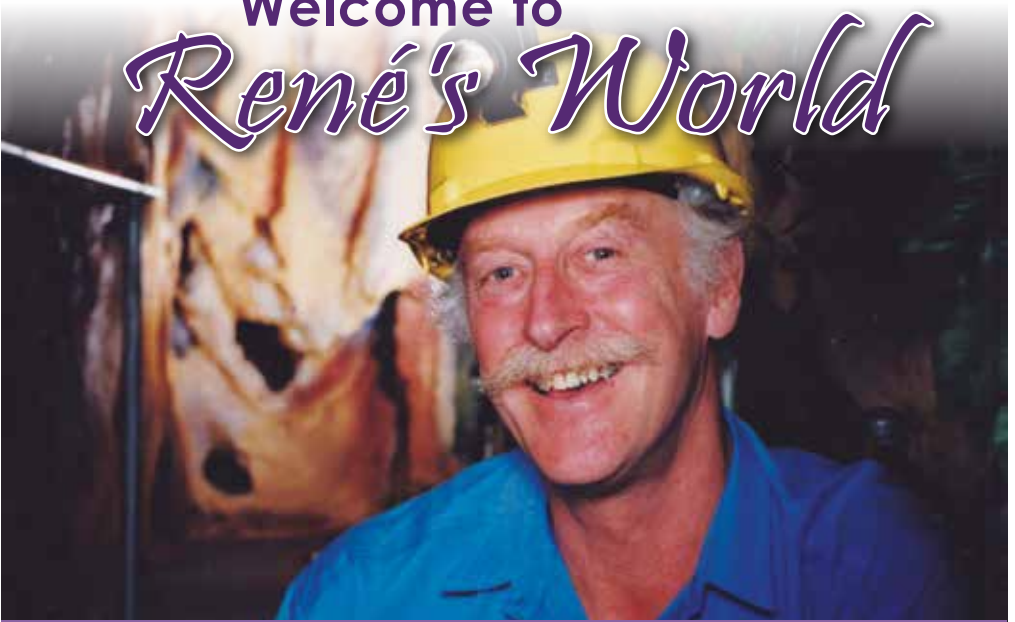


# Welcome to *René's World*



## A word from your guide...

We acknowledge the Yidinji people, Traditional Custodians of the land on which we operate, and recognise their continuing connection to Country, culture, and Mother Earth – which connects us all. We pay our respects to Elders past, present and emerging.

My passion for crystals began in the 1960s when I discovered a massive agate at Agate Creek in North Queensland. That moment sparked a lifelong obsession, taking me around the world in search of rare and extraordinary crystals, fossils, and gems. In 1987, I built The Crystal Caves to share my collection of over 600 specimens with you. I invite you to relax, explore, and fall in love with the magical world of crystals, just like I did.



**Rock on!**

*René Boissevain*

# Everyone is Welcome...



With the help of **VACAYIT**, we have developed an audio guide that you can play and pause as you go.



Click [HERE](#) for a copy of our social script, a detailed map of the Crystal Caves for wheelchair users is displayed below.

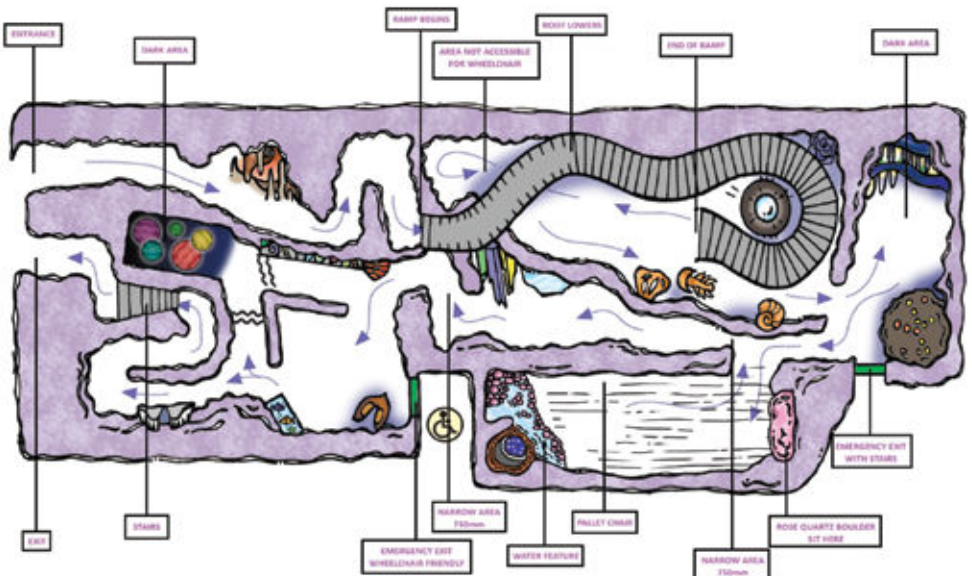
## AUDIO GUIDE AVAILABLE

Click to listen for free

**VACAYIT**

Here at The Crystal Caves, we recognise the importance of being [inclusive for all abilities and disabilities](#).

