



## INDEPENDENT STUDY: Module 2, Class 19

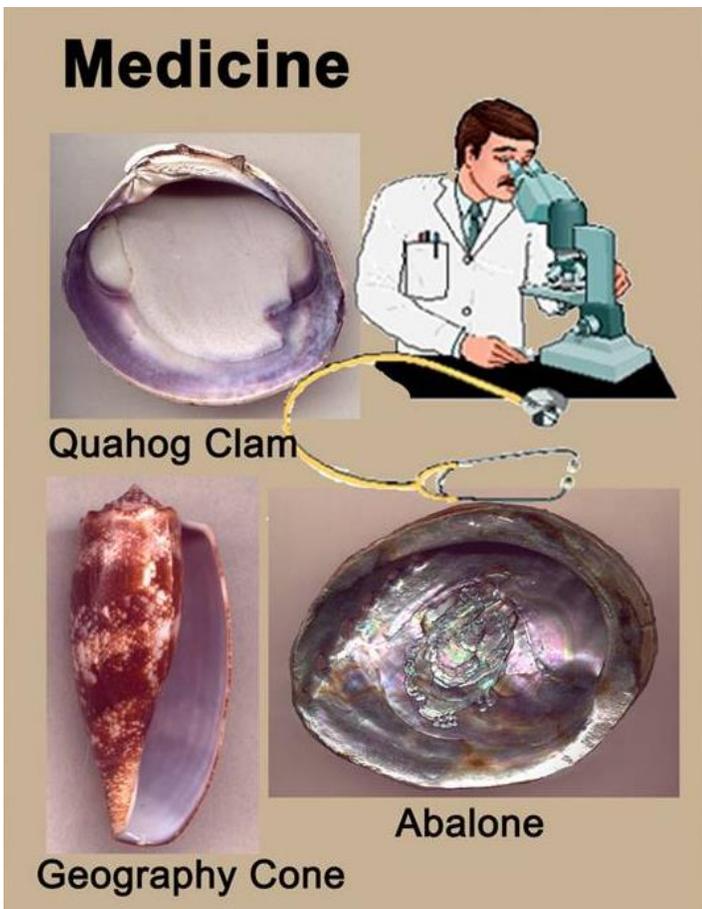
Please note: The pictures and comments in the transcript and recording below have been gathered over many years and where possible, I attribute them to their original source. If anyone connected with these photographs or comments would like them removed, please notify me and I will be happy to comply.

The recording of Class 19 is 22 minutes and is in your attachments.

Class 19: Shell #s: 67, 66, 176

In surveying the many ways shells have interacted with humans, we have discussed their role in religion, and their function as currency. We have seen how their contributions have become entwined in our vocabulary. Last week, with the money cowrie, we saw the shells serve as vocabulary words in China as well. This is still the tip of the iceberg.

Let's move on to their use in medicine.



Here you will see two familiar friends...the Quahog Clam and the Geography Cone...and one stranger.

Before you read on...Can you recall how Cone shells connect to medicine?

The poison cocktails they produce contain components that function as powerful pain killers.

What about the Quahog Clam?

Their hearts are so similar to ours scientists can test drugs on their hearts and determine how these might affect humans.

We have touched upon the use of shells in medicine when we discussed Cone shells and man's research on conotoxins. We also mentioned this when studying the Quahog Clam and its 3 chambered heart and pacemaker. This clam can assist us in comprehending the workings of our own hearts, but its contribution to medical research does not stop there. The animals possess an extract called mercenine... (the scientific name for this clam is *Mercenaria mercenaria*.) Mercenine has been found to be a strong inhibitor of the growth of cancer cells in mice. And, there is more. Do you recall the Geoduck clam from Class 6 with its exceptionally long neck? We learned that this clam can live to be a century old.

That record pales in comparison to the Ming Quahog Clam. They found these mollusks are able to live over 4 centuries! Here is a picture that I found on the Internet.



Unfortunately, the researchers had collected the clam and it died before they realized the number of growth rings proved it was over 400 years old. If they had not interfered, who knows how long it might have lived?

