



# CHINA FACES A CONSERVATION CHALLENGE

THE EXPANDING ELEPHANT  
AND MAMMOTH IVORY TRADE  
IN BEIJING AND SHANGHAI

LUCY VIGNE AND ESMOND MARTIN



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**SAVE THE ELEPHANTS**

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Nairobi 00200, Kenya



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Front cover photograph:

Ivory can only be legally sold in a licensed retail outlet as seen here while mammoth ivory can be sold legally in any outlet.

Photo credit: Lucy Vigne

Title page photograph:

Elephant tusks are sometimes intricately illustrated such as this one.

Photo credit: Lucy Vigne

Back cover photograph:

This Laughing Buddha made of mammoth ivory is a more unusual piece, compared with the commonly seen elephant ivory items for sale, as mammoth tusks are often damaged, thus demanding the carver to be more creative.

Photo credit: Lucy Vigne

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Lucy Vigne

*Pairs of plain polished elephant tusks are increasing in popularity in China.*

# EXECUTIVE SUMMARY

*The Chinese ivory industry has been expanding tremendously, especially in the last five years. Illegal ivory imports are the largest in the world by weight and have been soaring; the wholesale price of raw tusks sold for carving has tripled since 2010; the number of official ivory carving factories has risen several-fold; the number of carvers is way up, the number of legal (licensed) retail outlets for elephant ivory has increased significantly as has the number of illegal (unlicensed) outlets selling elephant ivory; there has been a boom in customers for elephant ivory, both legal and illegal, both raw and worked, especially by collectors and investors in China; retail prices for ivory items have skyrocketed; and some businesspeople are optimistic about future economic benefits of trading in ivory. Law enforcement has not kept up with this huge expansion in the illegal ivory industry in China, where it is the largest in the world.*

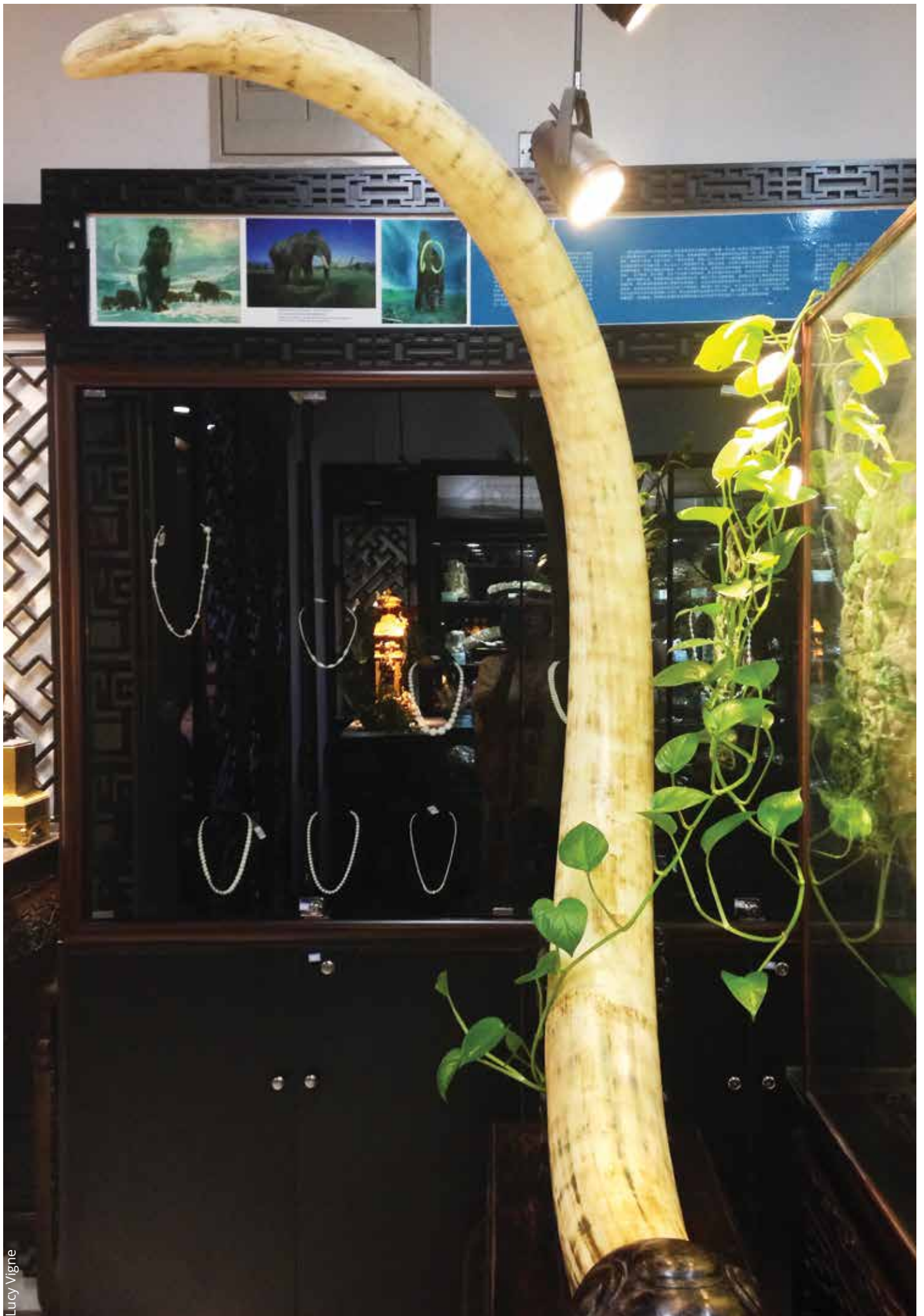
The mammoth ivory industry has also expanded; this trade is legal. In China the growth in tusk imports, wholesale prices, carving, the number of retail outlets and the number of mammoth ivory items for sale has been significant. With the rising wealth in the country, more customers have been buying mammoth ivory. Retail ivory prices have skyrocketed, and traders are confident in the future of the industry because of the increase in demand. Although trade in mammoth ivory is legal, some traders are using it as a cover for selling elephant ivory in Beijing and Shanghai.

Following are key points:

- China is the largest importer of illegal elephant tusks in the world, according to seizure data and results of fieldwork carried out in key African and Asian ivory markets.
- Most ivory items smuggled into China come from the large illegal worked ivory markets in Africa, such as from Angola, Egypt, Nigeria and Sudan.
- Wholesale prices for illegal raw ivory tusks have increased considerably in China recently. For instance in 2010 in southern China factory managers paid USD 750/kg for a 1–5-kilo tusk and USD 900/kg for a 5-kilo tusk on the black market. In early 2014 the wholesale price for a similar 1–5 kilo tusk increased in price to an average of USD 2,100/kg in Beijing. This significant price rise has made raw tusks a profitable investment, attracting more investors in raw tusks.
- The consumption of ivory in the legal factories after the 1990 CITES trade ban decreased so sharply that some of the factories essentially became almost bankrupt. The 2008 CITES-approved sale of about 62 tonnes of tusks from southern Africa to China reignited the ivory industry, which today has reached its highest point since the CITES ban.
- Most raw elephant tusks smuggled into China from Africa do not pass through the formal factories in China.
- Nearly all worked ivory seen for retail sale in Beijing and Shanghai was recently made by Chinese carvers, with very few foreign-made or antique ivory items seen for sale.

- The number of official licensed (legal) ivory factories in China has increased from 9 in 2004 to 37 in 2013.
- China is the main ivory manufacturing centre in the world.
- In Beijing, for the licensing period of January 2013 to December 2014, there were 10 licensed ivory carving factories. We were able to visit and collect information from 6 of them.
- In Beijing we surveyed 170 outlets selling elephant and mammoth ivory items, with 29 overlaps. Of these, 156 were selling on open view 6,272 items named as elephant ivory, and 43 with 3,747 items named as mammoth ivory on display for sale (with 26 licensed and 3 unlicensed outlets having both).
- In Beijing, of 156 outlets we counted with elephant ivory, 35 of the 45 licensed retail outlets had 5,286 ivory items, nearly all the items on shelves with a compulsory 'Collection card' for identification (not always made for the specific item, however), and 121 unlicensed outlets with 986 ivory items openly for sale.
- In Shanghai, for the licensing period of January 2013 to December 2014, there were 3 licensed factories carving ivory. We visited and collected information from 2 of them.
- In Shanghai we surveyed 133 outlets selling elephant and mammoth ivory items with six overlaps. Of these, 119 open retail outlets were selling on display 2,172 items named as elephant ivory and 20 retail outlets displaying for sale 3,547 items named as mammoth ivory (with 3 licensed and 3 unlicensed outlets selling both).
- In Shanghai, of the 119 outlets we visited, 13 of the 15 licensed retail outlets had 1,366 ivory items, nearly all the items on shelves with a compulsory 'Collection card' for identification (not always made for the specific item, however), and we visited 106 unlicensed outlets with 806 ivory items openly for sale.
- For Beijing and Shanghai combined, 26.5% of the ivory items surveyed were illegal by the government's definition, being sold in non-licensed outlets without Collection cards, while 73.5% of the ivory items surveyed were supposedly legal as they had Collection cards, but some of these cards were incorrect.
- The number of officially licensed (legal) retail ivory outlets in China increased from 31 in 2004 to 145 in 2013, and the number of unlicensed retail outlets increased as well, strongly indicating a large expansion in the ivory trade in China.
- Well over 90% of the elephant ivory items sold in the retail outlets in China are now bought by mainland Chinese, unlike in 2002 when the main customers were foreigners.
- Most ivory is bought on the retail market by Chinese collectors and by growing numbers of investors reportedly anticipating further restrictions on the ivory trade as well as possible growing scarcity in ivory due to future worldwide ivory stockpile destructions.
- Mammoth tusk imports via Hong Kong, the main trade route into mainland China, have greatly expanded from less than an average of 9 tonnes a year from 2000 to 2003 to an average of 31 tonnes a year from 2007 to 2013.





Lucy Vigne

*Mammoth ivory tusks are sometimes seen for sale in licensed elephant ivory outlets, especially in Beijing.*

- Wholesale prices of mammoth ivory tusks have increased greatly recently due to the rise in demand in China. For example, in 2010 the wholesale price for the top grades A and B raw mammoth ivory, averaged together, was USD 350/kg, while in 2014 comparable high-quality tusks were USD 1,900/kg on average, bought by some factories in Beijing.
- Mainland Chinese buy at least 80% of the mammoth ivory items from the retail outlets in Beijing and Shanghai.
- The numbers of ivory and mammoth ivory items combined surveyed for retail sale have increased in Beijing from 3,196 in 2002 to 10,019 in 2014 and in Shanghai from 2,337 in 2002 to 5,719 in 2014, with more wealthy Chinese buying these luxury items.
- A continuing problem with the ivory industry of China is the illegal sector, which is thriving.
- Many small shops that do not have licences to sell elephant ivory items are doing so.
- The official compulsory Collection cards for each ivory item for sale in licensed outlets are sometimes re-used.
- Some vendors in both licensed and unlicensed outlets are selling illegal elephant ivory under the guise of their being mammoth ivory objects because they cannot sell the objects legally.
- Mammoth ivory and elephant ivory items are often sold beside one another in the same outlet, making it easy to mix the two. Many people buy smaller items based on the carving design and skill, unconcerned or unaware of the exact material; vendors sometimes just say an item is 'ivory' or whatever the customer wishes to hear.
- The Chinese government has increased law enforcement efforts in recent years, but official inspections of retail outlets, which are found scattered across the cities, are not frequent or rigorous enough to drastically eliminate these loopholes and illegal activities.
- Small items of elephant and mammoth ivory can often look the same. No quick test has been devised that can be performed instantly on an item, making inspections in outlets and checks at Customs difficult. At present only DNA and radio carbon dating can be done, but these tests take time, are expensive, and require a small sample of the material to test.
- Mammoth ivory items are generally less expensive than elephant ivory items. Elephant ivory is usually superior in quality and has been used traditionally for hundreds of years, so retail buyers generally prefer to invest in elephant ivory.
- Most of the large supplies of illegal African ivory, both raw and worked, are not sold through retail outlets but are given as gifts or sold informally to friends and acquaintances.
- Nearly all the worked ivory nowadays stays within China, as is the law, but mammoth ivory items carved in China are often exported legally to Hong Kong and elsewhere.
- Some elephant ivory items are being exported as mammoth ivory items as the latter are legal to export, and smaller items can be difficult to differentiate.



国家林业局 批准  
国家工商行政管理总局



# 象牙指定加工场所

## Accredited Manufacturing Site of Raw Ivory

加工地址：上海市南京东路522号五楼  
所属企业：上海长江企业发展合作公司

《国家林业局公告2013年第5号》规定本场所运营期限截止至2014年12月31日

非经政府特别许可，象牙制品不得携带出境。  
Ivory Carving can not be taken out of China without  
special permission of Chinese government

2013年1月制作

Esmond Martin

*In China, elephant ivory can only be carved legally in officially licensed factories and only be sold legally in officially licensed retail outlets with their signs on public view.*

国家林业局 批准  
国家工商行政管理总局



# 象牙制品指定销售场所

## Accredited Point of Sale of Ivory Carvings

销售地址：上海市黄浦区南京西路190号五楼  
所属企业：上海市工艺美术品服务部有限公司

《国家林业局公告2013年第5号》规定本场所运营期限截止至2014年12月31日

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Ivory Carving can not be taken out of China without  
special permission of Chinese government

2013年1月制作

Esmond Martin





Lucy Vigne

*Mammoth ivory specialist shops often display a great variety of unique carvings.*



Lucy Vigne



# INTRODUCTION

*China has been a centre for crafting ivory for thousands of years for the rich Chinese elite, but from the 19th century onwards, foreigners bought much of the worked ivory. By the mid-1980s the main buyers were Japanese, Europeans and Americans, in that order (Martin 1988). The industry collapsed, however, after the 1990 CITES ban that prohibited the international ivory trade. Around 2005, with the great expansion in wealth in China, demand in ivory exploded among the Chinese, who became by far the main buyers of worked ivory, for the first time since the 19th century. This promoted a rebirth in ivory carving. The domestic ivory trade continues to be legal, allowing Chinese to buy and sell ivory to one another, as long as the ivory remains within the country. The government provides from official stocks a limited supply of raw ivory annually to licensed ivory carving factories and allows a limited number of licensed retail outlets to sell worked ivory with official identification cards. There is, however, a parallel illegal ivory trade continuing in the country, fuelled by ivory from elephants, poached mainly from Africa but also from Asia.*

The Chinese economy has been growing significantly from 1991, sometimes by 9% a year. Economic reforms in China have been massive, such as tolerating privately owned businesses, privatizing some state companies, re-opening stock markets, and encouraging foreign investment. Many people in the cities, such as in Beijing and Shanghai, have prospered and some are buying ivory items for personal use, as an investment or for prestige to show their status.

In 2002 the wholesale price to a carver for a 2.5-kg African elephant tusk smuggled into China was USD 120–170/kg (Martin and Stiles 2003). In 2010 in southern China an equivalent tusk cost USD 750/kg (Martin and Vigne 2011a). These rising prices have been encouraging intermediaries in Africa and Asia to smuggle more ivory into China for the booming Chinese market. Elephant poaching in Africa increased from 2006 to 2011 with an estimate in 2011 of over 25,000 elephants illegally killed in Africa (UNEP et al. 2013).