We are an accredited Accessible Tourism destination on the Atherton Tablelands. We treat everyone the same and adapt our activities so you can experience all that The Crystal Caves has to offer.



# Entrance

- 1 Sphalerite with Quartz Crystals from Peru**
- 2 Native Copper in Matrix from Michigan, USA**
- 3 Amethyst Geode from Uruguay**

*One of the most popular of all the crystal formations are these geodes from Brazil and Uruguay. Millions of years ago, while bubbling lava flowed from erupting volcanos, the surface of the flowing lava started to cool and bubbles of gas were trapped. As the bubbles started to raise to the top, the lava turned to solid basalt and the silica trapped inside the bubbles grew into spectacular crystals. René has seen firsthand how the geodes are precariously and patiently mined by hand using pickaxes after initially blasting the mountain with dynamite. Once the geodes have been located*

*in the solid basalt, they drill a small hole to look inside to determine the quality of the crystals. It can take several hours to extract one small geode without damaging it.*

- 4 White Dogtooth Calcite on matrix from Brazil**
- 5 Amethyst Crystals on Matrix from Vera Cruz, Mexico**
- 6 Quartz Crystals from Bolivia**
- 7 Citrine segment of Geode from Brazil**
- 8 Quartz Crystal formation from Arkansas, USA**

*This is the first of many pieces of quartz crystal that you will see on your tour. It is not the best specimen. Quartz crystal comes in many different grades. The best specimen is in the glasshouse collection. In crystalline form, each terminated point will always have six sides, though not always equal in size. You will see a great example of this in the fairytale.*

*Crystals have a reputation for having metaphysical capabilities and quartz is one of the must-haves if you are interested in exploring this realm. We know that quartz generates energy and vibrates at a precise frequency. It is a tiny piece*



*of quartz in your quartz watch that regulates timekeeping. There is a growing belief that we can harness that energy for healing. Regardless of your belief, we can all agree that quartz in its crystallised form is one of the most dazzling in all the crystal kingdom. Arkansas in the USA is known for the best quality quartz crystals in the world. René first visited the mine in the early 80's.*

- 9 Pale Amethyst Crystals from Madagascar**
- 10 Realgar from Nevada, USA**
- 11 Aragonite Galaxy from Mexico**
- 12 Quartz Crystal formation from Arkansas**
- 13 Rhodochrosite on Quartz Crystals from Peru**
- 14 Pyrite Cube crystals, Quartz and Sphalerite from Peru**
- 15 Pyrite crystals from Peru**
- 16 Fishtail Selenite (Gypsum) from Naica, Mexico**
- 17 Pyrite and Quartz from Peru**
- 18 Amethyst Geode with Dogtooth Calcite from Brazil**
- 19 Calcite Crystals on matrix from Brazil**
- 20 Amethyst with Dogtooth Calcite from Brazil**

**21 Amethyst Geode Sliced from Brazil**

*This giant agate geode naturally lined with amethyst crystals was precisely cut into thin slices using a diamond saw and polished on both sides. Slices were then placed upright, and evenly spread on a special sled-tray to give a 3D effect. At the end you will see a pyrite crystal.*

**22 Pink Dolomite from South Dakota, USA**

**23 Quartz over long Iron Goethite Crystals from Brazil**

**24 Dolomite Crystal cluster with Pyrite from Peru**

**25 Quartz covering Sphalerite and Pyrite from Peru**

**26 Dogtooth Calcite covering Amethyst from Brazil**

**27 Blue Celestite from Madagascar**

**28 Natural Pink Cobalto Calcite from Pune, India**

*Pune has some of the most delicate and curious crystallised minerals, you will see some spectacular samples in the Glasshouse Collection.*



**29 Pink Barite with Chalcopyrite from Germany**

**30 Smoky Quartz Crystal cluster from Arkansas USA**

*When it comes to the biggest in quartz crystals, you have to go to Arkansas.*

**31 Red Calcite Plateau from Mexico**

**32 Azurite and Malachite from Queensland, Australia**

*Although Australia is rich in minerals and ore, the crystallisation of these minerals is not something that is commonly mined. Azurite and malachite are both basic copper carbonate minerals and often found in mines where metals including gold, silver and copper are mined. Australia is renowned for precious gems including diamonds, sapphires, topaz and opal (though some argue that opal should be considered a semiprecious stone).*

## *Calcite Cavern*

**33 Assorted Calcite Crystals from Brazil**

**34 Giant Pyrite Crystal cluster from Peru**

*This particular crystal was mined at an altitude of 1400 metres above sea level in*



*central Peru. When René visited the mine, he struggled with the cold climate. When you touch pyrite you*

*will notice the very smooth angles of the crystal but also that it is cold to touch. This is because it's very dense in iron. So, yes, pyrite can rust. It comes in many crystalline structures, including perfectly cubed specimens from Spain and varieties mixed with quartz and other minerals in many parts of the world including Australia.*

