

**CULTURED PEARLS\***

**UPDATE ON GLOBAL  
SUPPLY, DEMAND AND  
DISTRIBUTION**

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**MAY 2005**

\* focusing on the pearls from the white-lipped oyster *Pinctada maxima*

The following material was used during a  
Presentation by A. Müller at the

**“GemmoBasel 2005”**

International Colloquium on Gemmology  
In honour of the 60<sup>th</sup> Birthday of Prof. Henry A. Hänni

April 29 – May 2, 2005, Basel, Switzerland

([www.gemmobasel2005.org](http://www.gemmobasel2005.org))

The same material was also used during a subsequent  
Presentation by A. Müller  
to the Members of the

**Swiss Gemmological Society**

During their Seminar held in Sarnen, Switzerland,

May 8 – May 10, 2005.

*Foreword:*

*From Cleopatra to Liz Taylor, people have shown their passion for pearls! Whether natural or cultured, people were, and will always be, mesmerized by this beautiful gem of the sea.*

*It is not my intention to destroy the mystique surrounding the pearl. However, as a pearl professional, making a living out of this fascinating gem, one cannot avoid looking also at the commercial aspects. That's what this report does. It's full of figures and statistics and lacks any romantic aspect usually associated with pearls. Yet, let me assure you, we keep treasuring and respecting the pearl, not only as our "tool of the trade", but also as a mesmeric gem from the sea.*

Recent changes in seawater pearl production have been quite phenomenal.

Production volumes of South Sea pearls (SSPs) from the white-lipped pearl oyster *Pinctada maxima*, are forecast to exceed 2,400 kan (or 9 tonnes) during this current year (\*1). This is a record (chart 1). It is a stunning 2.6 times more than just 6 years ago! (chart 2)

In spite of this tremendous increase in weight, the value only increased from US\$ 217 million in 1999 to an estimated US\$ 248 million in 2005. This is an increase of only 14%. (Chart 3). In terms of Japanese yen, the values remain unchanged at 26 billion.

(\*1) 1 kan = 3.75 kilos

Chart 1

EVOLUTION OF GLOBAL PRODUCTION OF WHITE SOUTH SEA PEARLS

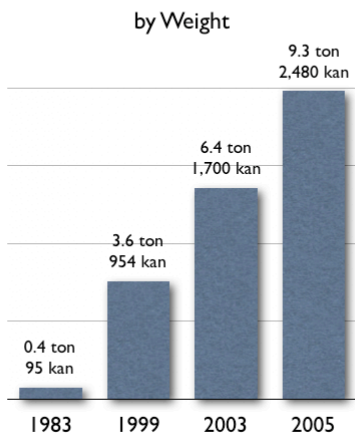


Chart 2

SSP PRODUCTION INCREASE

in the last 6 years  
(1999 - 2005)

2.6 times in weight

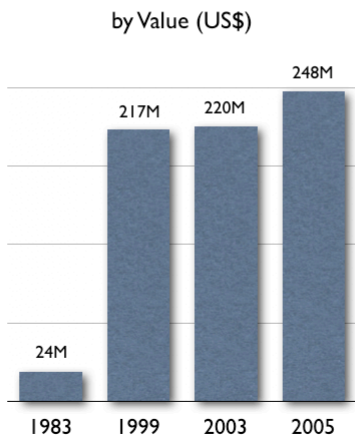
14% up in value (US\$)

0% change in Yen

x 2.6

Chart 3

EVOLUTION OF GLOBAL PRODUCTION OF WHITE SOUTH SEA PEARLS



Which countries are contributing how much? (Charts 4, 5, 6)

Estimated Production by Country

Country	Weight (kan)	Price/mo (US\$)	Value (US\$)
Australia (*)	850	145	123 million
Indonesia (*)	1,022	83	85 million
Philippines (*)	450	55	25 million
Myanmar (*)	136	95	13 million
Others (*)	22	88	2 million
<b>TOTAL</b>	<b>2,480</b>		<b>248 million</b>

(Exchange rate April 2005: 1 US\$ = 105 yen)

(\*) Individual production estimates per farm are kept by the author.