China has become the largest importer of illegal tusks in the world (Milliken 2013). From 1989 through 2012, 116 tonnes or 21% of the world's total documented seizures recorded by the Elephant Trade Information System (ETIS) involved China. From 2008 through 2012, China's proportion increased to 38%; for each of these years, the weight of ivory seized for China was the greatest for any country (Milliken pers. comm. 19 August 2014). According to recent fieldwork in countries such as Angola, Egypt, Nigeria and Sudan (all of which illegally sell large amounts of ivory openly and nearly all for the Chinese market), huge and growing quantities of raw and worked ivory are being smuggled from Africa into China (Martin and Vigne 2011b, 2013, 2014a, 2014b; Trew 2014; Mark Boyd, former resident in Khartoum, Sudan, pers. comm. 28 March 2014). There is also illegal trade in ivory with countries bordering China, such as Lao PDR and Myanmar, that threatens the dwindling numbers of Asian elephants as well (Vigne

2013a, 2013b; Nijman and Shepherd 2014). China and Hong Kong are unusual with the greatest and growing trade in mammoth ivory items in the world. The mammoth became extinct a few thousand years ago, but in the summer months, mammoth tusks are recovered from the melting

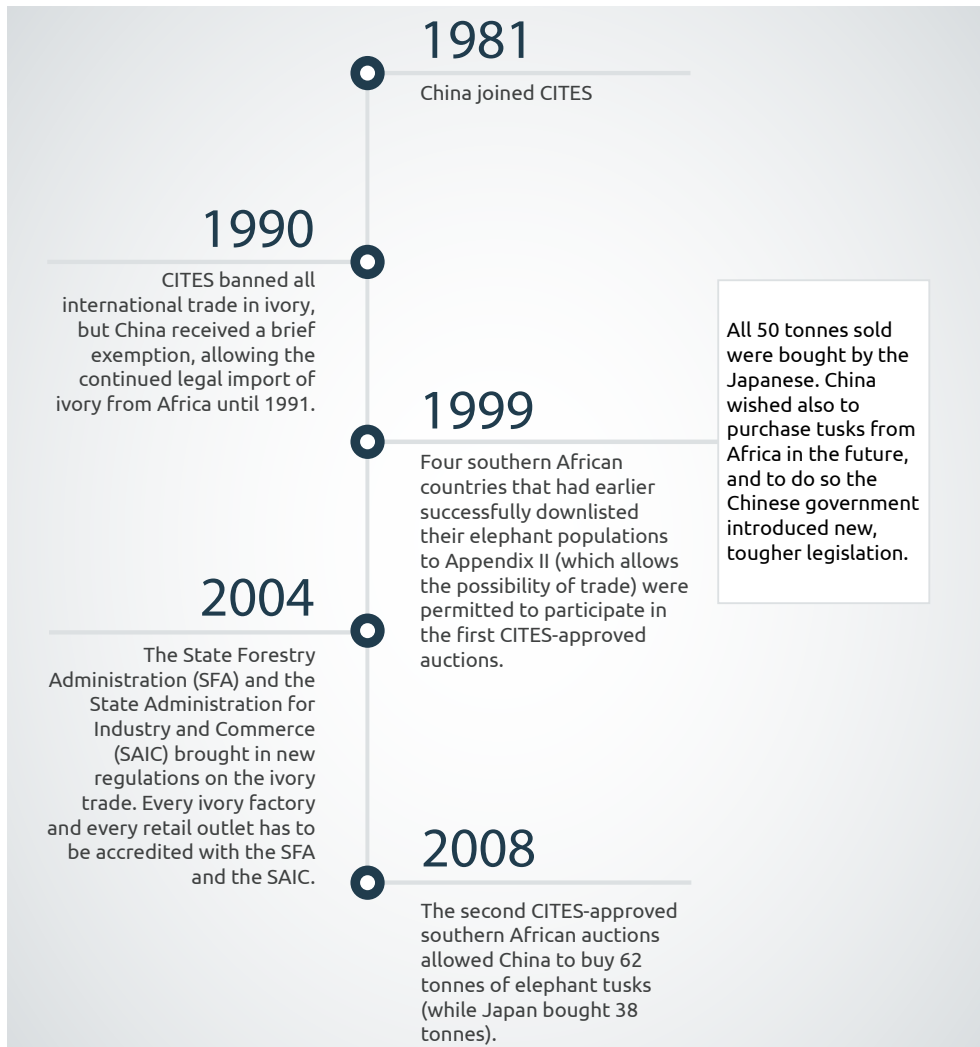
tundra, especially in north-east Russia, and most are sold to Chinese businesspeople for the growing demand for ivories in China. In this monograph, when we refer to the word 'ivory' alone, it means elephant ivory as different from mammoth ivory.



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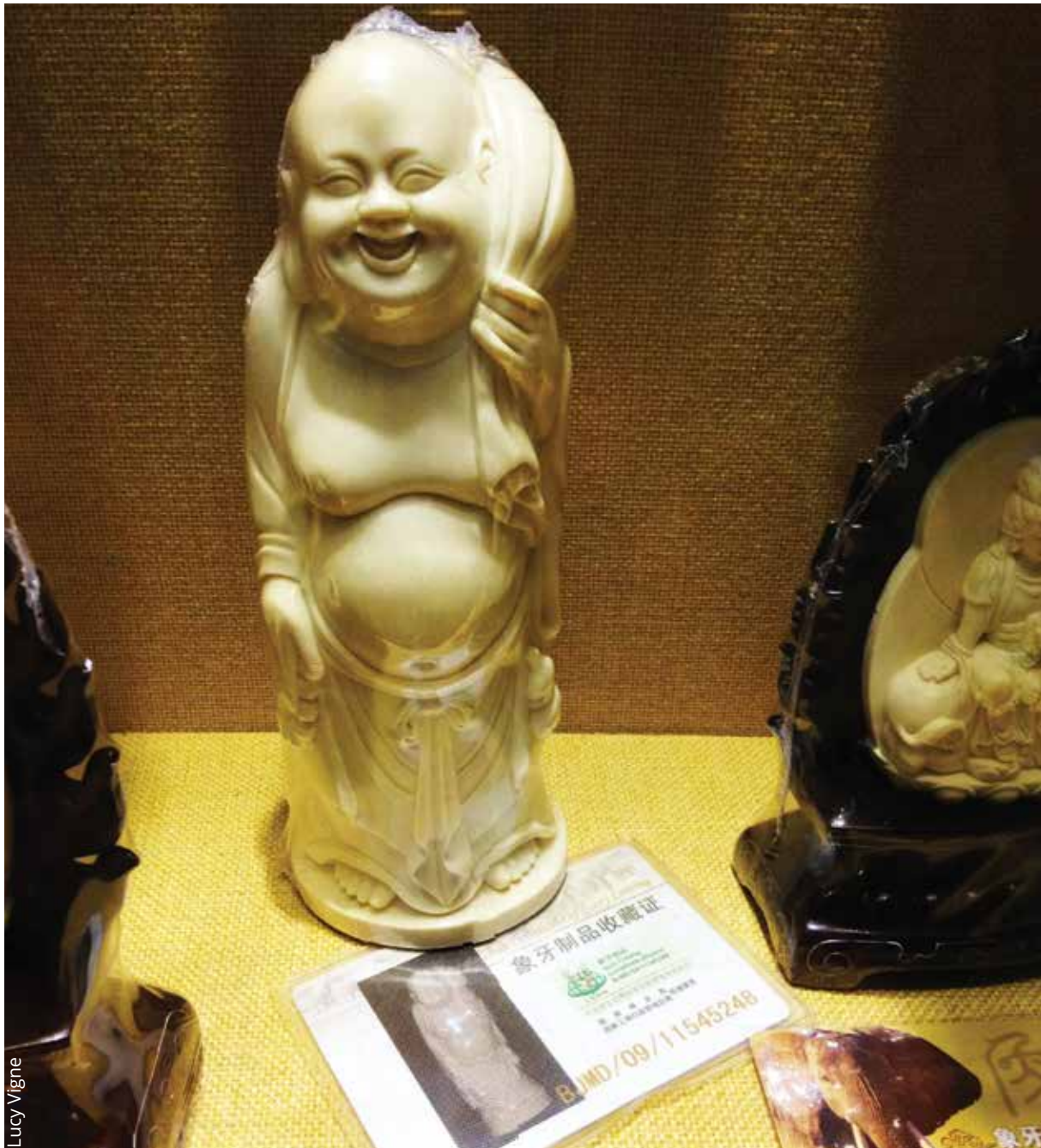
*Chinese people enjoy being photographed with elephant statues.*

# LEGAL POSITION OF THE IVORY TRADE IN CHINA



*In 2004, 9 ivory factories and 31 wholesalers and retailers were registered in China (IFAW 2006). Furthermore, information on tusks and worked ivory would be stored at a centralized database and monitored by the wildlife authorities (CITES 2012). Compulsory registration was required for every ivory item offered for sale. For objects less than 50 g a plastic card called the 'Ivory Product Collection Certificate' (TRAFFIC and China Arts and Crafts Association 2007) had to be available for each item in the shop for the customer. This card had to give information on the individual piece, including the weight of the product, the marking number and the name of the carver. For items over 50 g a photograph of the item was required on the card, which had to be displayed beside the item. The customer was recommended (it is not compulsory) to take the card, according to the official brochures available in the licensed outlets. These ID cards, referred to here as Collection cards, could not be legally used a second time.*





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*This elephant ivory Buddha is displayed for sale with its compulsory Collection card.*

With these stricter measures in place, CITES voted that China could buy raw ivory at the second (and most recent) CITES-approved auctions in southern Africa in 2008. With a shortage of legal tusks in China as a result of the international trade ban, the factories were keen to obtain more legal supplies as soon as possible. In 2008 the Beijing Ivory Carving Factory (BICF), the China National

Arts and Crafts Group Corporation, the Beijing Mammoth Art Company and the Guangzhou Daxin Ivory Factory bought 62 tonnes of tusks from these second CITES-approved auctions in southern Africa (Gao and Clark 2014). From 2002 to 2012 the Chinese government stated that their authorities had also put greater efforts to control their international borders and



their domestic ivory industry (CITES 2012). For example, the Chinese government shut down at least 10 officially designated ivory factories and retail outlets in China that were involved in illegal ivory trade. During this period the government jailed hundreds of illegal ivory dealers and sentenced 37 ivory smugglers to life imprisonment (CITES 2012). More information on law enforcement over this period is in the CITES 2012 document. Regarding earlier information on law-enforcement, see Martin and Stiles 2003, and O'Connell-Rodwell and Parry-Jones 2002.

For mammoth ivory, there has never been any legislation to control or prohibit imports into China nor have there been any controls

for carving or retail sales of items made from it. With the restrictions on elephant ivory imports into China, some factories have turned to carving mammoth ivory, which they can obtain legally in unlimited amounts. The trade is legal because the mammoth is extinct. Grade A mammoth ivory, called 'ice', when carved into smallish items can easily be viewed as elephant ivory as it looks so similar. Only on larger unpainted mammoth ivory items can you clearly see in cross-section that mammoth cross-hatchings (Schreger lines) run through at a 90-degree angle rather than at a 115-degree angle as do those in elephant ivory. Also, it is legal to export mammoth ivory from China to all the major markets, except India.



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*The base of this mammoth ivory item shows the Schreger lines.*



Lucy Vigne

*Mammoth ivory carvings are sometimes painted to help hide the blemishes.*

# MAMMOTH IVORY IN CHINA

*Russia is by far the world's largest exporter of mammoth tusks (Martin and Martin 2010). Minor exporting nations include Finland, Germany, United States and Canada. Over half the mammoth tusks on the world market are exported from Russia to Hong Kong. Recently, from 2007 to 2013, Hong Kong businesspeople imported annually on average 39,183 kilos of mammoth ivory, 93.5% from Russia (Hong Kong Government 2008–2014) (Table 1).*

Hong Kong businesspeople are the main re-exporters of mammoth tusks to China. Russian businesspeople find it easy to deal with Hong Kong Chinese due to their widespread use of the English language and their longer and greater experience in international commerce. Furthermore, taxes put on mammoth ivory are minimal compared with those imposed in mainland China.

A small amount of mammoth tusks remains in Hong Kong to be sold as raw or polished tusks or carved by the few remaining artisans in Hong Kong for local retail sale: of 274,283 kilos of mammoth tusks imported into Hong Kong from all sources from 2007 to 2013, 216,873 kilos, or 79% were re-exported. The main recipient was mainland China, which took 97% (211,203 kilos) of Hong Kong's re-exports. Macau is next in



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*A spiral polished mammoth tusk is seen here for sale in a shop.*



importance, taking 1.7% of the total (Hong Kong Government 2008–2014) (Table 2).

In mainland China some mammoth tusks are sold within the country raw while others are polished and crafted into many items.

Some of these crafted objects are sent back to Hong Kong, because labour is much cheaper in mainland China than in Hong Kong (Martin and Martin 2010). Other items are exported directly to many countries.



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*Mammoth ivory specialist outlets often sell a huge array of items in China.*



# METHODS OF RESEARCH



*Ivory items in licensed outlets are usually displayed behind glass.*

*We carried out fieldwork in Beijing from 9 to 28 May 2014 following fieldwork in Shanghai from 30 April to 8 May on the ivory and mammoth ivory trades in the two cities. Beijing was selected because more ivory factories and ivory retail outlets are officially registered than in any other city in China. Shanghai was chosen because it had many retail outlets selling ivory and had been studied, as had Beijing, by Dan Stiles in 2002 as a large ivory centre, allowing comparisons and trends with today (Martin and Stiles 2003). Neither of these large and important cities had been extensively surveyed for ivory since 2002.*

The two of us, with a Chinese interpreter in each city, visited the government-licensed factories in Beijing and Shanghai and both licensed and unlicensed retail outlets selling ivory to learn about their businesses. We collected information from factories, where possible, on the number of carvers, the types of objects crafted, what prices were paid for the tusks, the salaries of the carvers, and the managers' viewpoints on the future of the ivory and mammoth ivory business. We took photographs when we could.

We visited almost all the areas where retail shops would be selling ivory, looking at both

licensed and unlicensed outlets and taking photographs, again whenever possible. We counted and identified both ivory and mammoth ivory items for sale. We did not record the number of individual very small beads that were sometimes sold in packets, not only as these beads had yet to be made into a finished item, but also because it can be impossible to identify the type of ivory, with both mammoth and elephant ivory beads nowadays popular.

We recorded prices of items, and we talked to vendors to find out what ivory and mammoth ivory objects sell best,

who their main buyers were, and how business has changed over the years. We did not see government officials in China, nor non-government organizations, as our work was purely to collect data. Later, however, one of us visited Geneva for the 65th Standing Committee of CITES in July 2014 and met with the Chinese delegation about our recent fieldwork in order to follow up with its members later on various issues. For comparison, we also carried out

background research on past work and publications regarding China's ivory trade. Our report carries our specific findings in Beijing and Shanghai, which are written up in sections with some overlap on those two major cities. The situation on the ivory industry is fairly similar for both cities, but we have maintained this overlap as readers may wish only to concentrate on learning about the situation in one city or the other.



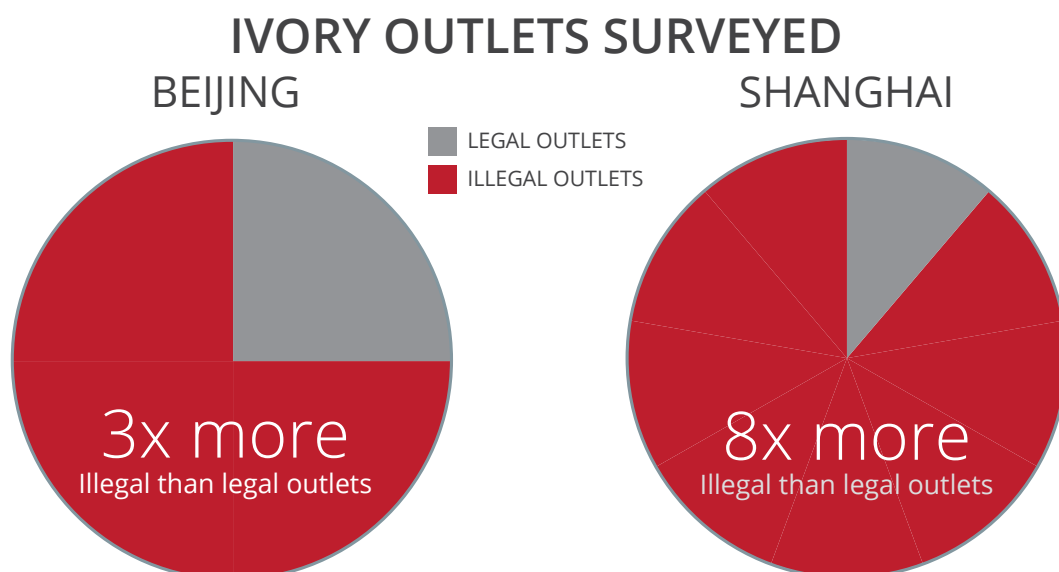
*Beijing's Temple of Heaven and Shanghai's Oriental Pearl TV Tower are famous landmarks in the cities.*

# RESULTS OF FIELDWORK

We surveyed all the licensed ivory outlets we could find at the addresses available in both cities, as well as other illegal outlets that had elephant ivory for sale with no licence to do so. However, the illegal outlets could not be a full count as many small outlets stay closed for much of the day in the large centres, selling antique-style items in both cities. So the survey represents ivory available for sale on a typical day. Of the outlets we surveyed, Beijing had three times more illegal than legal outlets. Shanghai had eight times more illegal than legal outlets. However, the largest numbers of ivory items are available in the legal outlets. In Beijing, 16% of the ivory items surveyed were in illegal outlets and 84% (with Collection cards) in legal outlets. In Shanghai, 37% of the ivory items surveyed were in illegal outlets and 63% (with Collection cards) in legal outlets. Very small beads, as already mentioned, were not included in this count, which would have hiked up the percentage of illegal items.

In the licensed outlets in both cities, Collection cards for trinkets in table cabinets are allowed to be kept in bundles separate from the objects to save space, making checking them in these instances difficult, especially if mammoth ivory trinkets were also present. Nearly all larger items on the shelves had Collection cards except for some supposedly not for sale; but loopholes were allowing illegal elephant ivory to be filtered into the legal system. For example, not all

cards for a specific item matched exactly, as is regulated. In both cities, but especially in Beijing, licensed outlets sometimes sold elephant ivory as mammoth ivory. In both cities, but especially in Shanghai, a number of so-called mammoth ivory outlets carried a significant proportion of items that in reality were made of elephant ivory as it is too difficult to get a licence to sell elephant ivory.



