

# **Cross-Cultural Values in Street Furniture Emotion Design**

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## **Abstract**

Emotion is a complicated psychological activity. Psychologists hold that emotion is the remnants of animals' origins. In fact, human emotion is not only a kind of sign of animals' origins, but it is also greatly influenced by social and cultural factors. Psychologists have also classified emotion into advanced and lower ranks. Emotion induced by social and cultural factors is considered advanced, and is unique to human beings. In recent years, more cities have tended to demonstrate their cultural values in public environments and facilities, among which street furniture play a crucial role. Researchers and practicing designers have also considered how different emotions relate to the production and reception of street furniture design. Therefore, besides its basic physical function, a considerable number of street furniture is also designed to catch the public's eye and serve to be important windows to illustrate different cultural values. This paper first explores feelings and emotional experiences induced by cultural elements. By using the findings of a survey, this paper compares the effect of different cultures on the emotional experience towards the same street furniture. Taking Hong Kong and Beijing as case studies, several kinds of typical street furniture are analysed and the relevant distinct feelings aroused by street furniture of people from different cultural backgrounds are examined. This paper holds that different cultural factors can arouse users' different emotions such as hate, love,

joy, sorrow and so on even when the users use the same street furniture.

**Conference theme:** Emotion and Culture

**Keywords:** emotion, street furniture, cross-cultural factors

## **Introduction**

As a complicated phenomenon in human psychological activities, emotion consists of multiple functions, properties and components, which are difficult to be understood and measured from one single aspect. Hence, it is put forward by several psychologists to define emotion from the perspectives of physiological arousing, courses of feelings and cognition as well as behavioural responses. American psychologist Izard (1977) holds that emotion is composed of physiological basis, expressional activities and subjective experiences. Izard also indicates that emotion is a psychological phenomenon which consists of two categories: physiological response and experience. The former includes facial expression and physiological changes. The latter is within the study of phenomenon, which can be attached to the physiological drive or the cognitive and personal inclination, demonstrated by meaningful motives, which influences other psychological activities. That is the function of emotion as motives.

Physiologists and psychologists as early as Darwin (1965) began to wonder whether the emotional experiences of people from distinctive cultures are similar or the same. As is proposed by Darwin in the book titled *The Expression in Man and Animals* (1965) from the perspective of biological evolution, emotion is a specified psychological state of responses to complex outside situations. It is general since it evolves within the courses of humans' adaptation to the environment. Darwin's assumption was justified by Paul Ekman (1984), a scholar of expression attributes. Ekman (1984) claimed that humans from diversified cultures share a repeated "expressional language", among which seven kinds are the most popular. They are happiness, surprise, anger, disgust, fear, sadness and contempt, which are required to be defined by the subjects when the researchers carried out their studies on cross-cultural emotional experiences of street furniture. The researchers discovered that most people of any cultural background are able to identify the seven kinds of expressional language classified as emotions.

In addition, apart from the above seven fundamental emotions, people have rich

composite feelings. Based on the Theory of Evolution and Personal Development, Izard (1977) classified emotions into two categories: basic and composite emotions. The latter is weaved by two or more basic emotions. For example, the aesthetic feeling, as an advanced composite emotion which is most frequently discussed by artists and designers, covers the positive feelings like happiness, excitement, surprise and so on.

The existence of humans' instinctive and non-acquired emotional responses such as infants' responses of fear or even breathless expression to loud sounds has been proved by Tomkins (1962, 1981). In the case studied by Camras, Miyae and Bradshaw (1992), both American and Japanese infants will move their muscles to reflect miserable facial expression when they suffer pain. However, other researchers such as Ekman (1984) and his colleagues discovered that not all expressions of people from different cultures are the same. That is, diversified cultures impose their own cultural restrictions on general biology. For example, Ekman's (1984) theory of neural cultures comes into being, which refers to the combined influences of brain and culture on emotional expression.

On the one hand, people of various cultural backgrounds differ in terms of their identification and control of emotions, such as Biehl, Matsumoto and Ekman's (1997) research indicating that the Japanese identification of anger is inferior to the American, Hungarian, Pole and Vietnamese. On the other hand, the bearing of culture on emotion is better mirrored by people's understanding of things, matters, emotional experience of cognition as well as their ways of expression and inhibition of emotion. For example, people of higher social ranks are more inclined to manage their emotions than those from lower social classes. There is large room for the latter to express their emotions. Such control of emotion is no longer a conscious command driven by judgments and motives; instead, it goes on to be internalised in human emotional experience.

