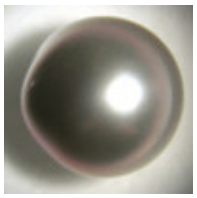


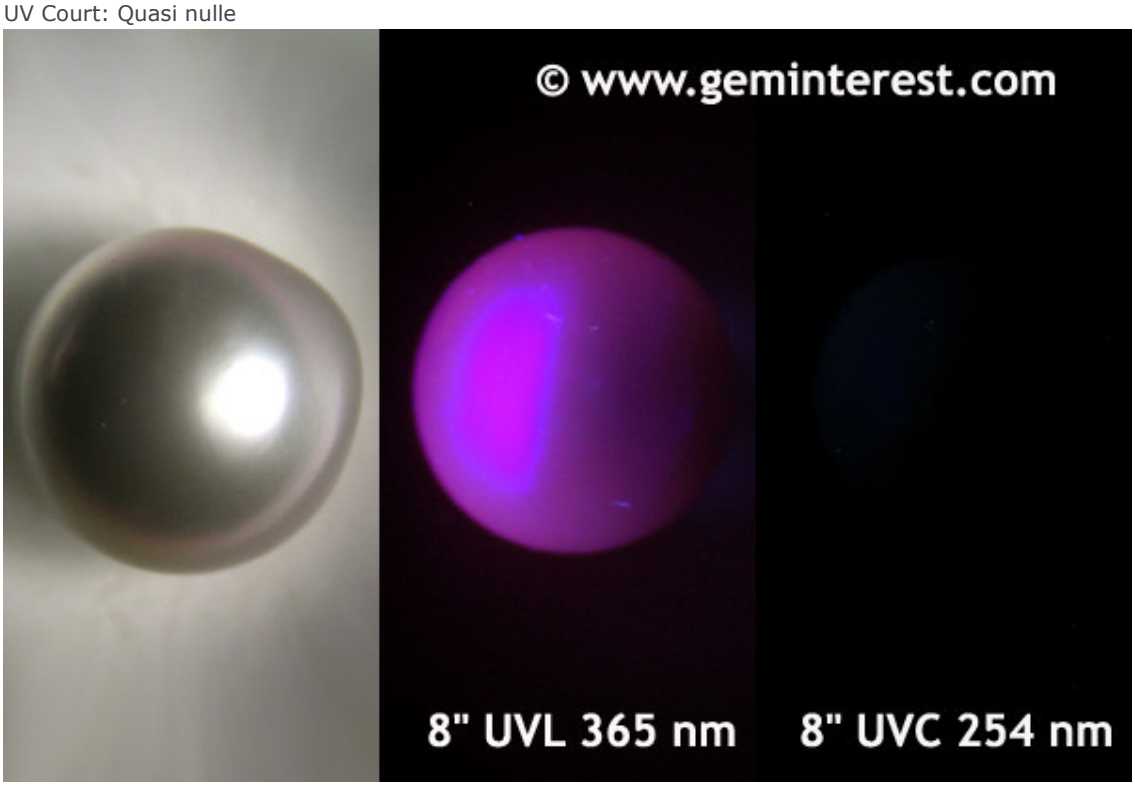
Nom commun : Perle de culture (Huitre*)

[Nom de l'huitre: Pteria Sterna*
Classification:
Règne : Animalia
Embranchement: Mollusca
Classe: Bivalvia
Famille: Pteriidae
Genres: Pteria
Espèce : Pteria Sterna]

Localité: Mexique, Golfe de Californie - "Mer de Cortez", Guyamas
Probable ferme perlière située à : 27°54'36.34"N 110°57'12.93"O

Couleur: Grise avec reflets (orient) rosé
Eclat: Nacré
Masse: 6.58 ct
Dimensions: 9.7*10.0 mm
Forme : Légèrement en forme de poire

Luminescence:
UV Long: Forte - Rose-orangé (vue plus fortement fuchsia sur l'image « Fluoscope »)
UV Court: Quasi nulle