<http://www.telegraph.co.uk/news/uknews/1567562/Clam-405-is-oldest-animal-ever.html>

[http://www.sciencebuzz.org/buzz\\_tags/quahog](http://www.sciencebuzz.org/buzz_tags/quahog) Source for information below:

*Born in 1607, the clam was a contemporary of Shakespeare, although there is no evidence the two ever met. Researchers nicknamed the clam "Ming," in honor of the Chinese dynasty that was in power when the clam was born.*

*Old specimens like this help scientists reconstruct the Earth's past. Growth rings will be thick or narrow, depending on factors such as water temperature and food supply. Chris Richardson, a professor at the University, compared the growth rings to a tape recorder, faithfully recording environmental conditions.*

*The clam might also shed light on the science of aging. Scientists theorize that animals that live to extremely old ages have cells that function in ways different from our own. Understanding those differences could help medicine combat the effects of aging in humans.*

Scientists are now considering the clam as a model to help us learn "how it retains muscle strength, remains cancer-free and keeps its nervous system intact over such a long period of time." With all this medical research, the **Quahog Clam, shell #72** in *Ocean Oracle*, definitely deserves the meaning of "heart health, blood pressure, doctors and hospitals."

If 405 years old were not amazing enough, here is new information on the Ming Quahog... it might actually be 507 years old:

<http://www.cbsnews.com/news/ming-the-clam-worlds-oldest-animal-was-actually-507-years-old/> By Danielle Elliot CBS News November 14, 2013, 3:00 PM

*"A group of researchers working in Iceland in 2006 discovered a really old clam. They wanted to figure out just how old it could be, so they decided to open it up and count the growth rings along the clam's hinge ligament. They got their answer -- and it was shocking. They said the clam was 405 years old.*

*They'd found the oldest living animal in the world (excluding primitive metazoans). Only, it wasn't living anymore, because opening it up had killed the clam.*

*And little did they know, their measurement was wrong. Ming the clam was an entire century older than they first calculated.*

*They recently measured again. And now they say it was actually 507 years old.*

*"We got [the age] wrong the first time, and maybe we were a bit hasty publishing our findings back then," ocean scientist Paul Butler told [ScienceNordic](#).*

*Either way, Ming, an *Arctica islandica* bivalve mollusk, or ocean quahog, is still dead. And he could have been saved, if they'd just counted the outside growth rings instead of the rings along the interior hinge ligament.*

*Butler explained the decision to ScienceNordic.*

*"On the outside, the mollusc shell is curved, and that makes it difficult to get the right angle for measuring and counting the growth rings," he said. "The growth rings are also better protected inside the hinge ligaments."*

*But when you've lived through 500 years of history, growth rings get pretty crowded on a small hinge ligament. So, on the second count, the researchers concentrated on the growth rings on the outside of the shell.*

*Ming was named for the Chinese dynasty that ruled at the time it was born. The name still fits because the dynasty ruled for more than 300 years, a time period that includes Ming's newly updated birthday.*

*"The age has been confirmed with a variety of methods, including geochemical methods such as the carbon-14 method. So I am very confident that they have now determined the right age. If there is any error, it can only be one or two years," says marine biologist Rob Witbaard of the Royal Netherlands Institute for Sea Research, who was not involved in determining the updated age.*

*Now that they have a better grasp of Ming's age, they say the clamshell will give insight into climate change.*

*"There are a number of methods to chart past climate on land, but for the marine environment we only have some very limited data. The *A. islandica* can help fill this gap in our knowledge and provide us with a very accurate picture of past climate," Witbaard told the website.*

By the way, I think we discussed this, but it bears repeating. Have you ever heard that you can tell the age of a clam shell by counting the concentric growth rings, similar to aging a tree? That is only true some of the time. If the animal lives in a Northern climate, it will work because the animal only adds new shell material once a year. If the mollusk lives in the tropics, growth can occur throughout the year, and you would not be able to determine its age by counting the growth rings.

The Ming Quahog was found off the coast of Iceland in the Northern Atlantic waters.

<http://conchologistsofamerica.org/growth-rings-and-longevity-in-bivalves/> Here is a website that speaks of a new way to determine the age of a shell. Note: According to this method of investigation, the quahog remains the oldest animal, but it may "only" be 220 years old.