# Sources and wholesale prices of elephant and mammoth tusks



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*These raw elephant tusks have been wrapped in plastic to protect them from the dry atmosphere before being carved.*

The main sources of raw elephant ivory in China are official government stocks, privately held legal stocks, the 62 tonnes bought from southern Africa in 2008 that are controlled by the government, newly privately obtained legal supplies of pre-Convention stock with proper CITES documentation from Europe, and raw tusks that continue to be smuggled in from Africa and a little from Asia for privately held illegal stockpiles. Attempting to quantify the total amount of stock in tusks is almost impossible due to the illegality of so many of the transactions. Based on the fact that China is the main importer of illegal tusks in the world, and perhaps 25,000 elephants were killed in 2013 in Africa, the quantity of illegally imported tusks is significant.

The government supplies some tusks for the legal factories in controlled quantities; the government limits the total amount to about 5 tonnes a year for all 37 ivory factories in China, making 135 kg available per factory annually on average, a relatively small amount (Gao and Clark 2014; Vira et al. 2014). One Beijing factory owner informed us that he last bought 20 kg of tusks in 2013 from the state-owned China National Arts and Crafts Corporation; they were of poor quality and cost 10,000 yuan/kg (USD 1,613/kg). Top-quality ivory at the time, he said, would have cost him 13,500 yuan/kg (USD 2,177/kg). Another ivory factory said that in 2008 they paid for small tusks 8,000 yuan/kg (USD 1,311/kg), but in early 2014 the factory bought small (1–4-kg) tusks on the



black market, apparently for 12,500 yuan/kg (USD 2,049/kg), selling some wholesale to other companies for 17,000 yuan/kg (USD 2,787/kg). The average black market wholesale price for a 1–5-kg tusk of good quality paid by a factory or carver in Beijing was 12,800 yuan/kg (USD 2,100/kg) in early 2014, but we could not obtain figures from the government. Prices for legal government stockpile ivory are generally lower than black market prices. This partly is because the ivory sold at the southern African auctions to Chinese buyers went cheaply at around USD 150/kg. We learned from factory staff that illegal raw ivory from poached elephants from Africa often comes via Fujian Province onto the Beijing black market. Guangdong Province is another well-known smuggling centre for raw and worked ivory, often reaching Beijing and Shanghai via networks of trusted traders, as also recently documented by other researchers (EIA 2014).

The three main sources for mammoth ivory are legal imports from Russia via Hong Kong, legal imports from Russia directly, and tusks smuggled across the Russian–Chinese border to avoid taxes. Mammoth ivory tusks imported from Hong Kong into China rose from 360 kilos in 1994, when the trade opened up due to the shortage of elephant ivory, and because it was an inexpensive item to begin with, reaching 4,884 kilos in 2000, and 31,271 kilos in 2008. Both the supply and the price continued to rise. One factory told us that in early 2014 he bought the best-quality mammoth tusks for 15,000 yuan/kg (USD 2,541/kg) and sold some wholesale for 17,000 yuan/kg (USD 2,787/kg). Today, according to the factories, small, poor-quality mammoth tusk pieces can be as cheap as USD 50/kg, as they entail a great deal of waste, while large, high-quality ones range from USD 1,639 to USD 3,229 a kilo wholesale. The 5–10-kg raw mammoth tusks sell wholesale generally for between USD 1,300 and USD 2,500 a kilo.



Lucy Vigne

*These elephant statues were outside a McDonald's fast food restaurant in Shanghai.*



Esmond Martin

*In the mid-1980s a large number of ivory carvers were working in government-owned factories in China.*



Esmond Martin



# Beijing findings

## *Short history of Beijing's ivory carving*

In 1680 the Chinese emperor Kangxi set up an ivory factory in the palace compound in Beijing. From 1731 to 1790 there were 21 ivory carvers in the Imperial Household Department, making Beijing a major ivory carving centre in China, a position it still holds today (St Aubyn 1987). After the People's Republic of China was established in 1949 the government supported the ivory business by setting up the BICF in 1958. During the Cultural Revolution (1966 to 1976) the factory was open but underutilized. The artisans were not allowed to carve female figures nor historical individuals because the government authorities thought that they were 'feudal'. Instead the carvers made revolutionary items, such as Red Guards, soldiers and peasants. By 1985 the artisans had gone back to producing their traditional items of human figures (especially women), flowers, birds and animals. At this time, the BICF was the largest ivory factory in China,

consuming about 15 tonnes of tusks a year and employing 421 to 550 ivory carvers: 5 master carvers, 16 carving technicians, 200 skilled carvers and 200 ordinary carvers, plus others employed at different times. There were, however, no apprentices at 14 December 1985 (Liu Jie Ding, General Manager, BICF, pers. comm.) (Table 3).

In 1987, the government was reluctant to allocate foreign exchange to import a significant quantity of tusks because the price was increasing (Martin and Stiles 2003). The factory was paying the equivalent of USD 190/kg for top-quality tusks and USD 60–80/kg for 3-kg tusks. Therefore, they bought less ivory and the more skilled carvers were transferred to carving valuable stone such as jade, which is more difficult to carve than ivory, while the ordinary 200 carvers stayed to work on the smaller supply of ivory allocated



Esmond Martin

*These ivory items were bought by foreigners in the mid-1980s.*





Esmond Martin

*These typical expensive ivory and jade elaborate carvings made in the 1980s are still produced today.*

to them. In early 1987 the average master carver was earning a basic salary of 220 yuan (USD 60) a month plus a 'performance' wage of 130 yuan, totalling 350 yuan (USD 95) a month. The maximum take-home pay had been 400 yuan (USD 109) a month. The remaining ordinary carvers received a basic salary of 80 yuan (USD 22) a month plus a 'performance' wage of 50 yuan a month, totalling 130 yuan or USD 35 a month. The carvers preferred soft tusks (from savanna elephants) rather than hard ivory (from forest elephants) because they said it was easier to carve.

At this time (1987), the factory had a simple formula for pricing the items they sold (excluding large skilfully carved elaborate items): the cost of raw material + 150% for labour. The factory sold its leftover ivory powder for 10 yuan (USD 2.72) per kg. They sold off 300–400 kg in 1986 and again in 1987. The worked ivory was meant for export in order to recoup the foreign

currency required to import the tusks. Almost all the ivory objects were exported, either directly, especially to Hong Kong, or bought by foreigners in shops in China to take home, especially to Japan, Western Europe and America. At this time few Chinese could afford to buy ivory items.

There continued to be a sharp increase in the price of tusks causing a further decline in the number of carvers, until by 1990, with the international CITES ivory ban in place, the BICF had only a few carvers left. East Asians, the main buyers, and occasionally Westerners were taking ivory out of the country illegally. A few Chinese were buying name seals and chopsticks (Martin and Stiles 2003). In early 2002 there were no carvers in the BICF at all (EIA 2003). Then, as the Chinese became wealthier, carvers started working once more on ivory at the BICF and in Beijing and China generally, with the Chinese gradually replacing nearly all the past foreign buyers.

## ***Licensed ivory factories in Beijing***

There were 10 officially licensed ivory factories in Beijing for the January 2013 to December 2014 period, up from 9 in 2012/13. China as a whole has 37 licensed ivory factories with Beijing having the most of any city in the country. We obtained addresses from the SFA's licensed factory website and visited all 10 factory locations given. They were dispersed across Beijing and in the outskirts. After an extensive search, we found 6 factories. Four of the locations, numbered here in the order we visited them, had no signs of an ivory factory (1, 5, 6, 9) at the addresses given. Two that we visited (4, 10) allowed us to see their ivory carvers who were all working on elephant ivory, mostly on large items. A third (3) showed us an ivory cutting machine with ivory powder around it, but no carvers were working that day due lack of ivory. Two factories (7, 8) were uncooperative as they were particularly suspicious of us, but

we collected some information from their employees, and one other (2) was most helpful in providing us with information about ivory production. We did not hear about the location of any unlicensed ivory factories or workshops in Beijing.

Five of the factories (our numbers for them being 1, 2, 4, 5, 10) had licensed retail outlets selling their worked ivory in Beijing, totalling 22 shops that we visited. Generally these were owned by the factory proprietors, relations or friends. Two other factories (3, 8) said they carved and sold ivory only on commission, one using both elephant and mammoth tusks, the latter sometimes for customers abroad; the other dealt in both raw and worked ivory, but only with trusted and familiar customers, although they did say they could sell us 20 kg of raw ivory if we wished. Two more factories (6, 9) had two licensed outlets but no ivory to see, and



*Ivory carvers work intensely in this licensed factory in Beijing.*



Esmond Martin

*This carver in a licensed factory in Beijing has just completed an ivory Chinese cabbage.*

the final factory (7) no longer had a licensed retail outlet in the current list. Thus not all the factories' ivory carvings are channelled through their own licensed retail outlets.

Much of the information we collected was provided to us by the owners or employees of four of the factories, with some information also from others. We were told that other ivory factories without official licences make ivory items that compete with the licensed carvers, but that business was in general nevertheless all right, especially in elephant ivory, which was more popular than mammoth ivory.

Some of these ivory factories had been in the business for over 30 years, suffering seriously after the CITES trade ban when they had to retire their old carvers, but the

factories are now recovering, employing more young than older carvers today. One factory started with mammoth ivory in the 1980s but gradually replaced it with elephant ivory, being more popular and easier to carve. Another factory could get officially only 20 kilos of ivory a year for its 20–30 carvers, so it was also using mammoth ivory. (We were told that it was best to try to join other buyers to purchase mammoth ivory in bulk directly from Russia to get the best price.) Another factory said it could get only 300 kilos of elephant tusks from the government in 2009 for its 10 carvers but would have liked to have obtained 500 kilos from the government. Consumption of tusks by one large factory we visited with 40 carvers, we were told, is about 500 kilos of ivory a year. Another factory with 30 carvers uses several hundred kilos of ivory a year.



We obtained the numbers of carvers working at six of the factories (8, 10, 10, 30, 30, 40), totalling 128; this is a minimum figure. Not all the factories had their carvers working full time on ivory due to a shortage of tusks available. Those carvers we saw were all busy making carved tusks, Gwan Yin (Chinese goddess of mercy) figures, animals, Gwan Yin oblong pendants, Chinese cabbage and aubergine carvings. The carvers, mostly young men and some young women, were working with electric drills and finishing the final details with hand tools, concentrating on one item type each. We were told that the many valuable stone carvers (especially on jade) whose products are sold in outlets in the antique and jade centres can also carve ivory if more carvers are required, but they receive higher salaries for working on jade.

When factories obtain large, top-quality elephant tusks, the carvers often just polish

them; Chinese customers increasingly demand full plain tusks with no blemishes. A large intricately carved tusk takes one carver two years to complete, and the common 30-cm Gwan Yin figure requires two to three months of labour. Master carvers like to produce unique items and can gain annual awards for their work.

The older experienced carvers train the new workers to carve, watching over their work and supervising the fine details. One factory owner said his carvers were presently training students to carve ivories at a university in Beijing as he could not get enough ivory from the government, which provides his factory with only a little at a time. Several owners said business was stable or all right. One big factory was being renovated with 75% of their carvers working in another building until renovations were finished, indicating that this factory was doing well.



Esmond Martin

*The Chinese cabbage is a traditional carving still produced in ivory today.*

A large factory said they rarely made jewellery as it is a waste of material and requires little artistic merit. Another said although large items make more profit, the mass-produced trinkets also need to be made in elephant and mammoth ivory to attract buyers as most customers can afford these, and in time, as trust is gained, the customer will come back for more expensive items. It is important for the vendors to gain the trust of the rich by providing them with good items. These businesspeople may be involved not only in producing ivory items for their rich clientele but also in

selling them carved stones, wines and large stuffed animals, for example. The factories sometimes provide catalogues showing these items, including their standard ivory carvings that they produce in the same style over and over again.

The leftover ivory powder can be sold to pharmacists for medicines, to remove teeth stains and toughen the gums, and as garden fertilizer. One factory sweeps it up to keep as evidence to show the SFA how much ivory their carvers have used.



*A carver in a licensed Beijing factory is making an ivory Gwan Yin figure.*



## ***Retail outlets, items and prices for elephant and mammoth ivory in Beijing***

During our May survey, we covered all the main shopping areas in Beijing where ivory was for sale, and we counted a total of 6,272 ivory items in 156 open outlets, both licensed and unlicensed (Table 4). Of these, 5,286 objects were in 35 out of the currently 45 licensed outlets in Beijing that were found at the addresses available on the website, and 986 in 121 smaller non-licensed outlets. We also counted 3,747 items in 43 outlets that were named as mammoth ivory (Table 4)—some had the

### **LICENSED IVORY OUTLETS**

During our ivory survey in Beijing, we visited mainly outlets in centres selling antiques, works of art, jewellery, jade, souvenirs and gifts, as well as several old and new shopping malls with licensed ivory outlets and some located in shops on the street. We counted elephant and mammoth ivory pieces on display for retail sale in only the open outlets, representing what is available on a typical working day. Virtually all were recently carved in China. Of the 156 ivory outlets we surveyed, 35 were licensed with an average of 151 items per outlet. Ten other currently licensed outlets were not available to see as they were either not at the location given or remained closed. The elephant ivory items had the official Collection cards and the shops had their framed licences on the walls, permitting them to sell 'ivory' from January 2013 to December 2014. Of these licensed outlets, 32 specialized in ivory and 3 sold mainly general antiques or reproductions. These licensed outlets had 5,286 elephant ivory items for sale, and only a scattering did not have the compulsory

cross-hatching of elephant—of which 2,258 were in 26 of the licensed outlets mentioned above, 171 objects were in three unlicensed outlets that also sold elephant ivory, and 1,318 were in 14 outlets selling mammoth ivory and supposedly no elephant ivory. Thus of the total 156 outlets that we could survey selling elephant ivory items, 29 were selling mammoth ivory items as well (in 26 licensed and 3 unlicensed outlets) and 14 more were selling mammoth ivory items alone.

Collection cards available, as these items were supposedly already sold or were not for sale. Twenty-six of the licensed shops also displayed for sale 2,258 so-named mammoth ivory items.



*A well-known older tourist antique centre, the Panjiyuan Centre (or Beijing Antique City) is filled with many small retail outlets, including licensed ones, mammoth ivory ones and unlicensed ones.*



## UNLICENSED IVORY OUTLETS

We surveyed 121 open outlets without licences that displayed, among a variety of other gifts and ornaments, some elephant ivory items for sale. Most were in large buildings called antique or jewellery centres or 'cities' (for example Beijing Antique City A and B, Cheng Tian Antique City, Liangma International Jewellery and Antique City, Tianbaorunde Antiques Exhibition Centre, Tianya Antiques City). These centres also had licensed outlets that we surveyed. These centres generally consist of rows of small outlets selling carvings such as jade, stone and wood, as well as antiques, curios and jewellery. They are usually several-storey buildings with many private outlets. In some, up to a quarter may stay closed for much of the day so we could not check these, although we did see ivory items through the

window of some of these closed outlets.

The 121 open unlicensed outlets displaying 986 ivory items had no fake licences on their walls nor fake Collection cards (nor had we found them in southern China in 2011, with Collection cards used only in the licensed outlets). They had 8.1 items per outlet on average (compared with 151 items on average for the 35 licensed ones) that were usually small, such as jewellery. Some outlets could have had mammoth ivory, as often distinguishing small items from elephant ivory is difficult. A few were old ivory objects such as snuff bottles, but many were faked to look old. Nearly all, as noted by their style, were recently carved in China. Only three of these small unlicensed outlets selling elephant ivory items also had worked mammoth ivory, numbering 171 items.



*This ivory aubergine plant was for sale in an unlicensed outlet in Beijing.*

### PREVIOUS LICENSED IVORY OUTLETS

Out of 43 outlets that were on the previous official licensed list from January 2011 to December 2012, 28 were on the current licence list in the same locations. We also visited 13 outlets that no longer had licences under those company names. Three still offered 6 small elephant ivory items, one also displaying for sale 28 mammoth ivory items. The other outlets had either moved or were gone, renamed or replaced. Most outlets had received new licence numbers in the updated list, adding to difficulties in tracing those that had changed name or location.

### MAMMOTH IVORY OUTLETS

There were 14 shops selling a total of 1,318 mammoth ivory items and no elephant ivory. We could not do a count in 2 large outlets we saw that specialized in mammoth ivory as they remained closed. Of these 14 shops, 6 specialized in mammoth ivory in the main arts and antique centres, and 4 were Buddhist shops selling general

religious items. (In the Buddhist shops, only mammoth, not elephant, ivory items were seen for sale—such as pendants and Chinese horoscope beaded bracelets—as Buddhists in China told us they do not believe in selling items from killed animals.) Three were gift and miscellaneous outlets in arts and antique centres, and one was a hotel souvenir shop.