Chart 4

SSP Production Estimates 2005

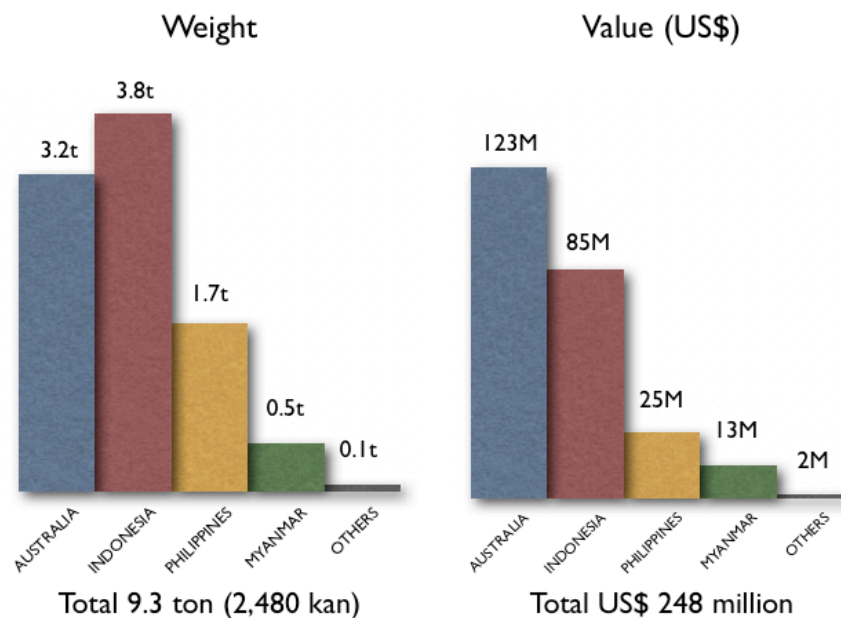
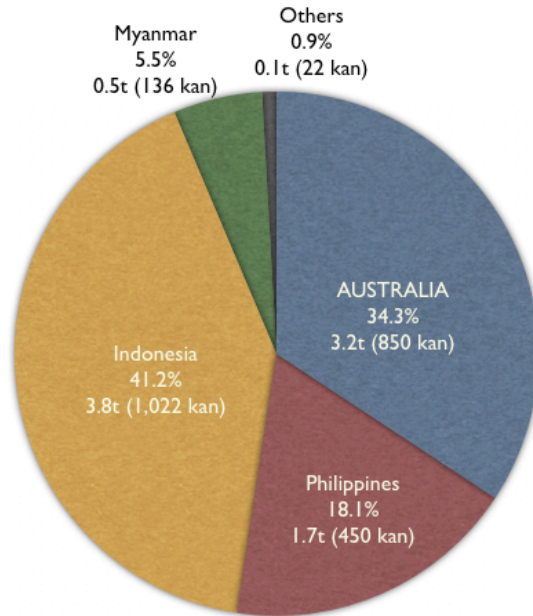


Chart 5

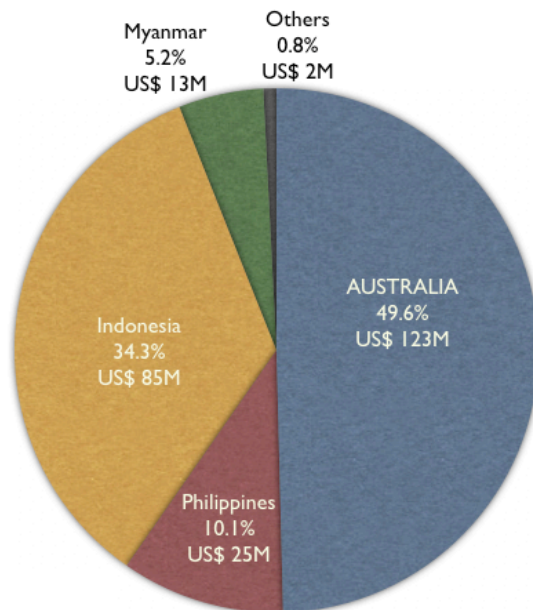
### ESTIMATED 2005 PRODUCTION by Weight



Total 9.3 ton (2,480 kan)

Chart 6

### ESTIMATED 2005 PRODUCTION by Value



Total US\$ 248 million

In terms of value, Australia is the leader, with a market share of almost 50%. Australian pearls are also on top when we talk quality and size and, consequently, unit price. Indonesia comes first when we talk about the number of oysters operated, the number of pearls produced, and their weight, which exceeds this year the 1,000 kan mark (see above charts for details).