### **Abalones**



There is yet another mollusk that makes a strong contribution to medicine, the abalone.

Here you see the inside of a few Abalone shells. The play of light upon the crystalline structure creates an iridescent rainbow of hues. This panoramic display of colors attracts many admirers, and the natural concave structure allows it to serve many purposes.



The Abalone shell has become a favorite vessel for smudging ceremonies in which sage is placed in the center of the Abalone shell and set on fire. The smoke fumes produced cleanse the area of negativity. This is working on an energetic, emotional level. You may encounter smudging taking place at psychic fairs for the purpose of cleansing the energy.

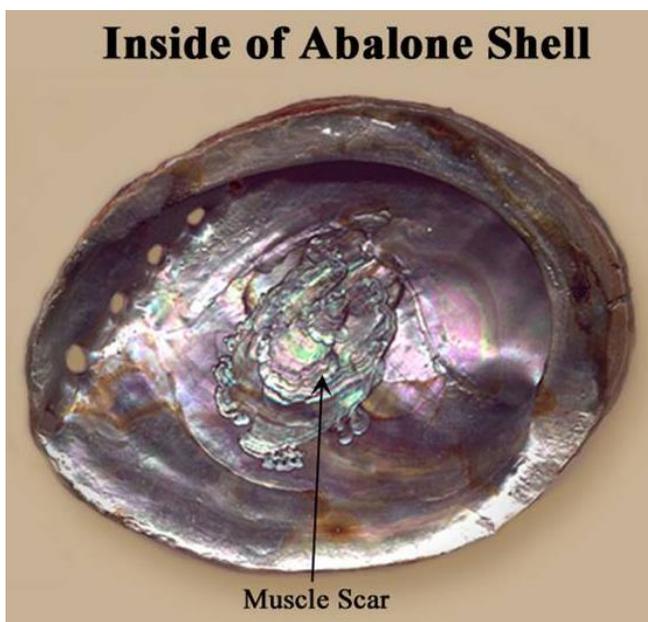
Smudging is confined to the shell portion of the Abalone. The abalone mollusk also has a contribution to make. Just as the quahog has an extract called mercenine, the abalone has an extract called paolin. Paolin fights penicillin resistant forms of strep, staph and typhus. It is a natural antibiotic, connecting the abalone mollusk to our physical body.

[http://www.manandmollusc.net/advanced\\_uses/medicinal\\_uses.html](http://www.manandmollusc.net/advanced_uses/medicinal_uses.html)

**Paolin, a drug made from abalone juice**, is an effective inhibitor of penicillin- resistant strains of bacteria, such as *Staphylococcus aureus*, *Streptococcus pyogenes*, *Salmonella typhus* and paratyphoid A & B bacteria.

Combined, the shell and mollusk offer healing from two sources: the emotional, energetic healing aided by the shell, and the physical healing from the animal’s medicinal extracts. This explains why **Red Abalone, shell #67** in *Ocean Oracle*, means “*Needing to heal emotionally to avoid physical problems.*”

Metaphysics teaches that our essence extends beyond the physical body in several energetic layers comprising our aura. Abalone instructs us that healing may be accomplished working from the outside emotional, energetic fields inward toward the physical body. If healing occurs at this level, we may circumvent physical illness. If healing is not accomplished at the outer level, the issue may manifest as a physical ailment. As much as people might wish it were otherwise, when emotions are repressed or denied, they do not disappear. They desire our



attention, and if ignored at the emotional stage, they ask for our notice at the physical level. Working with Abalone is about learning to honor your emotions, not to repress them. They must surface to a level of awareness before they can heal.

The Abalone is a Univalve; there is no second half of the shell as is the case with a Clam or any other Bivalve. The mollusk is perched beneath its shell and has to attach itself strongly through muscular attachment to the interior of the plate-like covering of its Abalone shell. The central region of the shell containing the greatest concentration of swirling colors is the muscle scar where the animal was once attached. The word “scar” seems appropriate—a vivid reminder of the wounds caused by attachment to unhealthy emotions.