There were also 26 licensed elephant ivory outlets selling 2,258 mammoth ivory objects, and 3 non-licensed outlets selling elephant ivory that also sold 171 mammoth items. Therefore, the total number of mammoth ivory items seen for retail sale in 43 outlets in Beijing was 3,747 pieces. In Beijing in 2002, not a single mammoth ivory item was seen for sale (Martin and Stiles 2003). Despite Beijing being considered by some to have an unfortunately dry climate for mammoth ivory, encouraging cracking, the amount of mammoth ivory for sale has expanded greatly.



Lucy Vigne

*Some mammoth ivory trinkets such as these can look very similar to elephant ivory.*

## ELEPHANT IVORY ITEMS

While the number of unlicensed outlets selling worked ivory was far greater than the number of licensed shops, the number and sizes of items of worked elephant and mammoth ivory were generally far greater in the licensed shops than in the smaller unlicensed outlets. Pendants were 31% of the items counted (Table 5). The large licensed elephant ivory specialist outlets had whole tusks, figures, paintbrush holders, vegetable and landscape carvings on wall shelves, while the much smaller items, such as jewellery, name seals and chopsticks were under glass in table tops. Several elephant tusks, usually on wooden stands, were seen in most of the licensed shops, being sold in pairs or singly, carved and uncarved, or with calligraphy or delicate paintings, and most had the savanna elephant shape. Of a random sample of 14 licensed elephant ivory outlets, 28% were large items counted on the shelves and 72% were small items of less than 50 g counted

in the table cabinets. This proportion of large items for sale is very high compared with outlets in other countries worldwide.

Nearly all the items in the unlicensed outlets seen on display for sale weighed less than 50 g, such as jewellery and second-hand name seals. White ivory is preferred by customers, with the whitest 'snow' ivory, being closer to the top of the tusk, often used for popular items such as pendants. The unlicensed outlets in the newest centres had just a few small items, such as figurines, sometimes in a plush showroom with an equally smart back office. Jade is the most common material seen for sale in such centres, but a sprinkling of elephant ivory items, including, apparently Asian elephant ivory antiques, can occasionally be found. Hardly a single recognizably African ivory figure was seen for sale in Beijing. Vendors sometimes said their items were antiques, which usually was not the case.



*Bangles and bracelets are particularly popular in licensed outlets. The ones here are priced and displayed with their Collection cards.*



## MAMMOTH IVORY ITEMS

In the six surveyed mammoth ivory specialist shops (as for the licensed elephant ivory specialist shops) larger items were arranged in wall cabinets or shelves and smaller objects in table-top cabinets. Most larger carvings were religious figures of the Buddha and of a variety of animals (popular also with foreigners). Other items, such as composites (landscape scenes consisting of many small pieces of ivory stuck together in an intricate design) and even magic balls that are traditionally made of elephant ivory were also for sale made of mammoth ivory. In shops selling mammoth ivory, among items that could be examined were a few so-called mammoth carvings that had the cross-hatchings of elephant ivory. These cross-hatchings are sometimes hard to determine on the base of a figure when it has been painted—painting has become increasingly popular with certain items, especially to cover any blemishes.

In the table cabinets, oblong pendants with Buddhist engravings were the most common items, 38%, so that the large variety of designs can be displayed (Table 6). These and other small items often looked identical to elephant ivory as they are produced from Grade A ‘ice’ mammoth ivory. The best whole unblemished mammoth tusks are left uncarved and are simply polished; as for elephant tusks, a growing number of buyers consider such tusks the most valuable and prestigious items. They are recognizable from elephant tusks by their spiral twist and brownish outer layer; they are often much larger than elephant tusks and are displayed in wooden stands on the ground. Big objects seen for sale made up 37% in number, and small items counted that were all in table-top cabinets were 63% on average per outlet.

Mammoth ivory items do not need any ID cards by law, and it was only in the



Lucy Vigne

*These carved mammoth tusks were selling for 5,800,000 yuan (USD 950,000) in a Beijing mammoth ivory specialist shop.*

specialist shops that generally all items had authenticity cards from the factory to prove the material was mammoth ivory, sometimes with a picture of the item in the better shops. Some mammoth ivory outlets had optional framed certificates of their membership in the Mammoth Ivory Association on their walls, but this is again voluntary. Joining the association is not an official requirement, and vendors said the association lacks adequate government support. Other outlets sometimes had one or two of the usually green, pictureless mammoth ID cards on a shelf near some items, suggesting they were mammoth ivory, but these few cards were not usually available to take away from the shop. Other outlets only had the words 'Mamou' or sometimes 'Chong mao sha' (long-haired elephant) or the equivalent in Chinese writing near the items or on the price tags; the words were often small or to one side and hard to see.

### **PRICES FOR ELEPHANT AND MAMMOTH IVORY ITEMS**

Retail prices for ivory items in non-licensed outlets were generally lower than in licensed outlets, especially pendants, bangles and name seals (which make up 40% of the ivory items for sale in Beijing). Prices varied according to the location of the shop, with certain shopping malls in areas where richer officials live having outlets selling more expensive ivory objects. Officials can afford to pay a lot more on company expense for items that are used as 'gifts', although this activity is being lessened now in China. Recently the government has implemented a major crackdown on corruption, which included bribing government officials with ivory items (*Global Times* 2014). Ivory

items for sale in less wealthy areas were less expensive. In general, the price was related to whether an item was uniquely carved by a master, made en masse, or related to the size and weight of the item. Antique carvings of course would be more expensive, but few of these are left as the Cultural Revolution destroyed so much art. The largest items, such as carved tusks, which take one master carver three years to produce, fetched the highest prices. Polished tusks are the most valuable on average as, despite no labour or expertise in carving being required, they must have no imperfections. The most expensive such item we saw was a 162-cm-long polished tusk for 1,300,000 yuan (USD 213,115) and the least expensive was a thin plain ring for 500 yuan (USD 82) (Table 7).

Mammoth ivory carvings for items similar to elephant ivory were generally less expensive, although for trinkets, such as pendants, vendors mostly said the price depended on style and technique, not material. With mammoth ivory pendants being sold beside elephant ivory pendants, many vendors do not bother to distinguish the two, unless pressed to do so, selling them all simply as ivory, the only difference being the type of ID cards. Carved tusk sections with animals and people of 30–50 cm cost USD 6,475 on average (Table 8). The most expensive mammoth ivory item seen was a 257-cm elaborately carved tusk priced at 9,600,000 yuan (USD 1,573,770) and cheapest offered for sale was a ring for 20 yuan (USD 3).





Lucy Vigne

Elephant ivory chopsticks are often sold as two pairs for good luck. These are displayed with a new Collection card and clearly priced at the equivalent of USD 2,754.



Lucy Vigne

This mammoth tusk piece that shows the brown outer layer beneath was selling for the equivalent of USD 6,393.



## Substitutes

Few other ivories apart from elephant and mammoth were for sale. Sometimes hippo, walrus and narwhal ivory items were displayed, as well as bone carvings of crabs and lobsters sometimes in mammoth ivory specialty shops. One outlet sold several painted Chinese cabbages made of bone—a copy of an ivory item made long ago for the Forbidden City and still often seen for sale made of ivory. More frequently seen in small outlets is a plastic look-alike material with wavy lines through it that some vendors say is elephant or mammoth ivory or elephant bone and may charge ivory prices for it. The Chinese have increased their skills in the last five years at faking this plastic to look like ivory. Some outlets sell darkened and cracked plastic pendants and belt ornaments that have been heated to look old, sometimes with calligraphy added, and large plastic bangles also faked with

heat and smoke to look like real old African bangles. The same method is occasionally used to age real ivory to look antique.

White-beaded necklaces and bracelets of a variety of materials appearing similar to ivory are common, as white is an esteemed colour in China. White coral and white jade are more expensive than ivory, and there are also white beads made from giant clams (*Tridacna*), popular at Buddhist temple shops as one of the seven precious materials in Buddhism, supposedly being good for health, ageing and insomnia. Sometimes nuts from certain palm trees (*Phytelephas*), which are indigenous to South America and resemble ivory when carved, are made into items such as necklaces which are available at Buddhist shops and sometimes elsewhere.



Lucy Vigne

*This lobster carving was made from bone.*



Lucy Vigne

*A young customer bought an ivory bangle in a less expensive licensed outlet in Beijing for 5,000 yuan (USD 819) and took the Collection card with her.*

## **Buyers and vendors**

According to vendors, well over 90% of the buyers of elephant ivory items are mainland Chinese citizens. At least 80% of the buyers of mammoth ivory are also mainland Chinese but there are customers from Britain, Canada, India, Russia and Thailand as well, according to ivory dealers. Unlike in Martin and Stiles's survey (2003), nowadays most tourist places popular with foreigners do not display elephant ivory, nor mammoth ivory, due to lack of foreign demand. In 2002, the main buyers of elephant ivory were East Asians and Westerners, while local Chinese generally bought only name seals and chopsticks.

Ivory shops are often located in conspicuous positions near building entrances or

escalators in the malls or shopping centres, and show some of their best items in the windows to attract buyers, but foreigners do not normally visit them. These outlets keep a fairly low profile with no pictures of elephants that could attract undue attention. One licensed elephant ivory outlet that did have large elephant pictures on the outside wall of the shop changed them to mammoth pictures during our visit, aware of some current disapproval in the trade in elephant ivory.

Young Chinese customers who are 20 to 30 years old, often couples, generally choose less expensive ivory items such as jewellery and trinkets, and as they become wealthy in their 40s to 50s they choose figures and

whole tusks for gifts and investment. The Fat Buddha is less often seen for sale as it has been out of fashion for the last three years compared with Gwan Yin figures, which were frequently seen. Demand for whole tusks has increased, according to vendors. Carved tusks are preferred by newly rich businesspeople and plain polished tusks, sometimes in pairs; those with only drawings and calligraphy on them are nowadays preferred by the more educated rich businesspeople, vendors said. In 2002 there were no plain polished tusks seen for sale in Beijing (Martin and Stiles 2003), neither were there any large magic balls that were available in several outlets during this 2014 survey, due to the general rise in Chinese demand for ivory items.

Some vendors were inexperienced and young, unable to tell the difference between the ivories, especially in the unlicensed outlets. Older vendors or those who were the shop owners were more knowledgeable about ivory and more willing to give discounts. When pressed, nearly all vendors agreed that their Chinese buyers preferred elephant ivory to mammoth ivory and sometimes offered mammoth ivory for 10–20% less for similar items, especially in licensed outlets where buyers like to see the Collection cards with elephant ivory items. Some vendors said that the restrictions make elephant ivory difficult to obtain, thus appearing more attractive and more sought after than mammoth ivory, as well as being a traditional substance. Most vendors, who believe that as the supply of elephant ivory items may be getting scarcer due to the restrictions on tusks within China and abroad, wanted to buy elephant ivory as opposed to mammoth

ivory. More businesspeople believe that ivory may continue to rise in price and are buying plain polished tusks from the retail outlets as an investment. We learned some are also buying raw tusks, before they reach the factories, for speculation, usually on the black market as verified by others (t Sas-Rolfes et al. 2014). Mammoth ivory is not well marketed and the idea of it being ‘fossilized’ is not attractive to many customers. Yet the majority of customers just want small ivory items, and as long as it looks like ivory, whether it is elephant or mammoth is not a concern, as they are more interested in the technique and style of carving than in the material.

In the licensed shops especially, vendors were sometimes uncooperative towards us: twice the door was closed on us, several vendors were very guarded, and we saw some vendors warn other vendors about us. One licensed outlet pretended all the items for sale were bone, despite having elephant ivory Collection cards. This lack of transparency and secretiveness suggested these outlets had something to hide, as was sometimes the case. Of the 34 open licensed retail outlets surveyed, 20 were seen with a few ivory items not exactly matching the pictures on their Collection cards or with some elephant ivory objects being sold as mammoth ivory, which does not require an ID card. Customers do not seem to notice these discrepancies and usually do not bother to take the card with their purchased elephant ivory item. Carvers usually reproduce the same item again and again so Collection cards can be re-used without difficulty with the same photo matching close enough with other carvings of the item.





Lucy Vigne

Customers often do not take the Collection card when buying an ivory item.  
THE EXPANDING ELEPHANT AND MAMMOTH IVORY TRADE IN BEIJING AND SHANGHAI ■ 41



We saw about six customers buying elephant ivory items in Beijing during our three-week survey and saw no mammoth ivory items being sold. Yet vendors were generally confident about their ivory sales as more young carvers are learning from the masters, due to rising demand (they cite increased prices and the supply of tusks increasing), and are producing better-quality items; with more production there is greater competition and so the artistry is improving. Chinese art collectors are increasing in number, and ivory is considered a beautiful art form and part of Chinese culture. The top tier of art collectors, both individuals and organizations, want only legal ivory so the demand for it is significant, with buyers turning to trusted sources who may sell them other collectors' items also, such as carved stones, stuffed trophy animals for display and wine. Ivory dealers and vendors nearly all agreed that elephant ivory remained

more in demand than mammoth ivory.

We asked a cross-section of Chinese about the ivory trade and most had little idea of the mammoth, sometimes having only seen the animal in the film *Ice Age* and being unaware that mammoth ivory was available for sale in China. Similarly, people randomly asked did not own ivory or know anyone collecting ivory, nor had most heard or seen any messages to stop the ivory trade to save Africa's elephants. We saw only one very large poster at the Wanfujing metro station to this effect, in a spacious and busy hallway. Most Chinese are not interested in ivory and know very little about it as ivory is not seen generally for sale in the modern shopping centres and is not popular with the majority of Chinese, who want to spend their money on modern items, such as cars and smart phones.



Lucy Vigne

*This old-fashioned Friendship Store in Beijing, once a major outlet, no longer has elephant ivory on display as it does not have a licence.*

# Discussion regarding Beijing

## *Discrepancies observed in licensed outlets in Beijing*

The list of licensed outlets is available on the internet for the public to find, but the shops are sprinkled around Beijing, making it difficult to get to them to compare items for sale. Licensed shops all had framed licences on their walls stating they could sell ivory, although the word 'elephant' is not included, just the scientific name. Many customers do not distinguish between elephant and mammoth ivory and are not encouraged to do so. Licensed shops sometimes had official brochures on display about the Collection cards and about how to tell apart mammoth and elephant ivory by their cross-hatching, but sometimes the

brochures had been there a long time and were out of date. The brochure explains that a picture of the specific item is compulsory for items over 50 g. The brochure, however, only 'recommends' that customers take the Collection card on purchase of an item, and many do not. Nor at the time of our visit did the website given in the brochure actually work, so it was difficult to learn further about the legal domestic ivory trade requirements. Most visitors to the shops are not interested in the brochures or the legal system, according to the vendors and our observations.



Esmond Martin

*Collectors sometimes choose specific items such as Buddhas and paintbrush holders.*





Lucy Vigne

*These ivory Gwan Yin figures are ready to be sent to retail outlets in Beijing.*

The Collection cards for larger items (over 50 g) that required a photo, as stated earlier, did not always exactly match the actual item. For example, the shape of the face or mouth was different, or small objects in the design were missing, or a figure was curved in the opposite direction, or one had some colour and the other did not, or a polished tusk was slimmer or fatter than that in the picture. The differences in the details were small but extremely clear when given careful examination. When a Collection card for a large item had no photograph, a reason given was that it was old, produced before the photo system was in place (although the photo system was introduced with the first ID card), or with no card at all, that the item was not for sale or had already been sold or was simply mammoth ivory. Nevertheless, nearly all larger elephant ivory items in the licensed outlets did have Collection cards seen.

A further difficulty with the cards is that they can be re-used. The newer Collection cards show an elephant, but the two older card versions are still in use and are still frequently seen (Martin and Vigne 2011a). They are displayed even for commonly sold items, for which the old cards should have run out by now, but vendors said customers often do not bother to take the card when they purchase an item. It is thus easy to sell off illegal ivory items not recorded by the government by displaying an old Collection card that was produced for a legal item sold earlier. This is a major loophole.

Another common complication is that mammoth and elephant ivory can be difficult to tell apart with the naked eye. A carver of both ivories admitted that the middle part of both is similar, and if painted or wrapped in clear plastic film, as is commonly done to protect an item from drying out, one cannot see the item properly. The outlets

with both types of ivory for sale often had items on the same shelf so it was easy for customers and sometimes even vendors to confuse them. If the vendor would open the cabinets and allow the customer to handle some of the larger items, one could see on the bases that certain items being sold as mammoth were actually elephant ivory, especially noticeable with figures and paintbrush holders.

