

SAPPHIRE

A TRIBUTE TO THE CREATIVE GENIUS OF HUMANITY



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emstones conjure images of simple elegance. Whether alone or placed in a setting, their rarity and beauty are matched only by gem lovers' enthusiasm for them. "Once in a lifetime" gems evoke feelings of awe and special reverence because of their notability and unioueness.

Rare, beautiful, and steeped in symbolic significance across cultures, sapphires have commanded the attention of men and women throughout the ages. From rings and amulets, to crowns and scepters, sapphires have often occupied the focal point of the artistic designs that featured them. One sapphire has become the nexus of its variety of corundum. That gemstone is the Millennium Sapphire.

UNIQUENESS

With as much mass as a 13-inch television but roughly the size of a rugby ball, the Millennium Sapphire is an awesome sight to behold. Discovered in 1995 in Madagascar, the natural dark-blue gem weighed 89,850 carats (nearly 40 pounds, or 17.97 kilograms). The Millennium Sapphire was certified in its rough form by the Asian Institute of Gemological Sciences and the Gemological Institute of America. The Gubelin Lab of Switzerland recently certified the sapphire in its finished, carved form at 61,500 carats (almost 28 pounds, or 12.3 kilograms).

The exact location of the Millennium Sapphire's discovery has not been documented but it is known to have come from central Madagascar. News of the stone's exportation from its country of origin and subsequent worldwide publicity sparked considerable political controversy that was exacerbated when local publications valued the gem at US\$90 million to US\$500 million. In the middle of this maelstrom, the opposition party of this African island nation declared the sapphire a "National Treasure". The president of Madagascar was held responsible by the opposition party for the sapphire's exportation, along with significant displeasure of his handling of gemstone mining in general, and the ensuing political turmoil eventually led to his impeachment.

As the gem was brought to gemological laboratories for certification, the humble packaging of the gem wrapped in newspapers and in a woven basket belied the treasure that was inside. And those who certified the stone saw a natural, blue sapphire—perhaps the largest ever of its kind (see"History").

BEAUTY

Among those who originally certified the Millennium Sapphire was Gary DuToit of the Center for Gemstone Testing and formerly of the Asian Institute of Gemological Sciences. "It's definitely a gem–grade sapphire, a fine gem–blue color," he said. "Other famous blue sapphires cannot compare in terms of size, weight and quite possibly color."

The promise of the gem lay not in what it was, but in what it could become. Rather than cut it into smaller pieces, Daniel Mckinney, leader of the Asian consortium that owns the gem, sought to use the whole stone to pay tribute to humanity's greatest examples of ingenuity and accomplishment. That tribute would come in the form of carvings of many cultures' icons of philosophy, science, law, human rights, literature, art, music, sports, and performing arts. World-renowned and award-winning Italian artist, Alessio Boschi, was commissioned to design the piece and oversee the carving process.

HISTORICAL SYMBOLISM

A sapphire traditionally symbolizes truth, sincerity, and faithfulness. It is also the birthstone for the month of September. Perhaps most significant is that sapphires have long been called "the celestial

FROM FINDING THIS UNIQUELY COLOSSAL GEM, TO CONFIRMING ITS QUALITY AND VALUE, TO DRAMATICALLY ENHANCING ITS BEAUTY THROUGH THE WORK OF A HIGHLY SKILLED ARTIST, THE MILLENNIUM SAPPHIRE STANDS AS A DREAM COME TRUE TO ALL WHO HAVE BEEN TOUCHED BY IT. gemstone," and the ancient Persians believed the Earth rested on a giant sapphire, whose reflection colored the sky. The project for the Millennium Sapphire showcases the people who, over the centuries, have "reached for the stars."

After months of research, Boschi chose 134 subjects to represent the spectrum of contributions that individuals have made to the human condition over the centuries. The result is a design with a high degree of historical accuracy and technical excellence embodied in a spectacular sapphire sculpture (see "Designer's Vision").

