

Pearl Academy
by RAW PEARLS



Part 2:
From The Hatchery To Raw Pearls

RAW PEARLS
FINE PEARL JEWELLERY

Producing The Mollusc

In Part 2 of Pearl Academy, we look at the culturing process itself and the sorting and processing that takes place after the pearls are removed from the mollusc.

- In some cases, the mollusc must be produced in order to go on to culture the pearl as for example the mollusc may be in short supply and cannot be taken from wild stock.
- In this case the molluscs are bred in hatcheries.
- This means that even before pearl culturing can begin there is work to do and producing the mollusc can take years.
- The molluscs must grow to a certain size before they can be used for culturing pearls.



Tahitian Pearl Oyster

Grafting, Seeding & Nucleation

- The operation to introduce a foreign body to the mollusc is sometimes called grafting, seeding or nucleation.
- This process involves inserting a foreign body into the mollusc in the hopes that this will cause the mollusc to secrete nacre – those layers of nacre creating a pearl.
- In this process a small piece of mantle tissue (or graft) and sometimes a bead nucleus will be inserted into the mollusc by a trained technician.
- The technician will carefully open the shell of the mollusc and place it into a clamp, using a small instrument to hold it open.
- The technician will then take a small cut, or graft, of the tissue from another mollusc and uses a needle-like tool to place this into a specific part of the mollusc.



Technician uses needle like tool during the operation



Grafting, Seeding & Nucleation



Shell is cut, ground, shaped



(Image credit: Fukui Shell)



And then polished into beads to make the nucleus

- In some culturing a nucleus made of shell, usually cut, ground, shaped and polished into a round bead shape, will also be inserted at this stage.

In The Water

- The mollusc is then suspended in water for a period of time in the hopes that nature will now take over and create a pearl.
- How long that mollusc is left in the water is a careful balance.
- Where a mollusc is left in the water for a longer period of time the layers of nacre will be thicker and the lustre of the pearl will likely be better.



Molluscs are suspended under water in nets

- Once suspended in the water, the molluscs can be cleaned to remove overgrowth that can prevent healthy mollusc growth and pearl production.

- But much will be out of the pearl farmer's control – including for

example natural disasters such as earthquakes and typhoons, which have been known to wipe out whole farms, and years of work.



Typhoons & earthquakes can damage whole crops

- However, the longer the pearl farmer leaves the mollusc in the water, the greater the risk that the pearl will start to grow off shape or have more markings.
- The perfect combination of good lustre, good shape, and low markings is a small part of the crop.

Processing

- When the molluscs are taken out of the water they are cut open and the mollusc's flesh and hopefully a pearl are removed.
- No part of the mollusc is wasted, with parts of some molluscs being edible and



Mollusc has been cut open and pearls are removed



Polished in sawdust-type substance

many shells being used for decorative purposes in a variety of industries.

- The pearls are washed with water to clean off immediate debris and then

tumbled in a natural sawdust-like material to polish.

- They are then taken to a factory where sorting can begin.
- The pearls will need to be sorted for size, shape, colour, surface quality and lustre.
- For example, when sorting for size, pearl sieves at half millimetre increments are used to separate say 6-6.5mm from 6.5-7mm.

Processing



Pearls are sorted for body colour and overtone

- They will be sorted for body colour, and from the body colour into groups of different overtones.
- They will also be sorted for surface quality and lustre.

Processing



Pearls being drilled

- They will then need to be drilled.
- Where the pearls have just one marking they will often be half drilled on that marking for use in earrings, pendants and

rings where just one hole is needed, leaving an otherwise clean-skinned pearl.

- Others will be selected for drilling through, fully drilling, for necklaces and bracelets.
- Once they have determined the best sport for drilling they will drill the pearl – here in the case of a fully drilled pearl, they will use a two bit drill designed specifically for drilling pearls from both sides.



Pearls being drilled

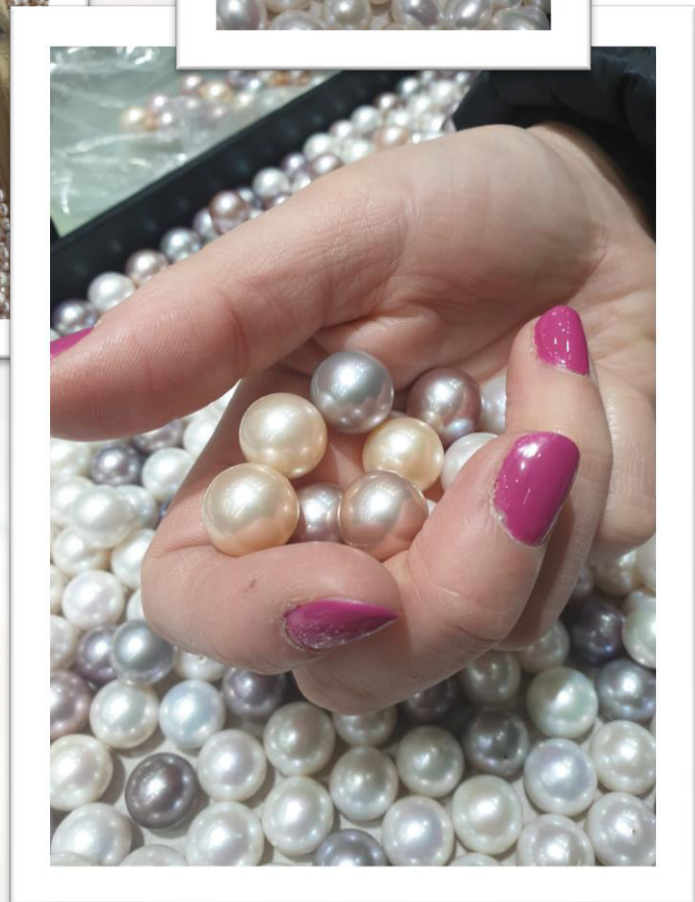
Processing

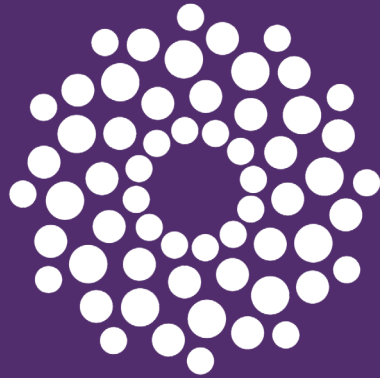


- The pearls are now loose strung in rows or paired.
- This is when our role in selection can begin.

Summary

- You should now be aware of producing the molluscs used for farming, implantation of the irritant, the careful balance the farmer faces leaving the crop in the water, and the process of sorting pearls once they are removed from the shells.





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To stock our range email us at
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