

# Large and mostly legitimate: Hong Kong's mammoth and elephant ivory trade

*Esmond Martin and Chryssee Martin*

## Abstract

Since the 1960s Hong Kong has been one of the largest legal ivory markets. We carried out an ivory survey in Hong Kong in December 2010 and January 2011 and counted 33,526 ivory items on display for retail sale in 62 outlets, resulting in Hong Kong being the city with the largest number of ivory objects for sale in the world. Almost all of this is legal for the domestic market only, by virtue of having been carved over ten years ago, and there are still huge quantities of old stocks of raw and worked ivory remaining. The number of ivory items on display has remained about the same in 2011 as compared with seven years earlier. In 2004 there were 235 tonnes of privately-owned raw and worked ivory officially recorded, which decreased to 218 tonnes in 2010.

There has been more than a three-fold increase in the number of mammoth ivory objects for retail sale from 2004 to 2011: from 11,282 to 35,127 in 24 outlets, probably also the largest number anywhere. Some of the former Hong Kong ivory craftsmen who left the profession in the early 1990s have recently returned to carve mammoth tusks for the expanding market. The main buyers for the mammoth ivory items (mostly figurines and beads for jewellery) are mainland Chinese who only recently began accepting this ancient raw material as a high quality substance and many more now have the money to buy it.

We believe that in the foreseeable future Hong Kong will maintain its paramouncy in having the largest number of ivory items for retail sale in the world. Hong Kong's future appears to be ensured for the sale of mammoth tusk items because they have moved around the world without much bureaucratic regulation and there is a steady supply of customers from the increasingly prosperous population of nearby mainland China.

**Key words:** Hong Kong, mainland China, elephant ivory, mammoth ivory, hippo ivory, ivory trade

## Résumé

Depuis les années 1960, Hong Kong est l'un des plus grands marchés légaux d'ivoire. Nous avons effectué un sondage sur l'ivoire à Hong Kong en décembre 2010 et janvier 2011 et nous avons compté 33 526 articles en ivoire exposés pour la vente au détail dans les 62 points de vente, faisant de Hong Kong la ville ayant le plus grand nombre d'objets en ivoire en vente dans le monde. Presque tout cela est légal destiné au marché domestique seulement, par le fait que ces articles ont été sculptés il y a plus de dix ans, et il y a encore d'énormes quantités d'anciens stocks d'ivoire brut et travaillé restants. Le nombre d'articles en ivoire exposés est resté sensiblement le même en 2011 par rapport à sept ans plus tôt. En 2004, il y avait 235 tonnes d'ivoire brut ou travaillé officiellement enregistrées entre les mains des privés, ce qui a diminué à 218 tonnes en 2010.

Il a eu une augmentation de plus de trois fois dans le nombre d'objets en ivoire de mammoth en vente au détail de 2004 à 2011: de 11 282 à 35 127 dans 24 points de vente, sans doute aussi le plus grand nombre n'importe où. Certains des anciens artisans d'ivoire à Hong Kong qui avaient quitté la profession au début des années 1990 sont récemment retournés pour sculpter les défenses de mammoth destinées au marché en pleine expansion. Les principaux acheteurs des articles en ivoire de mammoth (principalement des figurines et des bijoux en perles pour la bijouterie) sont des Chinois de la partie continentale qui ont récemment commencé à accepter cet ancien matériau brut comme une substance de haute qualité et un nombre croissant d'entre eux dispose maintenant de l'argent pour en acheter.

Nous pensons que dans un avenir proche Hong Kong maintiendra sa prépondérance en ayant le plus grand nombre d'articles en ivoire pour la vente au détail dans le monde. L'avenir de Hong Kong semble être

assuré pour la vente des articles provenant des défenses de mammoth car ils circulent dans le monde sans beaucoup de régulation bureaucratique et il y a une demande régulière de la part des clients d'une population de plus en plus prospère en Chine continentale voisine.

## Introduction and methodology

There is more elephant ivory, both raw and worked, in Hong Kong than in any other city, based on recent worldwide surveys. This has been the case since at least 1990 when most international trade in ivory was banned by CITES. Also, since the late 1990s, Hong Kong has been the centre for the largest number of mammoth tusk items to be found for sale anywhere. In order to understand what is happening with the ivory trade as a whole in Asia and Africa it is imperative to know the situation in Hong Kong due to its prominent position. Therefore, we carried out an ivory survey in Hong Kong in December 2010 and January 2011 in order to update the one we conducted at the end of 2004 (Martin, 2006).

