TRADITIONAL AND INNOVATIVE BARS FROM THAILAND

Manufactured by Members **Gold Traders Association** Bangkok

The Industry Collection has acquired 53 additional bars from **Thailand,** where traditional "biscuit", "boat" and "doughnut" bars are widely manufactured – and where innovative bars have been introduced in recent years.

The bars were provided by 9 representative manufacturers, members of the **Gold Traders Association** in Bangkok. Their acquisition was co-ordinated by the **Bangkok Assay Office** and **Chin Hua Heng**.

BACKGROUND

Most of the newly-acquired bars are denominated in baht, a Thai unit of weight. 1 baht is equivalent to 15.244 g or 0.4901 oz. The standard millesimal gold purity of baht bars is 965, although they are also manufactured at 999.9.

According to trade reports, there are at least 30 significant manufacturers of baht bars nationwide. Jewellery shops – there are more than 6,000 nationwide – are the main retailers, many selling their own customized bars.

According to GFMS Limited*, identified net bar hoarding in Thailand was 28 tonnes in 2005 – the 4th largest bar hoarding country (outside Europe and North America) in that year behind India, Japan and Vietnam. Gold (including scrap) used in the fabrication of jewellery was estimated at 66 tonnes – the 9th largest jewellery fabricating country. The population of Thailand is 64 million.

* GFMS Limited, London: Gold Survey 2006.



Traditional biscuit, boat and doughnut bars manufactured by Toa Kang in the Chinatown district of Bangkok.



Most baht bars are bought and sold through jewellery shops.

REPRESENTED BAR MANUFACTURERS

| Manufacturer | Year | Location | Status | GTA* |
|--|-------------|----------|------------------------------------|--------|
| | Established | | | Member |
| Tang Toh Kang Limited Partnership | 1866 | Bangkok | Bar manufacturer | 1990 |
| Buan Hua Long Gold Dealer | 1947 | Bangkok | Bar manufacturer | 1983 |
| Hua Seng Heng Goldsmith Co Ltd | 1947 | Bangkok | Refiner and bar manufacturer | 1983 |
| Loo Chang Huat (2498) Gold Store Co Ltd | 1955 | Bangkok | Refiner and bar manufacturer | 1990 |
| Yoo Long Kim Kee Ltd Partnership | 1968 | Bangkok | Affiliated to Loo Chang Huat | 1983 |
| Lang Hong Group Co Ltd | 1970 | Bangkok | Refiner and bar manufacturer | 1983 |
| Toa Kang Jawaraj Goldsmith Ltd Partnership | 1972 | Bangkok | Refiner and bar manufacturer | 1983 |
| Chin Hua Heng Goldsmith Co Ltd | 1980 | Bangkok | Bar manufacturer | 1983 |
| Bangkok Assay Office Co Ltd | 1985 | Bangkok | Major refiner and bar manufacturer | 2003 |

Source: Refiners and bar manufacturers * Gold Trader Association (GTA) was established in 1983.



While the **Bangkok Assay Office** operates a major refinery, traditional refiners and bar manufacturers are small. Few produce more than 300 kg of baht bars annually.

Most represented manufacturers retail their bars through their own jewellery shops, with two exceptions: **Loo Chang Huat** acts as a wholesaler, also manufacturing customized bars on request for retailers and institutions. The **Bangkok Assay Office** focuses on the wholesaling of 1000 g bars.

NOTABLE ACQUISITIONS

- The first **minted** 5 and 10 baht bars manufactured in the traditional biscuit shape. Launched by **Chin Hua Heng** in 2006.
- The world's first oval cast bars, according to the Industry Collection's understanding. Issued by Yoo Long Kim Kee since 2000. In two weights: 1 and 2 baht.
- Small square cast bars to enable smaller investors to purchase gold regularly in a high gold price environment. Launched by Lang Hong in 2005. In three weights: 1, 2 and 3 baht.
- The full range of cast biscuit bars manufactured with official markings in bas-relief by Tang Toh Kok. Established in 1866, the company is renowned as the oldest bar manufacturer and jewellery retailer in Thailand. In 6 weights, ranging from 1 baht to 25 baht.
- A traditional "honeycomb" bar (28.87 baht) manufactured by Loo Chang Huat. These bars, widely traded in irregular weights until the 1970s, are created by blowing on the molten gold as it cools in the bar mould. The cracked surface enables the purchaser to ensure that the cast bar is made entirely from gold.
- Standard bars in conventional rectangular shapes from the Bangkok Assay Office, a leading refiner and bar manufacturer in Thailand. Its modern refinery was established in Bangkok in 1996.