Besides the countries mentioned in these charts, we accounted, under “others”, two farms in Sabah / Malaysia, plus a farm in Papua New Guinea. We are not aware of any farms in Thailand that are scheduled to have any production this year.

The white SSP, in the context of the total seawater pearl production, has further expanded its “market share” and stands now at almost 50% (chart 7).

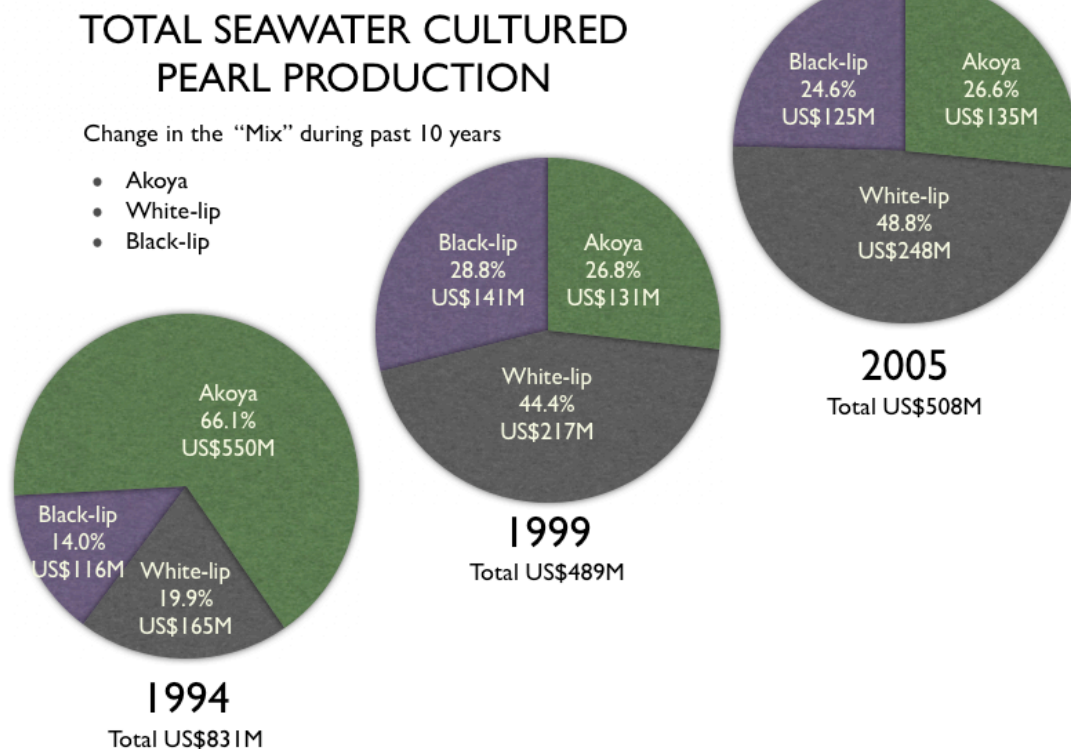
In spite of the tremendous increase in the production weight of white SSPs, the global seawater pearl market has not expanded in value during the past six years (chart 7). It hovers around the US\$ half-billion mark.

Prices are down and so is the overall quality. This must be taken into consideration when comparing unit prices of 1999 with those of today. Proportionally, more pearls of lower qualities are produced today than six years ago. This applies especially to pearls farmed in Indonesia and the Philippines.

The Japanese akoya cultured pearl industry is down but still not yet out. It manages to put into the market approximately the same value as during 2004, namely US\$ 135 million. This is approximately 1/4 of what it produced ten years ago. Meanwhile, market prices of Japanese akoya cultured pearls have fallen below production cost levels and industry analysts are truly concerned about the future of this old and traditional industry.

