

The trade in African and Asian ivory in East Asia

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Abstract

East Asia is the main destination of illegal ivory smuggled out of Africa. There is a positive correlation between elephant poaching and ivory demand. The scale of the ivory markets in this region gives an indication of the degree of demand for ivory, and therefore of the level of elephant killing needed to supply that demand. In 2002 Hong Kong displayed by far the most worked ivory for sale, but China has emerged as the largest illegal manufacturer and importer–exporter of ivory, most of it of African origin. Japan remains a relatively important market, but the size of the ivory industry has declined considerably since 1990. The ivory market of Taiwan is minor and the market is insignificant in South Korea. China and Japan are the only countries in East Asia with full-time ivory workshops. Most of China's ivory production is exported, while Japan's is bought by Japanese and remains in the country. Ivory law-enforcement efforts are improving in the region, but much more remains to be done to control the illegal movement and sale of ivory.

Résumé

L'Extrême-Orient est la principale destination de l'ivoire sorti illégalement d'Afrique. Il existe une corrélation positive entre le braconnage des éléphants et la demande d'ivoire. L'importance du marché de l'ivoire dans cette région donne une indication de l'intensité de la demande d'ivoire et dès lors, du niveau d'abattage des éléphants qui doit répondre à cette demande. En 2002, c'était Hongkong qui proposait à la vente le plus grand nombre d'objets en ivoire travaillé, mais la Chine émerge comme le plus gros fabricant et importateur-exportateur illégal d'ivoire, dont la plus grande partie vient d'Afrique. Le Japon reste un marché relativement important, mais l'industrie de l'ivoire y a considérablement diminué depuis 1990. Le commerce de l'ivoire est réduit à Taiwan et insignifiant en Corée du Sud. La Chine et le Japon sont les seuls pays d'Extrême-Orient où des ateliers travaillent l'ivoire à temps plein. La plus grande partie de la production chinoise est exportée alors que la production japonaise est achetée sur place et reste dans le pays. L'application des lois sur l'ivoire s'améliore dans la région, mais il reste beaucoup à faire pour contrôler la vente et les mouvements illégaux d'ivoire.

Introduction

We present here the results of our third survey that describes the status and trends of the ivory trade, this one in East Asia. The previous reports covered Africa (Martin and Stiles 2000; Stiles and Martin 2001) and South and South East Asia (Martin and Stiles 2002; Stiles and Martin 2002). The places surveyed for this report were China, Hong Kong, Japan, South Korea and Taiwan. The surveys were carried out in 2002.

The purpose of these trade surveys is to gather data on indicators that portray the scale of the ivory mar-

kets so that governments, wildlife conservation organizations and CITES representatives can appreciate the extent to which ivory is traded in selected countries. In this first round of surveys these data are compared to any existing data to assess any changes that have taken place from previous years, thus suggesting trends in the ivory markets. It is hoped that future surveys using the methodology employed here will enable standardized monitoring and assessment of country and regional ivory markets as called for by CITES Resolution Conf. 10.10 (Rev. CoP12).

Data presented in these reports will be instrumen-

tal in achieving this objective. Any changes in the trade indicators of key countries can be compared with elephant killing as signalled by the Monitoring of Illegal Killing of Elephants (MIKE) system and with ivory seizures as recorded by the Elephant Trade Information System (ETIS) to ascertain whether significant correlations occur. The data should also be useful in implementing CITES decision 12.39 on assessing internal ivory trade controls in 10 countries, including China and Japan.

The CITES policy related to elephants that is most in need of evaluation is that of permitting renewed but limited international sales of ivory. Three southern African states—Botswana, Namibia and Zimbabwe—sold ivory to Japan in 1999 and three—Botswana, Namibia and South Africa—are to be permitted to do so after May 2004 to as yet unnamed buyers.

The cities surveyed were Guangzhou, Shanghai and Beijing in China; Hong Kong; Tokyo and Osaka in Japan; Seoul in South Korea; and Taipei, Tamsui, Taichung and Kaohsiung in Taiwan.

The survey work collected indicator data: the prices of raw ivory, the number of ivory workshops and craftsmen in each city, the number of retail outlets selling ivory items, the number of ivory objects seen for retail sale and the prices of a standard representative set of worked items. Ivory not displayed openly was not counted, unless the vendor brought it out to show. The worked ivory prices came from price tags or salespersons. We give the asking price for the retail objects.

We asked each informant for the average prices of different weights of tusks of average good quality sold from the last middleman to the workshop or individual carver. We asked several informants the same question and when consistency of prices was obtained, it was accepted and reported. Details of the methodology can be found in Martin and Stiles (2003).

Results

Table 1 presents a summary of past and present ivory trade indicators in the East Asian places surveyed.

Table 1. Past and present ivory trade indicators for East Asia

Place	Year	Price/kg for 5–10-kg tusk ^a (USD)	GDP inflator index value 2002 (USD)	Workshops (no.)	Craftsmen ^b (no.)	Retail outlets (no.)	Items (min. no.)
China ^c	1985	63	94	> 20	1500	–	–
	1989	197–350	261–464	~ 15	900	–	–
	1990s	172–193	–	–	–	–	–
	2002	120–170 ^d	120–170	~ 10	100–200	117	9096
Hong Kong	1960	6	30	–	1500	–	–
	1978	65	149	–	2200	–	–
	1988	180	248	–	600–1000	–	–
	2002	200–320	200–320	0	0	85	35884
Taiwan	1979	–	–	3+	10?	–	–
	1989	–	–	–	10	> 55	–
	1999	–	–	–	–	> 46	–
	2002	–	–	1	1	59	1849
Japan	1980	76	149	–	300	–	–
	1988/89	288	396	–	–	–	–
	2001/02	140–320	140–320	~ 73	~ 107	138	7565
South Korea	2002	–	–	0	0	14	36

– no data

^a Tusks are raw. There are no data for Taiwan and South Korea because no tusks were for sale.