The main methodology employed in late 2010 and January 2011 was to survey the retail ivory outlets that openly displayed for sale ivory, mammoth ivory and hippo teeth. We surveyed all the outlets previously visited that were in the same location as in 2004 and also discovered new ones. We counted antique ivory items for sale in antique shops, and other items, almost all of which were made in the 1980s during the boom years. We carried out discussions with members of the Hong Kong government's Agriculture Fisheries

and Conservation Department and made a visit to the government's Census and Statistics Department to obtain the most recent figures on imports and exports of mammoth tusks. This paper will be divided into three main sections: the first one will analyse various aspects of the large ivory trade; the second will discuss the significant increase in the number of mammoth ivory objects for retail sale; and the third will examine the smaller hippo teeth trade. In this paper when the word 'ivory' is used alone it refers to elephant ivory only.

## Results

### Ivory trade in Hong Kong

#### *Legal aspects*

The sale of both raw and worked ivory within Hong Kong is still legal under certain conditions. Ivory that was in Hong Kong up until the 1975 first CITES listing of elephants and also before the 1990 CITES trade ban can be legally traded domestically (Agriculture, Fisheries and Conservation Department, pers. comm., September 2011). An ivory trader simply needs to be

registered with the Agriculture, Fisheries and Conservation Department, and all premises selling ivory require a commercial possession licence. No ivory can be exported, including to Macau or mainland China, without a permit, except for antiques and pre-Convention (pre-1976) ivory, but permits are rarely given (Agriculture, Fisheries and Conservation Department, pers. comm., September 2011).

From 2006 to 2010 there were three large ivory seizures of over one tonne each coming into Hong Kong illegally, all by sea. The first and largest was 3,902 kg (605 pieces) of tusks from Cameroon in May 2006. The second seizure occurred in January 2010 and consisted of 1,002 kg of tusks and cut pieces shipped from Nigeria. The third one took place in September 2010 at which time 1,550 kg of tusks, cut pieces and worked



© Chrysee Martin

Figure 1. This shop in a smart Kowloon hotel displayed 1,164 mammoth ivory objects, 128 elephant ivory items, mostly jewellery, and 30 hippo ivory carvings, mostly animal figurines.

objects sent from Tanzania were confiscated in Hong Kong. There were an additional 26 smaller government seizures of ivory coming into Hong Kong mostly by air and one attempt to export tusks to Macau (Hong Kong Special Administrative Region, Agriculture, Fisheries and Conservation Department, regarding all the seizures, pers. comm., January 2011). The average weight of the seized tusks for which we have the weights is 6.4 kg each. Most of the ivory confiscated at points of entry into Hong Kong—tusks and worked ivory—were on their way to mainland China (traders try many Asian routes to get ivory into China); virtually none was for the Hong Kong market (Agriculture, Fisheries and Conservation Department data, January 2011). Since business people in Hong Kong possess huge quantities of ivory that they have still not sold, it would make little economic sense to import illegally more ivory into Hong Kong and, furthermore, people risk losing their licences if caught smuggling ivory.

According to official records, private stocks of raw and worked ivory stockpiles kept in Hong Kong by traders, which are recorded annually by them for the government, fell from 236 tonnes in 2004 to 232 tonnes in 2009—a relatively small decrease compared to the 218 tonnes recorded in 2010 (Table 1). According to officials of the Agriculture, Fisheries and Conservation Department (pers. comm., January 2011), this decrease in 2010 could be due to retirement or death of many ivory dealers (who thus stopped submitting records of their stocks). This explanation may be supported by the fact that the number of registered ivory traders also declined from 451 in 2009 to 357 in 2010 and the number of commercial ivory possession licences also fell from 557 in 2009 to 432 in 2010 (Table 2). The reason that the number of possession licences is higher than the number of registered ivory traders is because traders may keep their ivory at more than one location, and each of the premises requires a separate possession licence. As well as these private stocks, according to the Agriculture, Fisheries and Conservation Department (pers. comm., November



© Esmond Martin

Figure 2. This shop had on display 2,484 items carved from mammoth ivory, all legal to import, carve, purchase and to export.

