Historic cities all over the world are facing challenges on how to best preserve their architectural heritage. We need good examples to follow. This study explores the historic city of Pingyao in China’s Shanxi Province, and the Qiao Family Courtyard in Qiaojiapu Village of Qi County nearby. Pingyao is a representative of northern Chinese city planning and vernacular architecture during the Ming (1368–1644) and Qing (1644–1911) dynasties, and it became a UNESCO World Heritage Site in 1997. Qiao Family Courtyard is famous not only because of its majestic architectural compound and exquisite craftsmanship, but also it embodies the unique style of Chinese residential architecture in the Qing dynasty. Zhang Yimou’s 1991 film “Raise the Red Lantern” was shot here. Hu Mei’s 2006 TV series “Qiao’s Grand Courtyard” based on the business history of the family have made the compound internationally acclaimed. From an architectural and urbanist perspective, this paper examines what has made Pingyao Historic City and the Qiao Family Courtyard resilient and responsible. The findings reveal, among other things that, Confucian ethics of honesty, trustworthiness, and righteousness were the backbone accounting for the robust success of Shanxi merchants who held deep-rooted cultural values, and who conducted their businesses accordingly.

Keywords: Courtyard house; Vernacular architecture; Historic preservation; Chinese urbanism; Chinese architecture; Chinese culture
1. INTRODUCTION
This research article comprises two parts. The first part investigates the historic city of Pingyao in Shanxi Province of China. It starts by exploring Pingyao’s key urban elements, including the city wall, city gates, and street pattern; it then outlines Pingyao’s Ming (1368–1644) and Qing (1644–1911) architecture of social, cultural, and economic significance. The second part of the paper traces the footprint of Qiao Family Courtyard in Qi County nearby, as it is an outstanding example of vernacular architecture of the Qing dynasty in the region. The study ends with a discussion about their historic contributions and what has made Pingyao City and Qiao Family resilient and responsible.

Many people have regarded Shanxi as one of the poorest provinces in China. However, from the mid-15th to the mid-20th centuries, Shanxi was among China’s richest provinces. Shanxi shangren dominated the top ten trade groups in the Ming and Qing dynasties; they once controlled the lifeline of China’s economy. History shows that as early as the Spring and Autumn Period (770–476 BCE), merchants appeared in Shanxi. During the Sui and Tang dynasties (581–907), Shanxi shangren opened up a commercial network connecting parts of China, Southeast Asia, the Middle East, and Europe. In the Ming and Qing dynasties, Shanxi merchants crossed the Great Wall to the north and reached Europe with an amazing scale and wealth. In the Qing dynasty, Shanxi had the biggest capital and the widest distribution of national commerce. In each national fundraising, Shanxi shangren donated the largest amount of silver nationwide. Until the beginning of the 20th century, Shanxi was still a trade center in China. The headquarters of major financial institutions in Beijing, Shanghai, Guangzhou, Wuhan, and other big Chinese cities, were mostly located in the ordinary streets of Pingyao and Taigu. Pingyao was one of the most developed cities in the financial industry in the middle and late 19th century, it had a positive impact on China’s modern economic development, and it is one of the birthplaces of the famous Shanxi Shangren [1-3].

2. PINGYAO HISTORIC CITY
Pingyao (平遥) is located in Jinchong, in the middle reaches of the Yellow River, and southwest of the Taiyuan Basin in the east of the Loess Plateau. Pingyao has a temperate monsoon climate, with four distinctive seasons and abundant sunshine. Summer is hot with plentiful rains, and winter is cold and dry. July is the hottest month, and January the coldest. The precipitation varies greatly from year to year, and the distribution is uneven throughout the year, mainly in the four months from June to September. The northeast of Pingyao is 616 km from Beijing, its north is 90 km to the provincial capital Taiyuan, its west is 543 km to the ancient capital Xi’an, its east is 758 km to Tianjin port, and its south is 2,390 km to the coast of Guangzhou [2]. Therefore, Pingyao’s location was superb as a trade center in China.

Pingyao city wall is one of the largest, earliest, and relatively well-preserved city walls that reflects the development of Chinese urban planning and architectural design for more than 500 years. As early as 2,800 years ago, in the reign of King Xuan of the Western Zhou (周宣王, c. 862–782 BCE), the rudiment of Pingyao city wall was formed, which was to be laid out in square, sitting north and facing south, 15° to the east, in line with the prevailing wind direction [Figures 1–2]. Thus, the city dwellers could bath daily in abundant sunshine. Since the Qin-dynasty government implemented the “County System” in 221 BCE, Pingyao has existed as a “County Governance” to this day. Pingyao County has an area of 1,260 sqkm, and the historic City has 2.25 sqkm. Within the city wall, streets, shops, and municipal buildings retain Ming and Qing architectural styles, whereas outside the city wall, modern buildings dominate the New City. There are more than 300 historic and cultural complexes inside and outside the Old City, with nearly 4,000 Ming and Qing courtyard houses still in existence today [1, 2, 4, 5].
In 1997, Pingyao became a UNESCO World Heritage Site, ascribed with the following statement: “Ping Yao is an exceptionally well-preserved example of a Han Chinese city founded in the 14th century and occupied continuously since that time which has undergone no radical changes in form or material since the 19th century” [1, 4]. Moreover, in 2009, Pingyao was awarded the most complete historic county in China by the World Record Association.