*The beautiful, rich brassy-yellow metallic colour of pyrite has led to people mistaking it for gold giving it the nickname 'fools gold'. Pyrite is quite easy to distinguish from gold because it is much lighter but harder, so unlike gold, it cannot be scratched.*



# The Winding Walkway

**35 Blue Celestite Geode from Madagascar**

**36 Pyrite from Peru**

**37 Calcite Crystal formation from China**

**38 Amethyst 'Flower' from Brazil**

*Amethyst Flowers are formed when the crystals are prevented from growing upwards because they are squashed between layers of basalt, therefore they grow in outward radiating crystals. Mining them is a tedious job using small hand instruments until the basalt and other matrix minerals are removed, exposing the beautiful and awe inspiring Amethyst Flower.*

**39 Green Tourmaline through Quartz from Brazil**

*Tourmaline is a spectacular trigonal shaped crystal which comes in many different colours, often in the same crystal.*



*This semiprecious gem is often faceted in such a way that the transition from one colour to the next is a feature.*

**40 Calcite Crystals over Goethite from Red Dome mine, Chillagoe, Queensland**

**41 Large Single Quartz Crystal point from Arkansas USA**

**42 Malachite over Azurite from Red Dome mine, Chillagoe, Queensland**

**43 Amethyst Geode from Uruguay**

**44 Chrysoprase from Queensland, Australia**



*This brilliant apple green colouring is often accused of being fake. The color of chrysoprase is due to trace amounts of nickel compounds in form of very small inclusions. It is part of the agate family and Australia is one of the best known sources of Chrysoprase in the world.*

**45 Okenite from Pune, India**

*Very delicate! A weird but wonderful mineral. Often*

associated with zeolites, here as spherical masses of radiating fibres in basalt. Okenite is named after the German natural historian, Lorenz Oken and is not as soft as it looks. Its' hardness in fact is similar to glass and must be handled with care as these fibrous crystals can easily penetrate the skin.



**46 Citrine from Brazil**

**47 Double terminated clear Quartz on Smoky Quartz from Brazil**

**48 White Calcite on Amethyst from South Brazil**

**49 Brown Dogtooth Calcite from Mexico**

**50 Optical Selenite (Gypsum) from Brazil**

*This optical Selenite from Rio Grande de Sul in Brazil has miraculously developed inside an amethyst geode!*

**51 Clear Selenite Crystal from Naica, Mexico**



**52 Pink Dolomite Crystals from Peru**

**53 Mica Crystals (Muscovite) from France**

**54 Chrysocolla and Azurite from Honduras**

**55 Smoky Quartz from Arkansas**

**56 Purple Fluorite with Galena from Illinois, USA**

**57 Fluorite from China**

**58 Giant Agate Geode with Quartz Crystals from Brazil**

*Agate is a relatively common semiprecious gemstone which shows spectacular colours and patterns once it is cut and polished. It has a hardness of 7 which means that it will not scratch easily, only something harder than it can scratch it, like a diamond. However, it is brittle, so if it is dropped onto a hard surface it will shatter. Agate is often found in bands along the edge of geodes like this one or in solid nodules.*

**59 Geyserite, also known as Chalcedony 'Oysters' from Brazil**

*Chalcedony blisters formed on the outside of a geode during the volcanic cooling, hence the name oysters.*

## 60 Cut Agate Geodes with Quartz Crystals from Brazil

## 61 Crystal Ball (33 Kilogram) from Brazil

*This crystal ball weighs 33 kilograms, but René built a dish for it so you can roll it around. This sphere is made from the point of a very large natural quartz crystal from Brazil. This crystal ball is mostly translucent in appearance.*

*The way to tell if a crystal ball is made from natural quartz is that the natural quartz will always feel cold, whereas a glass or lead glass crystal ball, like to ones the gypsies used for fortune telling, will maintain an ambient temperature. Take a moment to feel the cool, smooth surface of this quartz crystal ball.*



## Rock Bottom

## 62 Large Amethyst Geode from Brazil

*This was the biggest amethyst geode that René had before he got the much bigger one.*

## 63 Native Copper from Michigan, USA

## 64 Selenite Crystal formation ('Desert Rose') from Sonora Desert, Mexico

*This large flower-like structure is a combination of gypsum and sand that forms when water evaporates, and gypsum is left behind.*



*Desert Roses form all over the world in arid desert landscapes including Australia, but this one comes from the Sonora desert in Mexico. The petals feel like sandpaper. Gypsum has a hardness of 1 so it is very soft. If you were to put this flower into water, it may start to break down.*

## 65 Selenite Crystals from France

## 66 Agate Nodules cut into bowls from Brazil

*These bowls were cut from one nodule of agate by a*

German engineer living in Brazil. René visited him in 1991 and although he could not see how the machine worked, he was permitted to take the one picture shown here. Unfortunately, the image



did nothing to clarify how the agate could be cut on the curve without damaging the rest of it. Perhaps a woodworker can work it out using a timber burl...