DIVERSITY OF BAHT BARS

According to the Industry Collection's understanding, no country manufactures cast bars in such a diverse range of shapes.

Cast bars are available in 7 different shapes, as listed below.

| Cast Bar Shapes | Common Weights in Thai Baht | | | | | | | | |
|--------------------|-----------------------------|----|----|----|---|---|-----|---|---|
| | | | | | | | | | |
| Biscuit* | 25 | 20 | 15 | 10 | 5 | 3 | 2.5 | 2 | 1 |
| Square | - | - | - | - | - | 3 | - | 2 | 1 |
| Oval | - | - | - | - | - | 3 | - | 2 | 1 |
| Round | - | - | - | - | - | 3 | - | 2 | 1 |
| Rectangular | - | - | - | 10 | 5 | 3 | - | - | - |
| Boat* | - | 20 | - | 10 | 5 | 3 | 2.5 | - | - |
| Doughnut* | | | - | | 5 | | 2.5 | 2 | - |

* **Biscuit:** narrow elongated bar; also manufactured on request in 30, 40, 50, 100 and other baht weights. **Boat:** bar resembles the hull of a Chinese junk. **Doughnut:** round bar with a hole in its centre.

The most popular small bar is the 10 baht biscuit, alongside 1000 g bars produced by major refiners for jewellery fabricators.



The refinery of Bangkok Assay Office, established in 1985, is located near Bangkok's international airport.



5 baht

Chin Hua Heng issued its range of minted baht bars in 2006.



There are more than 30 significant manufacturers of traditional baht bars in Thailand.



Loo Chang Huat, affiliated to **Yoo Long Kim Kee**, also manufactures unusual "twin-coin" bars: 1 and 2 baht (since 1991), 4 and 5 baht (since 1994). The bars, in the shape of a figure-of-eight, incorporate two round components that resemble ancient Chinese coins.

Bangkok Assay Office has manufactured **1000 g** bars with its current official stamp since 2001. It also manufactures other bar weights on request.

Apart from the domestic recycling of old gold jewellery, the Thai gold market also relies heavily on **imported 1000 g bars** (999.9 purity) for jewellery and baht bar fabrication. The imported bars are manufactured by refiners in Switzerland, Australia, Hong Kong and elsewhere.