As damaging as repressing emotional pain can be, so too can dwelling upon it. If a person deals with surfaced emotions by attaching blame to others for her own misery (“it’s your fault my life is a mess”) she may deliberately sabotage her own success to show others how much they have damaged her life. If she were to become successful, the people she blames are let off the hook. If she chooses to continue the cycle of blame, she ruins any chance of success for herself. Holding on to painful experiences, allowing them to fester, can wreak havoc upon the physical body.

You may have noticed that the Abalone shell has several holes along its edge. The animal forms these openings to excrete its waste products. This is the release point. The holes serve as a reminder that we too must prepare continual outlets to release these emotionally charged issues. Although we can’t heal the unhealthy waste in our lives without acknowledging it, we also do ourselves a disservice by hanging onto and revisiting it. Our friend, the Abalone, is here to work with us on many levels to acknowledge, heal, and release our pain as we grow into our truth.

When it comes to working with the energy of shells, there is much more Abalones have to contribute. For now, we will leave the Abalones as they relate to the subject of shells and medicine, but we will explore Abalones in much greater depth later in the course.

Let’s continue with the interaction with humans, and investigate how shells have influenced artists and architects. You already know the story of Rembrandt and his etching of the Marble Cone. And you saw how the cat’s eye was made into jewelry to protect the wearer from the evil eye. There is more territory to explore here.

## Paua Abalone



If we look at the variety of Abalone species in the world, there is one found in New Zealand that is called the **Paua Abalone**. This is **shell #66** in *Ocean Oracle*.

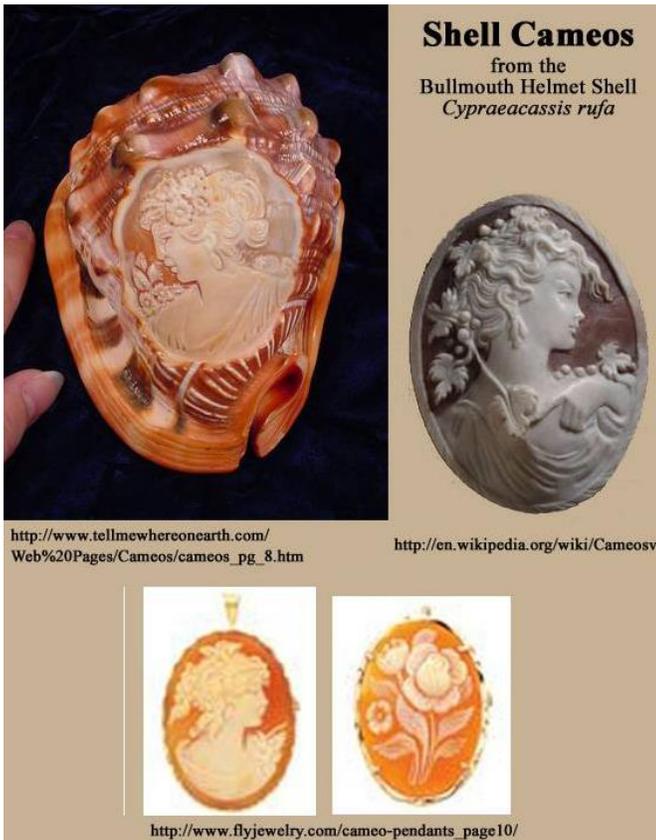
What you are seeing in the top picture is the Paua shell with the right half of its surface cleaned. The left half of the photo reveals the Paua as it is found in its native habitat, and the right half displays the shell after the barnacles and tube worms are scraped off the surface.

