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**Design for Street Markets in  
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College of Art and Design

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# Design for Street Markets in Mainland China

Study of Current Street Markets, the Ideal Model of Formalized Street Markets, and Worktable Design

Jiameng Huang

## Abstract

Street vendors are a cultural icon and have a long history in the cities of Mainland China (abbreviated as China henceforth). However, with the development and modernization of Chinese cities, the relationship between street vendors and city managers has become increasingly tense and delicate, and conflicts between vendors and urban management are occurring at an increasing rate. This paper intends to illustrate the irreplaceability of the street markets and identify a solution for street vendors to thrive in tandem with modernization through research and design.

In many large Chinese cities, the number of food vendors has been insufficient to support the increasing urbanization, and a large proportion of food consumption has shifted to supermarkets as traditional street markets have been banned. This article briefly introduces several major types of food consumption locations in Chinese cities and finds that the street market plays an important role in cities. However, street markets have their own problems, including polluting the environment and creating congestion. Also, as a semi-urbanized group, most street vendors rarely enjoy the same rights and interests as other people in the cities because of the 'Hukou' household registration system and other cultural differences. These vendors are marginalized in urban life and guaranteeing their rights and benefits is problematic. In contrast, although Hong Kong and Taiwan share many culture aspects with China, there exists a level of respect and tacit understanding that allows street vendors to thrive, and many prefer to purchase food at street markets instead of supermarkets because of the unique atmosphere that they provide.

This paper also discusses the Chinese urban garbage disposal system and explores possible solutions to remedy the primary issues of pollution facing street markets in China. Through the investigation of Chinese consumers' perceptions of street markets, this paper concludes that people in fact enjoy street markets and believe that street markets can provide convenience and unique value. They welcome standardized street markets.

Finally, this paper proposes the idea of standardizing the implementation of the street market; from rules, to promotion as a brand, to designing worktable for aquatic products vendors. The product can help aquatic product vendors maintain environmental sanitation and achieve harmonious coexistence within the city.

# 1. Context and Research

## 1.1 Rapid Development of China Urbanization

China's extraordinary economic boom has come hand-in-hand with urbanization. In 1950 13% of people in China lived in cities. By 2010, the urban share of the population had grown to 45%, and it is projected to reach 60% by 2030. Twenty-five of the world's largest 100 cities are in China.<sup>1</sup> Urbanization is reshaping both the physical environment and the cultural fabric of China. Urban spacing is constantly being modified to meet new demands on housing, traffic, shopping, and education created by the increasing population.

The impacts of this reshaping on traditional life are dramatic. In cities, people are efficiently organized. Everyone relies on the services provided by cities, and everyone is providing service to strangers. An individual can live quite well in a city without personally knowing anyone there. This is in stark contrast to the acquaintance society of the past that Chinese people are familiar with, where people personally knew who provided different services and built more emotional connections rather than just the functional connections of today. The arrangement of the modern city is no doubt more efficient, but has sacrificed much of the humanity as a result.

## 1.2 Consumption Upgrade

With higher incomes, Chinese people are no longer satisfied with having the things they did not have before. Now they are looking for something better, and some people are paying more money for premium experiences and services, not just physical products. However, over time people are developing more rational and mature consumption attitudes and a clearer understanding of their actual needs.

## 1.3 Lack of Food Shopping Places

Shortage of food shopping places is one of the problems that occurs during urban development - the population is constantly increasing while there is a decrease in food shopping locations. Although the food supply is adequate, there are not enough avenues for consumers to purchase food from, and people need to commute farther distances in order to obtain food due to the decrease in availability of vendors.<sup>2</sup>

To illustrate this phenomenon, there are 2400 rigid food shopping places in Beijing, including 300 community green groceries, 950 small food shops, 200 food markets, 600 supermarkets and 300 morning/afternoon markets. Beijing has a population of 21,710,000. The food selling area in total is 8000 m<sup>2</sup>. The food selling area per thousand people is 3.87 m<sup>2</sup>, and the ideal area is 20 m<sup>2</sup> per thousand people. It is not hard to see the huge gap between the current and ideal situation.

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<sup>1</sup><https://insights.som.yale.edu/insights/what-should-we-understand-about-urbanization-in-china>

<sup>2</sup>Chinese Food Markets' Ten Year 2005-2015, <http://www.guihuayun.com/read/23192>

Additionally, many traditional food markets are being demolished today<sup>3</sup> due to a variety of reasons.