For small items in the table cabinets, again mammoth and elephant ivory were often next to one another with bundles of Collection cards for elephant ivory (without pictures required) for each type of item kept at the sides of the cabinet to save on space. But counting cards, especially with more small items stored in drawers, was not feasible. Again these ivory types

can be mixed and muddled. As foreigners, only legally able to buy mammoth ivory to take home, we were sometimes offered a pendant as mammoth from an elephant ivory pendant display. A carver told us that in making small items from small elephant tusks, the carver could cut across the tusk so the cross-hatching would run along the flat surface, but generally the ivory in large mammoth tusks was cut lengthwise then down so the cross-hatching ran along the edges so as not to waste a big tusk. It is thus more difficult to see the cross-hatchings, complicating the material's identity further. Items such as buttons and small beads are made from bits of left-over elephant and mammoth ivory. Bangle-making, however, was considered by some a waste of the material as plain bangles have no artistic merit and use a lot of ivory.



Lucy Vigne

*This elephant ivory tusk, recognizable by the lines on the base, was stained to look like mammoth ivory.*

Vendors said that most buyers were mainly interested in the skill and technique in the carving and were not concerned about the type of ivory. Thus vendors do not bother to talk about which ivory is which if they do not need to, selling an item as made from whichever material they think the customer wishes to hear.

Shops selling mammoth ivory rarely had posters or information about the mammoth to explain to clientele about the animal and its uniqueness. Vendors claimed customers who came to their shops who specifically wanted mammoth knew the material already and could choose accordingly. Authenticity cards are generally not available for a mammoth item as they are not compulsory. As we were foreigners, some vendors told us we did not need a mammoth authenticity card because Customs would recognize the item as mammoth, while others discouraged us from buying mammoth ivory saying Customs could confiscate the item. We were also told that we could pay 50 yuan (USD 8) to test an item we purchased to check whether it was mammoth ivory and to receive a gem authentication certificate if it was; we were told the technique to test it was a 'trade secret'.

A mammoth ivory authenticity card can provide another loophole in allowing the export of small elephant ivory items passing as mammoth. Customs officials find the items hard to tell apart; sometimes they have to send an item to the BICF for identification, and if it is still a problem, we were told the authorities may not allow the item to be exported. A foolproof, instant, inexpensive, testing system to tell the two

ivories apart that will not damage the item has yet to be devised, and for small items it can be impossible to know which is which. Presently, the only two effective testing methods are DNA analysis and radiocarbon dating. Each is done on 100 mg of powdered tusk. Commercial dating of small samples costs at least USD 400 per sample (Adrian Lister, mammoth researcher, Natural History Museum, London, pers. comm. 21 September 2014).

When a back door of a licensed ivory shop was briefly opened, we observed polished and carved elephant tusks being packed in the back room to send to buyers in gold-coloured, satin-lined boxes. On another occasion polished elephant tusks on a licensed shop floor were being packed for a buyer in the same manner, with no sign of Collection cards. Any retail sale carried out in private, especially in the back room where items are not displayed, may not have a card with it, a further loophole.

Only three of the licensed outlets did not have the Collection cards on view with items on display for sale but these outlets had only small displays of ivory. One vendor said it was all mammoth ivory, but there was no sign saying so and the larger figures examined had elephant cross-hatching on the bases. Another vendor used only tiny pieces of ivory to inlay in other items. The third vendor explained most of their collection was kept at home to sell to familiar buyers who do not come to the small shop where space is too limited to display much. Items sold 'at home' of course may well not have Collection cards.





Lucy Vigne

*This licensed outlet was selling elephant ivory and also mammoth ivory in a modern shopping mall.*

## ***Ivory items being sold in unlicensed outlets in Beijing***

Worked ivory or polished tusks can, without checks, be sold straight from the factory, also with the two ivories mixed and Collection cards not produced. Two licensed factories indeed said they sold items on commission or to familiar buyers privately and four out of six licensed ivory factories in Beijing did not have ivory retail outlets accessible to the public, selling on commission or direct to trusted customers or to other licensed outlets.

Some ivory dealers cannot afford to get a licence. Although the licence itself is inexpensive, it can cost a lot to actually obtain one due to corruption, ivory dealers told us. We sometimes noticed elephant ivory carvings in unlicensed outlets that were incorrectly being sold as mammoth. Another sales technique is for a seller to offer a customer, on leaving an ivory specialist shop, some quick glimpses of

photos on a smart-phone of ivory carvings and polished tusks and for the seller to offer to meet the potential buyer at a hotel. Such a seller showed us photos of three Gwan Yin figures and a pair of long thin polished tusks typical of the forest elephant. He said he had come from out of town and had the ivory items in his hotel and could bring them to us and sell them secretly.

Another method to sell illegal ivory items is for a carver or trader to go around to the small retail outlets and offer vendors ivory items. We were shown into a small outlet selling new and unusual narrow name seals from Japan. Bangles and beaded bracelets that are commonly seen in small unlicensed outlets could be smuggled in by Chinese workers in Africa to sell in these outlets. Some items from Africa, such as pendants, are probably touched up to improve the carving, as the quality of the carving seen in



Lucy Vigne

*New name seals and pendants are common ivory items seen in unlicensed outlets.*





Lucy Vigne

*In unlicensed outlets, these containers, partly with ivory, are sold as cricket containers used to carry the insect to participate in a fight.*

Beijing is much finer. Sometimes a vendor displayed at the counter just one or two little ivory items, saying he could produce more if the customer was interested; on one occasion we saw a drawer with illegal ivory items kept open behind the counter for anyone wanting to peer in. Even vendors without displaying ivory in their shops could obtain it if it was requested. At one such shop we saw on the counter a large-beaded bracelet of elephant ivory (similar to those seen commonly for sale in China and made in Africa) that a customer had requested, awaiting collection. When we asked another vendor about obtaining elephant ivory items, she said she had a friend with good-quality items whom she could arrange for us to meet later at a cafe. Only in one antique centre did we see in the central hallway a poster warning customers not to buy illegal, worked ivory.

Illegal ivory items without official Collection cards also sell through pseudonyms on the internet (TRAFFIC and China Arts and Crafts Association 2007; Gao and Clark 2014). Temporary exhibitions are another way that carvers can show their ivory work without a Collection card. A third way to sell unregistered ivory objects was at auctions for which legality was unclear; this grey market expanded sharply from 2006 through 2011 but has fallen since then by 97% due to government pressure on the auction houses to implement the wildlife law fully (Gao and Clark 2014). This and other illegal ivory, however, continue to be traded by other means in China, with sales taking place among associates, and this accounts for the large amount of illegal ivory coming into and being consumed or stockpiled in China today.



## Law enforcement challenges in Beijing

China is famous for its intricate ivory carvings. This industry has grown since around 2005, with a resurgence in Chinese arts and culture. In fact the Chinese government revitalized the ivory carving industry by including it in the first National List of Intangible Cultural Heritage proclaimed by the State Council in 2006. Several arts and antique centres have just been or are being built in Beijing, with an increasing interest in old culture. This growing industry, with more outlets selling ivory illegally, is mushrooming, making it ever more difficult for inspections to take place under the present limited workforce and resources of SFA and SAIC. Licensed outlets are dispersed all over Beijing, making in-depth checks difficult. Loopholes (re-used Collection cards and mixing ivories) block effective inspections. Some licensed factories and retail outlets could not be found at their official addresses or had changed location, further complicating any potential official inspection.

There is presently no easy way of distinguishing elephant from mammoth ivory items, especially for small items, although ivory items sold as Chinese antiques cannot pose as mammoth, as the mammoth ivory industry is a relatively young trade that developed in Beijing after 2002.

Top wealthy businesspeople in China, however, only want to collect legal ivory items so as not to risk their reputation. These collectors want law enforcement to succeed against the illegal ivory trade and to buy from trusted sources. Although only a tiny minority of the Chinese population is involved in the ivory industry, numbers of buyers are growing as businesspeople become richer. Some speculators are buying ivory tusks, both legally and illegally, aware of the reduced supply of legal ivory (t Sas-Rolfes et al. 2014). The destruction of six tonnes of illegal ivory on 6 January 2014 in Guangzhou signalled growing future



*This Chinese poster was the only one we saw in a shopping area that warned customers not to buy elephant ivory or rhino horn.*



Lucy Vigne

*This licensed specialist outlet shows the official brochures in the foreground and ivory items with Collection cards behind.*

restrictions on elephant ivory, making it appear more sought after, while more easily available by some, we were told.

Government transparency regarding ivory stock is inadequate: information on raw ivory prices and quantities sold by the government is inadequate, as is information on mammoth ivory stock, unlike in many other places such as Hong Kong that freely provide information on their stockpiles and about their mammoth ivory imports and export statistics. The public cannot attain any such information from China, adding to the difficulties of monitoring the trade and law enforcement. We also had difficulties obtaining information from the government in Beijing.

There are no effective mammoth and elephant ivory associations that can oversee workable identification cards

for both elephant and mammoth ivory items that cannot be re-used, and the present system is not sufficiently open and transparent to the public. More effective ivory associations occur in Japan (Vigne and Martin 2010), which connect the ivory dealers and carvers so they look after one another's interests to keep out the illegal traders in ivory and guard their reputations. So far, no very rich Chinese ivory collectors or philanthropists nor the government have helped with significant funding to assist with enforcement to improve the ivory industry's reputation, which is being tarnished due to the illegal ivory trade.

Officials are generally against a domestic ban on ivory, which they say would push the industry completely underground, making it harder to control, along with problems of compensating private owners. Yet law enforcement officers, although achieving

some success in arrests within China, have not reduced the illegal ivory trade. Elephant poaching in Africa for illegal ivory has increased, with China known to be the main consumer of smuggled ivory today.

In Beijing a difficulty is that legal factories and legal outlets for both elephant and mammoth ivory are dispersed, with no specialized ivory arts centre, locating all of it together for easy checking. Another difficulty is that the outlets often sell mammoth and elephant ivory items together rather than having specialized outlets for each.

Limited funds and lack of political will have prevented the government from taking on trained, non-government monitoring and inspection teams qualified to distinguish the ivories and examine the Collection cards. The most trustworthy mammoth

ivory dealers are aware of some traders who mix the two ivories; the good dealers prefer to sell only whole tusks or large items that are easily recognized as mammoth, not wasting the material on trinkets that can be mixed with elephant ivory, denigrating their industry.

Until simple and effective techniques are discovered to distinguish mammoth from elephant ivory and to ascertain that the elephant ivory is legal, and until workable inspections can take place, the domestic ivory retail markets will continue to be a conduit for some illegal ivory. The largest illegal ivory trade, which the government has to tackle of course, regards illegal ivory imports entering the black market and being sold among individuals and through social media, not through the retail outlets.



*More posters such as these are needed in conspicuous locations to sensitize the Chinese towards elephant conservation.*



# Shanghai findings

## *Short history of Shanghai's ivory carving*

In 1955 the government started an ivory carving centre called the Shanghai Jade Carving Factory with 150 carvers. The carvers had simple hand tools, progressing to machine tools in 1958. By 1985 there were 120 ivory carvers, 30% women, out of a workforce of 900 in the factory. Most ivory artisans worked together in one large building, receiving a monthly wage of 80 yuan (USD 25). The carvers received a bonus of 40 yuan, making a total of 120 yuan (USD 38). Further bonuses were given to carvers who produced items ahead of the official schedule. They worked from 7:40 to 11:30 and from 12:00 to 16:20 five days a week. They worked also on Saturdays, finishing one hour earlier. They used 5–6 tonnes of tusks a year, which the factory obtained from an import/export corporation. The leftover

powder was sold to a pharmaceutical factory for 3 yuan (USD 1) for 1,000 kg. The artisans specialized in carving scenes of mountains and rivers and mythological Chinese animals. The items were sold in their factory showroom as well as in other shops in China and were also exported. The most expensive item they made was a large (2 x 1 m) figure of a Chinese emperor, which took seven artisans almost three years to complete. The factory's annual retail turnover for ivory items in the mid-1980s was USD 400,000 to 500,000. There may have been a few amateur artisans working out of their homes in and around Shanghai at this time, but no other factories were producing ivory items (Mr Da, vice manager, Shanghai Jade Carving Factory, pers. comm. 14 December 1985; Martin 1988).



Lucy Vigne

*Ivory carvings produced in the past are traded among collectors sometimes in restricted showrooms, as seen here, along with a fake rhino horn (posed as a real rhino horn) for sale.*

By 2002 the Shanghai Jade Carving Factory had stopped carving ivory. Stiles, during his 2002 survey did not find any ivory factories in Shanghai, but he believed there could have been small workshops employing three or four artisans each (Martin and Stiles 2003).

In 1985 there were no mammoth ivory items being produced or sold in the Shanghai Jade Carving Factory. In 2002, no mammoth ivory workshops were found in Shanghai although some mammoth ivory items were seen for sale, carved in Guangdong and Fujian provinces (Martin and Stiles 2003).



*This Friendship Store sold 1,159 ivory items in 2002 and today has a licensed outlet with 118 elephant ivory items counted on display.*

## *Licensed ivory factories in Shanghai today*

There are three licensed ivory factories in Shanghai, one with a new licence and two older ones that were in the building we visited. We saw five carving rooms along a hall, and we watched a woman and a man carver at work pencilling onto 30-cm ivory tusks the outline of human figures copied from similar sized models. When they saw us, they closed the door. One carver came out and agreed to answer us if she felt comfortable with our questions. She said they carve only elephant ivory and have never used mammoth ivory. The government supplies their ivory and they sell the items in their state-owned shop near the factory; the most common items made are pendants and name seals. We learned there were 10 carvers and one master carver in this factory. Most carvers earn 3,000 yuan (USD 492) plus bonuses per month, and a master carver earns double. Most ivory for sale in Shanghai's licensed outlets, however, is carved in Guangzhou, not Shanghai, we were told. The other named licensed factory operating in the building appeared to be closed.

We also visited a small name seal hallmark carving factory with cutting machines to make personal signature stamps; 27 artisans were employed, the same number for several years. They engraved hallmarks by hand with a thin scalpel, requiring a bright light and a very steady hand. The business is state owned and the artisans are paid a salary. Customers normally bring in their raw name seals and ask for the hallmark of their choice to be added. The general charge is 60 yuan (USD 10) per word (or character); half a day of labour is required to finish a

hallmark. Usually a personal ivory name seal provided by the factory would cost 4,800 yuan (USD 787) for the name seal with three or four words carved onto the head of the name seal. A large blank business name seal of 15 x 5 cm, which is not made at the factory, is normally priced at about 46,000 yuan (USD 7,541). It costs 200 yuan (USD 33) a word and making it takes a whole day of labour. The carvers also engrave hallmarks on name seals made of other materials, especially jade and agate. A personal stone signature stamp of 8 x 2 cm costs 100 yuan (USD 16) per word, more than ivory, as it takes three-quarters of a day to carve. The top-quality material, the engravers said, is bloodstone (a type of chalcedony), then jade or agate, then ivory, buffalo horn and finally wood. For about every 200 stone name seal engravings they make about 30 of ivory, the engravers said.



Lucy Vigne

*An engraver painstakingly works on the hallmark of a name seal.*



Mammoth ivory can be carved anywhere with no official licence required. Carvings made in Shanghai consist of ‘cute’ small items, we were told. The better items come from Fuzhou and Guangzhou—areas that are particularly humid, thus more suited to carving mammoth ivory than the north-east of the country, as mammoth ivory can be dry and brittle, sometimes cracking when carved. We were also told that large items that take time to produce are carved

in Fujian Province rather than Shanghai where the rents are higher. We interviewed a mammoth ivory carver based in Shanghai who had started his work with one other carver 20 years ago, and for the last five years has had 26 carvers working with him in Shanghai. He has a big stock of mammoth tusks so does not fear running out, he claimed, even if the material from north-east Russia becomes more scarce.

## ***Retail outlets, items and prices for elephant and mammoth ivory in Shanghai***

During our April/May survey, we covered all the main shopping areas in Shanghai where ivory was for sale, and we counted 2,172 ivory items in 119 open outlets, both licensed and unlicensed (Table 4). Of these, 1,366 objects were in 13 out of the currently 15 licensed outlets in Shanghai that were found at the addresses available on the website, and 806 in 106 smaller non-licensed outlets. We also counted 3,547 items in 20 outlets that were named as mammoth ivory (Table 4)—

although some were in fact elephant—of which 608 were in 3 of the licensed outlets mentioned above, 45 in 3 unlicensed outlets that also sold elephant ivory, and 2,894 that were in 14 outlets selling mammoth ivory and supposedly not elephant ivory. Thus of the total 119 outlets we counted selling elephant ivory items, 6 were selling mammoth ivory items as well (in 3 licensed and 3 unlicensed outlets) and 14 more were selling only so-called mammoth ivory items.