2011) 'seized ivory of some 20 tonnes is under the safe custody of us'.

### *Ivory carving in Hong Kong*

There are almost no ivory craftsmen working full time in Hong Kong because, as already mentioned, the traders do not need more ivory objects and labour costs are much higher than in mainland China. For instance, skilled ivory craftsmen in Hong Kong, who are occasionally asked to do some repairs, would expect to be paid the equivalent of about USD 2,900 a month compared to only USD 227–1,061, depending on their level of competence, in Guangzhou or Fuzhou (Vigne & Martin, 2011). Thus, virtually all ivory carving in China for new items occurs in mainland China (not Hong Kong) and items are nearly all sold in mainland China and rarely returned to Hong Kong. There is no average price for raw tusks within Hong Kong because there is no demand for yet more stocks and thus virtually no purchases.

### *Retail outlets and prices for worked ivory items in Hong Kong*

We found a total of 33,516 ivory items on open display for retail sale in 62 outlets in Hong Kong (Table 3). Of these, 46 (72%) of the outlets were in the same locations as in 2004 and still offering ivory for sale; others had either closed down, moved or were new.

The most numerous type of retail outlet selling ivory was the antique shop (31), but they only offered openly for sale 2.5% of the total (838 items), mostly old. The 10 ivory/mammoth ivory specialty shops displayed the most: 24,592 items or 73% of the total (Table 3), almost all crafted between 1980 and 1990 before the collapse in trade.

The most numerous ivory items found in these 62 retail outlets were pieces of jewellery (63% of the total), such as rings, bangles, earrings and pendants, in that order. Next most common were figurines and figures of Chinese gods, people and animals (20%). Chopsticks came next with 14% of the total, made up of those for use by men, women and children, based on size. These were followed by name seals, which made up 1% of the items for sale. Minor quantities of magic balls, cigarette holders, netsukes, earpicks and other miscellaneous items made up the remaining 1%.

The retail prices for ivory items varied according to age, rarity, condition, quality of carving and the type and location of the retail outlet. The most expensive item seen by far was a 187-cm tusk carved with 87 fairies for USD 576,923, followed by another tusk, slightly smaller at 150 cm with flowers carved onto it for USD 230,769. Both are relatively new, probably carved in the 1980s. The highest priced antique was a 30-cm-long exquisitely carved sewing box made in Guangzhou around 1840 for USD 102,564.

The next most expensive ivory antique was a pair of 19th century letter holders, 45 cm x 30 cm carved in Guangzhou for export costing USD 76,923. Generally, the most expensive items were the larger ones, such as figures of Chinese gods, magic balls with 30 or more layers, and carved tusks. Most of these were well crafted and were found in the fashionable shopping areas of southern Kowloon (Tsimshatsui), Hollywood Road area and in Wan Chai. Some of the least expensive pieces were jewellery (Table 4) that were usually mass produced employing little actual carving and often mediocre craftsmanship; these are the items which sell in the largest quantities. The main customers for all these objects mentioned above were Chinese, Europeans and Americans.

## Mammoth ivory trade in Hong Kong

### *Legal position*

There are no restrictions on the import and export of mammoth tusks and worked items in Hong Kong, nor on their local sale. There are also no import taxes for the raw material and thus it is cheaper than in mainland China where there is an import tax that some Hong Kong and mainland Chinese traders say is 20% and others 30%.

To help avoid possible hassles with government officers at international borders, some of the Hong



© Esmond Martin

Figure 3. A mammoth ivory erotic figure based on those used by doctors in the past for women patients to show the position of their ailments.

Kong vendors provide their customers with a copy of the original certificate of origin for the mammoth tusk used to make the specific mammoth ivory item. This paper gives the country of origin, a declaration that the exporter's information is correct, the certificate number and the date of the transaction.

### *Sources and wholesale prices of mammoth tusks*

The last full year for import figures for Hong Kong is 2009 when 21,587 kg of mammoth tusks were officially imported, 20,363 kg (94%) coming from Russia. From January to November 2010, 31,801 kg were imported, 26,268 kg (83%) from Russia, 2,713 kg (8.5%) from the USA, 2,400 kg (7.5%) from Germany and 1% from elsewhere (Hong Kong Special Administrative Region, 2010a).