^b The number of craftsmen excludes the makers of hallmarks on name seals.

^c Estimates of the workshops and carvers are for the entire country, not just the three cities visited, because published sources in the past referred to the whole country.

^d The weights for these prices were unknown, but the ivory was almost certainly in pieces smaller than tusks of 5–10 kg. However, since prices for them are the only recent ones available, they are included here.

Raw ivory sources and prices

CHINA

China imported legally an average of 32 tonnes of raw ivory a year from 1980 to 1989 (Martin 1988; Laurie 1989). This ivory originated in Africa. In addition, an unknown quantity of illegal Asian elephant raw ivory from Laos, Myanmar and Vietnam was smuggled overland across the border (Martin and Stiles 2002). Some illegal ivory also came from China's own few elephants in the early 1990s, but the poaching has been controlled (O'Connell-Rodwell and Parry-Jones 2002).

In 1989 Laurie (1989) estimated that China held 50 tonnes of raw ivory stocks. Caldwell and Luxmoore (1990) and Martin (1990a) stated that in 1990 the government import-export companies and ivory factories held more than 200 tonnes of ivory, most of it worked. Additional worked ivory was located in retail outlets.

Before 1990, government-owned corporations controlled the ivory processing factories and import and export of ivory. There were no privately owned ivory workshops (except individuals working secretly in their homes) and the government was the sole source of legal raw ivory.

A tusk of 5 to 10 kg sold for USD 200 to 350/kg in 1989 (Laurie 1989; Martin 1990b). In 1997 Lee and Parry-Jones (1997) reported that the main government ivory trading company was no longer selling ivory. Apparently its stocks were exhausted.

In the 1990s the average price of black market raw ivory was RMB (Chinese renminbi) 1500/kg (USD 186/kg) and Asian tusks sold for RMB 3000/kg (USD 372/kg) (O'Connell-Rodwell and Parry-Jones 2002). The 2002 price was USD 120 to 170/kg for seized raw ivory of unspecified weight (*China Daily* 10 May 2002).

The stockpiles of ivory held by private and government businesses listed in the 2002 government survey are so incomplete that no estimate of the national stockpile can be made (WWF China, pers. comm. June 2003). The China CITES Management Authority (CMA) did find, however, that since 1991 some 110 tonnes had gone missing from the national ivory stockpile. This suggests that illegal selling has taken place and the government has instigated an investigation (China CMA 2003). The results of the ivory stockpile survey showed that by the end of 2002 there were 26.15 tonnes and a further 11,012 pieces of seized raw and worked ivory held in various national and local government stores (WWF China, pers. comm. June 2003).

Daniel Stiles



Private ivory workshops in China work in assembly-line fashion. These women are painting carved items.



High quality mammoth ivory can be as white and as well carved as elephant ivory.

The ivory processed in China in the private workshops today must be for the most part smuggled African ivory. Since the government cannot import legal ivory, and the private ivory companies are not going to admit that they are importing or buying illegal ivory, only seizure data can be used to assess new sources of raw ivory.

The raw data gathered from seizures as reported in Lee and Parry-Jones (1997), CITES (2000, 2002), the Environmental Investigation Agency (EIA 2000), the *People's Daily* (10 May 2002), O'Connell-Rodwell and Parry-Jones (2002), TRAFFIC (2002a, b), China CMA (2003) and Milliken et al. (2002a,b) indicate an increasing volume of ivory moving into China since 1996, totalling over 17 tonnes of tusks, 14.1 tonnes of unspecified pieces, 564 unweighed tusks and raw ivory pieces, about 8000 ivory items, and 11 cases containing unspecified amounts of ivory.

TRAFFIC East Asia estimated that between January 1998 and September 2001 a minimum of between 30 and 45 tonnes of ivory was seized destined for or entering China (O'Connell-Rodwell and Parry-Jones 2002). The total amount of seized ivory intended for use between 1996 and 2002 in China would be roughly 40 to 50 tonnes.

TRAFFIC found 301 incidents of ivory seizures in China from other sources (Milliken et al. 2002b, table 1). The number has now grown to almost 400 (TRAFFIC, pers. comm. May 2003). China is the principal destination of seized raw ivory in the world.

HONG KONG

In mid-1989 the Agriculture and Fisheries Department, which later became the Agriculture, Fisheries and Conservation Department (AFCD), reported that Hong

Kong craftsmen and traders declared 497 tonnes of raw ivory and 168 tonnes of worked ivory (Milliken and Melville 1989). From July 1989 to July 1990, traders sold over 200 tonnes of raw and worked ivory. From July 1990 to April 2002, stockpiles of tusks and carved items, the majority of it raw ivory, fell from 463.4 tonnes to 256 tonnes (AFCD, pers. comm. 2002).

Since there were no legal exports of raw or worked ivory after July 1990, and Hong Kong Chinese bought very few ivory items for themselves, why did these stockpiles diminish so much? TRAFFIC East Asia suggested that 'the habitual use of the 5 kg personal effects exemption to carry ivory to Taiwan and Japan is of special concern and could constitute a signifi-

cant means of illicit trade' (Lee et al. 1997). The AFCD (pers. comm. May 2002) said that the decline in stockpiles was due to sales within Hong Kong, loss and illicit exports.

The most likely recent export destination of tusks has been mainland China. Evidence for this smuggling is partly based on official seizures of ivory from Hong Kong destined for China.