### **67 Aragonite crystals from Mexico**

### **68 Phantom Calcite from Mexico**

Sometimes referred to mariposa calcite, although there is ongoing debate as to whether this is because the inclusions look like the mariposa butterfly or because this is the name of a mine where this type of calcite comes from. We call it phantom calcite to describe the reddish ore which appears to be inside the calcite. Calcite has grown over the ore and occasionally the internal crystal appears to

be escaping from within, feel free to run your fingers over the specimen and identify the phantoms.

### **69 Cut and Polished Agate Nodules from Queensland, Australia**

This is where it all began... These agates were found by René and Nelleke in 1963 while camping at Agate Creek with young daughter Iefje. These were found during the same trip when René pulled out the massive agate nodule on display at number 215.



### **70 Large Smoky Quartz Crystal from Brazil**

### **71 Honey Calcite Crystals on Matrix from Joplin, Missouri, USA**

### **72 Quartz Crystal formation from Arkansas, USA**

### **73 Native Copper Crystals from Michigan, USA**

## A word on fossils

Goniatites and ammonites are closely related to living



coleoids (octopuses, squid, and cuttlefish). Goniatites flourished about 360 million years ago becoming extinct some 250 million years ago. They were survived by their cousins, the ammonites, which became extinct only 65 million years ago.

The orthoceras is a genus of extinct nautiloid, represented today by the living nautilus. The orthoceras lived between 480 and 200 million years ago. Because the nautilus has survived relatively unchanged for millions of years, it is often referred to as the living fossil.



Trilobites (meaning "three lobes") are a well-known fossil group of extinct marine arthropods. Trilobites form one of the earliest known groups of arthropods. They flourished between 521 – 380 million years ago, before beginning a drawn-out decline to extinction, disappearing about 250 million years ago. The trilobites were among the most successful of all early animals, roaming the oceans

for over 270 million years. Trilobites had many life styles; some moved over the sea-bed as predators, scavengers or filter feeders and some swam, feeding on plankton.

Tharrias are fish from early Cretaceous Brazil.

**74 Goniatite Fossil plateau from Sahara Desert, Africa**

**75 Giant Trilobite Fossil from Sahara Desert, Africa**

**76 Orthoceras Plateau from Sahara Desert, Africa**

**77 March of the Trilobites from Sahara Desert, Africa**

**78 Tharrias from Brazil**

**79 Spoonfish Fossil from Brazil**

**80 Ammonite from Madagascar**

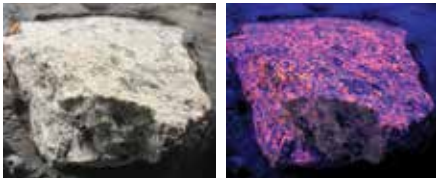
**81 Ammonites from Walsh River, Australia**  
250 - 350 million years old

**82 Petrified Tree Fern slice, polished from Argentina**

**83 Pink Amethyst from Argentina**  
A new stone discovered in a deposit in Patagonia, Argentina. Amethyst becomes pink as a result of Hematite inclusions while it is forming underground. Despite the colour, it is undoubtedly closer to Amethyst than any other major mineral, including Rose Quartz. It is only found in Argentina.

## **Fluorescent minerals**

As you enter the fluorescent light section, you might want to turn your headlamp off to get the full effect of the fluorescent minerals which glow bright colours under long wave ultraviolet black light. There are very few minerals that change from grey, dull looking 'rocks' into these spectacular fluorescent colours. This collection



is mostly from the Franklin-Sterling Hill area in New Jersey which has more fluorescent minerals than anywhere else on Earth. This is one of the best fluorescent mineral collections in Australia.

## **Agate Dome**

The large dome in the corner is inlaid with over a hundred Agate slices, many of them cut from the same stone. René engaged a highly creative and patient Dane from Kuranda, coincidentally also called René, to select and inlay the slices. If you can crawl into the dome, the ceiling is over 2 meters high, so you should be able to stand up in it. Or feel free to lie down in here and enjoy a quiet moment of reflection as you appreciate the combined craftsmanship of man and artistry of nature.

## **Gigantic Amethyst Geode in the Crystal Brook**

This 3.27 meter high gigantic amethyst geode was discovered in Uruguay in 2007. At that time it was the biggest in the world weighing 2.5 tonne.

The quality of the amethyst is AA grade suitable for faceting but it is more valuable as a specimen. It took 3 months to excavate it out of solid basalt.

René re-mortgaged his home to pay the US\$120,000 price tag. It's a decision he has never regretted.

The Rose Quartz brook surrounding the geode was built in 2018 using 4 tonne of Brazilian Rose Quartz boulders.