Based on Biehl et al.'s (1997) research, it is assumed that people from various cultures will cherish diversified emotions towards the same street furniture and the above discussions concerning emotion by the pioneering psychologists will be certain to shed

light on the design of street furniture, especially in an era in which cross-cultural communication is intensive and effective.

### **The Theoretical Grounds of Emotional Experience Design of Street Furniture**

Different emotions reflecting peoples' attitudes and experiences towards objective matters are the yardstick to the quality and value of the designs. What is more, diversified emotions will exert different influence on humans' processing of information (perception and memory). In order to distinguish distinct emotions, Schlosberg (1954) put forward a three-dimensional figure to describe different emotions. The three independent dimensions represent happiness-unhappiness, attention-refusal, and arousal-non-arousal (or in other words, the level of arousal or stimulation), respectively. His research proved that people are more likely to distinguish all kinds of emotions according to the dimensional area of happiness and unhappiness, which also changes within a wide range while the dimension of attention-refusal is more inclined to be influenced by a human's personal attributes, which are steadier. The arousal level is also called the stimulation level, which decides the intensity of emotions. The different composition of the three dimensions yields various emotional experiences. A low arousal level and high refusal level upsets others; low happiness level, high arousal level and high attention level results in anxiety; high happiness level, arousal level and attention level yields excitement; high happiness level and low arousal level soothe others. Environmental psychologists Russel and Lanius (1984) once tentatively described humans' emotions in different places in light of the happiness level and arousal level. Their research has become the theoretical cornerstone of the experimental researches within this paper. The authors embarked on their experimental studies in two cities (i.e., as case studies), in which the street furniture installed there are equipped with strong local characteristics and flavour.

