

## THE TAHITIAN CULTURED PEARL - Poe nō Tahiti

### **“The first flickers of light”**

Polynesian mythology talks about black pearls as the first flickers of light given by the Creator to Tāne, a divinity who presided over the ten prestigious levels of the holy Heavens. Tāne made the stars from them before sending them to Ruahatu, the god of the Oceans, so that he could light up his universe. Then the god 'Oro, the guardian divinity of Beauty, Harmony and Peace, gave them to the women he seduced. When his work was complete, he entrusted human beings with the pearl oyster *te uhi tara mea*, to commemorate his journey to earth.

### ***Pinctada margaritifera*, the Cumingii variety**

The Tahitian pearl comes from *Pinctada margaritifera* of the Cumingii variety. This pearl oyster secretes black pigments naturally giving the characteristic tint to its mother-of-pearl and its pearls. Living in the lagoons of the Polynesian atolls, *Pinctada margaritifera* measures from 25 to 35cm in diameter. In its natural state, it lives attached to coral and feeds on plankton, tiny creatures and plants floating in the lagoon. Many observers have spoken of the Polynesians being familiar with it long before the Europeans arrived. They used to make abundant use of mother-of-pearl to make hooks and ornaments, as well as “natural” pearls.

### **“Queen of Pearls”**

In its natural state, a pearl forms and develops when a grain of sand, or other irritating small foreign body, enters the shell of the oyster. The oyster then covers the “intruder” with successive layers of mother-of-pearl, which will go on to form a pearl. This process takes years and is extremely rare. To find a “natural” pearl you have to open between fifteen to twenty thousand pearl oysters! From the nineteenth century intensive fishing was nevertheless practised in the lagoons of the Tuamotu and Gambier islands, not only to exploit the mother-of-pearl but also to find those famous black pearls. These pearls were of such value and so rare that they were known as the “Pearl of Queens” and the “Queen of Pearls”.

### **The pioneering era**

Faced with the rarity of “natural” pearls, a technique to develop artificial production was developed. The invention of grafting the pearl oyster came from the work of three Japanese researchers at the beginning of the twentieth century: Kokichi Mikimoto, the “father” of modern pearl culture who developed the technique, which was then enhanced by his son-in-law, Tokishi Nishikawa, and Tatsuhei Mise.

In the 1960s, Jean-Marie Domard, a veterinary surgeon working for the fishing industry in French Polynesia, began to experiment on *Pinctada Margaritifera* with the grafting techniques then used in Japan. Polynesian pearl culture was born. The first experiments took place in the Bora Bora lagoon, then several pearl farms were established in the islands of Mānihi, Marutea and Mangareva. From the 1980s, pearl culture took off in a big way. In 1976, the Gemological Institute of America recognised the authenticity of the natural colour of the Tahitian cultured pearl. The World Jewellery Confederation (Confédération Internationale de la Bijouterie, Joaillerie et Orfèvrerie- CIBJO), gave it official recognition and allocated its commercial name of “Tahitian cultured pearl”.

## **Grafting**

Grafting consists in inserting a nucleus into the “pearl pocket” of an oyster. Shaped like a marble but made of organic matter, this nucleus plays a similar role to the grain of sand. During the grafting process, a graft is also introduced which is a piece of organic tissue cut from the casing of the donor oyster. In order to do this, the valves of the oyster shell to be grafted are held apart with pliers. If all goes well, the graft will form a pearl sac. Then the oyster will secrete layers of mother-of-pearl to cover the nucleus and, eventually, produce a cultured pearl. If all goes well, the graft will form a pearl sac.

The grafting operation is a very delicate procedure. Some oysters reject their nucleus or die. Only twenty-five to thirty oysters out of every hundred will produce commercial pearls. The length of time necessary for the cultured pearl to form a sufficient layer of mother-in-pearl is approximately 18 months.

When Polynesian pearl culture first began, this delicate operation requiring precision skill was performed exclusively by grafters from Japan. But today many Polynesians are masters of this technique and there is even a school of grafting in the Tuamotu-Gambier archipelago.

## **Collection and farming**

The first stage of pearl culture is to collect spats, (oyster larvae). This is done by “collectors” which are in fact strips of synthetic material suspended several metres below the surface of the lagoon and which the young oysters come and cling onto. These collectors remain in the water for 1 to 2 years producing oysters measuring 5 to 10cm. Then the oysters are attached in strings and put back in the water, to continue growing and reach the necessary size to be grafted, that is 9 to 11 cm. This second stage of farming takes from 3 to 12 months.

## **Harvest**

After the painstaking work of grafting, there is a wait of around 18 months to obtain a pearl. In all, it takes almost four years of work! After the first harvest, a sub-graft may also be carried out. If the first grafting has produced a beautiful pearl, that means that the mother-in-pearl is still in good health and could bear another graft, and therefore produce another pearl. There can be up to four successive grafts on the same mother-of-pearl. This ceaseless process going from farming to grafting to harvest is the rhythm of the life of a pearl farm.

## **Diversity and renown**

The beauty of a pearl depends on a large number of criteria: its shape, the state of its surface, its colour, its orientation, its lustre, etc. The Tahitian cultured pearl is known in particular for the variety of its nuances of colour and also for the great diversity of its shapes, which can be a round pearl, semi-round, circled, baroque or semi-baroque. The Polynesian authorities have identified five levels of quality ranging from the “Perfect” category to categories A, B, C and D. For every hundred oysters grafted, twenty-five will produce a commercial pearl but only five will be classified as A. It is important to note that in order to be sold as an authentic “Tahitian cultured pearl”, the pearl must have a minimum layer of mother-of-pearl of 0.8 mm.

## **International fame**

After tourism, pearl culture is the second economic resource of French Polynesia and the main export. This sector and the industries dependent on it employ approximately seven thousand people, mainly in the Tuamotu archipelago, the Gambier islands and the Society archipelago. The

pearl has become an essential element in the development of these first two archipelagos. Most of the production is exported to Asia and the United States after auction sales held mainly in Papeetē and Hong Kong.

Having acquired a world-class reputation, the “Tahitian cultured pearl” is found in the whole spectrum of pearls from collector’s piece to fashion jewel to high-end jewellery to everyday ornament. From classic necklaces to fashion jewellery, the Tahitian pearl has become an incomparable gem.

#### **In figures**

9.5 tonnes of pearls produced in 2007

631 pearl farms in 2008

5,000 jobs

Average price, per gramme, of cultured pearls in 2007: 1,268 (10.6 Euros)

Value of exports of cultured pearls in 2007: 10.6 billion CFP Francs (88.8 million Euros)

Principal export markets: Hong Kong /Japan/United States

Principal areas of production:

Tuamotu - Gambier archipelago (90% of production)

Atolls of Ahe, 'Apataki, Aratika, Arutua, Fa'aite, Fakarava, Gambier, Hao, Kātiu, Kauehi, Kaukura, Mākemo, Mānihi, South Marutea.

Archipelago of the Leeward Islands (1.5% of production)

Ra'iatea, Huahine and Taha'a.