According to two major ivory sellers, the wholesale price for raw ivory in early 2002 (registered before the CITES ban and thus legal) was around USD 200/kg for a 5-kg piece and USD 320/kg for a 10-kg piece. This compares with USD 270/kg for a 20-kg tusk in 1998 (manager, Nathan Ivory Factory, pers. comm. 1998). Since the demand for tusks is now so low there is no generally accepted price for raw ivory, and these prices are only an indication.

JAPAN

Since 1990 there has been only one significant legal import of tusks into Japan, in 1999, when almost 50 tonnes were brought in from southern Africa. Since the Japanese had to pay for transport costs to Japan, the buyers claimed that the actual cost of this raw ivory was just under USD 200/kg (Japanese ivory traders, pers. comm. April 2002). Many of these tusks were sold soon after their import for an average price of around USD 244/kg, not an excessive mark-up.

Some tusks have been imported illegally, but for obvious reasons they are impossible to quantify. From 1990 to 1996 the TRAFFIC Bad Ivory Database System (BIDS) reported five seizures in Japan, two of them of raw tusks, totalling 1168.5 kg.

On 26 April 2000 the Tokyo Customs and Saitama Police confiscated 500 kg of raw ivory that had been shipped from Singapore to Kobe.

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This Hong Kong businessman has set up a large mammoth ivory factory in Guangzhou. Most of the output is exported to the USA and Europe, possibly reducing demand for elephant ivory.



The most expensive tusks available wholesale in Japan in 2002 were those from the forest elephant weighing 30 to 35 kg and costing about USD 500 a kilogram.

Another source of tusks for ivory manufacturers is old stockpiles. The Japan General Merchandise Importers Association reported that at the end of 1989 its members held 114 tonnes in stockpiles (Kiyono 1997). A registration of tusks between June 1995 and November 1996 recorded 92 tonnes (5992 tusks). By late 1996 the stockpiles weighed 81 tonnes, but these two figures do not include all ivory stockpiles in the country, only those tusks owned by traders and intended for domestic trade (Kiyono 1997). With the legal import from southern Africa in 1999, stockpiles increased temporarily. In 2001 tusks registered by the dealers weighed 89.5 tonnes consisting of 7437 pieces (Kiyono 2002).

The Japan Ivory Association estimated the stockpiles owned by traders were around 100 tonnes in early 2002. Members believe that the annual consumption of tusks over the past few years has averaged from 10 to 15 tonnes. They buy the tusks at periodic auctions.

The wholesale price of tusks probably reached an all-time high in Japan in the mid-1990s. In late 2001

and early 2002 the average weight of a tusk sold was from 7 to 10 kg. The wholesale price for hard ivory weighing from 5 to 10 kg averaged USD 253/kg and for soft ivory USD 212/kg. A tusk weighing over 30 kg sold wholesale for about USD 504/kg. Small tusks weighing less than 5 kg were of little value.

SOUTH KOREA

Ivory stockpile figures for South Korea have never been published (Kang 1997). Between 1985 and 1990 Milliken (1991) reported there were 4.2 tonnes of raw ivory and 32.2 tonnes of worked ivory legally imported into the country. Nearly 29 tonnes of worked ivory were imported in 1989. Caldwell and Luxmoore (1990) stated that there were rumours that much of this ivory was from Hong Kong, probably intended for re-export as South Korea did not belong to CITES until 1993. Martin (1992) echoed this view. Milliken (1991), however, noted that the import-declared value implied that the weight of the 1989 ivory was actually 287 kg and not 28.7 tonnes. Export records for

South Korea do not indicate that much of this supposed ivory was re-exported in 1989; only 311 kg of worked ivory went to Japan. No South Korean ivory export statistics have been published after that.

Martin (1998) reported that in 1997 South Koreans were illegally exporting raw ivory that had come from Sudan, and Martin and Stiles (2000) were told of a Korean based in Kinshasa who was actively looking for raw ivory in 1999 in eastern Democratic Republic of Congo. A small source of worked ivory that went to shops came from students returning from trips abroad (Kang 1997). In our 2002 survey no evidence could be found that raw ivory was being smuggled.

TRAFFIC and newspapers have not reported any ivory seized going to or coming from South Korea since 1997. China reports no South Korean connection in ivory seizures between 1998 and 2001 and Japan reports none between 1994 and 1999 (O'Connell-Rodwell and Parry-Jones 2002; JWCS 2000; Sakamoto 2002). This leads to the conclusion that South Korea has ceased to be an important country for either consuming or transiting ivory. No prices for raw ivory in South Korea were reported by Caldwell and Luxmoore (1990), Milliken (1991) or Kang (1997). With no market currently, there is no price.

TAIWAN

Before 1980 Taiwan's role in the international ivory trade was modest. In the 1980s Taiwan began importing more raw ivory from Africa, stimulated by business relations with Hong Kong ivory dealers (Wang and Milliken 1989). Between 1980 and 1988, all categories combined (raw, worked and waste) of ivory imported into Taiwan totalled 231.4 tonnes. In 1987 imports spiked to almost 81 tonnes because mainly Hong Kong dealers moved ivory processing from Singapore to Taiwan after Singapore banned ivory imports and manufacturing. Demand in the Taiwan domestic market was only 1 to 2 tonnes of ivory a year, so most of the imports were re-exported. Large-scale ivory imports ceased in 1989 after Taiwan enacted ivory import curbs in 1987 and 1988 (Wang and Milliken 1989).

All raw ivory in Taiwan was registered with the government before the end of 1995 under the Supplementary Regulations for the Management of Ivory Stocks. According to the *China Times* (12 April 2000), 139 Taipei dealers registered 5101 tusks, which was probably the great majority of Taiwanese raw ivory.