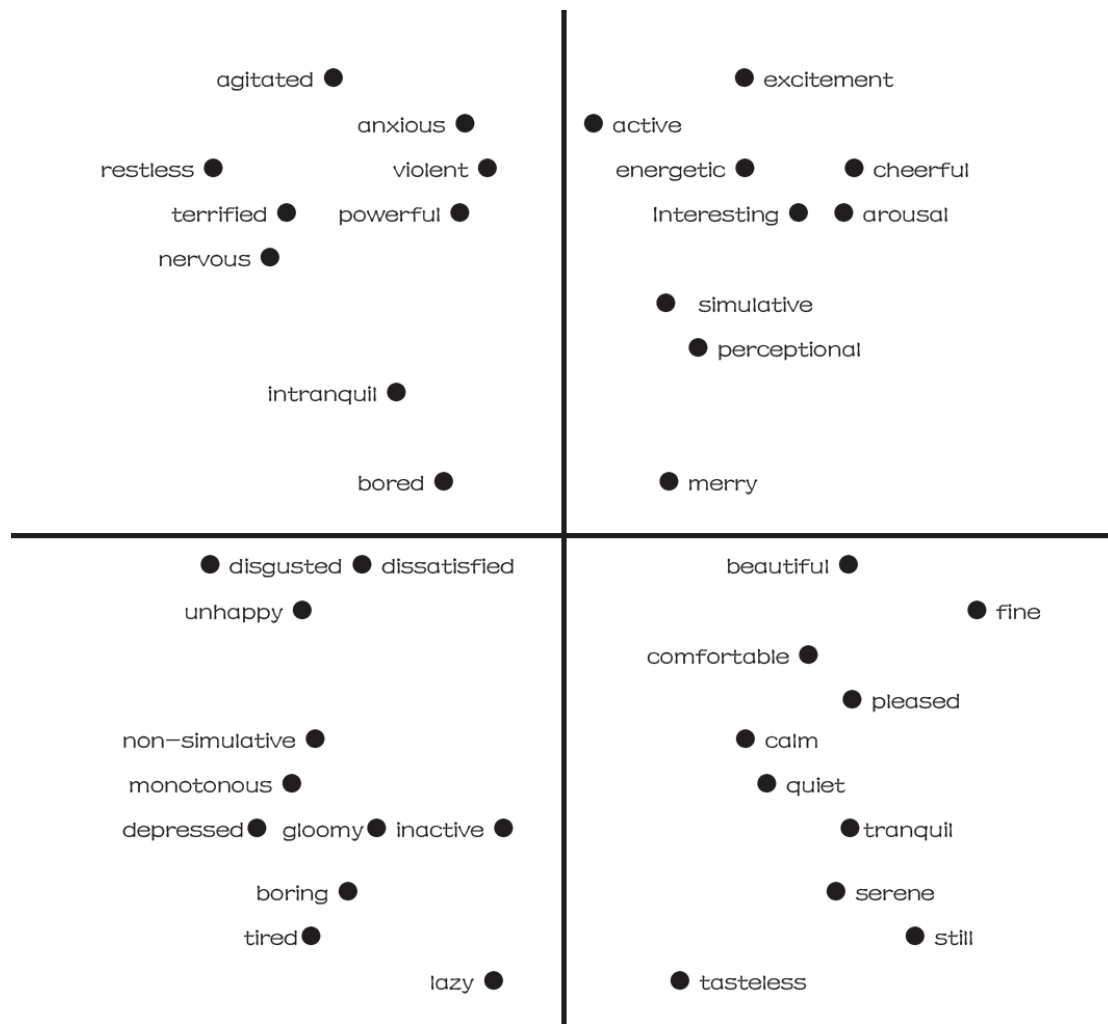


Figure 1: The description of people's emotions in different places by Russel and Lanius

**The Cross-Cultural Research of Emotional Experiences of Street Furniture between Hong Kong and Beijing**

Street furniture mainly serves as functional infrastructure, which makes it to be commonplace, and the design of street furniture demonstrates the unique urban characteristics. Street furniture can be grouped into two categories in terms of functions. The first category aims to provide fundamental functions, such as dustbins for collecting rubbish, lamps for illumination, fences and rails for defending, maps and road signs for direction, kiosks and inquiry stalls for information service, chairs for rest and so on. The second category plays the role of decoration or embodies the environmental characteristics, such as sculptures, fountains or gardens. In this case, street furniture becomes a symbol of the city, which mirrors the economic foundation, ideology, historical

tradition, cultural background, technical materials and citizens' lifestyles. It also becomes a crucial factor when judging the characteristic of a place.

Cullen (1990) pointed out that a special visual appearance will make people sense the characteristics of a public place, which refers to the whole experience and feeling of the quality of a public place. On the one hand, street furniture provides a service and help for citizens; on the other hand, it stimulates people's sense organs. Sometimes the feelings of favour, upset, excitement, tranquillity, surprise or familiarity will be evoked through the interaction between humans and street furniture, which is also the vital theoretical ground for the cross-cultural studies of street furniture design in this paper.

Based on Ekman's (1984) theory of neural cultures which refers to the combined influences of brain and culture on emotional expression, the authors assume that different feelings will be aroused towards the same street furniture among people from different cultural backgrounds. Schlosberg (1954) believed among the three independent dimensions (i.e., happiness-unhappiness, attention-refusal, and arousal-non-arousal), people are more likely to distinguish all kinds of emotions according to the dimension of happiness and unhappiness, and the dimension of attention-refusal is more inclined to be influenced by a human's personal features. Hence, it is steadier. With reference to Schlosberg's theory of emotion with the three dimensional figure as a yardstick, this research is carried out in light of the happiness and arousal dimension by way of interview to explore people's feelings towards the same street furniture. Two dimensions here serve as the yardsticks to human emotions. They are as follows:

- 1) Arousal and non-arousal level — to test people's degree of excitement or calm towards street furniture.
- 2) Happiness and unhappiness level — to test people's degree of like and dislike towards street furniture.

## **Methodology**

To obtain a comprehensive understanding of the emotional elements of street furniture, investigations of sightseers' arousal and non-arousal level and happiness and unhappiness level towards the current designs of street furniture were conducted from 2007 to 2008 among local citizens and foreigners. Regarding the design of street furniture, two major elements were highlighted: the emotional element and cross-cultural element in Hong Kong and Beijing. The whole research was carried out by the Public Design Lab of Hong Kong Polytechnic University and the Academy of Arts and Design of Tsinghua University.

The objectives of the study were more concerned with the emotion value towards street furniture design. The sub-areas of the study included:

- Familiar surroundings
- Unfamiliar surroundings
- Physiological factors
- Psychological factors
- Ideological factors

By taking the above five factors into consideration, human-street furniture interaction was placed as the major field for investigation. Apart from reviewing the literature, the research methods included were as follows:

- Case study
- Intensive field observations
- Samples for observation and intensive interviews

Case study, as a strategy, was conducted to further analyse the emotional elements of street furniture. After considering the objectives and practical constraints of this study, the exploratory case study approach was adopted. Merriam (1988) pointed out that "Case



study is an ideal design for understanding and interpreting observations of social phenomena. Case study is a design particularly suited to situations in which it is impossible to separate the phenomenon from their context" (pp.2, 10). Yin (1994) agreed with Merriam and pointed out that case study can investigate a contemporary phenomenon within its real-life context. What is more, it is difficult to probe human-beings' deep emotional factors by means of a quantitative approach. Hence, case study, as a qualitative strategy, is of great significance to explore users' emotional experience so as to obtain an in-depth insight for the direction of the design of street furniture.