As labour is much more expensive in Hong Kong than in mainland China, most of the mammoth tusks were re-exported to mainland China for crafting. From 2000 to 2009 205,830 kg of mammoth tusks were imported into Hong Kong, or an annual average of 20,583 kg. Of this total, 177,429 kg (86%) were re-exported from Hong Kong to mainland China (Hong Kong Special Administrative Region, 2001-2010). In turn, many of the worked mammoth ivory items were brought from the mainland to Hong Kong for wholesale and retail sales (Martin and Martin, 2010 a and b).

Buyers in Hong Kong paid for four different grades of mammoth tusks from Russia. The top quality grade, 'A' was purchased in 2010 for an average price (in USD) of 600/kg, 'B' for 400/kg, 'C' was 300/kg and 'D' grade cost 200/kg. Traders occasionally paid up to USD 1,000/kg for large tusks of excellent quality. Huge tusks of 90 kg or more can sell for up to USD 1,800/kg wholesale, but such transactions are extremely rare. In 2004 prices were considerably lower at USD 275/kg for grade 'A' and USD 225/kg for 'B' (Martin, 2006).

### *Mammoth tusk carving in Hong Kong*

Until perhaps 2008 there were very few craftsmen in Hong Kong who regularly carved mammoth tusks (Martin, 2006) but with the recent sharp increase in demand from the mainland, some former ivory arti-



© Esmond Martin

Figure 4. A fisherman carved from mammoth ivory.

sans have begun to carve mammoth tusks on a more regular basis. In 2010 there was a minimum of 12 such craftsmen working on mammoth tusks in Hong Kong. Owners of the mammoth specialty shops estimate that perhaps 5% of the worked mammoth ivory objects on view in Hong Kong's retail outlets were carved by Hong Kong artisans. The Hong Kong craftsmen tend to specialize in smaller items, which take less time to complete and thus labour costs are kept to a minimum, although the quality is often higher than that of the mainland carvers. One of the largest retail shops in Hong Kong employed 5–10 craftsmen in 2010 to work on mammoth tusks; the student carvers were paid USD 1,282 a month and the master carvers USD 2,564–3,205 a month. This compares with the average Hong Kong wage in 2009 of USD 1,454 a month (Hong Kong Special Administrative Region, 2010b). Most vendors believe that the quality of carving by the master craftsmen is superior to the workmanship of master carvers in southern China.



Figure 5. A great variety of animal figures are carved from mammoth ivory.

### *Retail outlets and prices for worked mammoth ivory items in Hong Kong*

We found 24 retail ivory outlets selling 35,127 mammoth ivory objects (Table 5). The 10 ivory/mammoth specialty shops possess the largest stock of items by far, 92%, and the largest number of items on average per outlet, 3,222 (Table 5). Some of these vendors heavily advertise their mammoth ivory by continually playing videos in their shops, displaying posters and fliers about the animal, emphasizing its extinction thousands of years ago. Some also put up large posters advertising their mammoth carvings.

By far the most numerous ivory items made from mammoth tusks for sale—60% of the total—was the individual bead. Almost always white in colour, these are produced to make into necklaces and bracelets. Beads are made in Hong Kong as the raw material is cheaper (due to no import tax) than on mainland China. The owner of the shop with the largest number of beads said, however, that the high cost of labour in Hong Kong prevents him from making the beads into jewellery. Instead, he exports about half of them to the

Chinese mainland and the remaining half to Europe and the USA. We also learned that the Hong Kong Chinese do not like to wear mammoth ivory jewellery next to their skin so very little mammoth ivory jewellery was for sale—less than 1% in our survey. Small beads of 6 mm were priced at USD 1.12 and larger ones of 15 mm at USD 15.

Figurines made up 28% of the mammoth ivory items surveyed, followed by figures 7% and netsukes 5%. Small (2.5 cm) animal and human figurines cost USD 116, while slightly larger ones (4 cm) were priced at USD 277. Figures, in this study starting at 10 cm, cost on average USD 4,115, while the price of a netsuke averaged USD 367 (Table 6).