Lucy Vigne

*Ivory items are often displayed in licensed retail outlets with a glass of water to prevent the objects from cracking.*



*These ivory items were carved in Shanghai under licence and are for sale in the factory's retail outlet.*

### LICENSED IVORY OUTLETS

Nearly all of the 15 currently licensed outlets in the city were ivory specialist outlets. There were 5 in Friendship Stores, 4 in large gift centres, 3 in street shops, and 1 in a general shopping mall. Two outlets on the current list appeared not to be selling ivory any more at the addresses available. Three outlets were newly licensed: one in the recently built Pudong Friendship Store and 2 belonging to the well-known Lao Feng Xian chain that used to be state owned and now is private. These replaced 3 outlets that no longer have licences that we visited and no longer were seen selling ivory items.

Most outlets retain their licences. It can take several years to obtain a licence, so they are in high demand and can be expensive to obtain due to the facilitation processes required. Some licensed outlets in Shanghai were state owned and others were privately owned shops or outlets, although vendors sometimes seemed unsure, or preferred to say state-owned even if they were not. Traditional hand-made items tend to

be displayed more often in the old-style Friendship (department) Stores as different from the modern shopping malls. One famous old Friendship Store near People's Square that displayed much ivory in 2002 (Martin and Stiles 2003) was nowadays considered too old style and out of fashion in downtown Shanghai, and this Friendship Store has moved out into a poorer suburb. Nevertheless, familiar VIP customers still return to this same store to buy items as gifts for their colleagues. Most new malls now prefer to sell Western-style clothes and kitchenware as opposed to any ivory, which can, like some other traditional items and crafts, have a slow turnover. For example, one outlet had a 20% discount promotion to improve sales for the Labour Festival (1–3 May) but still there were no buyers during our visit. We surveyed all five Friendship Stores with licensed ivory outlets, finding ivory usually near the gift section, along with other traditional gifts and house decorations, such as agar wood, rosewood, jade, screen paintings and large porcelain vases. The diverse arrays of ivory



Lucy Vigne

*These business name seals are clearly displayed with the newer Collection card, but being small items they do not need a photograph.*

objects were all priced clearly with typed labels as well as Collection cards. Some licensed shops did not have price labels, and the vendors had to tell us the prices of all the items, sometimes reluctantly for elephant ivory, as they said incorrectly we could not buy it, preferring to concentrate on prices of their mammoth ivory items for us to buy. It is easy for a customer to confuse the two ivories on first glance, with just the small Collection cards for elephant and ID cards (when available) for mammoth ivory to separate them. Generally, a similar variety of items was available, big and small, of both elephant and mammoth ivory, in all the outlets.

One licensed outlet had a 30-day exhibition of intricate ivory carvings as well as a museum that opened this year of precious stones and ivory, displaying items not for

sale. This outlet has a licence for carving ivory and has four master carvers producing works of art, as well as the usual trinkets. There were posters in this shop of two master carvers with examples of their ivory work, including a big fish that was carved several years ago and was still on display for sale at 1,280,000 yuan (USD 209,836). A similar licensed outlet had an exhibition displaying ivory with no Collection cards or prices as the items were simply on exhibit apparently not for sale.

### **UNLICENSED IVORY OUTLETS**

As in Beijing, the majority of outlets selling non-registered ivory items with no Collection cards were in 'antique' and jade centres. These small outlets were usually in long rows of similar shops selling numerous ornaments, including a sprinkling of old ivory items that usually looked second-hand.





*These items were on exhibit at a temporary stall with no licence in an antique centre with older ivory ornaments among other trinkets.*

In some such centres, many of the outlets were closed, being hobbies for rich people who don't bother to keep the outlets open daily. Many of the old-looking ivory items nowadays for sale are faked to look old, as most ivory objects were shipped to Taiwan in the late-1940s or destroyed during the Cultural Revolution. Some outlets in these centres specialized in new items made of wood or bamboo with very small ivory parts, such as tea items, wood necklaces, bracelets and rosaries with small ivory beads between the wooden beads, incense containers, and insect cages or containers for fighting crickets. It was often impossible to tell if these new ivory parts were made of elephant or mammoth ivory. Sometimes the smallest beads were ivory look-alike plastic with wavy lines imitating ivory cross-hatching.

Small numbers of ivory items, often looking like antiques, are in shops found around

Yu Gardens and Fanbang Road, as was the case in 2002 (Martin and Stiles 2003). Some centres also had in their central hallway temporary exhibits where vendors display a variety of items on tables, sometimes selling old or new small ivory items with no Collection cards as they are not licensed. A jewellery centre had a temporary exhibition of finely carved elephant and mammoth ivory items on show (not for sale) in cabinets, with no Collection cards; the outlet has no licence, but being an exhibition with items not for sale, these pieces are legal to display.

### **PREVIOUSLY LICENSED IVORY OUTLETS**

There were three outlets on the 2011/12 licensed list that no longer had licences but three more newly licensed outlets had replaced them on the 2013/14 list. We found one outlet in an antique centre that seemed to have closed down, and the two

other outlets in large antique centres could not be identified to check whether they had any ivories.

### **MAMMOTH IVORY OUTLETS**

Of the 20 outlets with mammoth ivory, 14 supposedly sold only mammoth ivory and 6 sold both ivories. Some of these outlets also sold wood and jade ornaments. One of the 11 mammoth specialist shops had 1,700 items on display, including many small trinkets that the vendor would sell wholesale (for 50 or more pieces) at a 35% discount rather than at his usual 10% discount, he said. He could send us items abroad by air and they would sell well in New York, he suggested. He advised us to specialize in one item, such as pendants, to sell.

The better mammoth ivory specialist outlets had green authenticity cards for each item with pictures for the larger objects; these vendors said it was important to have the card if one were taking the item out of the country. Chinese buyers, who buy most items, do not normally bother to take the cards. These cards are supplied not by the government but by the factories or Beijing science labs for verification, we were told, to help their sales.

As in the elephant ivory outlets, we saw few customers in these mammoth ivory outlets. The better outlets sell mammoth ivory carvings and not wasteful trinkets, but do make intricately carved snuff bottles in the traditional style. We saw hardly any posters in most mammoth ivory specialty outlets or other shops, unlike in Guangzhou, as vendors believe that those wishing to buy their items already know about mammoth ivory, as we were told in Beijing.

### **ELEPHANT IVORY ITEMS**

In nearly all the licensed outlets ivory items were recently carved. They averaged 105 items per outlet and consisted of bangles both plain and carved, plain or carved beaded bracelets, earrings, bead necklaces, oblong religious pendants, smaller oval face pendants of Buddha and Gwan Yin, charms/toggles, carved tusks or bridges, plain polished tusks (some with drawings and calligraphy), figures and figurines (of animals, humans and religious deities), composite scenes, chopsticks, cigarette holders, name seals, combs, walnuts, netsuke, paintbrush holders and other containers. There were also miscellaneous items, such as the abacus, belt ornaments, vegetables, crickets or cicadas, mahjong, Chinese chess, hand exercise balls, opium pipes, snuff/scent bottles and small teapots. There were three types of Collection cards, as in Beijing, the oldest produced in 2004 and the newest in 2010. The oldest Collection cards remained beside those items that had apparently not yet sold in the shop, according to the vendors. Some said they updated the prices and some said the older items on display remained at the older prices, for example bead necklaces and bangles that they had received in large numbers. The vendors claimed it was better to buy an older, pre-2011 item as the price was less, especially for items like carved tusks, for in five years, a vendor said, her prices had risen twice, making the ivory a good investment. Licensed outlets also sometimes sold modern items such as 8-GB memory stick holders as well as traditional-style items such as magic balls that are usually made in Guangzhou where they are popular in Feng Shui house decoration.





*These two specialist outlets sold large amounts of mammoth ivory in Shanghai.*







Lucy Vigne

*Gwan Yin figures and carved elephant tusks are frequently seen in the licensed outlets.*

Unlicensed outlets had smaller items in far fewer numbers of ivory objects (an average of 9 per outlet), usually old-style items such as snuff bottles, pill containers, intricate fans, fan handles, card holders, ink wells, netsuke, bottle stoppers, scroll ends from the Qing dynasty, incense containers, nail cleaners and polishers, combs, hair brushes (sometimes European with engraved initials), walking sticks with ivory handles or pommels, doctor's tongue depressors, hairpins, opium and smoking pipes, exercise hand balls, fortune-telling sticks, book marks/covers, as well as the usual name seals, jewellery, figurines, cigarette holders, chopsticks and paintbrush holders. Occasionally tusk tips, supposedly old, were sold in unlicensed outlets to be used as name seals or for Chinese massage. For all the outlets, pendants were the most common, 19% (Table 9).

### **MAMMOTH IVORY ITEMS**

Many of the mammoth ivory items on display were similar to those made of elephant ivory, such as carved or polished tusks, that were generally much larger with their recognizable spiral and brown outer layer. There was a polished mammoth tusk of 50 kg for a million yuan (USD 163,934). More commonly seen were tusk pieces with human and animal carvings and religious figures, such as Gwan Yin or the Laughing Buddha that are used for decoration, as well as jewellery, pendants and charms or toggles to hang on car mirrors, handbags and elsewhere. In the better mammoth ivory specialist outlets, most items were larger: at least 15–30 cm in size, and the items were recognizably made of mammoth ivory with the distinctive outer darker layer left on purpose on the carved figures so as not to confuse the items



Lucy Vigne

*This set of three figures is made of mammoth ivory.*

with elephant ivory. Animal and human or religious figures were on display in about equal numbers. The better outlets did not make or sell trinkets, saying they were a waste of material. In outlets licensed to sell elephant ivory, mammoth ivory also was for sale in 3 out of 13 (a smaller proportion than in Beijing), and they displayed many more small items that as usual resembled ivory, such as jewellery and charms, but without cards. The smaller mammoth ivory outlets also did not generally bother with cards to prove the authenticity of the material; sometimes vendors said that if a card were to be provided with an item, it would cost 100 yuan (USD 16) extra to get it from the factory and it would take a few days. We were told by these vendors that the card was not required to export a mammoth ivory item as Customs could distinguish it from elephant ivory. The most common items seen were

figures and figurines, 36% (Table 10).

### **PRICES FOR ELEPHANT AND MAMMOTH IVORY ITEMS**

Prices of both elephant and mammoth ivory items were similar to those in Beijing and varied according to the overhead of an outlet (Table 11). The most expensive item of ivory was a dragon boat of 180 cm with many intricately carved figures apparently made in the 1950s or 1960s for 5,800,000 yuan (USD 950,820) and the cheapest was a pair of earrings for 280 yuan (USD 46), while the most expensive item of mammoth ivory was a carved tusk of 275 cm for 9,600,000 (USD 1,573,770) and the least expensive apparently was a toothpick for 20 yuan (USD 3).

The most expensive ivory items are usually carvings from whole heavy pieces of ivory, not large composites that consist of small ivory

pieces glued together (sometimes mixed with bone). In the most expensive licensed outlets, vendors tend to sell the higher-quality items to rich collectors who may buy three items at a time, vendors said. Prices for the same items in most Friendship Stores were similar for the same item, with prices sometimes fixed and sometimes negotiable. These items were more expensive than in other outlets, being popular with VIP customers with large expense accounts. Ivory items with a Collection card sell for more than those with no card, we were told, and our findings showed this was the case. Ivory items without an ID card often are priced similarly to mammoth ivory items, some vendors said, although generally they sold ivory items for more than mammoth ivory items, but for smaller items price also depended, as in Beijing, on the quality of the material and the skill and carving technique, vendors said. Mammoth and elephant ivory prices quoted to us for jewellery (bangles, bracelets, necklaces, pendants and rings) were on average 36% more expensive than

those named as mammoth ivory items. For more expensive items, some collectors want elephant ivory and others want mammoth ivory items, so they do not compete on sales, we were told. Again, netsukes/figurines tended to be more expensive averaging at USD 937 versus USD 291 for mammoth (Tables 12 and 13).

For mammoth ivory items, a shop owner said prices had risen due to the higher price of the raw material, and thus buying such items was becoming a good investment. A 20-cm human figure priced at 16,000 yuan (USD 2,623) today was 10,000 yuan (USD 1,208) 10 years ago, a vendor said. Small items are the most commonly sold, and they have increased in Chinese popularity, being nowadays considered, like elephant ivory, to be from a strong animal that can protect people from bad luck and bring good luck. Vendors would often offer a 10–20% discount on all mammoth as well as elephant ivory items, if requested.



Lucy Vigne

*These expensive mammoth ivory netsukes varied in price from around 4,000 yuan (USD 655) to 7,000 yuan (USD 1,147) but a 10% discount was offered.*



## Substitutes

Customers who are collectors will often choose items made of different materials, such as name seals, necklaces or Buddhas. Carvings made of jade and other valuable stones and woods are also popular in China.

We did not see many carvings made of ivories apart from elephant and mammoth. Several scenic composites made of bone, 23 cm long, were priced at 2,000 yuan (USD 328) each. Slightly larger composites of 30 cm made in a similar style but of elephant ivory were 25,300 yuan (USD 4,148) on average; mammoth ivory ones were around 15,000 yuan (USD 2,459). Life-size lobsters made of buffalo bone were 6,800 yuan (USD 1,115); they would sell for 10 times more if made of mammoth ivory, vendors said. The higher-quality mammoth ivory outlets sometimes had bone and walrus carvings. Bone contains little dots and is lighter in weight than ivory, while walrus ivory is plain, shinier and heavier than elephant and mammoth ivory.

Vendors in small unlicensed outlets

sometimes offered bangles that were ivory look-alike plastic, saying it came from the sea, meaning from the walrus, for 1,500 yuan (USD 246) each, or necklaces supposedly of mammoth ivory, but again made of plastic for 3,500 yuan (USD 574). Most tourists would find it hard to distinguish these items from ivory, but we never saw tourists buying them.

In the cheaper tourist flea market outlets there were many old Chinese Cultural Revolution memorabilia and old bone items, recognizable by their tiny flecks. There were also ivory look-alike plastic pendants, belt ornaments and bangles made to look old. There was much less genuine ivory in the flea market open stalls (with no glass for protection) than there had been in 2002.

Ivory copies of the Tang dynasty sword were seen in a licensed outlet. The ivory sword is hung in the house to protect the family and to bring power and luck. The traditional sword is often considered too dangerous to display in the house.



*This bone composite, the vendor claimed, was made from elephant bone; it was priced at 2,000 yuan (USD 328).*

## ***Buyers and vendors***

Chinese are by far the main buyers of elephant ivory in Shanghai's retail outlets, as in Beijing. Well over 90% of the buyers are from mainland China. Vendors cannot always tell whether a Chinese customer is from abroad, as is sometimes the case. Also, Japanese visitors, former major buyers of ivory objects in China, still like to buy small 'antique' ivory items that they take out of the country in their pockets, vendors said. In the licensed outlets found mainly in shopping centres, the best customers are VIPs. Collectors also choose the more expensive items, and young people prefer the trinkets that they can afford. We saw few buyers, about seven, during our study in Shanghai. Vendors occasionally said, incorrectly, that foreigners could not buy elephant ivory items, but that our Chinese guide could buy an item on our behalf. It is rare to see Western foreigners looking at ivory items, and sometimes vendors presumed we were from a wildlife protection agency and not buyers. Some vendors felt comfortable with us looking at their items as they said they were legal, while others got agitated. At least 4 out of the 13 licensed outlets that we visited had some items either without Collection cards or with cards that looked faulty or the vendors were mixing elephant with mammoth ivory.

Buyers often prefer elephant ivory as it has to be licensed, making it appear more 'special' whereas mammoth ivory can be sold anywhere, some vendors told us. In general, mammoth ivory sells for a little less than elephant ivory, vendors said, as it is less popular, being *washa* or a fossil, and there is no tradition for it, even if it is finite in

supply from an extinct species, and from the bigger and stronger mammoth. Customers still prefer elephant ivory as it is usually whiter and considered more beautiful; it is traditionally considered to protect the body and home against bad luck. Vendors said educated Shanghai people prefer ivory more than those from the rural areas. In most licensed outlets, vendors displayed elephant ivory only, not mammoth ivory as well, unlike in Beijing. Some promoted only elephant ivory to customers, saying it was superior and more sought after, being available only in licensed outlets.

Vendors had mixed comments about their sale of elephant ivory items. Some said business was okay or good. Others said that government controls were getting stricter, reducing business from what it could be. Some commented to our Chinese guide that ivory was not popular now as an investment because elephant ivory cannot be sold abroad. Furthermore, many companies buy ivory as presents for colleagues to facilitate business, but with less corruption there is less gift-giving these days among government-owned companies, as elsewhere in China (Gao and Clark 2014). Furthermore, some vendors said for the average customer, ivory items are not a good investment as government controls are getting too strict, so if you buy items now, even with Collection cards, in several years you may not be able to re-sell them easily. Thus, they said, who would take that chance as an investment? It would only work, these vendors explained, for people 'in groups who share or exchange items among themselves internally'.