Three types of street furniture in Beijing and four groups of street furniture in Hong Kong were further selected for intensive field observations. The focus of the observations was people's opinions and feelings on the selected street furniture.

Forty users were invited for direct interviews [Ni (number of interviewees) = 40; 22 males and 18 females]. The interviewees were selected from different cultural backgrounds at random according to the estimation of their appearance (i.e., hair colour, skin, language) to explore the degree of the emotional elements' influence on users from various cultural backgrounds.

Direct interviews were crucial to collect supplementary information from the street furniture users regarding emotional experience and perceptions when using street furniture. The objective of the intensive interviews was to explore the emotions of the users from diversified cultures towards the same street furniture.

## **Findings and Analysis**

### ***Studies in Hong Kong***

#### **Case 1: Sign boards**



Figure 2: A sign board in Hong Kong

A question about their feelings regarding the sign board in Figure 2 was posed to the local interviewees, and six of them revealed that it was similar to some of the sign boards in foreign countries, such as Japan. One of the three young persons interviewed pointed out that he liked western and Japanese cultures.

In contrast, when some foreigners (i.e., visitors from other countries) were interviewed, they stated that they did not get a strong feeling about designs related to western or eastern cultures. Some of them only mentioned that the design was quite modern and it related to traditional Chinese culture. Nevertheless, they stated the design was simple and matched Hong Kong's current modern lifestyle. Two female interviewees pointed out that they liked the purple colour of the sign board. They felt the colour was feminine, soft and comfortable. The rest of them expressed their disagreeable stance on this design, whereby they believed that it was merely a sign board to direct to the destination and paid less attention to its style.

The following are the comparison of the two emotional dimension analyses between the local citizens and foreign visitors towards the same street furniture.

The local interviewees' emotional experiences towards the above sign board:

- 1) Arousal-non-arousal level: Six local interviewees believed that their special feelings were aroused by the sign board while the rest of the interviewees showed their indifferent attitudes.
- 2) Happiness-unhappiness level: Seven interviewees stated that they liked the design of the sign board.

The views of foreign interviewees:

- 1) Arousal-non-arousal level: Two interviewees indicated that the sign board was more apt to arouse their feelings due to this type of sign board being rarely seen in their countries. Eight others showed their indifferent attitudes to the sign board design due to its simple and modern style.
- 2) Happiness-unhappiness level: Four interviewees liked the sign board in Figure 2 due to its purple colour (All were female interviewees). The rest of them showed indifferent attitudes to this kind of design. They agreed that there are probably similar designs in every country, be they oriental or western countries.

### Case 2: Handprints



Figure 3: Handprints in West Kowloon Cultural District



Figure 4: Handprints in West Kowloon Cultural District

The paving of the West Kowloon Cultural District in Hong Kong includes special street furniture. There are a considerable number of handprints printed on the furniture as decoration. Ten foreign visitors were interviewed to collect their comments on the handprints. Six of them stated that the design was "interesting", "funny", or "very nice". Two of them stated that they were willing to walk there and imprint their handprints by themselves. Two of the remaining visitors, who have stayed in Hong Kong several times before, mentioned the area seemed like the Avenue of Stars in Tsim Sha Tsui.

In contrast with the visitors, the interviewed local people mentioned that they did not have much existing feeling about the handprints. Many of them just considered it as a kind of decoration, but without gaining any existing feeling. Some of them also mentioned that the place was just a place for walking. As one of the interviewees indicated, it did not matter if a street for walking was called "Seaside Gallery" or "Star Avenue", it was no more than a street for walking, riding bicycles, hanging out with dogs, etc.

The following are the comparison of the two emotional dimension analyses between the local citizens and foreign visitors towards the same street furniture.

The local interviewees' emotional experiences towards the above street.

- 1) Arousal-non-arousal level: Eight of the local interviewees believed that they were prone to pay attention to the furniture because it reminded them of familiar things. The rest showed indifference.
- 2) Happiness-unhappiness level: Almost all of the local interviewees showed their delightful attitude to this design.