The most expensive mammoth ivory items were the larger tusks adorned with elaborate and intricate carvings. The item with the highest retail price was a pair of huge tusks, over 100 kg each, which had many figures carved onto them and was priced at USD 3,589,713. The salesman was reluctant to give details, knowing we were not potential buyers, but he did say that the tusks had been carved in Beijing and had been completed in 2009. The highest price for a

single carved tusk was USD 1,923,000; the original raw tusk, before carving, weighed 120 kg, one of the heaviest ever recorded by any shopkeeper. This completed carved tusk was 329 cm long. A single master craftsman from Beijing spent 10 years carving it and he completed the exquisite work in 2000. In addition to the carved tusks, the next most expensive carved mammoth ivory item was a large Chinese pagoda made mostly of wood, 300 cm tall, with 500 figures carved out of mammoth ivory attached to the pagoda; the retail price was USD 512,821. The high quality workmanship equalled the finest elephant ivory equivalent.

The highest retail price for unworked mammoth tusks was a pair weighing 120 kg for USD 871,795 which was grossly over-priced at USD 7,265/kg, as another even larger pair weighing 180 kg could be purchased by retail buyers for USD 384,615, which works out at USD 2,137/kg.

Just over 50% of the buyers for mammoth ivory items are now Chinese from the mainland, followed by Americans and Europeans, according to the salesmen. Owners of casinos in Las Vegas and Macau are also major purchasers of mammoth items.

### Hippo teeth trade in Hong Kong

Hippo teeth, which are on Appendix II of CITES, were imported from Africa into Hong Kong for around USD 60/kg in 2010. They are considered to be an inferior raw material compared with ivory and mammoth ivory because they are small, harder (making them more difficult to carve) and crack more easily. Therefore, the quality of the carving is poor in general and some craftsmen in Hong Kong refuse to work on them.

We found 1,325 hippo ivory items for sale in seven retail shops in Hong Kong. The largest quantities were in two ivory/mammoth specialty shops, 1,167 or 88% of the total. Over 95% (1,262 items) were figurines and netsukes. Animal figurines of 3-4 cm were mostly priced between USD 37-51 and were generally crudely carved.

### Discussion

#### Ivory commerce trends in Hong Kong

Compared to the 2004 survey, the number of ivory items counted in 2010 declined by about 5% from 37,948 to 35,884. The number of retail outlets also decreased from 80 to 62. These declines are consistent



© Esmond Martin

Figure 6. This billboard off Hollywood Road next to a mammoth ivory specialty shop had been up for several years informing people about mammoth ivory.

with the sharp decrease in the number of registered ivory traders selling ivory from 692 to 357 over this six-year period. During this time, the official stocks of ivory declined by 18 tonnes (Table 1). However, many of the traditional owners of the ivory retail shops greatly increased their stock of mammoth items from 11,282 in 2004 (Martin, 2006) to 35,127 in 2010 for future sales. Thus, if one combines the number of elephant and mammoth ivory items offered for sale in 2010 (71,011) with the figure for 2004 (49,230), the result shows that there has been a large increase of about 45% of both elephant and mammoth objects on display for this six-year period. This expansion in business was confirmed by retailers, who told us that they were doing well financially and this optimism was further corroborated by the fact that most of these retail outlets are still located in high rent districts.

The two retail outlets that offered for sale the most ivory items, about 20,000 combined (mostly jewellery and beads), had about the same number as in 2004. Both shops displayed most of their items covered in cellophane, making it difficult for a customer to examine an individual item and discouraging sales. This practice is rare with other ivory shops in Hong

Kong. The staff members at the shop with the larger number of items were unwelcoming to us, both in 2004 and 2011, and after about 15 minutes, asked us to leave, which was the only time this occurred in our survey. The vendors in the second shop (an old couple who have had their shop for some years) were friendly although they spoke no English. They tended to open late in the day, and their items were covered in dust, which is not conducive to buyers.

One part of the ivory business that has changed radically is in the number of ivory antiques for sale, which has decreased by over 50% since 2004. The reasons may be that mainland Chinese who are now wealthy enough to buy such costly antiques, are able to come to Hong Kong in much greater numbers, and have a greater interest to buy back many of the country's treasures even at very high prices. Demand has indeed boomed for Chinese ivory antiques. Also, vendors are now having more difficulties in obtaining the old ivory items.

