the touch of minerals and precious stones.

Granite, flint or porphyry did not affect her, but fluorspar had a marked effect, relaxing the muscles, producing a sour taste (although the substance was simply held in her hand), and inducing at times a somnambulistic state. Barium sulphate produced an agreeable sensation of warmth, stimulated the muscles and made the subject feel as though she could fly; long application induced laughter. Rock-crystal also stimulated the muscles, awakened the subject from sleep and induced an aromatic odor. The diamond produced the same effects. The ruby produced a sensation of coldness in the tongue, rendered this organ so heavy that only incoherent

sounds could be made, caused the fingers and toes to become cold, and ultimately induced shivering. These effects, however, were followed by a sensation of elasticity and well-being, attended by the fear that a renewal of initial effects might take place.

As hypnotic agents precious stones may induce a physical impression which is heightened by the consciousness of the intrinsic value and the rarity of the substances. The fascination produced by a brilliant, glowing, sparkling, colorful set of jewels is due not only to the beauty of the gems, but largely to the consciousness that they are both rare and valuable objects, and are perhaps eloquent witnesses of love.

The literature as far back as the writings of Pliny describes the talismanic and therapeutic virtues attributed to precious and semiprecious stones. The Alexandrian literature of the second, third and fourth Christian centuries provides a rich source for these superstitious beliefs. In the seventh, eighth and ninth centuries a new literature made its appearance, probably in Asia Minor, and the manuscripts were written largely in Syriac and in Arabic. While this literature was developing in the Mohammedan world, the traditions of Pliny and Solinus were transmitted to the Christian world of the seventh and eighth succeeding centuries by Isodorus of Seville. A remarkable poetical treatise on the virtues of gems and precious stones was written by Marbodus, Bishop of Rennes, at the end of the eleventh century. Saint Epiphanius, Bishop of Constantia, wrote another curious and interesting treatise concerned with the twelve gems on the "Breastplate of Judgment of the High Priest' (Ex. xxviii, 15-21), which is valuable as the first of many attempts to identify the twelve stones. The special virtues of each stone are given also and this treatise may be accepted as the prototype of all the Christian writings on the symbolism of gems.

It is safe to say that, in the case of primitive man, the only attraction offered by precious stones was their color and brilliancy. The infant in his native admiration of what is brilliant and colored undoubtedly represents the mental attitude of primitive man. Probably the first objects chosen for personal adornment were those which were easily strung, for instance, perforated shells and colored seeds. Next came the softer stones wherein holes could be bored by the help of crude tools. The harder gems were valued as attractive toys long before man could adapt them to use as ornaments.

Unquestionably, when these stones had once been worn, there was a disposition on the part of man to attribute certain happenings to their power and influence. Thus there arose a belief in their efficacy, and, ultimately, the conviction that they were abodes of powerful spirits.

It has required centuries of enlightenment to bring us back to the love of precious stones for the esthetic beauty alone. Even to-day we can recognize the power of superstitious belief in the case of the opal, for example, which some timid souls still fear to wear. The coral is worn extensively to-day in Italy as the special charm of childhood, and a protection against the evil eye. Pearls are still dreaded by some and favored by others.

What supersubtle sense is it that leads some women to feel that their jewels partake of human emotion? A French writer, Mme. Catulle Mendes, says that she always wears as many of her rings as possible, because her gems feel slighted when she leaves them unworn. She continues:

"I have a ruby which grows dull, two turquoises which become pale as death, aquamarines who look like siren's eyes filled with tears, when I forget them too long. How sad I should feel if precious stones did not love to rest upon me!"

The medicinal use of precious stones has been traced to very ancient times. It has been thought that their employment for such purposes was introduced to Europe from India, whence many of the stones were derived. The earliest evidence points rather to Egypt as the first source.

The Ebers Papyrus, for instance, recommends the use of certain astringent substances, such as *lapis lazuli*, as ingredients of eye salves, and hematite, an iron oxide, for checking hemorrhages and for reducing inflammations.

The stones were used medicinally either in talismanic fashion or as mineral substances. In the former case the stones were merely worn on the person; while in the latter case they were reduced to a powder, mixed with wine, water or milk, and then taken internally. The belief in the curative properties of precious stones was at one time universal. It is true that the constituents of certain stones can be absorbed by the body and can produce a definite effect, but the greater part of the elements are so combined that they cannot be assimilated and consequently passed through the system without producing any apparent effect.