## Paua Jewelry



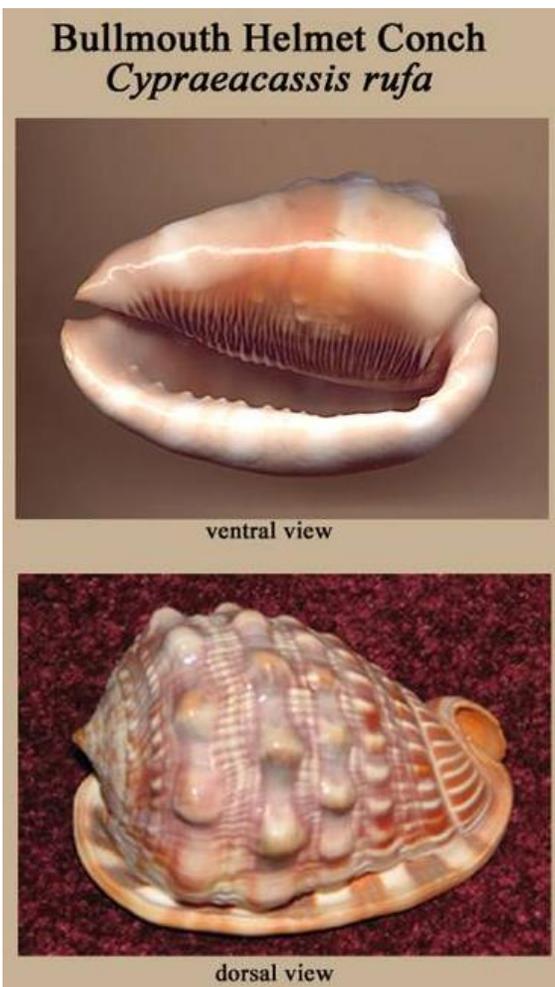
Just beneath the surface is a beautiful material called sea opal that jewelers use to fashion watches, earrings, and necklaces. You can see a few of these items on display in the bottom picture.

In *Ocean Oracle*, the message connected to the Paua is “*Seeing past the exterior as in the expression: ‘Don’t judge a book by its cover’.*” It is suggesting the need to dig deeper beneath the surface. In a reading, the Paua is telling you that there is more going on than meets the eye at a superficial level. You need to dig deeper.



There is another shell that enjoyed the spotlight as the favored medium of jewelers. During the renaissance in the 15<sup>th</sup> and 16<sup>th</sup> century, shell cameos gained popularity. It took great skill to carve images into the shell's surface. Cameos are carved reliefs set against a background of a contrasting color. Early attempts used cowries and queen conch shells. Trial and error revealed that some shells carved well, but did not retain their color. Eventually, the Helmet conch became the medium of choice to create cameos.

The Helmet conch is formed in layers of different colors, and cutting through an outer layer will reveal a contrasting color underneath. The Bullmouth Helmet Conch, whose scientific name is *Cypraeacassis rufa*, has proven to be the best shell suited for this. In the top left picture, you can see one cameo carved directly into the surface of the intact shell. These shells are found in Madagascar and South Africa, and are shipped to Europe to the skilled hands of cameo artists. The center of this industry is in Torre del Greco, Italy.



Here is a closer look at the Bullmouth Helmet shell. The top view showing the aperture is called the ventral view, the bottom view is the back of shell, which is called a dorsal view.

In *Ocean Oracle*, the Bullmouth Helmet is shell #176. That number is in the intuition section, the one category that had no science to back it up...no explanation to give. The meaning I gave to the Bullmouth Helmet is "*Someone who is capable and well-suited to the task.*"

A student from a previous graduate class sent me a picture of a Helmet cameo, and would you believe that I told her about the Bullmouth Helmet, but I told her it was not in *Ocean Oracle*. That is because I looked under Interaction with Man, where I expected to find it. It never occurred to me that this shell was in the Intuitive section.

Several years ago, I was fortunate to visit a rufa cameo artist who had a studio in Belize. I was confused because I did not think Bullmouth Helmets were from the Caribbean. He explained that he imported ready-made disks of rufa shell to carve pendants. But he also used entire shell surfaces. He had just completed a spectacular cameo portrait commissioned by a couple celebrating their 50<sup>th</sup> anniversary. He was so talented that his carving was photographic in detail. If I saw that couple, I would recognize

them from his artwork. My point is that I can't recall not knowing about this interaction with man. However, it is apparent to me now from my response to the former graduate student that when I wrote *Ocean Oracle*, I was not aware of the cameo connection and the interaction with man. If I were to write *Ocean Oracle* today, I would have to change this shell's category from Intuition to Interaction with Man...but it would retain the same meaning. Ask any shell cameo carver and you will know that this shell is "well-suited to the task."