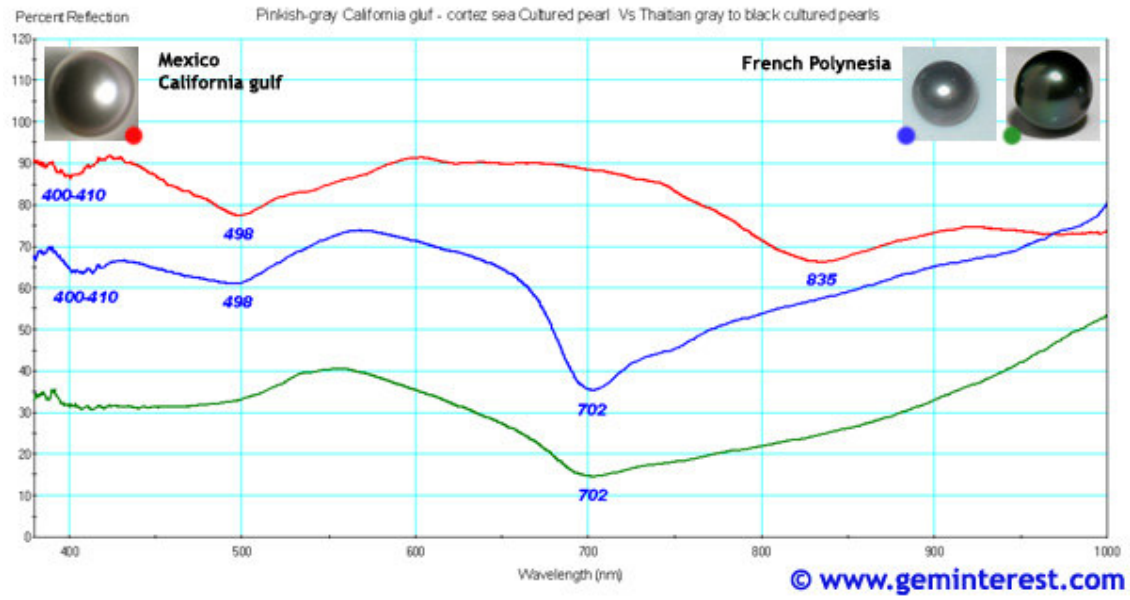


La forte fluorescence des ces perles provient d'une concentration notable de porphyrines (Kiefert et al., 2004).

Indice de réfraction:
Lecture de spot / lecture cabochon
N~1.51

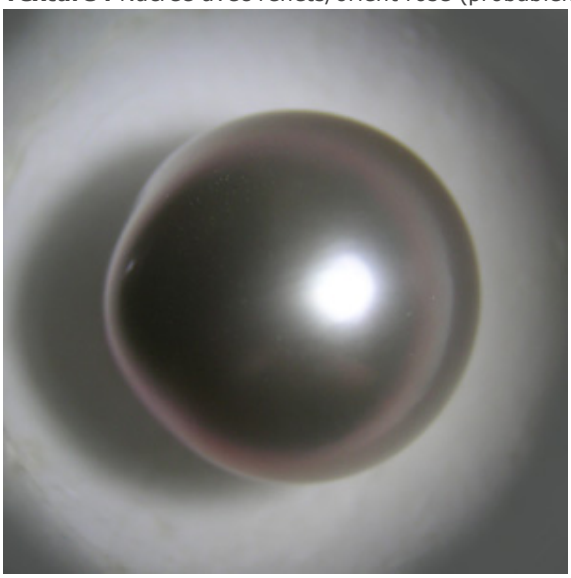
Poids spécifique / Densité:
Pesée hydrostatique:
~2.69

Spectromètre:

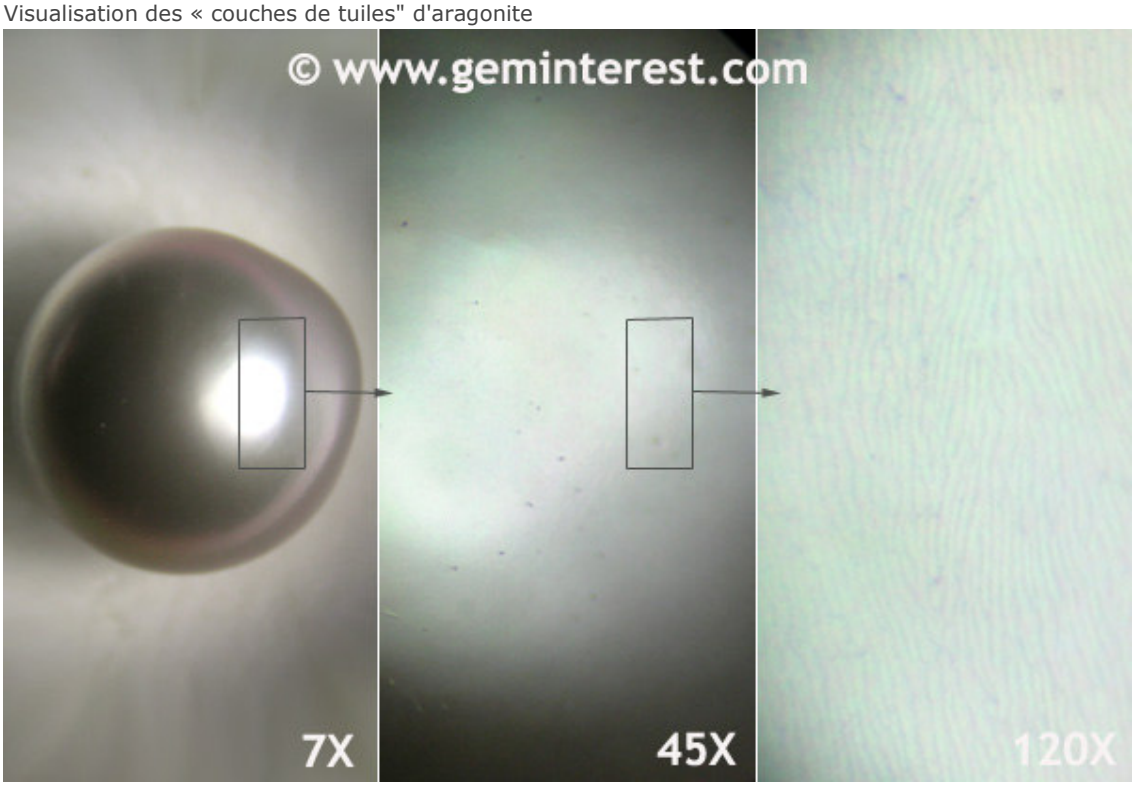


Le motif de reflectance vers 702 nm des perles de Tahiti (grise à noire toutes nuances d'orients confondus) est inexistant sur ce type de perle (Kiefert et al., 2004 ; Observation menée ici).

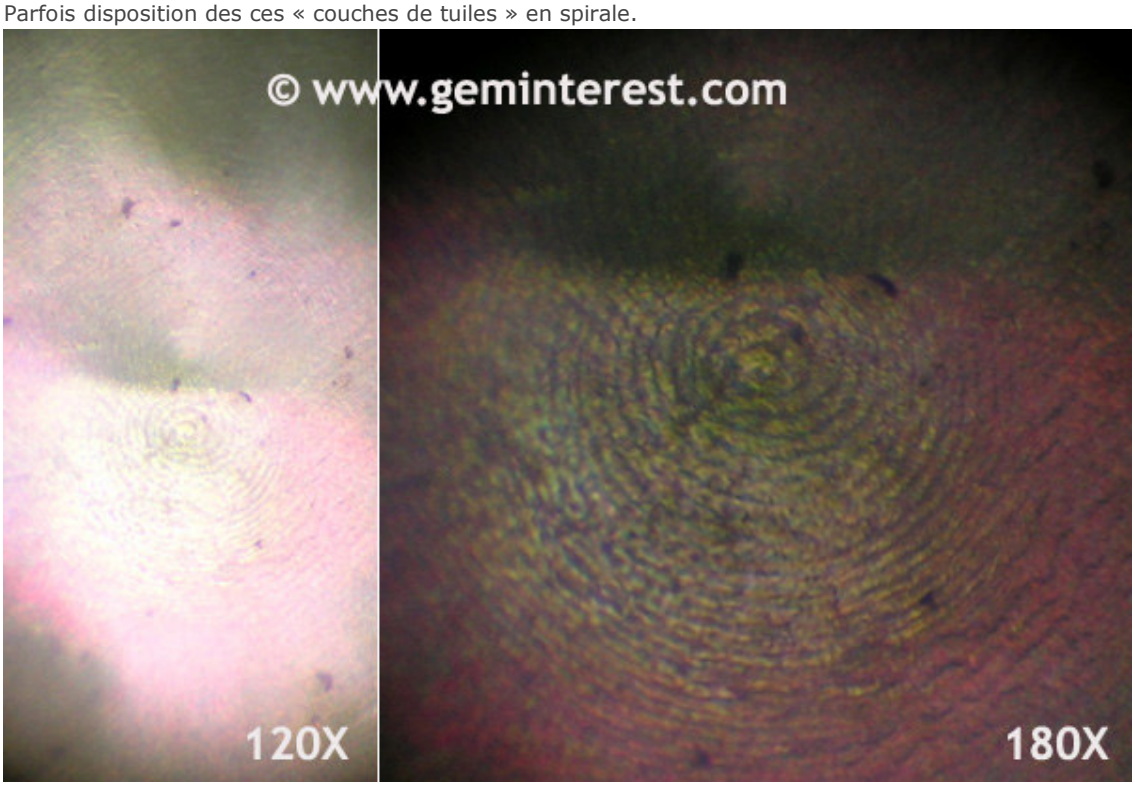
Texture : Nacrée avec reflets/orient rosé (probablement lié à la forte fluorescence rose)