In ancient and medieval times the symbolism of color played a very important part in recommending the use of particular stones for special diseases. Thus, in the cases of red or reddish stones, such as the ruby, garnet, carnelian and bloodstone, these were thought to be almost infallible remedies for hemorrhages and inflammatory diseases; also to exert a calming influence and to remove anger and discord. In the same way yellow stones were prescribed for the cure of biliousness, jaundice and other diseases of the liver. Green stones were used to relieve diseases of the eye. One of the earliest references in the Greek writings (Theophrastus, who wrote in the third century before Christ) is concerned with the use of the emerald for its beneficial effect on the eyes. The sapphire, the lapis lazuli and other blue stones, possessing the hue of the heavens, were believed to exert a tonic influence, to counteract the spirits of darkness, and to procure the aid of the spirits of light and wisdom. These gems were looked upon as emblems of chastity; and for this reason the sapphire came to be regarded as especially appropriate for ecclesiastical rings. Purple stones, like the amethyst, were supposed to counteract the effects of overindulgence in alcoholic beverages, a use probably suggested by the color of certain wines.

The diamond was considered an efficacious antidote for poisons. In the time of Alfonso X this gem was used for diseases of the bladder but only in desperate cases. It was employed also as a protection against plague and pestilence—proof, the plague attacked the poorer classes, sparing the rich who could afford to adorn themselves with diamonds. During the fifteenth century it was even a cure for insanity. In the Babylonian Talmud one reads of the marvelous stone belonging to Abraham, perhaps a diamond, possibly a pearl, which cured the sick who looked upon it. The Hindus believed that diamonds of inferior quality were dangerous to use. When Pope Clement XII was seized by his last illness, in 1534, his physicians resorted to powders composed of various precious stones, including diamonds. This stone was used also to detect poisons, for, it was said that on coming in contact with the poison, the diamond grew dark.

Another antidote for poisons and for infected wounds was the *emerald*. It was employed also against demoniacal possession. Worn about the neck it cured "Semitertian" fever and epilepsy. Its uses for relieving eye diseases have been mentioned. The emerald was looked upon as a certain cure for dysentery if one stone was worn in contact with the abdomen, and another placed in the mouth. In the form of a poultice it was used as a remedy for leprosy, and pulverized was administered internally as a powder for hemorrhages. The Hindus of the thirteenth century considered it a good laxative; also as an agent for stimulating the appetite, diminishing the secretion of bile and checking dysentery. Gastric troubles were "cured" by laying the stone on the stomach. The wearer of the stone was protected from the attacks of venomous creatures, and evil spirits were driven from the place where emeralds were kept.

In ancient times the jade was considered of great value and aid in parturition. The American Indians used the stone for diseases of the kidneys, and by the middle of the seventeenth century the curative powers of the stone for various forms of renal calculi were generally admitted. In China, jade is still the most favored stone, and wonderful therapeutic virtues have been accorded it. An old Chinese encyclopedia (1596) records the uses of jade, when reduced to a powder the size of rice grains, in strengthening the lungs, the heart and the vocal organs; also to prolong life, more especially if gold and silver were added to the jade powder. Another method advised by the Chinese was to drink the so-called "Divine Liquor of Jade," made of equal parts of jade, rice and dew-water, which were placed in a copper pot, boiled and filtered. This remedy was said to strengthen the muscles and make them supple, to harden bones, to calm the mind, to enrich the flesh and to purify the blood. Whoever took it for a long space of time ceased to suffer from heat or cold, and no longer felt either hunger or thirst. Galen (130 A. D.) attested to the virtues of the green jasper, stating that it aids the stomach and navel by contact, and recording his own experiences with the remedy. The stone was used against spiders and scorpions, to check the flow of blood, to strengthen the chest and lungs, to cure fever and dropsy and to improve the sight.

Sanskrit medical literature, as represented by Naharari, a physician of Cashmere who wrote in the thirteenth century, presents the *ruby* as a valuable remedy for flatulency and biliousness. He writes also of the value of a "Ruby Elixir" if properly compounded, but this elixir seems to have had little in common with the ruby except its color. The ruby was used as an amulet against plague, poison, evil thoughts and nightmare. It was supposed to divert the mind from sadness and sensuality, and to forewarn the wearer of the approach of any misfortune by the loss of color.