The foreign visitors' emotional experiences towards the above street:

- 1) Arousal-non-arousal level: Four interviewees believed that their feelings would be aroused by the streets. The remaining interviewees showed their indifferent attitude.
- 2) Happiness-unhappiness level: Two interviewees adored this kind of street furniture. Six of them showed an indifferent stance. The rest felt unpleasant due to the messy handprint.

In view of the function of this paved road, the local people take more account of the practical function. The street was more apt to remind them of the Avenue of Stars. That is, the interviewees tended to compare the design with other similar designs. In contrast, to the foreign visitors, the practical functions were not mentioned by them.



Figure 5: A handprint on the Avenue of Stars

(Source: <http://jc-news.net/news.php?id=311>).



Figure 6: The Avenue of Stars in Hong Kong

(Source: [http://en.wikipedia.org/wiki/Avenue\\_of\\_Stars,\\_Hong\\_Kong](http://en.wikipedia.org/wiki/Avenue_of_Stars,_Hong_Kong)).

The Avenue of Stars is one of the significant places in the hearts of Hong Kong people. The Avenue of Stars introduces Hong Kong's film history and prominent contributions by movie stars to travellers. The local interviewees believed that Hong Kong, being the Hollywood of the East, would attract more attention from ordinary people, and this was a result of the hard work of Hong Kong film workers' joint efforts. Along with Jackie Chan, film stars such as the actress Michelle Yeoh (Crouching Tiger, Hidden Dragon), actor/pop singer Andy Lau and director John Woo (Face Off) imprinted their handprint on the waterfront-walk of the Avenue of Stars. Hence, in view of this type of street furniture, emotional elements induced took up a large portion of the local people. Moreover, the local people's familiar feelings supported the theory of arousal-non-arousal level (Jc-news, 2007; Wikipedia, 2008).

### Case 3: Warning signs



Figure 7: A sign board in Hong Kong



Figure 8: Another sign board in Hong Kong

The above sign boards were taken from two different country parks in Hong Kong. The figure (i.e., graphical illustration) of the bird and the words in Figure 7 were brisk, lovely and harmonious. For the same content of signs, the figure of the bird in Figure 8 was abstract, and the circle and the standard calligraphy were matched, which form a vivid contrast. The meaning was almost evident — to keep quiet in the country park.

The two sign boards were selected to test the emotional experiences of the interviewees. Although the sign boards both had illustrations in two languages (i.e., Chinese and

English) and pictures of a bird, there were dissimilarities regarding the viewers' opinions to the two sign boards. Almost all foreign interviewees liked Figure 7 as it was cute and lovely. A foreign interviewee even mentioned that the bird's right hand in Figure 7 imitated human-beings' "hush" gesture. It seemed that the bird said it would be great to keep quiet. By comparison with the foreign interviewees, seven of the local people like Figure 8 more. One of the older persons stated that it induced memories about a Chinese traditional fable "Bird that starts at the mere twang of a bowstring, which indicates the badly frightened person." It was more like a law to obey. Therefore he believed Figure 7 was more dramatic and less serious, which was quite inappropriate. The rest of the local people expressed indifferent attitudes to both of the pictures. The majority of the interviewees pointed out that Figure 7 was more westernised and the counterpart Figure 8 was more oriental. Their arguments were agreeable.

The following are the comparison of the two emotional dimension analyses between the local citizens and foreigners towards the same street furniture.

The local interviewees' emotional experiences towards the warning sign:

- 1) Arousal-non-arousal level: Among ten interviewees, six believed that Figure 8 was more likely to arouse their feelings than that in Figure 7. One of them revealed the reason was that the normal and standard style always demanded more attention.
- 2) Happiness-unhappiness level: Seven interviewees indicated that they liked Figure 8 more. Their major reason was that the figures and words were in line with their aesthetic perception. Three of the rest expressed their indifference.

The foreign interviewees' emotional experiences towards the warning sign:

- 1) Arousal-non-arousal level: All the interviewees stated that Figure 7 was better than Figure 8.
- 2) Happiness-unhappiness level: Most of the interviewees liked Figure 7 as the design



was cute and lovely.