At least 80% of the customers for mammoth ivory items are Chinese, as in Beijing; vendors said they also sold items to Japanese, Hong Kong Chinese, Taiwanese, and a few to Americans, Russians, British and other Europeans. Westerners chose animal carvings and Asians also liked religious figures. Sales of mammoth ivory have been going up because of the decrease in the legal ivory trade with the present and perceived restrictions. Mammoth ivory items have been going up in price each year for the past three years in the better outlets; the carvers of these items leave part of the outside of the mammoth tusk for easy identification, not to confuse it with elephant ivory, which some collectors prefer. Generally, vendors selling mammoth

ivory said that the better-quality, whiter mammoth ivory was more expensive.

We received contradictory information on mammoth ivory sales. One outlet, having sold mammoth ivory for five years, was closing down the next day in a shopping mall due to poor sales, vendors mentioned; we re-visited the location later and indeed, the outlet had gone, replaced by modern decorative ceramics on display. Vendors at the better mammoth ivory specialist shops remarked that the number of Chinese buyers was increasing due to rising salaries, and as the price of mammoth ivory tusks goes up and imports go down, being a limited commodity, mammoth ivory will become an increasingly good investment, they believe.



*Chinese customers examine the ivory items they wish to purchase in great detail; beaded bracelets are frequently sold to men.*





Lucy Vigne



Lucy Vigne

*With so many mammoth ivory items such as these now being carved, some retail sellers are mixing elephant ivory items among the mammoth ones for sale, making it hard for inspectors to tell them apart.*



Lucy Vigne



Lucy Vigne

# Discussion regarding Shanghai

## *Discrepancies observed in licensed outlets in Shanghai*

In several outlets some of the ivory items had no Collection cards available. One outlet had 30 items on display with no Collection cards, although other items had the cards. The reason given to us was that the items without cards were not for sale. That could be used as an excuse for any item without a Collection card. Another outlet had Collection cards that were faded and slightly blurred and did not look original. These Collection cards were the brown, newest cards with an elephant picture on them, but they generally had a pale greenish tinge. The vendors in this outlet were particularly hostile and would not allow any photography or questions, claiming that such behaviour was impolite. Their behaviour suggested they were aware of the ID card discrepancies and did not want us looking at their items in fear we were investigators. Another outlet had its Collection cards for three large figures put away (yet it is compulsory to display them beside any item over 50 g) and the vendor said she had no Collection cards at all for the smaller items for sale.

As in Beijing, many of the Collection cards were the old version, but often the ivory items with them appeared new with updated prices, suggesting the cards are being re-used. We were frequently told, as in Beijing, that Chinese buyers don't bother to take the Collection cards for elephant ivory, but it was the customer's choice. The newest brochures about the ID cards strongly recommend taking the card but it is not compulsory.

Also as in Beijing, items in licensed outlets being sold as mammoth ivory to foreign customers sometimes had elephant ivory cross-hatchings clearly visible and prices were often similar for the items in these instances. Mammoth ivory items and so-called mammoth ivory items in most outlets had no individual authenticity cards as they are not compulsory. As the items in these outlets usually closely resemble elephant ivory and can be displayed beside one another in a cabinet, it is easy to confuse the type of ivory.

If there was a big price difference for identical-looking small items of mammoth versus elephant ivory, the reason given was the piece was one of their latest, or the carving skill was different—the material was not the reason for the price difference. Some items may be sold as a combination of mammoth ivory and elephant ivory, without a Collection card. For example we saw a large, 49-layer magic ball of elephant ivory on a mammoth ivory stand. Licensed outlets also selling mammoth ivory have no posters about mammoths. The government does not demand that they do, nor does the government promote mammoth ivory carvings, which can be sold by anybody. Government outlets concentrate on selling elephant ivory items their own factories produce, and thus they prefer to promote elephant ivory as an important part of Chinese cultural heritage.

## ***Ivory items being sold in unlicensed outlets in Shanghai***

Sometimes an unlicensed outlet may have an exhibition displaying elephant ivory items with no Collection cards as these items are not for sale at the exhibition. After the exhibition, however, there is a loophole as there is nothing to stop an interested buyer from purchasing an item with no Collection card. It was not clear whether the carvers were private or from licensed outlets. We also visited a restricted exhibit outlet, available to collectors only, in a building with high security where collectors can buy and sell both genuine and fake antique items, including ivory, to other collectors, and no Collection cards were seen.

Illegal worked ivory is sometimes sold wholesale directly to vendors to re-sell. In one large antique market (a big building consisting of lots of little shops), an illegal wholesaler came into an outlet with a bag

of ivory items, offering them to the vendor, whose shop had no licence. We watched the vendor decline, saying sales were not so good for ivory so she would not buy his items. If she were to buy, she would prefer small items that sell better, she said. Japanese visitors like to come to her shop for small ivory antiques. We saw this again in another antique centre, with a young man walking along the corridors trying to sell to unlicensed shops the ivory items he was carrying. This is a way to sell illegal items carved in China or smuggled in from other countries.

Some vendors in unlicensed outlets will pretend an item is ivory when it is plastic, or that it is old when it is not, in order to make a sale. One long hairpin, for example, priced at 6,000 yuan (USD 984), supposedly was made of Asian elephant ivory from the Ming



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*These painted elephant ivory snuff bottles, produced for us to see from a drawer in an unlicensed outlet, which were made in the 1950s, are selling today for 5,000 yuan (USD 820) each, the vendor said.*





*Unlicensed outlets tend to sell unusual, old-type items such as this inkwell.*

Dynasty but was actually bone. The vendor offered to write a paper receipt to say it was a handicraft so we would be able to take it out of the country legally, he said. Another vendor claimed his so-called Asian ivory fan was more expensive at 1,600 yuan (USD 262) than his African ivory fan at 1,300 yuan (USD 213), but then he reversed himself on the prices (they actually appeared to be made of bone and plastic respectively), just saying what he thought would best give him a sale.

Auction houses, as in Beijing, are popular in Shanghai, and elephant ivory items, as opposed to mammoth ivory items, were often sold in this manner in the past.

Although Collection cards are supposed to be present with all ivory items, for second-hand or old/antique items sold at auction, enforcing the regulations was lax. In December 2011, however, the SFA produced a notice urging all Chinese auction houses to abide by the wildlife law, 'whenever the products were made, the purchasing, transporting, and selling (including auction) of wildlife products shall comply with the relevant wildlife laws and regulation'. This caused a collapse in the sale of ivory at auctions in Shanghai, as for Beijing and all cities in China, although it has not been totally eliminated (Gao and Clark 2014).

## Law enforcement challenges in Shanghai

The licensed outlets are spread all over the city, making inspections difficult to conduct, especially as locations can change and are not updated on the website during the two-year licensed period.

Licensed outlets have signs in English to say that taking ivory items out of the country is prohibited, although the signs do not differentiate between mammoth and elephant ivory. Similarly, only the word 'ivory' is written on the licences that are framed on the walls of all the licensed outlets.

In the antique centres where some unlicensed outlets selling ivory are found, we saw no signs stating that it is prohibited to sell illegal ivory items bought from non-licensed sources.

Vendors can vary the name of the material of an object, its age and price, depending on what they think the customer wants

to hear, and without expert training and testing devices, ivories and substitutes can be confused with one another, making inspections difficult.

In unlicensed outlets, not all ivory items are on display, making inspection even more difficult. For example, in one outlet, the vendor brought out from a drawer 24 ivory snuff bottles that she said were carved in the 1950s, selling for 5,000 yuan (USD 820) each.

In the small outlets many vendors were not concerned about selling ivory openly to us, saying it was not a problem to take small so-called antiques out of the country. The younger vendors tended to know little about regulations on elephant and mammoth ivory.

Many vendors were sensitive to photos. Those in antique outlets in and around the common tourist areas of Shanghai



*Plastic look-alike ivory with curly lines can be made into jewellery looking very like real ivory.*



*Small ivory items, such as charms and bracelets, are sometimes displayed in licensed outlets with bundles of Collection cards placed to one side making it difficult for us to see if each item had a card.*

were the most suspicious of our presence, and on two occasions we had to leave the building before finishing our count due to being followed. We learned that several days earlier some Westerners walked around the area and a little later the police came to investigate, making the vendors nervous that foreigners may be journalists, or animal welfare people, who may cause trouble. Most outlets selling ivory, however, are in the newer antique centres sprinkled around the city that are hardly ever visited by Westerners and these vendors were not nervous about us. These outlets have less pressure from visitors complaining to the police about illegal ivory. So many new outlets are scattered about that the government cannot realistically monitor them all in these antique centres.

Several new so-called mammoth ivory outlets displayed some genuine pieces of mammoth but they are also sometimes a cover for what is really elephant ivory,

as outlets do not need a licence to sell mammoth ivory. A carved piece of tusk is sometimes stained brown on the outside to resemble mammoth ivory. Some of the items were in the shape of small elephant tusks, lacking the wide circumference of mammoth ivory items. It can be hard to be sure which ivory is which, again a challenge for inspectors. In one fairly new antique centre, five mammoth ivory specialist outlets had opened in the last two years, four of which had recognizable elephant ivory items being sold as mammoth ivory. A few mammoth ID cards were on hand in one outlet, but only for larger items and without pictures, in an attempt to give authenticity to their mammoth ivory items. Other outlets in this centre that we saw had no cards. One vendor admitted that a licence to sell elephant ivory items was too difficult to get, so although elephant ivory items sold more readily, he claimed he sold mammoth ivory instead and business was apparently poor. However, the recent



opening of five new so-called mammoth ivory outlets in one antique centre would suggest business in whichever ivory they are selling is expanding. In these outlets, as well as clearly seeing elephant ivory items on the shelves that were said to be mammoth ivory, we also saw customers buying elephant ivory figures in satin-lined boxes that were hidden behind the counter. The transaction took place at the back of the shop with several Chinese men buying items, and a quick examination of the base of the items before the boxes were quickly closed and whisked away enabled us to verify the material. These dubious new mammoth ivory outlets are thus being used as a conduit to sell illegal elephant

ivory items with no Collection cards, being unlicensed outlets. Ivory items in these mammoth ivory outlets are thus sold from the display shelves, from behind the counter or the back of the shop, or items can be brought to the shop on special order. There seems to be no fear of inspection as the mammoth ivory trade is legal, thus serving as an easy smoke screen for elephant ivory sales. Dubious mammoth ivory outlets are also spoiling the business for the better mammoth ivory outlets, we were told, as well as allowing illegal elephant ivory to be sold that competes with legal sales and tarnishes the reputation of the whole elephant and mammoth ivory carving industry in China.



*Mammoth ivory items, such as this magic ball and Buddha, are sometimes also made of elephant ivory.*

# GENERAL TRENDS IN THE IVORY TRADE IN CHINA



*These pendants, necklaces, combs and charms were all made of Grade A mammoth ivory that closely resembles elephant ivory.*

*China remains the main centre for manufacturing ivory in the world and more mammoth ivory is also carved in China than anywhere else. From 1990 to 2002 small illegal private ivory workshops had replaced the large government ivory carving factories that had run out of legal supplies of raw ivory. In 2009 the government factories obtained new legal supplies of tusks that revitalized the legal industry. Since then there has also been a huge increase in illegal ivory coming into the country.*

In 2002, as stated earlier, the wholesale price in China for an average tusk of 4 kg was about USD 120–170/kg (Martin and Stiles 2003). By 2010 the same size tusk for sale in Fuzhou, a major ivory processing centre in southern China, from private sources was USD 750/kg (Martin and Vigne 2011a). In early 2014 the price from 2010 had almost tripled in Beijing to USD 2,100/kg. One main reason mentioned earlier for the high price, as some researchers strongly support, is that more Chinese are buying tusks and worked ivory solely as an investment, removing them

from the open market. Another explanation for the high prices is due to the increased bribery charges required to move tusks illegally out of Africa to entrepots in Asia and finally to China; regrettably little research has been carried out on this common and important activity.

Prices have also risen considerably for mammoth ivory due to demand. Again, as stated earlier, Grade A mammoth ivory, for example, cost wholesale on average in Hong Kong and Guangzhou USD 210/kg in 2002

and USD 400/kg in Fuzhou in 2010, rising up to USD 1,639/kg in 2014 in Beijing (Martin and Stiles 2003; Martin and Vigne 2011a).

The government increased the number of factories in China from 9 in 2004 when the new licensing system started to 37 in 2013 and the number of licensed retail outlets from 31 to 145 in China during this period (IFAW 2006).

Since 2002, the number of retail outlets selling ivory in Beijing has risen 2.5 times and in Shanghai 3.5 times. Since 2002 in Beijing the number of ivory items seen for

retail sale has doubled while in Shanghai the number has remained almost the same. For mammoth ivory, from no items seen in Beijing the increase in retail sales has been huge and in Shanghai it has been 12-fold.

In 2002 mostly foreigners bought ivory and thus took the items with them when they left the country. Today, nearly all ivory remains in China. Mammoth ivory items, however, which were available in small amounts in China in 2002, have risen in demand and are often exported by Chinese and also foreigners as it is legal to do so.



*This ivory decorative sword and painted tusk were for sale in a Friendship Store in Shanghai for Chinese buyers and not for export as the vendors told us.*



# Trends in the ivory trade in Beijing from 2002 to 2014

There have been considerable changes in the ivory trade in Beijing since 2002, the date of the last detailed survey (Martin and Stiles 2003). One of the biggest differences is the large increase in the price of tusks and ivory items due to rising demand. Several factory managers want to carve more ivory in Beijing today and complained to us about the shortage of tusks as the government allocated only five tonnes in total to all 37 ivory factories in China.

In 2002 there were 61 retail outlets with ivory in Beijing with 3,196 ivory objects (Martin and Stiles 2003); we now surveyed 156 such outlets with 6,272 elephant ivory objects. In 2002 there was an average of 52 items counted per outlet. In 2014 there were 40 per outlet: 8 items per unlicensed outlet and 151 items per licensed outlet; legal outlets carry 3.5 times more items than in 2002.

Ivory items have risen hugely in price (Table 14). For jewellery, chopsticks and cigarette holders (over half the items surveyed in Beijing in 2002) retail prices from 2002 had gone up 7.7 times in US dollars compared with Guangzhou in 2011. In Beijing from 2002 to 2014 retail prices have sky rocketed 13.5 times (Martin and Stiles 2002; Martin and Vigne 2011a). For example, a bangle 2.5 cm wide increased on average retail from USD 112 to USD 1,933; necklaces made from small beads from USD 24–67 to an average of USD 233; cigarette holders from USD 43 to USD 623; and personal name seals from USD 85–122 to USD 790 (Martin and Stiles 2003). If one compares these 2014 retail prices with similar items in Africa, say Angola, for 2014 there is a huge difference. In the Benfica market in Luanda, bangles of size similar to those in Beijing retailed for USD 100, necklaces USD 30, chopsticks USD



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*Increasing numbers of Chinese tourists visit Beijing and sometimes shop for ivory items.*

87, and name seals USD 60. These Angolan prices average out at a 12th of the cost of similar items in Beijing (Martin and Vigne 2014a). No wonder that the Chinese are the main buyers of worked ivory items in the major illegal markets in Africa.

The carving and sales of mammoth ivory have increased to substantial amounts today. Stiles found not a single mammoth ivory item in Beijing in 2002, but we found

43 outlets with, according to the vendors, 3,747 mammoth ivory items (87 items on average per outlet).

With recent growing demand by the Chinese for ivory, the legal import of 62 tonnes of tusks in 2009, the increased quantity of illegal tusks and worked ivory items smuggled in from Africa, and the strong expansion of the Chinese economy, the Beijing ivory industry has greatly expanded since 2002.

## Trends in the ivory trade in Shanghai from 2002 to 2014

In Shanghai in 2002, 35 outlets were openly selling 2,045 elephant ivory items compared with the 2014 survey of 119 outlets openly selling 2,172. Thus the number of outlets has risen sharply while the number of items for sale has remained similar. The number of items per shop has declined overall from 68 in 2002 to 18 in 2014. We counted an average of 105 items in the licensed outlets and 9 in the unlicensed outlets in 2014, thus the number of items in legal outlets has about doubled in 2014 compared with 2002. In 2002 a Friendship Store had the most ivory items for sale in Shanghai: 1,159; in 2014 it was licensed with 118 items. In 2002 the regulations on the sales of ivory items were less rigorous without identification cards needed, but by 2004 outlets had to be licensed with Collection cards to sell ivory items.

Retail prices for most ivory items, as in Beijing, increased substantially from 2002 to 2014 (Table 15). For example, chopsticks rose on average from USD 131 in 2002 to USD 629, cigarette holders rose from USD 25 to USD 749, beaded necklaces from USD 111 to USD

720 and pendants from USD 72 to USD 714; this is an eightfold rise in price over 12 years.

One of the most significant changes in the mammoth ivory trade in Shanghai has been the huge increase in the number of items for sale. In 2002 there were only three outlets selling 292 items on display compared with 2014 when 20 outlets had 3,547 pieces (177 items per outlet), although some of these items were in fact elephant ivory.