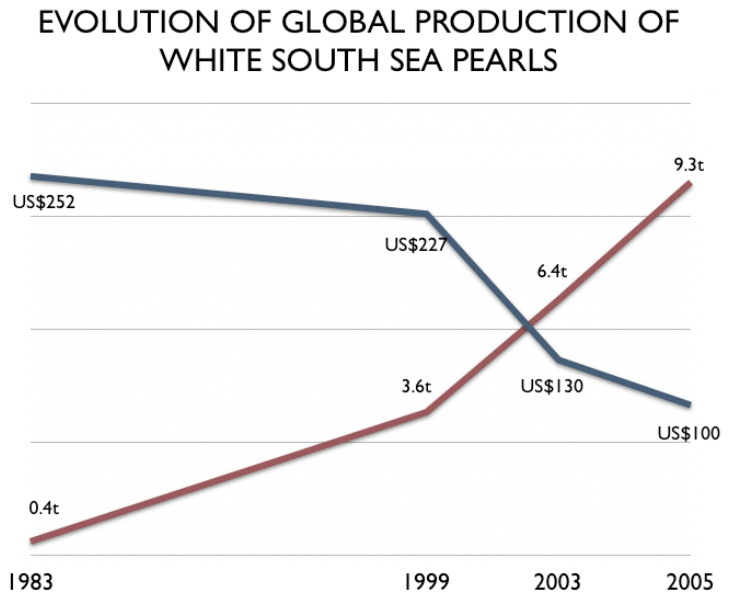
In Tahiti, production volumes of pearls from the black-lipped pearl oyster *Pinctada margaritifera* have been reduced from a peak of 11 tonnes three years ago to an estimated 8 to 8.5 tonnes in 2005, valued at US\$ 125 million.

Chart 7



When the production weight increases 2.6 times over six years, and the sales value remains the same, one must admit that there was a serious adjustment in the price of SSPs (chart 8).

Chart 8

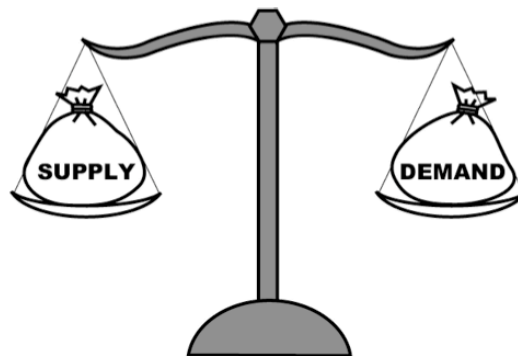


Shift in unit price/mo (US\$) and production in weight (ton)

The ideal would be a balanced supply/demand situation, with firm and stable prices (chart 9). In recent years, this was not the case. The demand could not catch up with the increase in production.

Chart 9

**THE IDEAL SITUATION:  
BALANCED SUPPLY AND DEMAND  
= STEADY PRICES**



Questions:

- Is this trend likely to continue or is there a limit to the increase in production?
- What are the possibilities for an increase in demand?

## Limiting the production

### 1/ Limit by regulation:

Australia, the largest producer in terms of value, limits production by means of an oyster quota system. Even though periodically under review, the government is not likely to abolish this system. In Western Australia, the annual oyster quotas remained unchanged during the past six years (572,000 oysters fished in the wild, plus 350,000 hatchery oysters). Yet, Australian production increased from 450 kan in 1999 to an estimated 850 kan in 2005. But this can be explained, at least partially: in 1999, the quota for hatchery-propagated oysters was new, and not yet utilised, whereas now, it has been almost fully utilized. The rather rapid increase in Australian production is therefore expected to slow down (provided quotas remain unchanged). It is quite unfortunate that other pearl producing countries don't have such a regulatory system.

### 2/ Limit by Nature:

The white-lipped pearl oyster *Pinctada maxima* is a very delicate creature. A recurrence of strange meteorological phenomena such as El Niño or La Niña could bring with it a substantial downturn in water conditions. This, in turn, could immediately result in a very considerable loss of pearl oysters. El Niño occur in irregular cycles. Recent ones were in 1986/7, in 1991/2, and in 1997/8. They extended into the equatorial Pacific, and brought adverse conditions to pearl farming operations in Indonesia. During the past six years, there was no major El Niño or La Niña affecting the Indonesian pearling grounds. This may have contributed to the steep increase in pearl production in this country. It jumped from 380 kan in 1999 to almost 1000 kan in 2004.

Besides El Niño and La Niña, the pearling industry is faced with an ever-increasing danger of global warming. Sooner or later, some areas might face the consequences. In general, the white-lipped pearl oyster *Pinctada maxima* can sustain temperatures of up to 31°C. Just one degree above that, the oyster gets stressed and weak. Temperatures in excess of 32°C are usually deadly.

### 3/ Limit by the "cost factor":

There are gold deposits that are not worth mining if the gold price falls below US\$ 380 per ounce. And most of the bitumen oil in Canada is not worth exploring unless the oil price stays above US\$ 35 per barrel. So, how about the break-even price of pearl farming operations?