Case 4: Litter bins



Figure 9: A litter bin in Hong Kong



Figure 10: Several common types of litter bin in Hong Kong



Figure. 11: Litter bins (recycle bins) in Hong Kong



Figure 12: Litter bins (recycle bins) in Hong Kong

Regarding the design of litter bins, two surveys were conducted in order to know the preferences and comments of local and foreign interviewees. Referring to Figure 9 and Figure 10, two groups of interviewees expressed their comments — feelings. Regarding the local group, seven of them liked the design of the litter bins in Picture 9 and they felt that that one was different from the dustbins in Figure 10, which are mainly used in Hong Kong. The interviewees were apt to throw rubbish into the one in Figure 9. Regarding the foreign interviewees, eight of them preferred to throw litter into the dustbin in Figure 9. In fact, the perspectives of the two groups were almost the same. The result of this

research was different from the above ones. Most of the interviewees stressed that tedious life needed more new, fancy and interesting things. Therefore, the appeal to innovative new street furniture was rooted both in western and oriental cultures.

The following are the comparison of the two emotional dimension analyses between the local citizens and foreigners towards the same street furniture.

The local interviewees' emotional experiences towards the design of litter bins:

- 1) Arousal-non-arousal level: Seven interviewees indicated that Figure 9 was superior to Figure 10. Two of the rest showed indifference.
- 2) Happiness-unhappiness level: Seven of them showed delight to Figure 9. Two of them expressed indifference.

The views of foreign interviewees:

- 1) Arousal-non-arousal level: Eight interviewees indicated that Figure 9 was more apt to arouse their feelings than Figure 10. Two of the rest showed their indifferent attitudes to the two pictures.
- 2) Happiness-unhappiness level: Four interviewees preferred the litter bin in Figure 9. Four of them showed indifferent attitudes to the two kinds of designs. On the other hand, two of the rest preferred Figure 10.

In addition, some of the interviewees stated that they would like to have standardised colours for different types of litter bins, i.e., different colours for different types of recycle bins. This situation is more or less similar to the colours for traffic lights. When the passers-by see the green light, they may realise they can cross the road. The red one means wait for the traffic to pass.

## *Studies in Beijing*

### Case 5: Planters, seats and lighting

Three types of the most frequently-used street furniture were drawn from Beijing in this research, adopting an in-depth interview method with ten Beijing natives and ten foreign sightseers (all are from Europe or the Americas), to enquire about their specific feelings to the street furniture.



Figure. 13. The street furniture along Wangfujing Street

The following are the comparison of the two emotional dimension analyses between the local citizens and foreigners towards the same street furniture.

The views of local interviewees:

- 1) Arousal-non-arousal level: Six of the interviewees among the ten natives living in Beijing revealed that the street furniture there did not always attract their attention. However, they still felt comfortable and relaxed when using the street furniture. Four among them hold that sometimes a change of the flowers in the planters (or called flower baskets in Beijing) would catch their eyes.
- 2) Happiness-unhappiness level: Ten interviewees stated that they liked the environment

because green plants made people feel relaxed and the chairs were provided for them to rest on when they feel tired after strolling around the streets. The interviewees also agreed that the styles of the lamps were modern and beautiful.

The views of foreign interviewees:

- 1) Arousal-non-arousal level: Six of ten interviewees said they noticed such planters (and plants).
- 2) Happiness-unhappiness level: Seven of the interviewees did not like the surrounding environment (including the street furniture). They indicated that the design of the environment and street furniture was similar to their own countries, and in turn the designs could not demonstrate the features of Beijing.

In sum, the local interviewees looked at and commented on the street furniture from a more practical perspective. They supported that the street furniture should be decorated with more green plants and in turn the environment would be more relaxed and comfortable. On the other hand, the majority of the foreign visitors expected to experience the strong exotic atmosphere of Beijing, and the street furniture design should reflect the culture and background of the city so as to arouse their excitement and the pleasure of Beijing's citizens. The negative mood of anxiety and depression will be evoked in a completely strange and unidentifiable environment for the foreign tourists, which could be soothed by appropriate English directions to enhance their familiarity to the environment and lower the arousal level.

#### Case 6: Telephone kiosks



Figure 14: Telephone kiosks in Beijing

One of the major types of telephone kiosks in Beijing is made of fibreglass and steel. The following are the comparison of the two emotional dimension analyses between the local and foreign interviewees towards the same street furniture.

The views of local interviewees:

- 1) Arousal-non-arousal level: Seven of ten interviewees mentioned that they usually paid attention to the kiosks. Six interviewees said the colour was bright and one believed the shape was special.
- 2) Happiness-unhappiness level: Five interviewees liked the design. They indicated that the telephone kiosks were cute and interesting. Two interviewees held that the telephone kiosks were too fancy to embody the cultural tradition of Beijing. Three interviewees felt delighted when using the kiosks.