5 baht Bangkok Assay Office

TECHNICAL DESCRIPTION

| Company | Weight | Туре | Fineness | Shape | Dimensions mm | First Issued |
|------------------|------------|------|----------|----------------|------------------------|-----------------|
| Tang Toh Kang | 25 baht | Cast | 999.9 | Biscuit* | 95 x 18 x 12 | Before 1921 |
| lang for realig | 20 baht | Cast | 999.9 | Biscuit* | 95 x 17 x 11 | Before 1921 |
| | 10 baht | Cast | 999.9 | Biscuit* | 87 x 15 x 5 | Before 1921 |
| | 5 baht | Cast | 999.9 | Biscuit* | 42 x 15 x 5 | Before 1921 |
| | 2 baht | Cast | 999.9 | Biscuit* | 27 x 12 x 5 | Before 1921 |
| | 1 baht | Cast | 999.9 | Square* | 18 x 18 x 4 | Before 1921 |
| | I Daiii | Casi | 999.9 | Square | 10 x 10 x 4 | Belore 1921 |
| Buan Hua Long | 10 baht | Cast | 965 | Biscuit (H)* | 75 x 18 x 5 | 1947-1990 |
| | 10 baht | Cast | 965 | Biscuit | 58 x 16 x 8 | 1991 |
| | 5 baht | Cast | 965 | Doughnut (H)* | 27 x 27 x 16 | 1985-2002 |
| |) O Dant | Odot | 1 000 | Bougillat (11) | LI X LI X 10 | 1000 2002 |
| Hua Seng Heng | 10 baht | Cast | 965 | Biscuit | 62 x 17 x 7 | 1970 |
| | 5 baht | Cast | 965 | Biscuit | 37 x 18 x 5 | 1970 |
| | 10 baht | Cast | 965 | Boat | 32 x 46 – 11 x 22 – 20 | 1947 |
| | 5 baht | Cast | 965 | Boat | 27 x 37 – 7 x 15 – 13 | 1947 |
| | 2.5 baht | Cast | 965 | Boat | 20 x 26 – 2 x 10 – 12 | 1947 |
| | | | 1 | | 1 | 1 |
| Loo Chang Huat | 10 baht | Cast | 999.9 | Biscuit | 78 x 17 x 6 | 1955 |
| | 10 baht | Cast | 999.9 | Brick | 56 x 19 x 8 | 2005 |
| | 5 baht | Cast | 999.9 | Biscuit | 38 x 18 x 5 | 1955 |
| | 2 baht | Cast | 999.9 | Doughnut | 25 x 25 x 5 | 1996 |
| | 28.87 baht | Cast | 965 | Honeycomb* | 97 x 19 x 18 | 1955 |
| | | | | | | |
| Yoo Long Kim Kee | 2 baht | Cast | 999.9 | Oval | 27 x 16 x 4 | 2000 |
| | 1 baht | Cast | 999.9 | Oval | 17 x 11 x 5 | 2000 |
| | 1 baht | Cast | 999.9 | Round | 8 x 8 x 6 | 2000 |
| | 20 baht | Cast | 999.9 | Boat | 29 x 45 – 16 x 26 – 31 | 1997 |
| | 10 baht | Cast | 999.9 | Boat | 23 x 34 – 12 x 19 – 24 | 1997 |
| | 5 baht | Cast | 999.9 | Boat | 18 x 30 – 9 x 13 – 22 | 1999 |
| | 3 baht | Cast | 999.9 | Boat | 17 x 25 – 7 x 10 – 17 | 1999 |
| | 5 baht | Cast | 965 | Twin-coin | 38 x 22 x 9 | 1994 |
| | 4 baht | Cast | 965 | Twin-coin | 38 x 22 x 7 | 1994 |
| | | | | | | |
| Lang Hong | 10 baht | Cast | 965 | Biscuit | 68 x 17 x 6 | 1970 |
| | 5 baht | Cast | 965 | Biscuit | 45 x 17 x 5 | 1970 |
| | 3 baht | Cast | 965 | Square | 15 x 15 x 7 | 2005 |
| | 2 baht | Cast | 965 | Square | 14 x 14 x 6 | 2005 |
| | 1 baht | Cast | 965 | Square | 7 x 7 x 6 | 2005 |
| | 2.5 baht | Cast | 965 | Boat | 24 x 30 – 6 x 13 – 11 | 1970 |
| | 2.5 baht | Cast | 965 | Doughnut | 24 x 24 x 4 | 1970 |



| | | _ | _ | | | . |
|----------------------|----------|--------|----------|-----------------|-----------------------|------------|
| Company | Weight | Туре | Fineness | Shape | Dimensions | First |
| | | | | | mm | Issued |
| Toa Kang | 25 baht | Cast | 999.9 | Biscuit* | 95 x 17 x 12 | 2005 |
| | 10 baht | Cast | 965 | Biscuit | 73 x 16 x 6 | 2000 |
| | 5 baht | Cast | 965 | Biscuit | 41 x 17 x 5 | 1972 |
| | 3 baht | Cast | 965 | Round | 23 x 23 x 6 | 1972 |
| | 1 baht | Cast | 965 | Round | 15 x 15 x 3 | 1972 |
| | 5 baht | Cast | 965 | Boat | 25 x 39 – 7 x 18 – 14 | 1972 |
| | 2.5 baht | Cast | 965 | Boat | 16 x 25 – 9 x 15 – 11 | 1972 |
| | 2 baht | Cast | 965 | Doughnut | 23 x 23 x 6 | 1972 |
| | | | | | | |
| Chin Hua Heng | 10 baht | Minted | 965 | Biscuit | 78 x 20 x 5 | 2006 |
| | 5 baht | Minted | 965 | Biscuit | 45 x 20 x 5 | 2006 |
| | 2 baht | Minted | 965 | Biscuit | 40 x 20 x 2 | 2006 |
| | 1 baht | Minted | 965 | Biscuit | 30 x 17 x 2 | 2006 |
| | • | | | | | |
| Bangkok Assay Office | 1000 g | Cast | 999.9 | Rectangular | 112 x 47 x 10 | 2001 |
| | 10 baht | Cast | 999.9 | Rectangular | 45 x 21 x 7 | 2006 |
| | 5 baht | Cast | 999.9 | Rectangular | 35 x 18 x 5 | 2006 |
| | 3 baht | Cast | 999.9 | Rectangular | 30 x 15 x 5 | 2006 |
| | 10 tola | Cast | 999.9 | Rectangular | 46 x 25 x 4 | 2006 |
| | 5 g | Minted | 999.9 | Rectangular (H) | 23 x 14 | 1985-1990s |
| | 2.5 g | Minted | 999.9 | Rectangular (H) | 19 x 13 | 1985-1990s |
| | 1 g | Minted | 999.9 | Rectangular (H) | 16 x 11 | 1985-1990s |