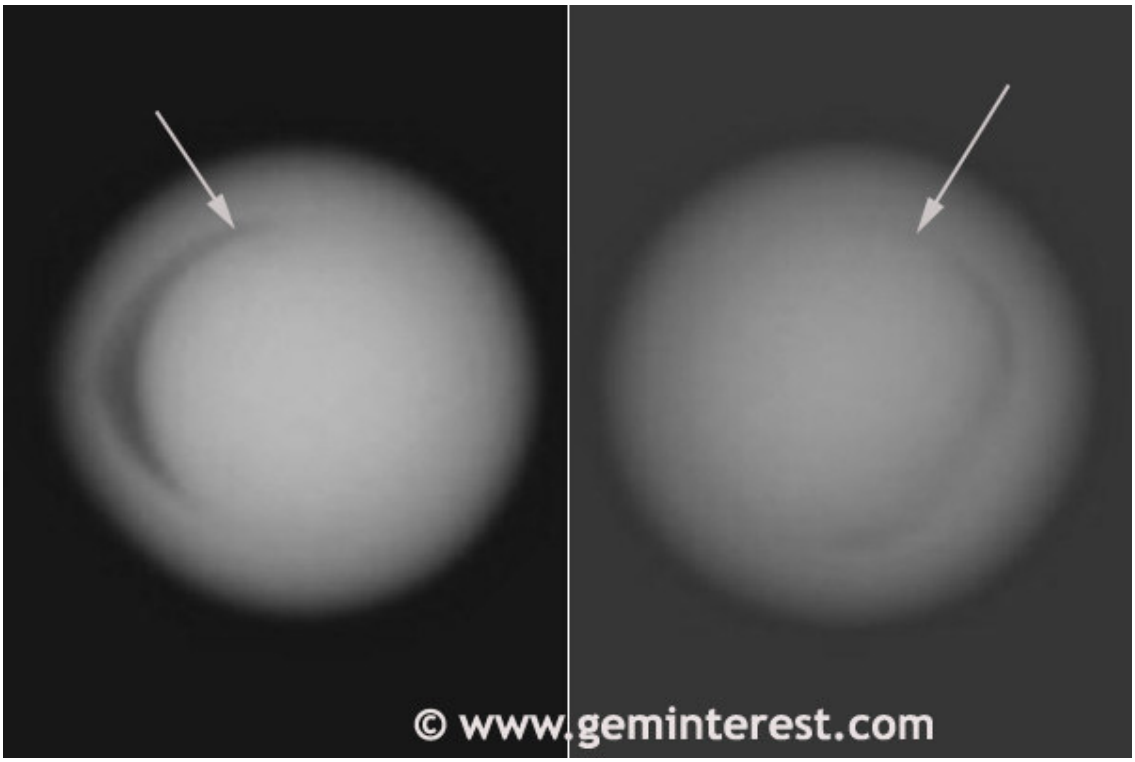
Visualisation des « couches de tuiles" d'aragonite



Parfois disposition des ces « couches de tuiles » en spirale.



Visualisation du nucléus rond central (ayant été implanté dans l'huitre et ayant servi de support à la croissance de la couche perlière) et d'un défaut de croissance de la couche de nacre (zone noire).
La couche de nacre est estimée à environ 1 mm.



Cliché Rayon X (70kV, 70mAs, Europa 2 TST)

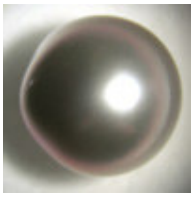
Bibliographie:

- Kiefert Lore, Douglas McLaurin Moreno, Arizmendi Enrique, Hänni Henry A., Shane Elen., 2004, Cultured Pearls from the Gulf of California, Mexico. Gems & Gemology, Vol. 4, spring 2004, pp 26-37
- http://commons.wikimedia.org/wiki/Category:Pteria_sterna (dernier accès 22.03.2010)

Remerciement:

Un grand merci à l'équipe du Cabinet d'imagerie "Le Bahamas" Cagnes sur Mer (06).