The views of foreign people:

- 1) Arousal-non-arousal level: Eight of ten foreign interviewees revealed that they usually noticed the telephone kiosks. Six interviewees disclosed that they were bright and easy to be identified. Two of them stated that the telephone kiosks were a little

outstanding and inharmonious.

- 2) Happiness-unhappiness level: Five interviewees disliked the design of the telephone kiosks. They pointed out that the shape was not in line with the surroundings (especially for a historical site), and therefore they could not embody the cultural traditions of Beijing. On the other hand, three interviewees stated that they liked the kiosks since they were convenient to be identified on the streets.

Therefore, we can come to the conclusion that the telephone kiosks were designed reasonably well in terms of function since they were more likely to arouse the attention of people from different cultural backgrounds. The kiosks were also easily identified. In terms of the happiness dimension, the foreign visitors usually expected to see street furniture in harmony with Beijing's historic and cultural features. They also preferred street furniture which was not so "modern" or "western", and indicated that such designs could not arouse their pleasant positive emotion.

#### Case 7: Bus stops



Figure 15: A common type of bus stop in Beijing

A common type of bus stop was selected for case study. The following are the comparison

of the two emotional dimension analyses between the local citizens and foreign visitors towards the same street furniture.

The views of the local interviewees:

- 1) Arousal-non-arousal level: Ten all local interviewees said that they would not catch sight of these bus stops if they did not take a bus since the colour was not attractive. On the other hand, they all agreed that the information on the bus stops was clear and easy to understand.
- 2) Happiness-unhappiness level: Three out of ten interviewees liked the design of this type of bus stop since it was easy to be identified and the information provided was clear. However, six interviewees held the opposite view that the bus stops were ugly, shabby, inelegant and not carefully designed.

The views of foreign interviewees:

- 1) Arousal-non-arousal level: Two of ten foreign interviewees believed that they would pay attention to the bus stops to identify their location. Eight of them said they felt nervous since the bus stops did not provide English information. They worried that they might make mistakes when they got on buses or missed correct locations to get off the buses.
- 2) Happiness-unhappiness level: All interviewees felt that the bus stops could not plunge them into pleasure due to the lack of English. They also pointed out that such a design and the lack of information made them feel worried as they could only understand the numbers.

Although Beijing is now an international city, the designers have not taken foreign visitors' needs into consideration in the design of street furniture. As the above case illustrates, the unidentifiable features of the bus stops aroused negative feelings, such as depression, worry and anxiety of people from other cultural backgrounds.



## Conclusions

Due to the different cultural backgrounds, the case studies above illustrate that many foreign visitors (i.e., westerners) preferred street furniture which is lovely, tasteful and simple. However, local people (e.g., Chinese) adored the regular, abstract, or traditional street furniture. Age also played a critical role in people's attitudes to street furniture. Relatively more young local people tend to take the views and preferences of westerners. One of the primary reasons is that along with the fast progress of globalisation, the integration of eastern and western cultures is being promoted, which exerts great influence on the young generation. In particular in China (including Hong Kong), western cultures and values impose larger bearings on local people than the local eastern cultures and values do on western people. Another reason is that China is now open to the western world and western cultures, in particular those related to the development of the economy, and this has a great influence on local people's daily lives as well as their needs, preferences and value judgements.

As in the discussion above, street furniture is an important urban element of a city. Street furniture should be designed to mirror the culture and history of a city to generate excitement and delight since most of the foreign visitors look forward to experiencing different cultural flavours. In this case, their anxiety and depression will be comforted when coming across familiar street furniture. However, for the local people, they prefer the design of street furniture to make them feel relaxed and comfortable.

To enhance the proportion of emotional elements in the design of street furniture, the studies discussed above illustrated that the design of street furniture and those who use it were inseparable and great attention should be attached to users' preferences and emotion. However, nowadays designers (including engineers) seldom carry out direct communication with users. Or under current practice, most of the designers only have contact with their clients (those who order the products may not be the users). The designers may accomplish their job within a studio. Hence, the following flow chart

illustrates a possible procedure for designing street furniture in view of the emotional elements.