Among the subjects carved into the gem are the Pyramids of Giza, Confucius, Archimedes, Samurai protecting a building of the Shogun, Leonardo da Vinci, William Shakespeare, Gutenberg's printing press, Sir Isaac Newton, Johann Sebastian Bach, the first flight in a hot–air balloon by the Montgolfièr brothers, Claude Monet's "Impression: soleil levant]", the Wright brothers' "Flyer I", Thomas Edison, Charlie Chaplin, Albert Einstein, Mahatma Gandhi, Martin Luther King, Jr., Neil Armstrong, and Mother Teresa of Calcutta.

DREAM OF A LIFETIME

From finding this uniquely colossal gem, to confirming its quality and value, to dramatically enhancing its beauty through the work of a highly skilled artist, the Millennium Sapphire stands as a dream come true to all who have been touched by it. "Its meaning to the gemstone world is a dream—it is a thing dreams are made of," said Christian Dunaigre of the Gubelin Gemological Laboratory in Lucerne, Switzerland.

Since the carving has been completed on the Millennium Sapphire, it is ready for presentation to the world to give others a once-in-a-lifetime opportunity to enjoy this singularly beautiful genstone and the record of human genius that it depicts. With simplicity in its purpose and elegance in its presentation of human ingenuity, the Millennium Sapphire evokes a special kind of excitement that is like the stuff of dreams—dreams brought into reality by the world's greatest people.

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THE ROAD TO CERTIFICATION

The massive sapphire eventually came to the attention of a French mining group operating in the island nation off Africa's eastern coast. The group's leader had an inkling of its potential value and negotiated a purchase with the miner. The stone was then packed in a hand made wooden crate and shipped off to Bangkok, Thailand, the epicenter of the precious gemstone world.

The French miners had been selling their Madagascar sapphire production through Jeffery Bergman, an American gem dealer in Bangkok, and he was the obvious choice to represent the giant gem. When the crate was broken open in Bergman's office, he hefted out a colorful hand-woven basket that contained a newspaper-wrapped, 18 kilogram lump. Bergman had received initial reports about the giant sapphire with considerable skepticism, but when he removed the newspaper, doubt turned into delight.

The first stop for the mammoth genstone was the Asian Institute of Gemological Sciences to secure independent laboratory certification. The gem was so large it would not fit through the lab's normal security reception for gems submitted for identification. When Bergman carried it through a side door, lab staff greeted the rock with immediate awe and wonder. One gemologist froze in his tracks. With wide eyes and a pointed finger he asked, "Is that a saphire?"

"It's overwhelming," said Christian Dunaigre, with Gubelin Gemological Laboratory, Lucerne, Switzerland. "At first I met the news with disbelief. I had problems in believing it actually existed. It's the biggest I have ever seen—the size is exceptional," he said. When the gemological testing was complete, the lab issued a Gemstone Identification Report with the conclusion: "Natural Sapphire."

GAINING THE WORLD'S ATTENTION

Bergman's next move was to contact Reuters and break the now independently confirmed news to the world. After a short interview and photo session, the Reuters team left with a story that would soon rock the world of precious gems. Major newspapers and television networks picked up the story within a few days. CNN, NBC, USA Today. The Bangkok Post, just to name a few, ran the story of this magnificent find.

The next stop was London to seek European expertise on the gem. Fellow Gemologist of the Gemological Association of Great Britain, Marcus McCallum wrote, "This crystal is the largest single piece of gem-quality sapphire that I know of, and it is very rare to see such a large piece of such good color."

With certification and publicity in hand, Bergman began the task of finding a buyer for the big sapphire. The Asian economic crisis struck soon after, and buyers who were once flush with cash quickly disappeared. The French owners needed capital to expand their operations in Madagascar, so Bergman contacted his American business associate and long time friend, Daniel Mckinney.