## *The Fairytale*

**84 Okenite from Pune, India**

**85 Fluorite from Mexico**

**86 Celestite from Madagascar**

**87 Single Quartz Crystals and**

 **Cluster from Arkansas, USA**

**88 Large Selenite from Southern**

 **Brazil**

*Selenite belongs to the gypsum family. It is the softest of all gemstones. With a hardness of 1, you can scratch it with a fingernail. You will notice that it is very smooth. This is because*

*thousands of people have touched it, smoothing out the rough edges. This unusually large selenite formation was once crystallised, but underground running water has naturally polished the surface. Feel free to sit on it and have your picture taken.*

**89 Fishtail Selenite Crystals from Naica, Mexico**

**90 Assorted Fluorite from China**

**91 Agate nodules from Agate Creek, Queensland**

**92 Quartz Crystal Sphere with Phantom from Brazil**

*This pyramid inside this sphere is the tip of another crystal which grew into the side of the host. This spectacular phantom crystal ball is a credit to the carver who was able to cut the sphere without damage.*

**93 Crocoite from Tasmania, Australia**

*Crocoite is considered to be one of Australia's rarest and most valuable crystallised minerals.*



**94 Various pyrite crystals from Peru**

**95 Amethyst Geode with Calcite from Brazil**

**96 Single Pyrite Crystal from Brazil**

*This massive single crystal weighs 109 kilos.*

**97 3 Spectacular Selenite Crystals from Naica, Mexico**

*There is a natural 'Crystal Cave' in Naica, Chihuahua, Mexico. Connected to a silver mine and 300 meters below the surface this selenite cave boasts the largest single crystal measuring a staggering 12 m in length, 4 m in diameter and weighing 55 tons. As a friend of the family who owns the silver mine, René Boissevain was one of the first people to go inside this cave in 2003. The selenite crystals displayed here were sourced from a smaller cave discovered years earlier called the 'Cave of Swords'. 'The Crystal Caves' nor the 'Cave of Swords' in Naica are open to the public.*



**98 Gharial Fossil Crocodile skull and bones from Sahara Desert 65 - 70 million years old**

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## Major Glasshouse Collection

*This is a more typical way to present a collection of 'crystallised mineral specimens'. This collection is a particularly good one, and due to the delicacy and value of these, we hope you can appreciate that they have to be behind glass, similarly we hope you enjoyed the fact that most of the crystals and fossils you have seen in the rest of The Crystal Caves were fully accessible.*

- 99 Amethyst flowers from Brazil
- 100 Pink Amethyst from Argentina
- 101 Amethyst phantom through Calcite from Uruguay
- 102 Amethyst flower with Calcite
- 103 Malachite Stalactite from Congo
- 104 Velvet Malachite the democratic republic of Congo
- 105 Azurite, assorted crystal forms from various locations
- 106 Chrysocolla from the democratic republic of Congo
- 107 Atacamite from Chile
- 108 Galena with Chalcopyrite and Sphalerite from Joplin, Missouri
- 109 Agatised Fossil Coral from Tampa Bay, Florida
- 110 Aquamarine from Pakistan
- 111 Bismuth from England
- 112 Angel wing Calcite from Mexico
- 113 Muscovite in Lepidolite from Brazil
- 114 Black Tourmaline from Brazil
- 115 Pyrolusite from Mexico
- 116 Quartz with Iron and Galena from China
- 117 Rhodocrosite from Argentina
- 118 Opal in bolder from Queensland, Australia
- 119 Calcite from India
- 120 Ramshorn Selenite from Mexico
- 121 Quartz from Arkansas, USA
- 122 Herkimer Diamond from New York, USA
- 123 Pink Calcite with Pyrite edges from China
- 124 Hemimorphite on Limonite from Mexico
- 125 Quartz on Pyrite from Mexico
- 126 Calcite mixed with Hemimorphite on Limonite from Mexico
- 127 Crocoite from Tasmania
- 128 Calcite on Limonite from Mexico
- 129 Dogtooth Calcite with Chalcopyrite from Mexico
- 130 Micro crystallisation of Chalcopyrite on matrix from France
- 131 Calcite and Galena crystals from Missouri
- 132 Orpiment from Nevada, USA