Gold and Oil are commodities, traded daily in sizeable volumes at the world's exchanges. The companies behind are usually very large and their shares publicly quoted at major bourses. Their business is transparent.

Also a pearl farmer is aware of his cost and "break-even" point. But his produce is not an openly traded commodity. And the volumes are relatively small. With the exception of Atlas Pacific, all south sea pearl producers are either a group of investors (mostly private), or families and/or relatives. In most cases, there is little or no transparency, at least towards the outside.

Many pearl farmers, especially in Japan, are still operating even though the values of their harvests don't cover their costs. 4 out of 5, or more likely 9 out of 10 Japanese akoya farmers are running red figures. We estimate that in 2004, the industry spent well over US\$ 250 million for a produce that was then sold for US\$ 135 million. Indebtedness and the "pearl farmers' Dream Syndrome" keep many still going, even though they are in wheel chairs. Naturally, this cannot continue. Japan's

akoya pearl production has become economically unsustainable. Consequently, it will continue to decline.

The SSP industry is pretty healthy when compared with its counterpart in Japan. No reason for panic. Just a word of caution: the gap between cost and sales price has recently been closing at a fast pace. In Indonesia, larger farms, well organised, implementing latest (hatchery) technology and farming systems, and with a good economy of scale, enjoy profitability. But many smaller farms had to close.

What will the future hold? One has ample reason to be confident when looking at the other side of the coin:

### **The Demand Side**

Admittedly, demand couldn't keep pace with the strong increase in production and prices dropped. Just looking at figures, the price drop is just about identical with the increase in production volume. Production up 2.6 times, prices down 2.5 times. Fortunately, in reality, this is not the case. Let us explain:

One cannot compare apples with oranges. The average quality of SSPs produced in the past is quite superior to the average quality that comes into the market today. The steep increase in quantity comes mainly from lower quality products. Therefore, it would be wrong to simply compare momme prices of 1999 with those of today.

Prices came also under pressure by the effects of the Asian Economic Crisis, which hit in the late 1990s, and the continued recession in the main consuming nation, Japan. By the late 1990s, Asia consumed an estimated 50 to 60 percent of all SSPs. Suddenly, a rather large volume of SSPs entered this huge market, which showed not much appetite.

Traditionally, wholesalers used to carry large inventories. When Asia consumed less, and prices started to come down, many wholesalers, also in Europe and the USA, became nervous about the surplus of goods. They reduced their buying and reduced their inventories, thus further increasing the surplus. This put even more pressure on prices.

To make things worse, many producers panicked, putting more goods into auctions, inviting an ever-larger number of prospective customers, some from further down in the distribution pipeline. This further fuelled confusion and more and more traders had less and less confidence.

This was the situation as we saw it in the recent past. But we firmly believe that the situation has now changed. In our opinion, the relatively long and painful "adjustment period" or "transition phase" has now ended. To a great extent, the old, expensive and obsolete inventories are now out of the distribution pipeline. The industry has matured. Traders can now work with new and less expensive pearls. They can buy cheaper and sell cheaper. Finally, the end-consumer can now also benefit from the new prices.

For many, it's a new start! It falls right into a period where a new, trendy generation comes into play. A generation that no longer looks back to the fashion and tradition that demanded pearls to be white and round, but to the future, where the criterion of beauty and fashion demand all kinds of shapes and colours, at affordable prices. And that's exactly what today's market can offer.

Today's lower prices, combined with a much larger variety, will boost demand in existing markets. It will also help develop new, emerging markets, which have a tremendous potential. We talk about markets such as China, India, Russia, Eastern Europe and, hopefully, parts of South America.

Should the world not be plagued by events that are out of our control such as epidemics (e.g. SARS or avian flu), by war exceeding local conflicts, by massive terror or by excessive oil prices, which could bring the bourses down, then the road is paved for a very bright future. Some optimists predict: "if all

goes well, there won't be enough pearls to feed the markets"! Ladies and gentlemen, let's not miss the opportunities!

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Disclaimer:

The contents of this file / presentation represent the personal opinion and estimates of the author, Andy Müller. The author will not be held responsible for any inconveniences caused by incorrect estimates and/or interpretations.

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Kobe, Japan, April 2005.  
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