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SUCH A LARGE PIECE OF SUCH

Within a few months, Mckinney assembled a consortium of investors to purchase the stone with the intent of enhancing its value and beauty. The group decided to keep the gem intact and produce a finished carving that would maintain the sapphire's exceptional size. Various artists for the project

> were explored, including European and American designers and carvers. Eventually award-winning Italian designer, Alessio Boschi, was chosen and the Millennium Sapphire project was born.

> The project's objective was to enhance the stone's natural beauty by carving on its surface images of the greatest people and achievements that humanity has ever known. The final work would stand as a tribute to human genius over the centuries. Boschi rigorously researched subjects for the project and selected 134 representations of important individuals and milestones in human history. Several of the stone's carvings also reflect its origin in Madagascar.

> Nearly two years in the making, the finished Millennium Sapphire is a design masterpiece executed in a very precious and rare medium, making it by far the most valuable and largest carved sapphire in the world.



The vision for the Millennium Sapphire is to pay tribute to human genius. From the beginning, the design concepts behind the project emphasized a wide range of subjects. That range includes great civilizations, inspired individuals who sparked change, and remarkable discoveries and advancements during the last 5000 years. To illustrate these themes, exceptional people and achievements were chosen to represent the fields of science, mathematics, philosophy, law, human rights, war and peace, architecture, fine art, literature, music, sports, and performing arts. The subject matter is by no means comprehensive, and it was with considerable struggle that certain individuals of great influence and merit were left out in favor of others.

CREATING THE DESIGN

After extensive research and a painstaking selection process, the artist, Alessio Boschi, began making preparatory sketches. They were placed side–by–side with photos of selected subjects, and a proposed design for the sapphire carving began to take shape. That design was patterned after the



structure of the human DNA molecule, which is a spiral and a very effective way to present a logical progression of the images around the large gemstone. Starting at the bottom, the images represent a timeline of the human saga from ancient days until the present. The spiral is also found in ancient art, since it is a very practical way to represent a long sequence of events. The classic example is the Traiana Column of Rome, II3 AD. The spiral has also been an aquatic symbol since ancient Phoenician and Greek times, and it symbolically connects us with life itself as all of us are born of the water of the womb.

The base of the carving features naked masculine figures; the majority of which are from famous classical sculptures. Like the mythical character, Atlas, who held the Earth upon his shoulders, these male figures at the base of the Millennium Sapphire uphold the story of humanity. In the 4th century BC, the Greek philosopher, Empedocles, developed the theory of the four elements: air, earth, fire, and water. The combination of these elements regulated natural law as understood at the time. The Atlas–like figures are positioned in these four elements on the Millennium Saphire, and they are depicted standing at four corresponding doors opening to the story of humanity.

The sapphire's origin was also incorporated into the design, since it was designated a national treasure by Madagascar. The African origin is depicted as an outline of the island of Madagascar found in the center of the water door, with the year of the sapphire's discovery. 1995, written in ancient script in the center. On the opposite side, the year marking the project's beginning, 1999, is in modern script on the air door.

Because sapphires have traditionally been associated with the heavens, the progression of carvings highlights people and achievements related to the heavens. The sculpture begins with the Orion constellation, which has served as a basis for navigation over the centuries. After that are ancient Egyptian, Mesopotamian, and Mayan pyramids, followed by medieval castles designed around a celestial theme. Further on are images of Ptolemy. Copernicus, Galileo, and Newton all of whom are recognized for their great contributions to human knowledge through astronomy. Completing the celestial theme is Sputnik, Neil Armstrong in his lunar suit, Mariner 10, the Space Shuttle, and finally the binary coded message constantly beamed to the stars from the Arecibo deep space antenna.

This and other thematic progressions in the Millennium Sapphire illustrate Rousseau's well known quote, "History repeats itself." For example, feminine beauty is exemplified by Aphrodite of Milos, ancient Greece. The same theme is found several centuries later in Botticcelli's 1498 painting, "The Birth of Venus," during the renaissance period in Florence, Italy.