1) The loss of consumers makes it difficult to turn a profit. On one hand, the booth rental fee is higher, and the extra cost is passed on to customers. On the other hand, supermarkets are keeping costs low due to improving transportation efficiency and economies of scale realized by mass production. Therefore, the food market is losing its price advantage. Coupled with issues like the messy environment, it is not hard to understand why food markets are losing customers.

2) The older markets often occupy expensive real estate in urban areas, and the developers tend to dismantle them and redevelop the land to get a higher profit.

3) The messy old markets are often seen as a blight on the clean appearance of cities by the government.

4) The government is starting to build small supermarkets to replace traditional markets because supermarkets are easier to manage. The food quality and prices in food supermarkets are more stable.

Additionally, other businesses located between food markets and street markets are being forced to close for the same reasons as those listed above. There are some small indoor shops along the street with the booth stretching to the street. They usually exist on the back streets of old residential areas.

At the same time, it is common to hear residents lament the disappearance of the food markets and complain about the inconvenience of food shopping. In the past, people only needed to walk for 5-10 minutes to buy food, but now, it might become a 20-minute walk or ride. The elderly, who tend to cook by themselves every day, prefer the food markets because they are familiar with them. The reduction of traditional markets makes their lives much harder as they are forced to walk a much longer way to the market or have to turn to supermarkets as there are no traditional markets around anymore. The prices in supermarkets can be much higher, and the higher price is an extra burden for many elderly people since their retirement pay is relatively lower than the salary of younger working people.

The loss of traditional markets also causes other problems that impact prices. For example, most of the markets are privately operated. The owner makes a profit by taking booth rental money. As there are fewer markets now, the number of retailers or farmers are greater than the capacity of markets, which give the markets a reason to raise the rent. The higher rent causes an economic chain reaction: the retailers have to raise the price of food to get a profit, and the extra cost is passed on to their customers. Furthermore, many retailers cannot afford high booth rent and instead become unlicensed street vendors. Many people buy food from these street vendors because of the low prices and the vendors usually choose the spots at entrances of residential areas or the only way in and out of those areas. These vendors satisfy people's need for convenience and lower prices, but they can cause many problems at the same time. They tend to disrupt

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<sup>3</sup> CCTV Finance Official Channel Interview with Fuying Li, vice director Legislative Affairs Office of the Beijing Government,

transportation, produce garbage, and generate a lot of noise. Because of this negative impact, the government keeps trying to drive them out. From the perspective of the vendors, the government is depriving their way to earn a living, and has resulted in continual conflicts between vendors and urban management.

#### **1.4 Categories of Food Shopping Place**

For Chinese people, food shopping is quite important as China has an extensive cooking culture. Compared to the United States, the frequency at which people shop for food is relatively high, and because people tend to prefer fresh ingredients, they usually purchase ingredients at least every two or three days. In many food markets in China, people can buy live fish or poultry to have them butchered on the spot in front of the consumer. As such, many food purchases tend to be used in a relatively short time after being purchased.

There are several different kinds of food shopping places in Chinese cities. The street market is the one with the longest history and almost every city in the world has this form of markets. Street markets sell different things, but we will only discuss the ones that are specifically for selling food. Street vendors usually look for places with high traffic flow for the business, and the markets tend to arise spontaneously.

Another one is the traditional food market, very similar to food halls in America. It is a gathering of booths, and the vendors need to rent the booths in order to do business in the food market. Traditional food markets have quite a long history in China. The first food market appeared in China in the late 19<sup>th</sup> century, and have been the main fixed food shopping places for the Chinese prior to the advent of the supermarket.

Supermarkets are another choice and have now become the primary choice for food shopping for many people in the cities. People now have access to some new choices like grocery stores in communities as a result of 'Nong Zhuan Chao' - an activity promoted by the government that is trying to transform traditional food markets into small grocery stores.<sup>4</sup> The small store is like a miniature supermarket that only sells food and has two or three staff to run it.

Finally, with the rapid development of OTO (Online to offline) business model, people can now buy ingredients online, and the products will be delivered to their homes. Even though the price online is about double the price in markets, online food shopping is still quite popular among urban young people.

#### **1.5 Street Markets and Why I am Concerned About It**

Many street vendors come from an external population and are not native to the cities that they do business in. With the rapid transfer of rural surplus labor to non-agricultural areas, a large number of farmers have poured into cities, engaged in business activities such as selling vegetables, fruits, and meats.