<https://www.thecameocollection.com/story-of-cameos/> History of cameos

Here is some information from a site no longer available on the Internet:

### **History and technique of the Cameo jewelry**

*A genuine cameo is a carving in relief done on a naturally occurring substance which contains different coloured layers. The carving must incorporate the contrasting layers in different aspects of the design. **The carvings must be done by hand.***

*Cameo defines the work that has been done, not the material on which it was done.*

***All shell-cameos must be hand crafted** because the shell presents an uneven surface unsuitable for a machine-cut engraving. In addition to this, the shell would easily break under ultrasonic sounds. The most suitable shells for the manufacturing of cameos are **Cassis Rufa**, also known as 'Cornelian Helmet' and **Cassis Madagascariensis**, generally known as 'Sardonyx Helmet'.*

*The two major styles of engraving are: 'intaglio', where the carving or sculpting is done below, or into, the surface of the stone and 'relief' where the design projects outwards from the stone's background.*

*Through the ages most cameos were mounted to be utilised as jewelry. **Throughout the centuries cameos were commissioned by emperors, acquired by kings and cherished by collectors.***

*The original purpose of cameos is lost in history, with the original intent of individual pieces known only to the craftsmen who carved them. What is known is that of the countless ancient examples of the sculptor's and carver's craft, none offers such a unique window through which to view the cultural past.*

*Cameos reveal the manners, customs, philosophies, historic events and social occasions that have marked our past. **The ancient cameos were intended as statements and served also as an amulet, a talisman, a storyboard depicting ethics and morals, a tangible affirmation of one's faith and a reflection of one's destiny.***

*The art of cameo carving is thought to have originated in ancient Greece and ancient Rome.*

*Through the ages, the centres of cameo cutting remained in Italy and, in fact, **the majority of today's cameo artists still reside in Italy** and are concentrated, mostly, in the small city of **Torre del Greco**, this city is situated at the foot of the legendary volcano **Vesuvius**, overlooking the **Bay of Naples**.*

From jewelers, to artists, let's move on to architects.



### Pagodas from China and Japan

If we consider the architecture of the pagodas in China and Japan, we might spot an influence or two in the Latiaxis shells from that region.



Here you see a few representative pagodas and the Spinose and Pagoda Latiaxis Shells. I will let you decide if man saw the shell and was inspired to build the pagoda, or if the mollusk saw the pagoda, and was inspired to construct its shell.

### Latiaxis Shells



### Cock's Comb Oyster

Next, we have the Cock's Comb Oyster. This shell is not in *Ocean Oracle* because it would not scan well, and I lacked a digital camera when I was writing that book.

2  
1  
3



Please pause here for a moment and note your reaction to the Cock's Comb Oyster. Do you like it, does it bother you, or do you like some parts and not others? Perhaps it reminds you of something else, and if so, how do you react to that?



## Sydney Opera House



There is a theory that the Sydney Opera House was inspired by the structure of the Cock's Comb Oyster.

To be fair, others say it is supposed to look like the sails of a ship.



By the way, if you notice on the photo on the previous page of the Cock's Comb Oyster, these are actually three oysters with two smaller oysters growing on the largest oyster at the bottom. Many species of oysters seem to follow the plan of having one of the oysters serve as a base for another.



Although it is not in your book, the meaning derives from the name Cock's Comb. When someone is cocky, they are arrogant because they are confident and sure of themselves. When someone is attracted to this shell, it suggests "*Confidence.*" Ironically, most often when a client selects this shell, they do not like it, and that signifies a "*Lack of confidence, or insecurity.*"

The Cock's Comb is a wonderful tool to reflect your level of confidence regarding a particular situation. While thinking about a situation, look at the photo of the Cock's Comb. If it appears attractive, you feel confident all the way to your soul. However, if it bothers you, you may even feel physically uncomfortable; it reveals that you are not as confident as you might think.

One student shared that when she looked at the shell in class, she felt neutral towards it. However, that week, she had two major events in her life. For one, she felt the shell looked very attractive, and she "loved it!" For the other situation, she felt "an uneasy feeling in the pit of my stomach" when she looked at the same shell. Once the second situation was resolved, "that feeling passed."

To quote this student, "It's amazing to me that these shells speak to us at such a deep emotional and spiritual level. They seem to vibrate with our very souls. Incredible!"