William Langley's "Vision of William Concerning Piers the Plowman," written about 1377 and one of the earliest specimens of English literature, contains mention of the sapphire as a cure for disease. Richard Preston, "a citizen and grocer of London," in 1391, gave a sapphire to the Shrine of St. Erkinwald, in Old Saint Paul's, to be kept for the cure of diseases of the eyes, stipulating that proclamation should be made of its remedial virtues. It was employed also as an eyestone for the removal of foreign bodies from the eye, to cure plague boils, carbuncles and headaches, to prevent evil and impure thoughts, to give color to the cheeks, to provide rest and refreshment for the body, to bestow strength and energy, to soften anger, to free from enchantment and to obtain release from captivity.

St. Hildegard recommended the *topaz* to cure dimness of vision. The stone was placed in wine for three days and nights. On retiring, the patient rubbed his eyes with the moistened topaz so that the moisture lightly touched the eyeball. After the stone had been removed at the end of the third day, the wine was used for

five days. A Roman physician of the fifteenth century was reputed to have wrought many wonderful cures of those stricken with the plague, through touching the plague sores with a topaz which had belonged to two Popes, Clement VI and Gregory II. The stone was used to cure insanity, check hemorrhage, cure hemorrhoids, to avert sudden death and to restrain anger and desire.

The Spaniards and American Indians used the bloodstone to check hemorrhages.

The best results were supposedly obtained by first dipping the stone in cold water, and then holding it in the right hand. The Indians carved the stone into heart-shaped forms. Robert Boyle, in his essay "About the Origin and Virtues of Gems" (London, 1672), tells of a gentleman of his acquaintance who was much afflicted with bleeding of the nose. A gentlewoman sent to him a bloodstone, directing him to wear it suspended from his neck, and from the time he put it on he was no longer troubled with this malady. It was thought that this stone rendered one proof against poison, endowed with the gift of prophecy, brought long life and cured disorders of the stomach.

The *pearl* was considered a cure for insanity and other mental diseases, for leprosy and skin diseases; also as a check for bleeding, and an agent to strengthen the body and add lustre to the eye. It was conducive to contentment of body and soul. By others it was believed unlucky.

The idea that the *opal* brings bad luck is based on Teutonic superstition, and is comparatively modern. It was valued as a remedy for diseases of the eye, to stimulate the heart, to protect against contagious and infectious diseases, to prevent heart disease and malignant affections and to drive away despondency.

The turquoise "preserved" the wearer from injury through accident. In the presence of poison this stone was reputed to sweat profusely. Its color pales as its owner sickens, and is lost entirely on his death, to be recovered only on becoming the property of a healthy person. This gem was thought to be particularly effective in diseases of the head and heart.

The amber was said to change color with the state of the wearer's health; to prevent illness in general, but especially effective against diseases of the throat. The amethyst was accredited with the power of dispelling sleep, sharpening the intellect, preventing intoxication, protecting against sorcery and bringing victory to soldiers. The coral was considered a protection against poison, plague, storm, fear, sorcery and evil spirits; by change of color it warned of the approach of diseases.

The beryl "cured" leprosy and diseases of the throat, jaws and head; it rendered its owner cheerful, and preserved and increased conjugal love. The agate protects against venomous things, quenches thrist, repels storms, sharpens sight, increases strength, imparts graciousness and eloquence and prevents contagion. Jet was considered efficacious for removing spells and enchantments. The lode-stone prevents and cures cramps, colic and rheumatism, and is used by voodoo priests as a love charm and to increase physical strength. The moonstone also is a potent love charm, as well as an aid to memory and a "cure" for leprosy. Another "cure" for leprosy is the onyx, which in addition was supposed to be a powerful aphrodisiac, to hasten childbirth, to increase the flow of saliva in children, to produce night-mares and to stir up strife. The garnet confers and preserves good health, drives away vain thoughts, reconciles differences between friends and lovers, strengthens the heart and brings wealth and honor. The sardonyx renders its possessor virtuous, agreeable and cheerful.