Published seizure data report that all raw ivory entering Taiwan between 1991 and 2000 was of African origin (Phipps and Chen 1997; Wu and Phipps

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Very few, if any, ivory pieces are made in South Korea. These items in Seoul come from the Democratic Republic of Congo.



Daniel Stiles

Ivory Carving Factory (ICF), with a reported 300 carvers in 1985 (Martin 1988) and 370 carvers in 1989 in two locations (Laurie 1989; Martin 1990a). The second ivory factory in Guangzhou, Yiguang ICF, had about 100 craftsmen (Laurie 1989).

In early 2000 DaXin claimed to have 50 ivory carvers (EIA 2000). TRAFFIC visited DaXin later in 2000 and reported that about 20 carvers worked there. The factory staff said that they were still using the one tonne of raw ivory they had from 1989 and that about 17 or 18 tonnes of worked ivory remained (O'Connell-Rodwell and Parry-Jones 2002). They reported to TRAFFIC investigators that they sold 30% of their

Most of the ivory seen in Taiwan was found in market stalls for jade or antiques.

2002). Sakamoto (2002) reported that Singapore sold much of their raw ivory stocks to Taiwan and Japan in 1998 and 1999 and that Taiwanese ivory dealers go regularly to Singapore to buy name-seal blanks.

Up to 2000, Taiwan was an important destination for illegal raw ivory and name-seal blanks. The seizures reported to TRAFFIC between 1991 and 2002 totalled 87 incidents. ETIS found that an additional 69 ivory seizures involved Taiwan, totalling 156. Over 15 tonnes of ivory involving Taiwan were seized between 1991 and the end of 2000.

Since 2000 there have been no major seizures of ivory in Taiwan, perhaps indicating that ivory traders have ceased activities on the island in the face of increasing government vigilance.

No prices for raw ivory in Taiwan were reported by Phipps and Chen (1997) or Wu and Phipps (2002). We could find no informant who knew of raw ivory prices, and no ivory seemed to be for sale.

Ivory workshops

CHINA

Before 1990 all ivory factories were government owned. The largest in Guangzhou was the DaXin

production internationally. DaXin declared 11.5 tonnes of raw and worked ivory stocks to the Chinese government in late 2002 (WWF China, pers. comm. June 2003).

In 2002 the DaXin management did not allow us to visit the factory but said that 30 carvers were still employed. Other informants stated that the factory was not operating. The showrooms were open and worked ivory could be purchased.

EIA (2000) reported that Yue Ya, a private company, had an ivory workshop in Guangzhou, another in Beijing and three retail outlets in Guangzhou. In 2002 the owner of Yue Ya told us that he had closed his workshops due to a lack of raw material and business, but a vendor in his retail shop said that he still employed about 12 carvers. We found only a private one-man carving workshop on DaXin Street.

In 1985 the Shanghai Jade Carving Factory had about 120 ivory carvers and used 5 or 6 tonnes of ivory a year (Martin 1988). In 2002 we found no workshops, but EIA (2002) reported a retail outlet that sold ivory paintbrushes that were apparently manufactured in Shanghai from African ivory.

In 1985 Beijing had two large government-owned ivory carving factories (Martin 1988). The Beijing Ivory Carving Factory employed 550 carvers in 1985,

800 in 1986 and fewer than 400 in 1989. The Arts and Crafts Factory employed about 80 carvers in 1985 (Martin 1988). By 1990 the number of active ivory carvers in the Beijing ICF was down to 6. The Beijing ICF registered 3 tonnes of raw and 5 tonnes of worked ivory in 1989 (O'Connell-Rodwell and Parry-Jones 2002), although the *China Daily* in 1989 reported that the factory held 6.4 tonnes of worked ivory and 2.4 tonnes of tusks. By April 1990 the Beijing ICF had only 2 tonnes of raw ivory stock (Martin 1990a).

There were at least four other ivory workshops in Beijing in 1989, each employing 10 to 15 carvers (Laurie 1989). In 1989, therefore, Beijing had a total of 500 to 600 ivory carvers in about six factories (Laurie 1989).

In February 2001 the Beijing ICF still had over a tonne of raw ivory left and 5 tonnes of worked ivory, which means that they must have bought new stocks since 1989. TRAFFIC East Asia thought that it was the only legal ivory workshop in Beijing (O'Connell-

Rodwell and Parry-Jones 2002). The Beijing ICF declared an ivory stockpile of 723 kg at the end of 2002 (WWF China, pers. comm. June 2003).

The Beijing ICF told us that they were closed at the time of this survey and several retail ivory vendors said that the company had gone bankrupt. Two informants said that the Beijing ICF was still operating, but that they were bankrupt and only made name seals now, employing only a few craftsmen. All ivory vendors asked in Beijing said that their new worked ivory came from Guangdong Province.

Ivory factories were also known in the 1980s in Fuzhou, Hangzhou, Harbin, Kunming, Nanjing, Shenzhen, Suzhou, Tianjin and Yangzhou, and there were probably others. Martin (1988) estimated that there were 1200 to 1500 ivory carvers in China processing about 30 tonnes of ivory a year in 1985.

Ivory workshops nowadays seem to be concentrated in Guangdong Province close to Hong Kong and Macau. Aside from DaXin, only one identifiable

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Ivory carvers specialize in certain items in Chinese workshops. This man crafts only swans.



Forest elephant ivory, being the hardest ivory, is used to make Japanese traditional musical instrument parts, such as bridges for the *koto*.

workshop was listed in Guangdong Province in the 2002 government survey (WWF China, pers. comm. June 2002).