- 133 Rainbow Pyrite from Russia
- 134 Quartz Pyrite and Chalcopyrite from Mexico
- 135 Pyrite and Galena from Mexico
- 136 Yellow mimetite with Dolomite from Mapimí, Mexico
- 137 Fluorite cube on Sphalerite from New Mexico
- 138 Scolecite from India
- 139 Calcite with Chalcopyrite from Missouri, USA
- 140 Stibnite from China
- 141 Quartz crystal formation from Arkansas, USA
- 142 Amethyst Geodes from Mexico
- 143 Amethyst bultos from Uruguay
- 144 Sceptre Amethyst crystals from Brazil
- 145 Very rare Amethyst from Vera Cruz
- 146 Amethyst over Selenite crystal from Artigas, Uruguay
- 147 Calcite Chapel on Amethyst from Uruguay
- 148 Pyromorphite from Guangxi, China
- 149 Calcite with Epidote from Bolognesi, Peru
- 150 Sulphur from Mexico
- 151 Wulfenite, yellow, orange and dogtooth from Mexico
- 152 Tourmaline from various locations
- 153 Diopase from Congo, Africa
- 154 Cavansite on Matrix from Pune, India
- 155 Spodumene (Hiddenite) from Pakistan
- 156 Vivianite from Amazonas, Brazil
- 157 Aurichalcite on Limonite from Mexico
- 158 Blue Hemimorphite from Mexico
- 159 Kyanite in matrix from Brazil
- 160 Assorted Fluorides from China
- 161 Crystallised Rose Quartz from Taquaral, Brazil
- 162 Geyserite, Chalcedony Oysters from Brazil
- 163 Heulandite on Mordenite from Pune, India
- 164 Purple Adamite from Mexico
- 165 Sphalerite with Garnet from Honduras
- 166 Amazonite with Smoky Quartz from Colorado, USA
- 167 Smoky Quartz from Arkansas, USA
- 168 Elestial Smoky Quartz from Brazil
- 169 Babingtonite from Yunnan, China
- 170 Matrix Concretion with Pyrite, Yunnan Province from China
- 171 Pyrite cubes from Spain
- 172 Assorted Pyrite crystals from Peru
- 173 Adamite on Limonite from Mexico

- 174 Vanadinite, white Barite and black Hematite from Morocco
  - 175 Quartz with Iron from Brazil
  - 176 Endlichite from Mexico
  - 177 Meteorite from Russia
  - 178 Aragonite from Mexico
  - 179 Quartz with Sphalerite from Peru
  - 180 Selenite From Mexico
  - 181 Endlichite on Limonite from Mexico
  - 182 Large Fish Fossil from Brazil
  - 183 Leaf fossil from Utah
  - 184 Shrimp *Macropeneus*, Cretaceous from Lebanon
  - 185 Ammonite pair cut and polished from Morocco
  - 186 Ammonite positive and negative from Morocco
  - 187 Ammonite with iridescent Ammolite from Canada
  - 188 Trilobite Assortment from Morocco
  - 189 Shark teeth from Morocco
  - 190 Baby Mammoth Tooth from Doggers Bank, Holland
  - 191 Mud crabs and claw from Daley river, NT, Australia
  - 192 Crab in mudball from Oklahoma, USA
  - 193 Belemnite from UK
  - 194 Barite peppered with Pyrite from Germany
  - 195 Honey Calcite from Oklahoma, USA
  - 196 Danburite from Mexico
  - 197 Septarian nodule cut into sphere
  - 198 Apophyllite with Stilbite and Chalcedony from Pune, India
  - 199 Blue Quartz Crystal from Himalayas
  - 200 Apophyllite from Pune, India
  - 201 Green and white Apophyllite from India
  - 202 Anhydrite from Italy
  - 203 Orange Barite from Morocco
  - 204 Quartz crystals with Iron Oxide on hematite rosettes from China
  - 205 Quartz crystals with Iron Oxide, Dolomite, Dogtooth Calcite, Pyrite and Chalcopyrite from Santa Eulalia, Chihuahua, Mexico
  - 206 Selenite crystals from Australia
  - 207 Phantom Calcite with hidden Phantoms from Mexico
  - 208 Quartz crystals and Pyrite cubes on Galena from Peru
- 
- 209 Polished Chalcedony Nodule from Brazil
  - 210 Quartz Crystal Cluster from Arkansas
  - 211 Lapis Lazuli carving from China

*This Lapis Lazuli detailed carving was 'acquired' in 2007, although the origins*

of the piece have not been identified by either Christies or Sotheby's, both agree it is consistent with 18th Century Qing Dynasty carvings (1644–1912)

**212 Petrified Wood, hand-carved egg from Madagascar**

**213 Large Smoky Quartz from Brazil**

**214 Large Water Agate from Brazil**

**215 Agate Nodule from Queensland, Australia**



This is the 49-kilogram agate nodule that René found in the early 1960's at Agate Creek, a popular fossicking site in Outback North Queensland. His interest and passion for collecting crystals and fossils was ignited by this discovery. Everything you have experienced here today reflect the dreams and determination born of that first find. René and his wife, Nelleke, made many trips to Agate Creek with their three daughters in the ensuing years, and they still have some of the original agates they collected then. René has also travelled the world in pursuit of his passion and is proud to present his precious finds for your enjoyment.

**216 Dendroolithus Dinosaur egg nest from China**

Hadrosaurids or duck-billed dinosaurs were a common herbivore in the upper cretaceous period of what is now Asia, Africa, Europe, Antarctica, south America



and North America. The young walked on two legs

and the adults on four. Their teeth replaced each other as the teeth wore down.

This nest of eggs is estimated to be 88 million years old. René was able to buy it at a trade show in Tucson, Arizona. Feel free to gently touch the surface.