There have been some other major changes from 2004 to 2010. The number of shops selling ivory has declined from 22 to 7 in gift shops not located in hotels, from 9 to 5 in gift shops in hotels and from 7



© Esmond Martin

Figure 7. This mammoth tusk with swans along it was carved in Guangzhou and was priced at USD 320,000.



to 1 in jewellery shops. Changes have also occurred in the kind of items for sale. There has been an increase in the number of jewellery items, from 51% to 63% of all the ivory items and in the number of chopsticks from 7% to 14%. This can be explained partly by a trend away from large items, such as figures and carved tusks, because they are more difficult to smuggle out of Hong Kong and into other places. Fashion has also made ivory jewellery more popular again, as indicated by the increasing amounts sold in both ivory and mammoth. In addition, some evidence exists that the shopkeepers are promoting the sale of cheaper ivory items.

Some relatively new ivory items have increased in price considerably over the six-year period. Objects such as 15-cm figures, 20–30-cm figures and chopsticks have multiplied in price 2.5- to 3-fold (in USD, excluding inflation), mainly due to the increased demand by mainland Chinese, the rise in price of raw ivory and the increase in costs of rents and other overheads for the vendors.

### *Mammoth ivory commerce trends in Hong Kong*

In 2004 retail outlets in Hong Kong offered for sale on display 11,282 mammoth ivory items (Table 7). By the end of 2010 the number had increased to 35,127, more than a three-fold increase. The reasons are several. Firstly, in 2004 the buyers at the retail level were mostly Americans and Europeans. Chinese mainlanders did not buy many mammoth objects then because they did not know about mammoth tusks, although considerable quantities were sent wholesale from Hong Kong to southern China for foreign buyers. With a shortage of elephant tusks in China and the easy availability of buying mammoth tusks, shopkeepers on mainland China began to promote mammoth tusks as a valuable, old raw material suitable for creating high quality carvings. By around 2008, Chinese customers began accepting mammoth ivory as a substitute. Secondly, the number of Chinese mainlanders visiting Hong Kong greatly increased. In 2003 8,467,000 mainland Chinese visited Hong Kong (Hong Kong Special Administrative Region, 2005). By 2009 the number had more than doubled to 17,957,003, making up 61% of the visitor arrivals in Hong Kong (Hong Kong Special Administrative Region, 2010b). Thirdly, the average per capita income in China had increased significantly from 2004 to 2010 with many



© Lucy Vigne

Figure 8. This typical small rhino figurine was carved from elephant ivory before the 1990 CITES ban and was for sale legally in Hong Kong, but could not be exported.

more wealthy people wanting to buy mammoth tusk objects. As mentioned earlier, by 2010 at least half of the buyers were from the Chinese mainland.

From 2004 to 2010 there was a considerable expansion in the number of mammoth ivory items for sale in Hong Kong ivory and mammoth specialty shops. The number of shops increased from 6 in 2004 to 10 in 2010, but more significantly the percentage of items concentrated in these specialty shops rose from 67% to 92%. Surprisingly, there was an overall decline in the number of shops selling mammoth ivory products from 29 to 24, but the average number of items per retail outlet increased sharply from 389 in 2004 to 1,464 in 2010. A major increase was in beads, which expanded from 9% of the total number of items for sale to 60% over this period. A significant decrease was seen in the bizarre sculptures of human skeletons in a variety of poses, which have gone out of vogue, especially among Americans, formerly the majority of buyers.

Despite the lower costs and overheads in southern China, since around 2008 mainland Chinese have been buying mammoth carvings from Hong Kong in large quantities. The reasons are that the quality of some items is superior and that the Hong Kong craftsmen have a unique style, which some mainland Chinese like.

Mammoth retail ivory prices increased from 2004 to 2010 roughly the same amount as for comparable elephant ivory pieces, that is from 2.5 to 3 times excluding inflation. In 2004 ivory-made items were almost always more expensive than the equivalent mammoth ones because most Hong Kong residents and southern Chinese believed that ivory was superior

to mammoth tusks. For example, prices for ivory versus mammoth ivory items in 2004 were the following, respectively: a 4-cm figurine sold for USD 240 versus USD 196; a 12-cm figure for USD 2,376 versus USD 1,183, a 20-cm figure for USD 4,785 versus USD 3,668, and a netsuke for USD 108 versus USD 43. In 2010 the prices were more mixed. Some ivory items, such as small figurines of 2.5 cm and larger 30-cm figures, were more expensive than mammoth ones, but some other sizes were less expensive. For carved tusks, such as those of 180 cm, the prices for elephant and mammoth ivory were roughly the same. The explanation is that mammoth ivory has become more fashionable over this six-year period for the Chinese.