Informants told of mammoth ivory factories in Fujian Province and that the artisans might also carve elephant ivory. EIA (2002) located a workshop in Tianjin that manufactured about 10,000 ivory paintbrushes a year, and informants in Beijing told EIA in 2002 of two ivory workshops in Henan Province, one in Nanyang and one in Zhengping (EIA, pers. comm. March 2003).

There seem to be no more than 30 ivory carvers still working in Guangzhou, if that, maybe one in Shanghai and about 5–10 in Beijing. There are perhaps 10 larger ivory workshops still operating in China, with fewer than 200 craftsmen, including the small family workshops (estimates confirmed by Wan Zeming, China CMA, pers. comm. December 2002).

HONG KONG

Hong Kong in the 1980s was one of the largest centres in the world for ivory production, with about 800

ivory craftsmen in 1988 (Milliken and Melville 1989). Due to the sharp decline in demand for ivory items from 1990, and the large stocks of worked ivory in many shops, by 2001 there were no full-time ivory workers left in Hong Kong and only 5 or 6 part-time ivory artisans.

JAPAN

Since the 1980s there has been a dramatic decline in the amount of tusks consumed and in the number of workshops and craftsmen using ivory in Japan. In some years in the 1980s the workshops consumed up to 300 tonnes of tusks a year, compared with 10–15 tonnes in 2000 and 2001. Excluding those people crafting hallmarks on ivory name seals (*hankos*), the number of craftsmen has decreased from 300 in 1980 (Martin 1985) to 70–120 in 2001. Tokyo had the largest number of workshops, 50, and the largest number of craftsmen, about 70, in 2001. Osaka followed with 23 ivory workshops employing about 37 craftsmen. Each workshop specialized in certain ivory items.

Over 80% of the raw ivory is used to make hankos,

but production, mostly by machine, has fallen from almost a million in 1988 (Milliken 1989) to perhaps 116,000 in 2001, due to the shortage of ivory and the decline in demand. Parts for traditional Japanese musical instruments, especially the *bachi* (a plectrum for the *shamisen*), are next in importance, consuming about 10% of the tusks used a year. Only a small amount of ivory is consumed for making statues and netsukes (ornamental toggles), but the artisans who carve them are the most skilled (and highly paid) in the world. Using mostly hand tools, they may take several months to carve a 25-cm human figure.

SOUTH KOREA

There are no previous descriptions of ivory workshops in South Korea. The only carved ivory that Milliken found for sale in 1990 was made in Hong Kong. Kang (1997) stated that there were a few ivory carvers in the country, but gave no details.

Illegal raw ivory seizures made in South Korea from the 1980s to 1997 suggest that ivory working was being carried out, and Kang saw at least one ivory workshop in 1997. The sudden end to ivory seizures after 1997 implies that raw ivory smuggling ceased and that ivory working would have stopped not long after that.

No ivory workshops were found in South Korea in this survey.

TAIWAN

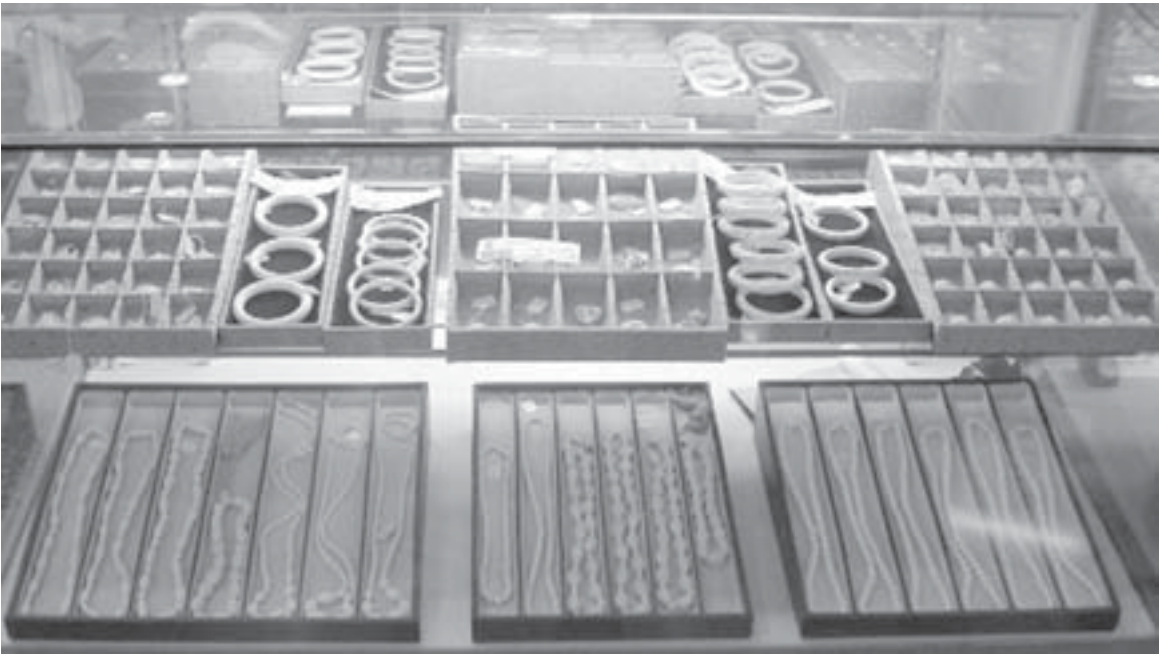
Before the 1970s only a few craftsmen in Taiwan occasionally made name seals out of ivory. About 50 to 100 ivory carvers came to Taiwan from Hong Kong in 1987 to work almost 81 tonnes of ivory that were imported that year (Wang and Milliken 1989). When Taiwan banned raw ivory imports in 1988, most of these carvers left. In 1989 only about 10 ivory carvers remained active (Wang and Milliken 1989). During the 1980s Taiwan was mainly an ivory processing and re-export locale. The USA and Hong Kong were the main wholesale destinations from 1986 to 1988 for worked ivory exports, followed by West Germany, Japan and Singapore. Worked ivory imports into Singapore were illegal after November 1986; nevertheless 4.5 tonnes from Taiwan were imported by Singapore in 1987 and 1988.