Pingyao was formerly known as Gutao (古陶, meaning “Ancient Pottery”). During the Spring and Autumn Period (770–476 BCE), it belonged to the Jin State; and in the Warring States Period (475–221 BCE), it belonged to the Zhao State. In the Qin dynasty (221–206 BCE), it was established as Pingtao (平陶) County, and renamed as Zhongdu (中都) County in the Han dynasty (206 BCE–220 CE). To avoid the sacred taboo of Emperor Taiwu (太武帝) in the Northern Wei dynasty (386–534) whose name was Tuo Batao (拓跋焘), Pingtao was renamed as Pingyao. Thereafter, its name has remained so for the last 1,500 years [1, 2, 4, 6].

Ancient Chinese ritual system stipulates that the imperial city where the emperor resides should be 9 square lǐ, the city of dukes should be 7 square lǐ, the city of marquis and earls should be 5 square lǐ, and the city of viscounts should be 3 square lǐ. Pingyao Old City is 3 square lǐ, that is, each side is 3 huali in length, which has obviously followed the norms of the county-level city wall, and which is also the largest county-level city in China. As the most complete original urban form of the Ming and Qing dynasties, Pingyao Historic City is a living example for studying the development and transformation of Chinese cities and human habitation [4, 6].

Pingyao City, like other old cities in China, was originally built as a defense facility to protect the ruling class. The city wall was erected during the King Xuan of the Western Zhou (c. 862–782 BCE) by General Yin Jifu (尹吉甫), so it has a history of more than 2,700 years. The city was last expanded to the west and north in the 3rd year of Hongwu (洪武) (1370), from the original “9 lǐ and 18 steps” to “12 lǐ and 18.4 lǐ” (6.4 km), and the original rammed-earth city wall was covered with bricks and stones to become a masonry wall. In the 43rd year of Kangxi (康熙)
Chengxu (1703), the emperor traveled through Pingyao to the west, a tower was built on each of the four sides of the city wall to make the city look more spectacular [Figure 3]. The city wall is square in plan, with a circumference of 6.163 km and a height of 10 m. The top of the wall is built with a 2 m high crenellation wall (or “horse-retaining wall” 挡马墙), with a top width of 3‒5 m. In the more than 500 years of the Ming and Qing dynasties, Pingyao city wall underwent 26 times of repair and addition. With the economic development of society, the city wall has been continuously innovated by adding barbicans, platforms, watchtowers, a suspension bridge, moats, and so on, forming its current scale and grandeur with a strong presence today [1, 4, 6].

There are 77 brick drainage channels on the inner wall, and 3,000 heads around the outer wall. Originally built with 40 watchtowers in the early Ming dynasty, it increased to 94 in the 3rd year of Longqing (隆庆) (1569), and later was renovated with 72 watchtowers in the first year of Xianfeng (咸丰) (1851). The number 72 implies that Confucius had “3,000 disciples and 72 sages”, reflecting Confucian ideology had subtly infiltrated into the realm of military architecture and urban defense system in China. There is also a corner tower built at each corner of the city wall, a pedestal on the east wall, and Kuixing Tower (魁星楼) and Wenchang Pavilion (文昌阁) on top of the southeast corner, along with many ritual buildings erected on the city wall for ceremonies, such as the old temples and shrines to commemorate Emperor Zhenwu (真武), Guan Sheng (关圣), and God of Wealth (财神) in the barbicans in the middle of the east wall [4, 6].

Historic Chinese city walls were initially made of soil with moats dug around them. The moats filled with water are called “chi” (池, meaning “pond”), those without water are called “huang” (隍, meaning “god”), and “chenghuang” (城隍, meaning “city god”) was the patron sage of a city. To strengthen defense and consolidate power, Emperor Zhu Yuanzhang (朱元璋, 1328‒1398) built Chenghuang/City God Temples (城隍庙) and County Government Offices (县衙) all over China with the same specifications, and promoted them to high status [7].

When Pingyao city wall was rebuilt in early Ming dynasty, the moat had a depth and width of 3 m. In the 3rd year of Longqing (隆庆) (1569), the moat was expanded to a depth and width of 10 m, so that it could provide a better protection for the city, and thus it was often called the “Protective River” (护城河). Pingyao city wall had six gates, one each in the north and south, and two each in the east and west. There were six barbicans by the city gates, with parapets on top of the wall. A protective wall (known as “daughter wall” 女儿墙) was built along the inner wall, with water outlets underneath, and rainwater was drained to the horse road in the city through the cistern by the inner wall. The outer wall had attached piers protruding outwards every 60‒100 m, and watchtowers were built on the platforms. Turrets were built on the piers of the four corners of the city wall. From above, Pingyao Old City looked like a tortoise crawling southward. The south gate was like the tortoise head, the north gate was like its tail, and the east and west gates resembled the four feet of a tortoise. Therefore, Pingyao was nicknamed “Tortoise City.” A tortoise was an auspicious symbol of longevity whose idea...
reflected ancient Han Chinese totem culture. At the same time, a plank suspension bridge, spanning across the moat with the outer end tied with ropes, was erected beyond the six gates. Through pulleys and winches, the bridge could be hoisted at any time to break the road, and it was opened during the day and closed at night to ensure safety in the city, but the bridge disappeared a long time ago \[4, 6\].