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<sup>4</sup> Minghua, Zhu, Fan Xiumin, Alberto Rovetta, He Qichang, Federico Vicentini, Liu Bingkai, Alessandro Giusti, and Liu Yi. "Municipal Solid Waste Management in Pudong New Area, China." *Waste Management* 29, no. 3 (2009): 1227-233. doi:10.1016/j.wasman.2008.07.016.

Many street vendors are farmers who live near the cities. However, the urban areas have limited numbers of wholesale markets and the entry fees are quite high. Since selling their products is a seasonal and low-profit business, those indoor markets tend not to be an ideal choice for them. As a result, many farmers around the city can only sell their vegetables and fruits on street markets in cities.

Unemployed workers are another large component of the street vendor population. For people in this category, being a street vendor is one of the ways to make a living. These vulnerable groups tend to be attracted to this option for making a living due to the decreased barriers to entry, lower risk and quick results, and as a result they are also the main consumers of illegal street markets.

I believe street markets are an ideal solution to bolster the shrinking supply of food shopping opportunities while simultaneously providing an avenue of financial opportunity to the rural population. Even though the majority of street markets have been categorized as illegal by the government, they continue to exist due various economic and social factors. The demand for street markets continues to exist because they are cheaper and more accessible. Following the logic of basic supply and demand economics and free market principles, street vendors will seek out the places where they can maximize their profits, and street markets occupy a niche that other markets cannot reach. City governments realize that the ban on street vendors is not the proper solution and have recently been making efforts into normalizing the street. Many street vendors and citizens have given positive feedback about the effort.<sup>5</sup> I believe the legalized street market is the right direction and brings unique value.

Furthermore, we should not ignore the cultural value of the street market. Street markets are an important component of city diversity and can provide cultural experiences that cannot be replicated by supermarkets or grocery stores. In street markets, customers interact directly with local farmers and fishermen as opposed to shelves and cashiers in supermarkets. People are close here, and daily conversation contributes to the creation of personal relationships.<sup>6</sup>

## **1.6 The Problems of the Current Street Market Model**

Existing street markets are mostly comprised of street vendors, and these types of markets lack rules and management procedures which result in a number of problems.

Groundwater: Certain vendors require the use of running water for their business. For example, a fish vendor needs water to clean his fish and his cutting board. The used water will be poured directly onto the ground, and since the street's drainage system is not designed for this, the dirty water will remain there, resulting in an unpleasant and unsanitary environment for both vendors and customers.

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<sup>5</sup>Relaxation of "roadside stands" is an improvement in public management, Changlian Wang, 2017

<sup>6</sup> Carrieri, Alexandre Pádua, and Ivana Benevides Dutra Murta. "Cleaning up the City: A Study on the Removal of Street Vendors from Downtown Belo Horizonte, Brazil." *Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences De L'Administration* 28, no. 2 (2011): 217-25.

Litter: since most street vendors do not have a fixed assignment or booth from which they do business, they lack the sense of responsibility to keep the environment clean. The result is that garbage is left in the markets after business for government sanitation workers to clean, further contributing to the dirty and smelly atmosphere that causes residents to complain.

Street use and obstruction: Due to the lack of formal guidelines and regulations, street vendors are prone to setting up their stands in the road and occupying spaces intended for pedestrians and vehicles. As soon as one vendor sets up somewhere, other vendors tend to follow, which frequently results in traffic jams. Because vendors usually do business during peak traffic hours, the impact on traffic is omnipresent.<sup>7</sup>

### **1.7 Street Vendors: half-urbanized group**

Like other outside people from rural areas living in cities, street vendors play an important role in cities economy but are treated with disdain by the general populace due to the household registration system and cultural differences. They are mentally alienated, do not have a cultural identity, and do not have the same rights as urban residents with regards to education, housing, and medical treatment. They tend to live together at the edge of the city where it is difficult to build a connection with other communities. The mental/emotional strain created by these difficulties often results in an attitude of indifference or even anger towards the wellbeing of society as a whole.

### **1.8 Experience and Reference: Tradition Food Market Upgrade in Hong Kong and Taiwan**

Hong Kong and Taiwan have similar cultures as mainland China, but attitudes surrounding street markets differ dramatically. By comparison, we can identify points of improvement and develop methods of implementing change in China's street markets.