*This photograph shows the old Yu Gardens in front of the new cityscape of Shanghai.*

# OVERALL DISCUSSION AND CONCLUSIONS

*The ivory industry in Beijing and Shanghai had plummeted by the early 2000s due to the 1990 international CITES ban that caused a reduction in the import of tusks and caused foreigners, then the main buyers in China, to stop buying ivory items. Today, with a steady increase in the number of wealthy Chinese, the industry has been expanding once again, with the Chinese buying over 90% of elephant ivory items and over 80% of mammoth ivory items. Although only a fraction of the population is interested in buying ivory, in a country of 1.3 billion people that number is still sizeable, and the government supports ivory carving as an important part of Chinese culture.*

Discrepancies occur in the legal domestic ivory trade. The licensed factory and licensed outlet system, with its impressive-looking Collection cards, designed to identify each legally carved item on display for retail sale, is being abused in some outlets in both cities. Customers do not always take the card after buying an ivory item. This allows ivory items from illegal sources of ivory to be reproduced using the same Collection card.

Mammoth ivory was not available in the early 2000s in the shops in Beijing, and very little was for sale in Shanghai. The industry has today expanded considerably, with large quantities of mammoth ivory for carving being imported from Russia via Hong Kong into China legally by private businesspeople. But some traders are selling mammoth ivory items as a disguise for elephant ivory in their retail outlets.



*Some elaborate ivory items such as this one may remain in an outlet for a long time as they are so expensive and nowadays cannot be exported legally as the brochure states.*





*This polished tusk was seen on a licensed shop floor, about to be dispatched in its box to a customer.*

Although the number of elephant ivory items counted was not high compared with those in cities in some countries, the average size of the pieces per outlet was considerably larger, including several whole elephant tusks for sale in most retail outlets. Businesspeople and collectors increasingly seek plain polished tusks as an investment. Overall, however, few customers were buying ivory objects in the shops during our month-long survey. We saw just a handful of sales, which does not explain how the large amount of smuggled ivory from Africa coming into China today is being consumed.

Worldwide seizure data and fieldwork on ivory markets in Africa and Asia indicate that much greater quantities of ivory are being traded in China than are being accounted for as they are not going into the licensed retail outlets. The amount of ivory items on open display in the retail outlets in China, whether licensed or unlicensed, is just the tip of the iceberg compared with sales of illegal ivory occurring elsewhere in the country. Most sales of illegal ivory appear to be being conducted secretly behind

the scenes among friends and associates, in both raw and worked form. Some businesspeople have been buying ivory as an investment, believing the supply of ivory will decrease with growing restrictions and possible future large destructions of global ivory stockpiles, while demand will rise.

China faces enormous challenges in law enforcement to control the ivory trade, as the number of rich businesspeople in the country with interest in buying ivory continues to increase. Ever-growing numbers of Chinese contract workers are going to Africa and buying increasing quantities of illegal ivory to smuggle into China. While there are illegal sales of ivory in the retail outlets, ivory selling outside these outlets is an even bigger challenge for law enforcement. China has the capacity to reduce elephant poaching by cutting down demand for ivory in the country, tackling ivory smuggling from Africa to China, combating the sale of illegal ivory both in retail outlets and through the social network. This can only be done with a huge upsurge in political will.

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*Whole large mammoth tusks are easily distinguishable by their shape; this one was outside a licensed outlet for elephant ivory in one of the Shanghai Friendship Stores.*

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# TABLES

**Table 1. Imports of mammoth tusks in kilos into Hong Kong, 2007 to 2013 (7 years)**

Year	From Russia to Hong Kong	From all countries to Hong Kong
2007	45,120	46,230
2008	26,370	27,088
2009	20,363	21,587
2010	36,665	42,198
2011	36,701	38,709
2012	55,095	57,448
2013	35,147	41,023
<b>Total</b>	<b>256,461</b>	<b>274,283</b>
<b>Average per year</b>	<b>36,637</b>	<b>39,183</b>

Source: Hong Kong government, 2008–2014

**Table 2. Re-exports of mammoth tusks (kg) from Hong Kong to mainland China, 2007 to 2013 (7 years)**

Year	From Hong Kong to mainland China	From Hong Kong to all countries
2007	29,891	31,829
2008	31,271	32,323
2009	14,242	14,457
2010	32,947	33,285
2011	41,557	41,698
2012	28,101	28,764
2013	33,194	34,517
<b>Total</b>	<b>211,203</b>	<b>274,283</b>
<b>Average per year</b>	<b>30,171</b>	<b>30,982</b>

Source: Hong Kong government, 2008–2014

**Table 3. Estimate of the number of ivory carvers and weight of ivory consumed by the Beijing Ivory Carving Factory from 1976 to 2014**

Year	No. of ivory carvers	Ivory consumed (tonnes)	Reference
1976	—	15	Martin 1988
1977/8	—	15	Pers. comm. <sup>1</sup>
Early 1980s	—	10	Laurie 1989
1985	421 – 550	15	Pers. comm. <sup>1</sup> , Martin 1988
1987	200	7	Pers. comm. <sup>1</sup>
1988	—	9	Martin 1990
1989	300 – 400	4	Laurie 1989, Martin 1990
1990	6	—	Martin 1990
2000	'a few old carvers'	—	EIA 2002
2001	'under 10'	—	O'Connell–Rodwell and Parry–Jones 2002
2002	0	0	Martin and Stiles 2003, EIA 2003
2013	—	0.6	Pers. comm. <sup>2</sup>
2013	40	0.5	Pers. comm. <sup>3</sup>

1 Liu Jie Ding, Manager, Beijing Ivory Factory (BICF) to E Martin, 14 December 1987

2 Kirsten Conrad to E Martin and L Vigne, 22 August 2014

3 Sales Manager, BICF to E Martin and L Vigne, 14 May 2014

**Table 4. Number of retail outlets seen with so-named elephant ivory and mammoth ivory items openly for sale in Beijing and Shanghai in early 2002 and in April/May 2014**

Year/City	Number of outlets		Number of items		Av. number of items	
	Elephant	Mammoth	Elephant	Mammoth	Elephant	Mammoth
<b>2002</b>						
Beijing	61	0	3,196	0	52	0
Shanghai	35	3	2,045	292	68	97
<b>2014</b>						
Beijing	156	43	6,272	3,747	40	87
Shanghai	119	20	2,172	3,547	10	177

Source: for 2002 data: Martin and Stiles 2003

Some outlets incorrectly named several of their items to us as mammoth ivory when they were actually elephant ivory.

**Table 5. Elephant ivory items for retail sale seen in Beijing in May 2014**

Item	Percentage of total
Pendant	31
Figurine/figure	17
Charm/toggle	7
Button	6
Necklace	5
Bracelet	5
Bangle	5
Name seal, personal	4
Whole worked tusk	3
Cigarette holder	2
Chopsticks, pair	2
Netsuke	2
Miscellaneous	11
<b>Total</b>	<b>100</b>

**Table 6. Mammoth ivory items seen for retail sale in Beijing in May 2014**

Item	Percentage of total
Pendant	38
Figurine/figure	28
Charm/toggle	13
Netsuke	5
Necklace	4
Bracelet	3
Earring, pair	2
Ring	2
Miscellaneous	5
<b>Total</b>	<b>100</b>

**Table 7. Retail prices for elephant ivory items seen in Beijing in May 2014**

Item	Size (cm)	Price range (USD)	Av. price (USD)
<i>JEWELLERY</i>			
Bangle	1 – 2.5	492 – 5,125	1,933
Bracelet, beaded	1 – 2	393 – 1,066	803
Necklace, beaded	0.5 – 1	525 – 1,131	836
Pendant	4 – 5	164 – 1,443	757
Ring, plain	—	82 – 85	84
<i>FIGURINE/FIGURE</i>			
Animal/human/religious	5	361	361
	10 – 20	4,918 – 26,000	9,660
	25 – 30	14,754 – 19,672	17,486
<i>TUSK</i>			
Carved	30 – 50	14,754 – 66,885	22,295
	60 – 80	79,344 – 295,081	138,360
	90 – 100	95,082 – 161,639	128,361
Polished	30 – 50	24,918 – 32,787	28,852
	60 – 80	29,508	29,508
	90 – 100	24,590 – 59,016	41,803
<i>MISCELLANEOUS</i>			
Chopsticks, pair	20	410 – 1,377	746
Cigarette holder	10 – 15	492 – 803	623
Name seal, personal	2 x 6	246 – 1,148	790

USD 1 = 6.1 yuan

**Table 8. Retail prices for mammoth ivory items seen in Beijing in May 2014**

Item	Size (cm)	Price range (USD)	Av. price (USD)
<i>JEWELLERY</i>			
Bangle	1 – 2.5	508 – 1,230	869
Earrings, pair	2 – 3	144 – 377	235
Necklace, beaded	0.5 – 1	—	—
Pendant	4 – 5	213 – 1,197	667
<i>FIGURINE/FIGURE</i>			
Animal/human/religious	5	148 – 1,607	676
	10 – 20	8,196 – 24,590	13,661
	25 – 30	6,721 – 32,787	19,118
<i>TUSK</i>			
Carved	30 – 50	6,393 – 6,557	6,475
	60 – 80	12,295	12,295
	90 – 100	95,082	95,082
Polished	30 – 50	9,836	9,836
	60 – 80	37,705 – 78,689	58,117
	90 – 100	—	—
<i>MISCELLANEOUS</i>			
Cigarette holder	10 – 15	—	—
Name seal, personal	2 x 6	—	—

These prices are for items that vendors called mammoth, even if some were in reality elephant ivory.

USD 1 = 6.1 yuan



**Table 9. Elephant ivory items for retail sale seen in Shanghai in April/May 2014**

Item	Percentage of total
Pendant	19
Figurine/figure	15
Name seal, personal	11
Beaded necklace	6
Charm/toggle	5
Bangle	5
Bracelet	4
Whole worked tusk	3
Cigarette holder	3
Chopsticks, pair	2
Netsuke	2
Paintbrush holder	2
Magic ball	2
Container	2
Miscellaneous	19
<b>Total</b>	<b>100</b>

**Table 10. Mammoth ivory items seen for retail sale in Shanghai in April/May 2014**

Item	Percentage of total
Figurine/figure	36
Pendant	32
Charm/toggle	13
Netsuke	5
Toothpick	3
Bracelet	2
Necklace	2
Bangle	2
Whole worked tusk	2
Miscellaneous	3
<b>Total</b>	<b>100</b>

**Table 11. Retail prices (USD) for elephant and mammoth ivory items in Shanghai in April/May 2014**

Item	Elephant ivory	Mammoth ivory
Bangle	971	638
Bracelet	898	829
Cigarette holder	749	180
Necklace, medium beads	720	628
Pendant	715	318
Ring	97	86

USD 1 = 6.1 yuan

**Table 12. Retail prices for elephant ivory items seen in Shanghai in April/May 2014**

Item	Size (cm)	Price range (USD)	Av. price (USD)
<i>JEWELLERY</i>			
Bangle	1 – 2.5	210 – 2,592	971
Necklace, beaded	0.5 – 1	197 – 1,508	720
Pendant	4 – 5	125 – 1,967	715
Ring, plain	—	62 – 131	97
<i>FIGURINE/FIGURE</i>			
Animal/human/religious	5	289 – 2,377	937
	10 – 20	4,098 – 26,639	12,345
	25 – 30	3,246 – 21,311	10,251
<i>TUSK</i>			
Carved	30 – 50	14,754 – 64,918	26,432
	60 – 80	45,574	45,574
	90 – 100	80,492 – 204,919	138,033
Polished	30 – 50	16,721 – 32,781	27,131
	60 – 80	34,425 – 45,902	40,164
	90 – 100	209,836	209,836
<i>MISCELLANEOUS</i>			
Chopsticks, pair	20	246 – 967	629
Cigarette holder	10 – 15	189 – 1,148	749
Name seal, personal	2 x 6	210 – 1,311	703

USD 1 = 6.1 yuan

**Table 13. Retail prices for mammoth ivory items seen in Shanghai in April/May 2014**

Item	Size (cm)	Price range (USD)	Av. price (USD)
<i>JEWELLERY</i>			
Bangle	1 – 2.5	328 – 984	638
Necklace, beaded	0.5 – 1	111 – 1,443	628
Pendant	4 – 5	52 – 574	318
Ring, plain	—	25 – 148	86
<i>FIGURINE/FIGURE</i>			
Animal/human/religious	5	143 – 573	291
	10 – 20	377 – 2,459	1,213
	25 – 30	2,754 – 32,786	9,188
<i>TUSK</i>			
Carved	30 – 50	5,738 – 26,229	13,999
	60 – 80	—	—
	90 – 100	39,344 – 459,016	118,853
<i>MISCELLANEOUS</i>			
Cigarette holder	10 – 15	115 – 295	180
Name seal, personal	2 x 6	377 – 426	402

These prices are for items that vendors called mammoth, even if some were in reality elephant ivory.

USD 1 = 6.1 yuan

**Table 14. Retail price comparisons (USD) for elephant ivory items in Beijing in 2002, in Guangzhou in 2011 and in Beijing in May 2014**

Item	2002	2011	2014
Chopsticks, pair	84	455	536
Cigarette holder	43	296	623
Necklace, medium, beaded	45	441	836
Pendant, 3 cm	13	66	757

Source: for 2002 data: Martin and Stiles 2003; for 2011 data: Martin and Vigne 2011

**Table 15. Retail price comparisons (USD) for elephant ivory items in Shanghai in 1985, 2002 and April/May 2014**

Item	1985	2002	2014
Chopsticks, pair	21	131	629
Cigarette holder	17	25	749
Necklace, medium, beaded	48	111	720
Pendant, 3 cm	8	72	714

Source: for 1985 data: pers comm. Mr Da, December 1985; for 2002 data: Martin and Stiles 2003



## Lucy Vigne

Lucy Vigne was born in Cape Town and brought up and educated in England. She holds an MA in Zoology from Oxford University. She has lived in Kenya since 1983, when she worked as the first Executive Officer for the IUCN African Elephant and Rhino Specialist Group. At that time she was the first editor of the journal *Pachyderm*. She compiled data on the numbers and distribution of elephants and rhinos throughout Africa when both pachyderms were being heavily poached, and when information was desperately needed. In 1985 until the early 1990s she was the coordinator of a WWF International project on the trade in rhino products, and in 1992/3 she worked at UNEP in Nairobi with Esmond Martin when he was Special Envoy for the rhinoceros. She has carried out fieldwork in Africa and Asia, surveying both the ivory and the rhino horn trade.

Lucy Vigne has visited Yemen many times, especially when it was the major importer

## Esmond Martin

Esmond Martin holds a PhD in Geography from the University of Liverpool. In the 1970s he carried out research in and around the Indian Ocean on the illegal trade in gold, people, alcohol, cloves, rhino horn and elephant ivory. The results were published in two books, *Cargoes of the East* (co-authored with his wife, Chryssee) and *Zanzibar: Tradition and Revolution*. In 1979 WWF and IUCN hired him to carry out the first detailed investigation of the contemporary trade in rhino products in Asia. Further investigations followed in the mid-1980s on the ivory carving industries of Africa. Immediately after the CITES ban on the trade in ivory in 1990, he analysed the effects on the price of ivory by carrying out field work in many countries in Africa and Asia. In 1992 he was appointed by the United Nations to be Special Envoy for the Rhinoceros, which permitted him to contact Heads of State and other senior officials in Africa and Asia to put a

and consumer of rhino horn for making dagger handles, advising officials on law enforcement against the rhino horn trade and encouraging the use of substitutes. She has carried out fieldwork in India and Nepal, concentrating on rhino conservation. She studied India's ivory trade just before the CITES ivory ban in 1990. She produced a series of monographs on the ivory markets in Africa, Europe, USA, South East Asia and East Asia for Save the Elephants and Care for the Wild International, based on fieldwork carried out by Esmond Martin and Daniel Stiles from 1999 to 2008. She has carried out ivory trade studies in Africa and Asia, often with Esmond Martin, working recently in Angola, Egypt, Ethiopia, Nigeria, as well as China, Hong Kong, Lao PDR and Thailand. She is currently on the board of Friends of Nairobi National Park, one of Kenya's prime rhino breeding areas, and continues on the editorial board of *Pachyderm*.

higher priority on conserving the rhino. From 1999 to 2008 he and his co-author, Dan Stiles, carried out fieldwork for five monographs on the world's ivory markets. Recently, he has continued his surveys of the illegal ivory trade, sometimes with Lucy Vigne, in Angola, Egypt, Nigeria and Sudan, each of which has large amounts of illegal ivory openly for sale. He has been visiting China since 1985, examining the retail markets selling elephant and mammoth ivories.

Esmond Martin has had published over 150 articles on the wildlife trade and several books; he has contributed to many wildlife television documentaries and television programmes. He has received a number of awards, including the Order of the Golden Ark for his work in rhino conservation, bestowed by Prince Bernhard of the Netherlands.



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