### *Trends in the trade in hippo teeth items*

The hippo teeth commerce in Hong Kong has not changed as much as the ivory and mammoth tusk trade since 2004. The likely reason is that the demand for hippo teeth items has not increased and may have actually decreased because of the poor quality of the raw material. Some items are reasonably well carved but most are not. The number of items seen for sale in the retail outlets has remained roughly the same: a minimum of 1,089 in 2004 (Martin, 2006) and 1,325 in 2010. For both years 99% of the items were figurines and netsukes. Some of the specific objects seen in 2004 were still available six years later, strongly suggesting poor sales. The two largest shops had amongst them 82% of the hippo teeth objects in 2004 and 94% in 2010. Average retail prices for the smaller figurines in 2004 were USD 47 compared to USD 43 in 2010, an actual drop without adjusting for inflation. The main explanation why prices of hippo objects have declined in real terms and sales have remained low since 2004 is that the demand for them has declined due to the low quality of the raw material and poor workmanship compared to mammoth ivory items. Despite being inexpensive, it is unlikely that hippo teeth objects will ever be able to compete favourably with the equivalent elephant ivory or mammoth ivory objects.

### **Conclusion**

Shop owners in Hong Kong possess large quantities of legal ivory items, probably the most for any single city in the world, which will take years if not decades

to sell under the present legislation disallowing export. Sales of ivory items have been reduced as a result of the huge increase in mammoth tusk items, which have few restrictions on their movement. There have been some large ivory tusk seizures recently coming into Hong Kong coming from abroad, but most of this ivory was illicitly on its way to mainland China for processing, as mentioned earlier. Hong Kong is not a major final destination of illegal ivory tusks, unlike mainland China.

However, some small worked ivory items, in particular, are being exported illegally from Hong Kong, mostly carried by foreign tourists and businessmen. Many of the Hong Kong shopkeepers tell potential foreign buyers very clearly that it is illegal both to export ivory objects from Hong Kong and to import them into their home countries. It is impossible to give a reliable estimate on the quantity of worked ivory items smuggled out of Hong Kong because very little gets caught going out of Hong Kong.

Due to the huge number of foreign tourists (including mainland Chinese), some 29,591,000 in total in 2009 (Hong Kong Special Administrative Region, 2010b), Hong Kong will probably remain the largest centre anywhere for the display of mammoth ivory items for sale. Also, Hong Kong imposes no import taxes on mammoth ivory, has its own artisans, and is near to a large number of skilled craftsmen in southern China. Therefore, Hong Kong has advantages over other markets. Hong Kong merchants are likely to remain the major players in the wholesale and retail sale of mammoth ivory objects.

### **Acknowledgements**

We would like to thank the following conservation organizations for making it possible for us to carry out field work in Hong Kong: the Columbus Zoo and Aquarium, Elephant Family and The Aspinall Foundation. We would also like to acknowledge the input from Y.K. Chan, Alfred Wong, Nigel Hunter, Dan Stiles and especially to Lucy Vigne for improving our original manuscript.

### **References**

Hong Kong Special Administrative Region. 2001–2010. *Hong Kong Trade Statistics 2001–2010*. Customs and Excise Department, Hong Kong.

- Hong Kong Special Administrative Region. 2010a. *Hong Kong Trade Statistics 2010*. Customs and Excise Department, Hong Kong.
- Hong Kong Special Administrative Region. 2005. *Hong Kong 2004*. Census and Statistical Department, Information Services Department of the Hong Kong SAR Government.
- Hong Kong Special Administrative Region. 2010b. *Hong Kong 2009*. Census and Statistical Department, Information Services Department of the Hong Kong SAR Government.
- Martin E. 2006. 'Are we winning the case for ivory substitutes in China?' *Pachyderm* 40:88–100.
- Martin E. Martin C. 2010a. 'Russia's mammoth ivory industry expands: what effect on elephants?' *Pachyderm* 47:26–35.
- Martin E. Martin C. 2010b. 'Ice-Age Ivory'. *Africa Geographic* 18(6):29–32.
- Vigne L. Martin E. 2011. 'Consumption of elephant and mammoth ivory increases in southern China'. *Pachyderm* 49:79–87.