No reports mention ivory workshops in Taiwan after 1989. Much of the worked ivory sold there was imported previously from Hong Kong or China (Wu and Phipps 2002), a situation that probably increased after 1990. Taiwanese traders have been selling ivory name seals to Japan since the 1980s, and in 1990 and

Daniel Stiles



The Friendship Department Store in Shanghai had the most pieces of any single outlet seen in China, and also displayed the largest worked tusks.



A significant proportion of African ivory is used to make jewellery in East Asia. Westerners tend to buy ivory jewellery as it is easy to smuggle home.

1994 Japanese Customs seized 12,222 of them (Sakamoto 2002).

Only ivory name seals were made in 2002 in Taiwan, according to ivory vendors and the TRAFFIC Taiwan office. Sakamoto (2002) reported that at least one carver manufactured ivory name-seal blanks in Taipei, although he usually carved cow horn. Some Taiwanese dealers smuggle the ivory name seals to Japan.

All ivory vendors interviewed during this survey said that no new ivory was being carved and that when the existing worked ivory stockpiles were exhausted, that would be the end of selling ivory. They also said that all of the former carvers were now retired.

Retail outlets and prices for worked ivory

CHINA

For past information on retail outlets in China, see Lee and Parry-Jones (1997), O'Connell-Rodwell and Parry-Jones (2002) and EIA (2000). None of the reports provides total numbers of ivory outlets or items on display.

This investigation found 9096 ivory items in 117 retail outlets in the three cities surveyed. Several ven-

dors said that they had ivory stocks not on display, so the numbers reported here are a minimum. Only three African busts that could be identified as manufactured outside China were seen.

In Guangzhou, most of the 3855 ivory items we found were in and around the Jade Market, in hotel boutiques, in the DaXin ICF and in the Friendship Department Store.

From at least 1999 to 2002 the Guangzhou Trade Fair displayed carved ivory with carved jade (*China Daily* 26 October 2001; O'Connell-Rodwell and Parry-Jones 2002). The trade fair is largely aimed at exports to foreign countries.

In Shanghai, most of the 2045 retail ivory items found were in curio shops along the Fangbang Road Antique Market, in the contiguous area around the Yu Yuan Gardens, and in the Friendship Store, which with 1359 items held the most of any outlet seen in the three cities surveyed. The Dongtai Street Antique Market carried 154 small ivory items in 19 shops. The Hongqiao Airport displayed 28 ivory objects.

In Beijing, a large number of the 3196 ivory objects found were in four department stores. Five hotels displayed small amounts of worked ivory. Liulichang Street had 23 antique shops selling 1032 items, while the multistoried Hongqiao Market con-

tained 183 items in 10 of its antique shops. The Panjiayuan Market had 84 objects displayed in 18 of its antique shops, with other ivory items kept out of view.

The biggest buyers of Chinese worked ivory from 1986 to 1989 were Japanese, followed by Taiwanese, Europeans and then Americans (Martin 1988, 1990a; Laurie 1989). In the 1980s local Chinese bought very little ivory (Martin 1988; Laurie 1989). Lee and Parry-Jones (1997) stated that the main buyers were tourists and that Chinese citizens seldom bought ivory.

In 1999 Leung (O'Connell-Rodwell and Parry-Jones 2002) reported that the main buyers in six cities in China were, in order, from Japan, China, Hong Kong, Taiwan and Thailand. From Europe, the main buyers were from Italy, Spain, France and England. By 2001 O'Connell-Rodwell and Parry-Jones (2002) thought that Chinese nationals had become the main retail ivory buyers.

In 2002 retailers told us that worked ivory buyers were mainly foreign Chinese and Japanese. In spite of the economic boom in China over the past decade, the average yearly per capita income in the three richest

cities (Guangzhou, Shanghai and Beijing) was still under USD 3000 (*Shanghai Star*, 4 April 2002). Worked ivory is expensive in China and is well out of the reach of the average Chinese citizen, but the newly rich local Chinese are increasing their ivory buying and can be expected soon to eclipse foreigners.

HONG KONG

With 35,884 ivory items for sale in 85 outlets, Hong Kong retail shops had by far the largest number in any city in East Asia and also in Africa. In South and South East Asia only Bangkok and Phayuha Kiri had a few more. In Hong Kong, 14 ivory specialty shops had the great majority with 24,446, followed by 8 department stores with 7571 items. The most frequently seen were jewellery (43%), netsukes and figures (30%) and name seals (13%).

Japanese were the main customers, especially for netsukes, name seals and chopsticks. Europeans and Americans were also prominent buyers, for jewellery in particular. Retail prices are very competitive in Hong Kong. A bangle 1 to 1.5 cm wide was priced at USD

Esmond Martin



In Hong Kong, large mammoth ivory items such as this group of polar bears (labelled at the equivalent of USD 61,500) were being offered at half price in 2002 due to very slow sales.

23–44, the cheapest in this survey, as were small bead necklaces (USD 23–71) and chopsticks (USD 18–86).

JAPAN

In Tokyo, this survey found 96 retail outlets with 5358 ivory items for sale in early 2002. Of the different sorts of outlets, seven ivory specialty shops displayed the most: 2362; next were nine gift shops with 1524. The most commonly available were jewellery (28%), human figures (14%) and good luck charms (13%).