**217 Amethyst Stalagmite formation from Uruguay**

**218 Mammoth Lower Jawbone from Czech Republic**

The molars of the woolly mammoth were large, specialized structures with a flattened grinding surface. Low ridges of dense enamel run across the surface of the teeth, making them ideal for processing grasses. As with

mastodons, a mammoth will have a series of six cheek teeth (premolars and molars) on each side of the jaw. Younger individuals will have three teeth on each side while most adults have two and old individuals have one. As the teeth were worn down, they were replaced by teeth growing from the back. These teeth were larger and had more ridges than earlier teeth.

**219 Handcarved Malachite bowl and egg from the Democratic Republic of the Congo**

**220 Ammonite from Madagascar**

**221 Large Amethyst flower from Brazil**

**222 Petrified Wood stump Arizona, from USA**

*In Arizona there is an entire forest that is petrified, it is a highly secure National Park where your car, luggage and even pockets are checked on the way out to protect the petrified wood within from being removed. This slice was purchased from a mine*



*outside the national park in 1982. In this sample even the greyish centre of the log is preserved. Often the centre of a large slice such as this is just a big hole as the fluid silica did not reach it in time before the tree rotted away. 208 - 248 million years old.*

**223 Huge Petrified tree slice from Arizona USA**

**224 Slice from Giant Agate Nodule from Brazil**

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**Elite Glasshouse Collection**

**225 Stone carvings from Idar-Oberstein, Germany**

**226 Slices of Agate and Amethyst from Uruguay**

**227 Celestite from Madagascar**

**228 Natural Amethyst sculpture from Uruguay**

**229 Quartz crystal from South Africa**

**230 Scolecite from India**

**231 Quartz crystals over goethite needles from Brazil**

**232 Amethyst stalagmite slices from Uruguay**

**233 Amethyst flower from Brazil**

**234 Stibnite from China**

**235 Chalcedony over Quartz and Calcite from India**

---

**236 Smoky Quartz from Arkansas, USA**

**237 Beryl Crystal with Gem quality Aquamarine from Venezuela**

**238 Quartz Crystal cluster from Arkansas, USA**

*One of the largest quartz crystal formations in Australia! This very valuable specimen has very little damage. Quartz crystals are one of the most difficult to free from their deep underground 'pockets'. Many crystals get damaged during mining operation and they are then made into ornaments such as crystal balls, pyramids and wands.*

**239 Orthoceras and Ammonite Plateau from the Sahara Desert**

**240 Citrine Geode from Brazil**

*Citrine was once amethyst! If the volcanic heat that forms amethyst remains hot, citrine can naturally form, though this has occurred very rarely in nature. This specimen, like most citrine, is heat treated Amethyst.*

**241 Dolomite Geode with Calcite Crystals from Brazil**

*One of a kind! As you can see the last "puff" of gas escaped at the top forming the calcite crystals. The green colouring is called chlorite.*

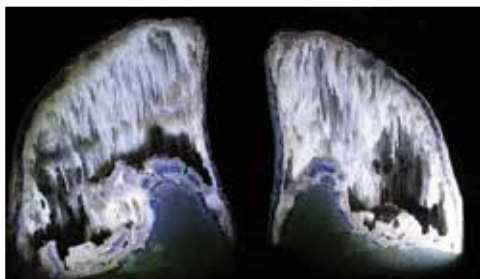
## Lights off! – when you enter the Magic Spheres

*These spheres have been cut from stones known as fluorescent minerals. The 20 spheres were cut by local lapidarian Bill Ralph, the biggest one in the middle weighs a staggering 34kg!*

## The Final Tunnel

**242 Geode with Quartz Crystals from Brazil**

*This geode was mined at an amethyst mine in Brazil. The unusual crystallisation of these quartz crystals, with the black goethite dots have formed inside instead of amethyst, making it a very rare and unusual specimen. It was destined for a mineralogical museum in Tokyo. However, René was at the mine in Rio Grande de Sul in 2002, he 'had to have it' and he offered a significant amount of cash if he could take the geode with him. So, Tokyo missed out.*



**243 Quartz crystal with calcite cut from the ceiling of a geode from Brazil**

**244 Meteorite, Wolfe Creek, WA**

*The 11.25kg meteorite was discovered in 1973 and yet very few people have seen it. 42 years after finding this massive rock that fell to Earth in the Western Australian outback millions of years ago, Herberton prospector Stuart Foster decided to donate this rare specimen to the Crystal Caves in 2015. It was stolen only two weeks later but recovered by local police five years after that. A nickel-iron carbonate mineral in this specimen is not found anywhere else on our planet.*



**246 Anhydrite on druzy Amethyst from Brazil**

**247 Quartz crystal with calcite cut from the ceiling of a geode from Brazil**

## **Australian Specimens**

*While Australia is rich in minerals and ore, not many commercial mining leases exist for mining crystal specimens compared to other regions in the world. There are fossicking areas all over the country where you can easily find crystals and gemstones yourself. This collection will continue to grow with the help of the Atherton Tablelands mineral and Lapidary Club.*