Hong Kong's rules over street markets were introduced earlier and are relatively detailed. Since Hong Kong's city structure has not undergone any dramatic changes in recent times, many old building and communities have been preserved. Most street markets are located on the small roads where traffic is limited to pedestrians and bicycles. Many street markets are also half indoor and half outdoor. Since Hong Kong does not have an increasing foreign rural population, the number of street vendors remains relatively fixed, and every vendor has an assigned booth to conduct business from. Interestingly enough, although new indoor spaces have been opened for food markets, residents still prefer the old street markets. During peak hours, the newer indoor markets are cold and quiet while the street markets several blocks away are so crowded it can be difficult to move. Even though the street markets may be wet and dirty, people still frequent them because of the tradition, memory, and the vitality they embody.

Street markets in Taiwan are more itinerant and periodic. Street vendors will move between different cities and towns, staying for one or two days and then moving on to the next location. Wherever the vendors go, society is tolerant, respectful, and welcoming.

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<sup>7</sup> [http://www.leshan.cn/html/view/view\\_EA728A5FBE841F29.html](http://www.leshan.cn/html/view/view_EA728A5FBE841F29.html)

## 1.9 Organic Garbage

Most of the garbage generated by street food markets is organic and/or recyclable, such as entrails, leaves, etc. The organic garbage can be used in feed for livestock or composted once processed, making the recycling process quite easy since it does not require a lot of effort to sort. The cycle is self-sustaining - the garbage becomes the resource that supports the farmers, who in turn produce the products to support the street vendors.

## 1.10 Garbage Disposal and Recycle System in China

The solid waste disposal process can be classified into three stages: storage, collection and transportation, and final disposal.<sup>8</sup>

Storage: A key aspect of effective waste management is proper waste storage on the premises where the waste is generated. In residential areas, a fixed collection point is set for waste storage. It consists of setting containers in designated locations for scheduled pickups.

The collection of solid waste is carried out using various types of vehicles, with the type of vehicle dependent on the type of collection bin and width of the road. More private companies are involved in the collection and transportation.

Final disposal: Three important waste disposal methods are adopted in cities: incineration, biochemical treatment, and landfilling. For organic garbage, biochemical treatment is the preferred method. Furthermore, composting generally plays an important role in China and is driven by the value of carbon emission reductions, the high percentage of organic waste in municipal solid waste, and the market for processed compost.

Typically, garbage is gathered and sent to several transfer stations, then sent to disposal factories.

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<sup>8</sup> Minghua, Zhu, Fan Xiumin, Alberto Rovetta, He Qichang, Federico Vicentini, Liu Bingkai, Alessandro Giusti, and Liu Yi. "Municipal Solid Waste Management in Pudong New Area, China." *Waste Management* 29, no. 3 (2009): 1227-233. doi:10.1016/j.wasman.2008.07.016.

## 1.11 Questionnaire and Result

### The Questionnaire About Street Market

1. The city you live in.

2. Your age.

3. Your gender.

4. Is there any street market around your home?

Yes

No

5. Will you choose street for food shopping?

Go there frequently

Go there occasionally

Never go there

6. Is your shopping experience happy at street markets in general?

Yes

No

Median

7. Which the following opinion about street markets do you agree with?

**(Multiple Choices)**

Produce noise and garbage, are detrimental to community and city environment.

Always block traffic

Harm the benefit of vendors in food markets

Low price food, release people's financial burden

Facilitate the convenience of food shopping

Provide livelihood for vendors

Indivisible parts of a city Others

8. Which side do you support in the conflict between street vendors and urban management?

Street vendors

Urban management

9. What is your opinion about street markets?

Should drive out street markets

Should normalize street markets

Keep current status

10. Would you like to have normalized street markets around your home? (Fixed time, fixed spot, fixed vendors, cleaner, well managed...)

Yes

No

Do not care

11. Does the street market you know have garbage and odors remain after business?

Yes

No

The results of the questionnaire demonstrate that most people like street markets. The markets offer convenience for daily food shopping and provide most people positive shopping experiences. The most significant conclusion in the conflict between street vendors and urban management is that most people are on the street vendors' side and would prefer to have legal street markets near their homes.

## **2. Design**

### **2.1 Design Proposal**

I will identify design opportunities that can help normalize street markets and make them more accessible to everyday consumers. This will improve the shopping experience in street markets and support the demand for convenient shopping. I believe this approach will preserve the cultural value of the street market for the future.