SCULPTING THE GEM

As work began to make the design a reality on the Millennium Sapphire, Boschi and his team was immediately confronted with difficulties of the gem as a carving material because of its hardness. It left no room for correction, and errors of interpretation would soon become permanent without sacrificing precious gem weight. The solution was to carve each planned design element on a slab of lapis lazuli to create a working prototype. Since lapis lazuli is a much softer stone than sapphire but of a similar blue color, it provided a perfect medium to test the artistic intent and interpretation. Only when perfection was achieved in lapis was the design transferred to the sapphire.

Consequently, the Millennium Sapphire is accompanied by a collection of lapis lazuli squares that show enlarged three dimensional representations of each element of the design. These squares are individual works of art and have become important factors in allowing viewers to better appreciate the complexity of human history plus the art and design elements incorporated into the sapphire. Each piece can be viewed individually, and they are accompanied by a written description about what they depict and why they were chosen.

The Millennium Sapphire is unique in the history of art and humanity. The designer's vision is that the Millennium Sapphire be a source of wonder, imagination and inspiration for many future millennia.





Origin Madagascar, 1995

Weight(rough stone) 89,850 carats (40 pounds; 17.97 kilograms)

Weight (finished carving) 61,500 carats (almost 28 pounds, or 12.3 kilograms)

Dimensions (rough stone) 29 cm long, 19 cm wide, 16 cm tall

Dimensions (finished carving) 28 cm long, 19 cm wide, 15 cm tall





THE COLISEUM

THE GREAT WALL OF CHINA





LEONARDO DA VINCI'S "PROPORTIONS OF THE HUMAN BODY"

WILLIAM MARCONI INVENTOR OF THE RADIO





MAHATMA GANDHI

GUTENBERG INVENTION OF THE PRINTING PRESS

THEMILLENNIUM SAPPHIR



Color Blue (with milky gray blue)

Type Natural

- Certifying Agencies Asian Institute of Gemological Sciences, Bangkok, Thailand
- Gemological Institute of America, California, USA
- Marcus McCallum, FGA, London, UK
- Gubelin Labs, Switzerland





QUEEN ELIZABETH I OF ENGLAND

WILLIAM SHAKESPEARE





NICOLÓS COPERNICUS[®] REVOLUTIONARY THEORY THAT THE MOON ROTATES AROUND THE EARTH AND THE PLANETS ROTATE AROUND THE SUN

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Owners

Daniel Mckinney, leads an Asian consortium that owns the Millennium Sapphire

Carved Subjects 134 historically and technically accurate carvings, all stunningly beautiful and paying tribute to human genius over the centuries and across cultures

Project Completion Original concept in 1998: finished piece in 2000





MAYAN PYRAMID, THE TEMPLE OF REGISTRATIONS PALENQUE, MEXICO

ISAAC NEWTON'S REFLECTING TELESCOPE





LOUIS PASTEUR

WOLFGANG AMADEUS MOZART





ASTROLABE

CASTLE OF THE MOUNTAIN BARI, ITALY



Chemistry Al₂O₃ (crystalline)

Hardness 9 (on Moh's 10 point scale, where diamonds are the hardest)

Classification Species: corundum Variety: sapphire

Crystallography Hexagonal (this is the definite, regular internal atomic structure and the resulting geometrical external form)

Specific Gravity 3.99 - 4.00 (this is the unique weight of a gemstone in air compared to the weight of an equal volume of pure water at 4° Celsius)

Cleavage None (this concerns the gem's tendency to split parallel along definite directions, due to any weaknesses in the crystalline structure)





JEAN JACQUE ROUSSEAU

"THE KISS" BY AUGUST RODIN





ALEXANDER THE GREAT

GOTTLIEB DAIMLER PUT A MOTOR ON FOUR WHEELS AND CREATED THE ORIGINAL GASOLINE BUGGY





BENJAMIN FRANKLIN

MOTHER TERESA



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