**248 Boulder Opal, Winton, Qld**

**249 Quartz Crystal, Mt Isa, Qld**

**250 Rhyolite, Mt Hay, Qld**

**251 Mud Lobster, Darwin, NT**

**252 Ammonite, Walsh River, Qld**

**253 Chrysoprase, Yerilla, WA**

**254 Agate, Agate Creek, Qld**

**255 Topaz, Mt Surprise, Qld**

**256 Amethyst, Cloncurry, Qld**

**257 Chrysocolla, Cloncurry, Qld**

**258 Meteorite, Wolfe Creek, WA**

**259 Mookaite, Kennedy Ranges, WA**

**260 Selenite from Kalgoorlie, WA**

**261 Magnatite, Chillagoe, Qld**

**262 Stauralite, Mt Isa, Qld**

**263 Crocoite, Tasmania**

**264 Gold in Quartz, Palmer River, Qld**

**265 Selenite, Broken Hill, NSW**

**266 Rainbow Lattice Sunstone, Harts Range, NT**

**267 Azurite, MacDonnell Ranges, NT**

# How did he do it?

Firstly, you need a wicked imagination and the tenacity to find a way to do what many will tell you can't be done.



The Main street of Atherton is on a hillside so the top street is higher than the bottom street and the back street is lower still. So, the workshop behind The Crystal Caves

was already a level below the shop itself. In order to cut out road noise, the walls and ceiling were first covered with egg cartons, for sound insulation. Then the existing walls were wrapped with chicken wire and draped with hessian. Four stalactites were sculpted in the middle



of the space before spraying the entire structure with fire retardant polyurethane foam which was used as thermal insulation in the tobacco drying barns in nearby Mareeba.

The initial cave was one room with a staircase going in and out again. Entry cost in 1987 was \$3.00, there were 140 specimens on display, only 19 of which were able to be touched. Within 3 years René would build a much bigger cave.

Using chalk, he mapped the various exhibits out on the floor including the winding walkway to replace a timber staircase, the agate dome, the fluorescent section, split rock and the fairytale which would join the existing single chamber grotto.



More than 400 pieces were added to the collection, with more than 200 within touching range. An additional 54 world class specimens were added to the Glasshouse.



We must also consider the incredible patience of his wife, Nelleke, who supported his crazy antics and managed the business end of things as René's thoughts become reality. Nelleke accompanied René on many overseas trips; she has dug in the field; cut and polished stones and made jewellery.

The music you hear was produced by Australia's own 'Kallidad' featuring steel drums, Spanish guitar, sitar guitar and the didgeridoo.

# History of The Crystal Caves

- 1963 - René found the large agate nodule at Agate Creek which sparked his passion
- 1974–2004 – René attended the Tucson Gem show almost every year, often with his wife Nelleke, once with his daughter, once with his granddaughter and once his two daughters went without him.
- 1983 - Established a rock shop in the main street of Atherton called 'Fascinating Facets', with his eldest daughter Ietje.
- 1987 - Built his first cave using thousands of egg cartons for insulation, chickmesh and hessian to sculpt large stalactites, recesses and crevices, then sprayed the entire structure with a fire-retardant polyurethane foam.
- 1992 - René added an additional 4 chambers including a winding walkway, fluorescent minerals and agate dome. The state minister for tourism at the time, the Hon Bob Gibbs travelled to North Queensland to perform the official opening ceremony on the 17th of July, 1992.



- 2001 - René had seen geodes being cracked in El Paso, Texas and wanted to bring this experience to Australia. He visited the mines in Mexico and brought back the first tonne of geodes.
- 2007 - René was offered the largest Amethyst geode ever found in Uruguay, he didn't hesitate to buy it. The Crystal Caves expanded again and when it arrived, it had to be brought in through the roof of the building.
- 2010 - Another back-end office was sacrificed to extend the museum to include the magic spheres. Engineers from Kuranda designed the device that existed only in René's imagination. René commissioned local lapidarian Bill Ralph to cut 20 spheres from fluorescent minerals from Franklin.
- 2018 - The roof came off the building once again as the massive amethyst display got a facelift to include the rosequartz crystal brook.
- 2024 - Like any museum, the collection itself continues to be curated. 52 specimens from René's private collection were added to the glasshouse collection.
- Today, The Crystal Caves is still owned by René and his wife Nelleke.

# Crack a Geode Experience

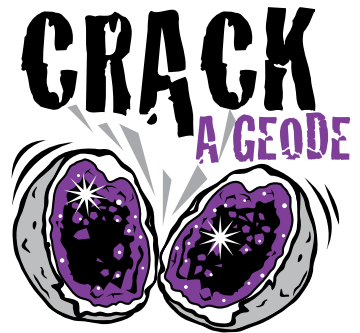


*A prehistoric lucky dip*

You will be the first person to see the crystals that grew inside a volcanic bubble 44 million years ago when you crack open your own geode to keep.

## **Only at The Crystal Caves Atherton**

- Learn how to select your geode
- Safety instruction and equipment
- Crack your own geode using the giant cutter
- Identification certificate and gift bag to keep your geode in.



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