Osaka had 42 outlets displaying 2207 ivory items. One of these outlets, an ivory specialty shop, carried almost half. Name-seal shops followed, as Osaka is Japan's centre for hanko making. Name seals were the largest number of items on sale (44%), unlike in Tokyo, where they were the fourth most common ivory item.

It is the Japanese who buy almost all the ivory objects, because the prices are high compared with prices in other countries and some of the designs appeal only

to the Japanese consumer. For example, in 2002 an average-size ivory name seal (1.5–2 x 6 cm) cost USD 144 to 488 compared with USD 15 to 112 in Hong Kong. A human figure (9–10 cm) cost USD 1600 to 8000 compared with USD 305 to 1463 in China.

SOUTH KOREA

Milliken (1991) found small quantities of ivory from Hong Kong for sale in a few shops in Seoul and Busan. Kang (1997) reported that 90% of the worked ivory sold in the country was in the form of name seals. Kang said that Seoul's black market displayed a few ivory name seals and trinkets. Kang (pers. comm. October 2002) said that in Seoul in 1997 she had seen a wholesale shop stocked with large quantities of ivory and two other shops with ivory in the Namdaemun Market.

In 2002 we found 14 outlets displaying 36 ivory items, especially in antique and gift shops. There were 13 name seals.

Vendors said that Koreans occasionally bought only a name seal. Other buyers are not known, as ivory sales are rare today.

TAIWAN

Wang and Milliken (1989) reported that there were more than 50 ivory retail outlets in Taipei and about 5 in Kaohsiung in 1989. They were geared towards tourists, and Japanese and Americans were the main buyers. Informants in China reported in 2002 that Taiwanese buy large items in China to carry home for themselves.

Wu and Phipps (2002) in 1999 found about 40 retail outlets selling ivory in Taipei, 4 in Tamsui, more than 6 in Taichung and 14 in Kaohsiung. They found some outlets that had sold ivory in 1997 (Phipps and Chen 1997) had stopped by 1999, and some vendors were complaining about declining ivory sales.

We found 1832 ivory items in 59 retail outlets in the four cities visited. In Taipei, 24 out of 36 ivory retail outlets found were stalls in the Antique Market.

In Tamsui we found only 17 ivory items, in Taichung 242 items were in the Lienmei and Wenhsin Jade Markets, and in Kaohsiung 329 items were mostly in the Shihchuan Jade Market.

The main buyers in the gift shops in Taipei were foreign tourists and businessmen, mainly Japanese and other Chinese. Prices for Taiwanese-worked ivory are cheaper than those in Japan and Singapore and comparable to those in China and Hong Kong. Taiwanese are the main ivory buyers in the antique and

Esmond Martin



This 28-cm high newly carved Japanese *jizo* (a bodhisattva) was priced at USD 65,000 in 2002, hence production and sales of such figures are extremely low.

jade markets, but resident and visiting foreigners also shop there. Westerners rarely buy ivory, and when they do it is usually a jewellery piece or small figurine. The main buyers in Tamsui, Taichung and Kaohsiung are Taiwanese.

Discussion

Law enforcement efforts in East Asia

China is the worst offender in the region for dealing in illegal ivory (Milliken et al. 2002a). We found in our survey in South and South East Asia that 'by far the largest amount of the foreign worked ivory in the countries visited is from China' (Martin and Stiles 2002). The great increase in ivory seizures since the Chinese State Forestry Administration 2001 *Notification 2001/234*, however, suggests that China is becoming more aware of the problem and is taking action. The China CMA (2002, 2003), TRAFFIC (pers. comm. May and June 2003) and WWF China (pers. comm. June 2003) all report that the Chinese government has been taking steps since 2001 to improve its ivory monitoring and enforcement activities.

Hong Kong traders contribute to the illegal ivory trade by organizing smuggling tusks from Africa to East Asia (EIA 2002). Raw ivory moves illicitly into China and worked ivory from there into Hong Kong. Tourists buy small items to take out of Hong Kong illegally.

Controls on the ivory industry within Japan are well regulated (Milliken et al. 2002a) and are the strongest in the region. Overall, government officials check the industry, and ivory traders have their own voluntary controls. However, moderate quantities of ivory have been seized on their way to or within Japan from 1996 to 2001 (Kiyono 2002). EIA (2002) and the Japan Wildlife Conservation Society (Sakamoto 2002) present evidence that a Singapore–Japan connection for illegal African ivory is larger than previously thought. For example, in mid-2002, 6.2 tonnes of ivory, including 40,000 name-seal blanks, were seized in Singapore, apparently destined for Japan (EIA 2002).

In South Korea, there has been no recent need for increased law enforcement as there are no major illegal ivory movements.

Taiwan has been cracking down on the ivory trade since 1995 with new laws and better enforcement. The number of ivory seizures has fallen in the country, and there has been no decrease in vigilance.

Esmond Martin



Ivory traders hold an annual celebration of the elephant at the Goko-Ku-ji Temple in Tokyo.

Sources and movement of tusks in East Asia

Chinese traders have been smuggling into China the largest quantity of tusks in the region since the mid-1990s. TRAFFIC estimates that from January 1998 to September 2001 'a minimum of 30 to 45 tonnes of ivory were seized destined for or entering China' (O'Connell-Rodwell and Parry-Jones 2002), and the present study has documented 40 to 50 tonnes seized between January 1996 and mid-2002. Almost all of it originated from Africa (CITES 2002; Milliken et al. 2002a; EIA 2002).