----------English Version----------



Common name: Cultured pearl (oyster*)

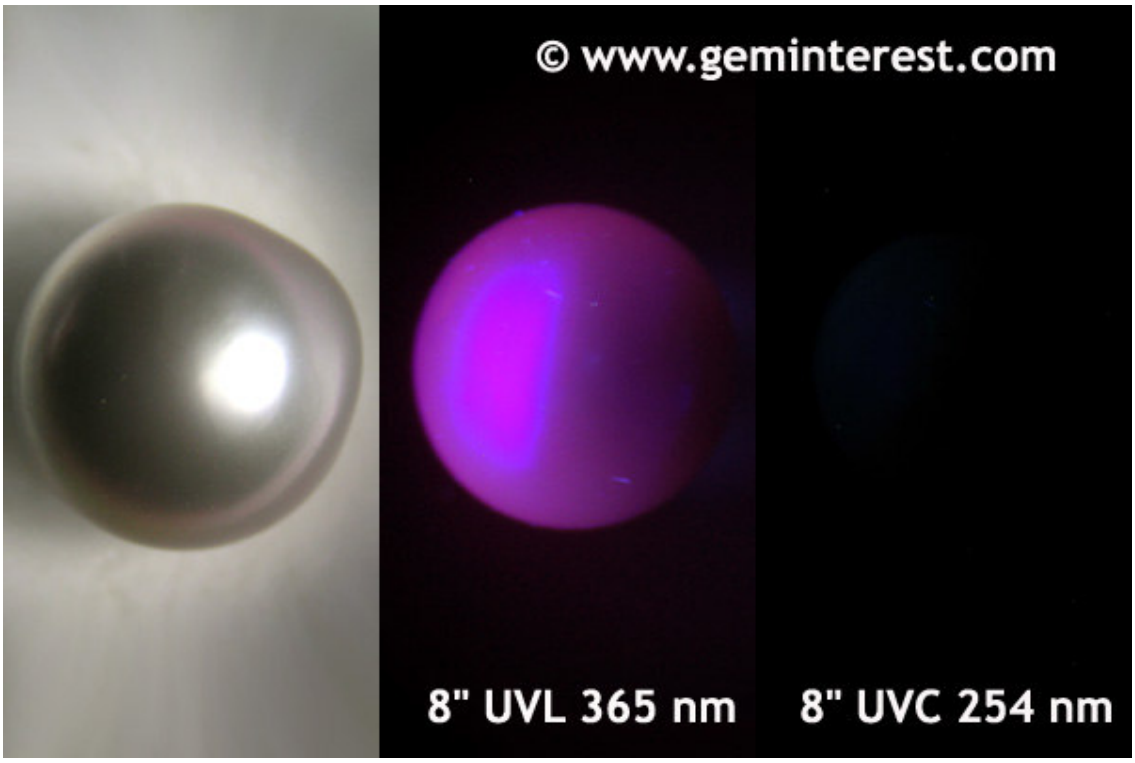
[Oyster name: Pteria Sterna*
Classification:
Kingdom : Animalia
Phylum: Mollusca
Class: Bivalvia
Family: Pteriidae
Genus : Pteria
Specie : Pteria Sterna]

Locality: Mexico, California gulf - "Cortez Sea", Guyamas
Probably pearl farm located at : 27°54’36.34”N 110°57’12.93”W

Color: Grey with pink reflections (orient)
Luster: Pearly

Mass: 6.58 ct
Size: 9.7*10.0 mm
Shape: Slightly pear shaped

Luminescence:
Long wave UV : Strong – Orangy-pink (more easily seen fuschsia on the « Fluoscope » image)
Short wave UV: Near none