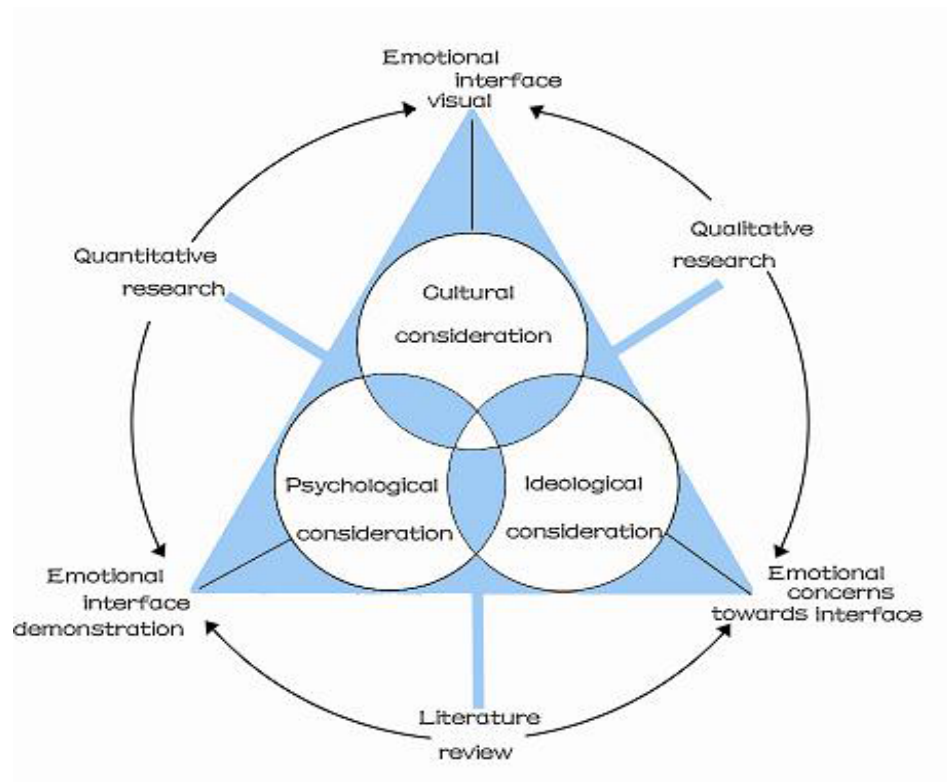


Figure 16: Research and design model for emotional elements for street furniture

In fact, current government policies and general practices reveal that planning and design of the street environment have concentrated on functional aspects. Street planning in many cities, in particular Asian cities, mainly focuses on circulation. Instead, social and community interactions are not seriously considered. Most of the furniture is standard in appearance and function, so that streetscapes are not attractive and lack local characteristics. All of these factors make people reluctant to stroll in the street, influencing them to remain inside shopping centres. Moreover, many policymakers and city planners pour more energy into accelerating the rhythm of living and working so as to make the street furniture unanimous in style and as concise as possible. The consequences of this situation result in both local people and visitors feeling nervous and tedious when they linger on the street. A part of these stances stem from deficiency of emotional factors amid the street furniture design.

Referring to the discussion above, some directions are proposed for policymakers, designers and manufacturers for consideration in their practice and further investigation:

- Designers should not only take into account the physiological factors, but should also provide users with social, culture and emotional satisfaction (i.e., pleasure).
- The emotional functions and new technologies should be explored to meet the variable demands of the people within different contexts amid the design of street furniture so as to enhance the competence of the local economy.
- The inadequacy of the local characteristics in street furniture design is also a key issue to current policymakers, designers and manufacturers. As a result, they need to consider local identifications with places where street furniture is being used, and individual user-needs, preferences and aspirations.
- More collaboration between users and designers should be suggested as an efficient way to bridge the gap in current street furniture design. Designers should organise interaction activities (e.g., participatory design workshops) to grasp new variables in order to accommodate user-needs, preferences and aspirations.

In sum, the emotional design of street furniture is of enormous interest and worthy of further in-depth investigations. Interactions of humans and street furniture are not simply a question of right or wrong, instead, they are related to traditions, backgrounds (that is, cultural, social, educational backgrounds, etc.), and experiences. Sometimes, interactions with the same street furniture will exhibit different feelings among the users under different environments or social conditions. As the cases discussed above show, to attain a precise research of the proportion of emotional elements in their designs, designers are required to take the physiological needs of users, the cultural and social factors and the deep meaning behind such behaviour into consideration. The emotional elements and

both alien and local cultures should be closely integrated to highlight the function of emotional elements in street furniture design.

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