In Hong Kong it is unlikely that significant quantities of tusks have been recently smuggled in for the local market because there are still large stockpiles of tusks. There have been 375 seizures of raw and worked ivory weighing 13,574 kg destined for Hong Kong or seized within Hong Kong from 1990 to mid-2002 (Milliken et al. 2002b). The biggest haul of illegal tusks in 10 years, some 2 tonnes, was made in October 2003, originating in Tanzania (*South China Morning Post*, 15 October).

Several recent attempts have been made in Japan to import tusks and roughly made hankos illegally, the largest shipment known being the 6.2 tonnes confiscated in Singapore in 2002 (EIA 2002).

Few, if any, tusks appear to be entering South Korea because there are no craftsmen and no market for ivory items. From 1998 to 2002 no ivory was confiscated.

Taiwan appears to have been an entrepôt for tusks going to China. The ETIS report (Milliken et al. 2002a) postulates that tusks originating in Africa are shipped to Taiwan and then sent on to China. At least 6152 kg were seized by the Customs authorities in Taiwan from 1994 to May 2000 (Wu and Phipps 2002). No seizures were made in 2001 or 2002.

Movements of worked ivory in East Asia

In China there are wholesale illegal bulk exports to Asian, European and American markets, and tourists and businessmen buy personal items to take home. Some countries allow small quantities of carved ivory to be imported and exported for personal, non-commercial use, and ivory antiques with proper documentation are allowed into many countries. Bulk exports are often falsely described as mammoth ivory, hippo teeth or bone, or the items are hidden among other export products in sealed containers. The Humane Society of the United States uncovered many contacts among

Hong Kong business people, ivory workshops located in China and markets in the USA (HSUS 2002).

For Chinese-worked ivory, Hong Kong and Taiwan have been both entrepôts for wholesale items and retail markets supplying foreign visitors. There are also dealers from the USA, Israel and Europe who buy ivory in Hong Kong to carry back to their home countries (HSUS 2002).

Japan and South Korea are not sources of significant movements of worked ivory across their respective borders.

Effects of the CITES 1999 auctions and views on reopening trade

Ivory industry personnel in China, Hong Kong and Taiwan did not believe that the 1999 southern African ivory auctions had a significant effect on either internal or external ivory demand. Most ivory vendors questioned were aware of the auctions and knew that the southern African ivory went to Japan. They did not feel that the renewed sales were relevant to their business. Japanese ivory vendors did not report any increase in business after the 1999 auctions.

The effects of the 1999 auctions and the future auctions approved by CITES at their 12th Conference of the Parties in November 2002 can best be assessed by repeat ivory trade surveys using the same indicators employed in this report in 2005 and 2006.

Ivory vendors in China, Hong Kong and Taiwan do not believe that CITES will ever approve the renewed international trade in ivory for their industries. Most ivory personnel seemed resigned to a collapse of the ivory industry, and they were already taking steps to carve or sell substitutes, or to change their business completely.

Japanese ivory industry workers believe that international ivory sales to them should be continued. Many thought that there was no crisis concerning African elephant populations and that some conservationists and the media had misrepresented the situation.

Conclusions

The main findings were the following:

- Over 54,000 ivory items were seen in 413 retail outlets in the 11 cities visited.
- Hong Kong has the most, followed by China and then Japan. South Korea and Taiwan have small quantities of worked ivory.

- Japan has the most active legal ivory carving industry in East Asia. Most ivory is used to make name seals (~80%), followed by musical instrument parts (10%).
- Almost all Japan's worked ivory is bought locally and stays in Japan.
- The most expensive raw and worked ivory is in Japan.
- China is the main ivory manufacturing centre in Asia. Often with the involvement of Hong Kong businessmen, smuggling rings import African ivory, process it, and re-export it through Hong Kong. China is also the only country in East Asia that has more worked ivory retail outlets now than in 1990.
- China has the largest illegal ivory industry in East Asia and was the main destination of illicit African ivory. Small private ivory workshops have replaced the larger government-owned factories since 1990. These are unlicensed to deal with ivory and are therefore illegal.
- Both South Korea and Taiwan are primarily transit or processing and re-export centres for ivory, or both, in the 1980s and 1990s. Today the ivory industry of South Korea is dead and Taiwan's is dying.
- The internal ivory markets of all the countries surveyed, except China, have declined considerably since the 1990 CITES ivory ban. The number of ivory craftsmen has plummeted in East Asia from about 2200 in 1989 to fewer than 300 in 2002. Hong Kong, South Korea and Taiwan have no full-time ivory carvers.
- The main buyers of East Asian-worked ivory are ethnic Chinese of various nationalities and Japanese. Europeans and Americans also continue to buy Asian-worked ivory. China nationals have been increasing their share of ivory purchases since 1990 as their economy grows.
- The CITES-approved raw ivory sales to Japan from southern Africa in 1999 are not seen as important to ivory dealers outside Japan. Non-Japanese interviewed do not think the sales heralded a relaxing of the international ivory trade ban. Most ivory business people are pessimistic about the future of the industry.
- In recent years East Asian governments have begun to pay more attention to controlling the ivory trade. China and Taiwan, in particular, have introduced new laws and have increased their efforts to stop illegal ivory imports and to prosecute smugglers.
- East Asian governments need to do more to control the ivory trade effectively and to implement recommendations made in CITES Resolution 10.10 (Rev. CoP12) and CITES Resolution 12.39. The main conclusions are that the ivory markets of East Asia have declined considerably in volume since the CITES ivory trade ban that came into effect in 1990, but China shows signs of a growing internal market due to increasing economic prosperity in the country. Raw and worked ivory smuggling continues, with China the main instigator, followed by Hong Kong and Japan.

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