Table 1. Privately held raw and worked ivory stocks officially recorded for Hong Kong, 2004-2010

Year	Tonnes
2004	236
2005	238
2006	237
2007	236
2008	232
2009	232
2010	218

Source: Unpublished figures from the Agriculture, Fisheries and Conservation Department, Hong Kong

Table 2. Number of ivory traders registered, and number of commercial possession licences for ivory issued by the Hong Kong government, 2004-2010

Year	No. of ivory traders	No of commercial possession licences
2004	692	822
2005	477	608
2006	461	612
2007	459	612
2008	458	599
2009	451	577
2010	357	432

Source: Unpublished figures from the Agriculture, Fisheries and Conservation Department, Hong Kong

Table 3. Types of retail outlets and number of ivory items surveyed in Hong Kong, December 2010-January 2011

Type	No. of outlets	% of outlets	No. of items	Av. no. of items/ outlet
Antique shop	31	50	838	27
Ivory/mammoth ivory specialty shop	10	16	24,592	2,459
Gift shop not in hotel	7	11	1,846	264
Department store	6	10	4,374	729
Gift shop in hotel	5	8	1,499	300
Name seal shop	2	3	83	42
Jewellery shop	1	2	284	284
<b>TOTAL</b>	<b>62</b>	<b>100</b>	<b>33,516</b>	<b>541</b>

Table 4. Retail prices for ivory items (excluding antiques) seen in Hong Kong, December 2010-January 2011

Item	Size in cm	Price range USD	Av. price USD
<b>JEWELLERY</b>			
Bangle, plain	2.5	128-333	226
Earrings, pair	1.25	19-126	58
Necklace, 18-30 beads	1/bead	49-1,538	1,041
108 beads	1/bead	985-6,154	3,405
Pendant	1.25	49-51	50
Ring, plain	0.25	4-90	43
<b>FIGURINES/FIGURES</b>			
Animal, human	4	128-160	144
	15	2,769-7,692	5,231
	30	4,872-25,641	15,256
<b>MISC.</b>			
Chopsticks, pair	20	108-538	315
Magic ball, 30 layers	10-12	24,615-25,641	25,128
Name seal, plain	6	83-359	252

NB: USD 1 = HKD 7.8

Table 5. Type and number of retail outlets for mammoth ivory and number of items surveyed in Hong Kong, December 2010-January 2011

Type	No. of outlets	% of outlets	No. of items	Av. no. of items/ outlet
Ivory/mammoth ivory specialty shop	10	42	32,215	3,222
Department store	6	25	1,169	195
Gift shop in hotel	3	12.5	1,255	418
Gift shop not in hotel	3	12.5	193	64
Jewellery shop	1	4	253	253
Antique shop	1	4	42	42
<b>TOTAL</b>	<b>24</b>	<b>100</b>	<b>35,127</b>	<b>1,464</b>

Table 6. Retail prices for mammoth tusk items seen in Hong Kong, December 2010-January 2011

Item	Size in cm	Price range USD	Av. price USD
JEWELLERY			
Pendant	5	66-98	82
FIGURINES/FIGURES			
Animal, human	2.5	45-233	116
	4	31-641	277
	10	769-7,538	4,115
	15	3,795-10,256	6,518
	30	5,513-8,333	6,923
MISC.			
Magic ball, 28-31 layers	10-12	27,949-38,462	33,206
Netsuke	6	154-769	367

NB: USD 1 = HKD 7.8

Table 7. Type and number of retail outlets for mammoth ivory and number of items surveyed in Hong Kong, November/December 2004

Type	Number of outlets	% of outlets	No. of items	Av. no. of items/ outlet
Gift shop not in hotel	10	34	1,333	137
Ivory/mammoth ivory specialty shop	6	21	7,582	1,264
Gift shop in hotel	5	17	1,203	241
Department store	4	14	985	246
Jewellery shop	2	7	20	10
Antique shop	1	3	80	80
Name seal shop	1	3	39	39
<b>TOTAL</b>	<b>29</b>	<b>99</b>	<b>11,282</b>	<b>389</b>