### **2.2 Rules for New Legal Street Market**

Street markets are supposed to be arranged by a government agency. Vendors need to obtain business licenses from the government, and details such as the location and opening times of street markets should be defined by the government. In turn, the government should consider the preferences of different groups, including street vendors, citizens, pedestrians, drivers, etc. in order to connect more customers to more vendors while minimizing the impact on local traffic. An efficient method might be to analyze the current locations street vendors use and to then reserve these spaces.

The only cost to vendors would be a management fee, which would be low in comparison to current booth rental fees in existing food markets. Rather than charging every vendor a standard fee, the fees would vary depending on the requirements of each vendor. For example, fish vendors and meat vendors might need more space than vegetable and fruit vendors, and would be given the opportunity to rent larger lots to operate from. The management fee would include facility costs for vendors, meaning that the fees would primarily be used to support salaries for cleaning/maintenance staff and provide equipment and amenities. Vendors will be provided with standard items such as buckets, cutting boards, and utensils. These amenities would be provided by the government, and the vendors would be required to use them.

Vendors will be responsible for obeying the rules set forth by management and would be required to keep all their things in their designated areas without exceptions. They would also be required to keep their areas clean, including the ground. Vendors found leaving litter or waste behind will be warned at first, and then fined after repeated or sustained violations.

Rules are necessary and important, and should be simple, clear, reasonable, and humancentered in order to achieve a goal of keeping street markets orderly and not creating any unnecessary chaos or complexities. My designs are meant to help street vendors keep streets clean and everything in order.

### **2.3 Component and System**

Different types of vendors (vegetable vendors, meat vendors, fish vendor etc.s) will get several standard size buckets. These buckets are designed to help utilize their space more efficiently. The buckets can also be the unit to measure the size of the vendor's space. For example, the space for a vendor can be four buckets wide, three buckets deep. In this case, it will be straightforward for both vendors and management to keep the order.

With the help of designed facilities, it will be easy for the street market to collect garbage. A cleaner will come after business hours, as the garbage is staged to a central area.

### **2.4 Design of Worktable**

As previously mentioned, litter and trash is one of the main issues facing street markets, and the most pungent garbage is generated by fish and meat vendors. My design goal is focused on helping these vendors collect their garbage, streamlining their workflow, reducing water usage, and improving the mobility of the facility.

### **2.5 Brand Design for Street Market**

A new normalized street market can provide avenues for brand promotion. Brands should have a unified visual system that provides a universal guide for product and graphic design, allowing people to relate the brand to the new shopping experience it provides.

For vendors, the branding will help then build a sense of belonging and make them feel that they are accepted by the community and the city.

## **3. Conclusion**

The issues facing street markets are very relevant because it touches many issues of contemporary urban life in China. Chinese cities are quickly becoming symbols of economic growth, filled with skyscrapers and wide roads. Countless historic buildings are demolished every year, and the new developments show no sign of slowing down anytime soon. Research shows that the average lifetime of buildings in China is only thirty years, not because of the quality, but because of the continued changes in urban planning.

Many city governments focus their attention on maintaining the physical appearance of the city, but lose sight of other important factors that are necessary for prosperity. Many people are waking up to these problems and are making efforts to change the situation. As a cultural icon, street markets are important components of the city's vigor and vitality.

China is currently undergoing a program called 'Nong Zhuan Chao', which translates literally to 'transitioning food markets to supermarkets'. The aim of this policy is to obtain better control over the source of the product, elevated food quality, and more price transparency. While these are good goals, the program has also resulted in the demolition of old food markets to make room for small food grocery stores and supermarket chains. Furthermore, this system will only provide minimal improvements to the consumption experience at the steep cost of exclusion and alienation of many farmers.

The core value proposition of my design is centered around providing respect to people's traditions and urban culture, trying to find the balance between modernization and tradition, and addressing the concerns of marginalized populations. I believe a healthy city should be tolerant, and a place where anybody can find dignity in hard work and earnest living. A good city should be respectful of and responsive to the needs of their citizens, and meaningful improvement requires good policy along with the coordination of government, private companies, citizens, and vendors.

Just as a small stone thrown into the water can create big ripples, I believe that socio-cultural change can be affected by taking small steps such as improving street markets, and I believe that I have the vision necessary to make these changes happen.