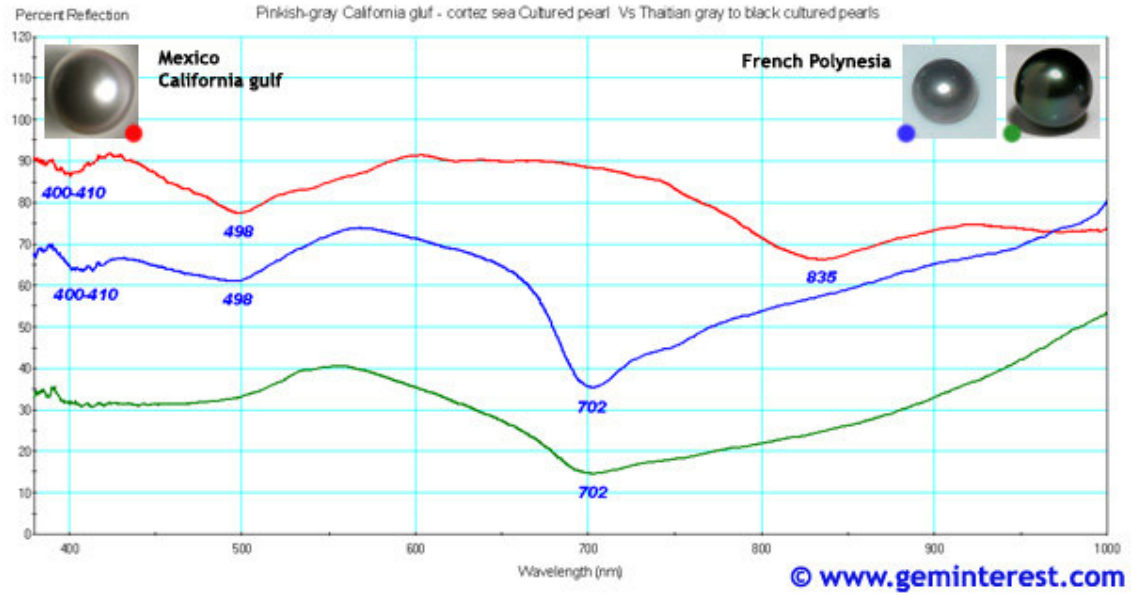


The strong orangy-pink luminescence comes from a notable concentration of porphyrins (Kiefert et al., 2004).

Refractive index:
Spot reading
N~1.51

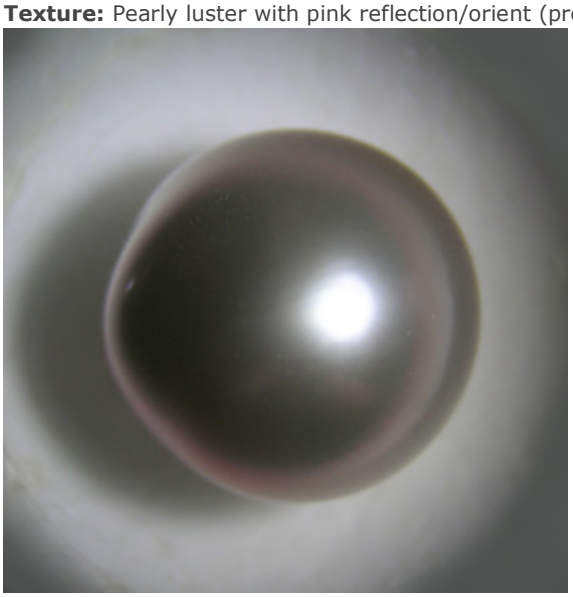
Specific gravity:
Hydrostatic weighing:
~2.69

Spectrometer:

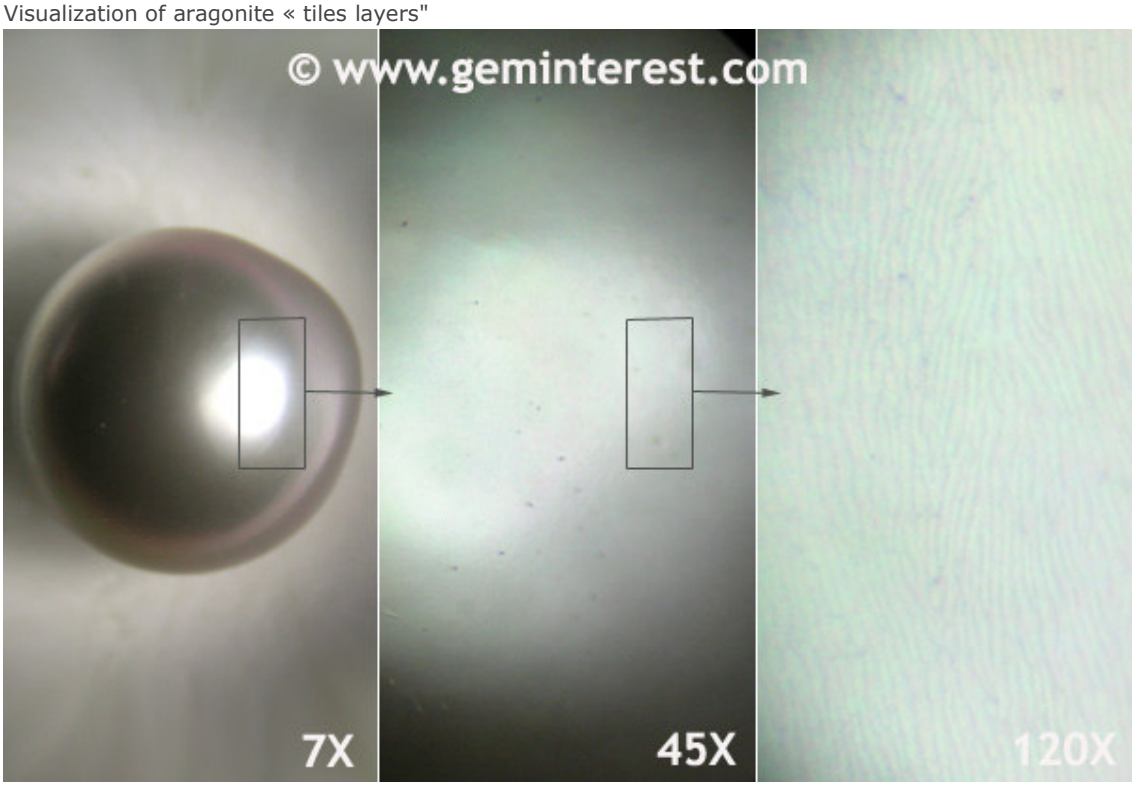


The 702 nm reflectance pattern of Tahititian pearls (grey to black, all reflections color) is nonexistent on this type of pearl (Kiefert et al., 2004 ; observation conducted here).

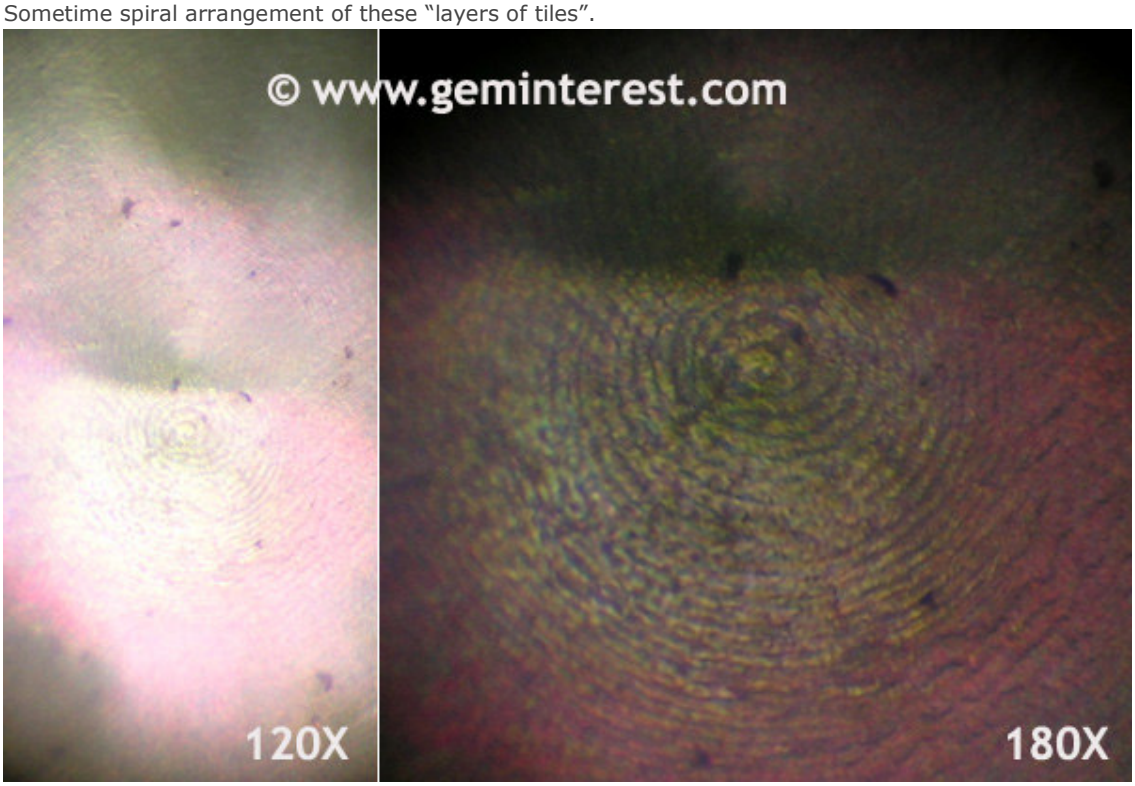
Texture: Pearly luster with pink reflection/orient (probably linked to the strong pink luminescence)