Source: Refiners and manufacturers * Indicates that the bar includes markings in bas-relief. H = historical. Measurement of boat bars: length of base x length of top, height of base x height of top, width of middle.

10 BAHT BARS



Hua Seng Heng



Lang Hong



Loo Chang Huat



Buan Hua Long



Yoo Long Kim Kee



OVAL



2 baht Yoo Long Kim Kee

SQUARE



3 baht Lang Hong

ROUND



3 baht Toa Kang

HONEYCOMB BAR



28.87 baht Loo Chang Huat

BAS-RELIEF BARS

Several Thai manufacturers still mark cast bars in **bas-relief**. The marks, carved into the base of the bar mould, are formed as soon as the molten gold is poured into the mould.

Normally the marks record, in Thai script, only the name of the manufacturer, but some manufacturers also apply stamps to record the bar weight and gold purity.

Manufacturers of bars, with marks in bas relief, include **Buan Hua Long, Loo Chang Huat, Tang Toh Kok** and **Toa Kang**.



The bas-relief bars of Tang
Toh Kok range from 1 baht up
to 25 baht.



10 baht Buan Hua Long

10 baht Yoo Long Kim Kee

BOATS



2.5 baht Toa Kang



5 baht Hua Seng Heng

DOUGHNUTS



2 baht Loo Chang Huat



5 baht Buan Hua Long



2 baht Toa Kang

TWIN-COIN BAR



5 baht Yoo Long Kim Kee

OFFICIAL STAMPS

The official stamps of Thai manufacturers evoke Thai culture and, and as a group, the stamps are the world's most attractive.

| Company | Offficial Stamp | Company | Offficial Stamp |
|----------------------|------------------|------------------|-----------------------------|
| Bangkok Assay Office | Golden swan | Lang Hong | Phoenix and Chinese dragon |
| Buan Hua Long | Horse | Loo Chang Huat | Chinese dragon |
| Chin Hua Heng | Elephants | Toa Kang | Elephant |
| Hua Seng Heng | Royal Thai crown | Yoo Long Kim Kee | Flying wheel with two wings |



BANGKOK ASSAY OFFICE



1000 g



10 baht



10 tola

GOLDEN SWAN



The golden swan, depicted on the official stamp, commemorates a gold and jewellery-encrusted replica of The Royal Golden Swan Barge, manufactured by an associated BAO company in 1985.

For further information:

Bangkok Assay Office: www.bkkassay.com

Gold Traders Association, Bangkok: www.goldtraders.or.th

THE INDUSTRY COLLECTION OF GOLD BARS WORLDWIDE

The Industry Collection of Gold Bars Worldwide is the culmination of a worldwide effort to create a unique collection of standard, innovative and unusual gold bars to support the promotion of gold.

Since 1993, manufacturers from across the globe have supported this international project by making their bars available. Founder was **N M Rothschild & Sons (Australia) Limited**, associated with N M Rothschild & Sons Limited, London. Custodian and Official Location is **The Perth Mint**, wholly owned by the Government of Western Australia.

Curator is **Grendon International Research Pty Ltd** (GIR). Apart from acting as a consultant within the gold industry, GIR has published several reference books on gold, including *The Industry Catalogue of Gold Bars Worldwide*.

Refer to disclaimer on website: www.goldbarsworldwide.com

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