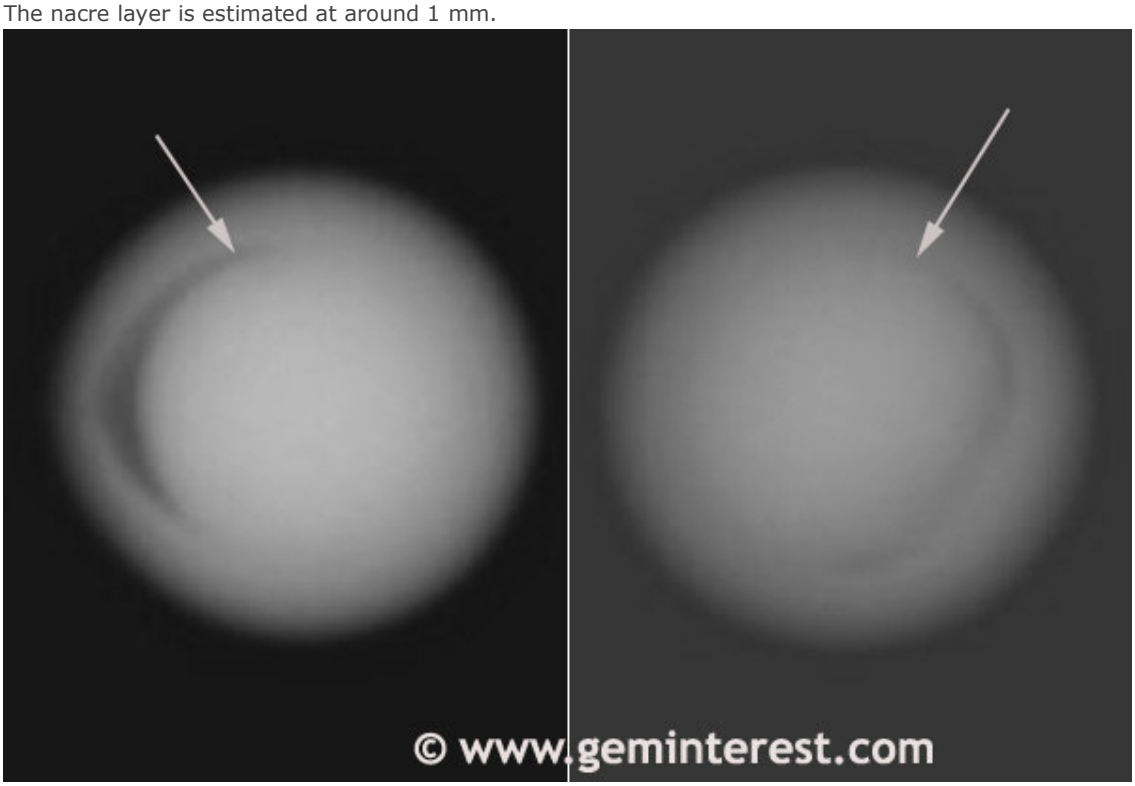
Visualization of aragonite « tiles layers"



Sometime spiral arrangement of these “layers of tiles”.



Visualization of the round central nucleus (that has been implanted into the oyster and has served as support for the growing of the nacre layer) and growing defect of the nacre layer (black zone).
The nacre layer is estimated at around 1 mm.



X ray imaging (70kV, 70mAs, Europa 2 TST)

Bibliography:

- Kiefert Lore, Douglas McLaurin Moreno, Arizmendi Enrique, Hänni Henry A., Shane Elen., 2004, Cultured Pearls from the Gulf of California, Mexico. Gems & Gemology, Vol. 4, spring 2004, pp 26-37
- http://commons.wikimedia.org/wiki/Category:Pteria_sterna (last access 22.03.2010)

Greetings:

Best thanks to the team of "Le Bahamas" imaging lab Cagnes sur Mer (06)