During the Japanese invasion (1937–1945), Pingyao city wall was severely damaged, six towers were demolished, bunkers were built on the old site, and only three of the 72 watchtowers survived. In August 1977, Pingyao suffered a rare catastrophic flood from the Fen River when the reservoir collapsed with billowing flood rushed towards the city. The thousand-year-old city was in danger of destruction. The city wall became the last hope to resist the raging flood. When the ferocious flood passed, the city wall was ruthlessly damaged. Pingyao citizens repaired the city wall after the disaster. The State Council also implemented a comprehensive protection plan and rushed to repair the city wall piece by piece. Since 1990, during the restoration of the historic features of Pingyao City, the moat was rebuilt section by section. By 1993, the city wall was completely restored. Seventy-two watchtowers and Kuixing Tower were all mended. Pingyao people hoped that after restoration, their lives would be protected by the city wall, and the city will become a paradise away from wars. The south section of the city wall collapsed again in 2004, but most of the rest are still intact \[4, 6\].

Among the six city gates, the four in the east and west orientations face each other, the upper east, upper west, and lower west gates all open to the south, facing the distant mountains and rivers, so that they “gather qi.” In the 3rd year of Hongwu (1370) during the Ming dynasty, Pingyao Old City was expanded and the locations of the north and south gates were staggered. For this reason, the north and south avenues are not in line, which seems to be influenced by the theories of *Yin Yang* and *Wuxing* (Five Elements, or Five Phases) \[8\]. During the Kangxi (reigned 1661–1722) period, the Pingyao County Magistrate, Wang Shou (王绶), wrote the couplet “The Five Elements are righteous for people’s livelihood, and one-hundred-feet tall buildings are like heroes,” \[2\] which further confirmed the position of *Yin Yang* and *Wuxing* in the social life of the Ming and Qing dynasties \[4, 6\].

The South Gate is Pingyao Historic City’s main gate, which is also the “Tortoise Head.” The concept of “Tortoise City” originated from ancient Han Chinese worship of the “Four Holy Beasts” (四灵): Azure Dragon (青龙) in the east, White Tiger (白虎) in the west, Vermilion Bird (朱雀) in the south, and Black Tortoise (玄武) in the north. The outer north gate opens at a 90° angle from the inner north gate to receive the purple qi from the east. Although the outer south gate is slightly offset from the inner south gate, it faces the same direction, and opens to the south. Outside the south gate, Zhongdu River is winding through it since ancient times \[4, 6\].

The traffic network of Pingyao Old City consists of four crisscross avenues, eight streets, and 72 alleys, like the pattern on a tortoise back, forming a *bagua* (eight trigrams). The City Tower is at the center. The streets and alleys intertwine horizontally and vertically in the shape of 干 and have strictly followed traditional ritual layout. The South Avenue is a north-south thoroughfare and the central axis of the city [Figure 4], starting from the junction of East and West Avenues in the north, in parallel and equal distance to the city wall in the east and the Horse Station Road (zhanma dao) in the west, with civil and military buildings symmetrically placed along the central axis, representing *Yin Yang* balance and harmony. For over 1,500 years, the South Avenue has acted as the backbone of the city because it has many time-honored brands and traditional shops on both sides, making it the most prosperous commercial street in Pingyao Old City. The South Avenue

\[2\] “五行气正民生遂，百尺楼高物象雄。”
Pingyao Historic City and Qiao Family Courtyard

Zhang

once controlled over 50 percent of the country’s financial institutions in the Ming and Qing dynasties, its status was comparable to the “Wall Street” in the USA today. The West Avenue starts from the west to Xiaximen (fengyimen), intersecting at the north end of South Avenue in the east, forming a straight through access with the East Avenue, known as the “First Financial Street of the Qing Dynasty.” The East Avenue begins from the east at the Lower East Gate (qinhanmen), intersecting at the north end of the South Avenue in the west, forming a straight access through the West Avenue. The North Avenue commences from the North Gate (gongjimen) in the north, connecting to the middle part of the West Avenue in the south [4-6] (Figure 5).

Figure 4. Pingyao Historic City South Avenue with the City Tower in distance. Most of this has been restored. Source: Photo by the author, 2017

The nearly 100 historic streets of Pingyao Old City are basically intact and in their original shapes, with mainly 17th–19th century buildings on both sides, maintaining their traditional layouts and styles. The mostly 2-storey shops have colorful paintings under the eaves and vibrant carvings on the beams. The vernacular houses all have courtyards with grey bricks and tiles, with clear axes and symmetrical plans. Pingyao Historic City has completely preserved its Ming and Qing appearance for three reasons. Firstly, Pingyao had experienced less wars when Shanxi was ruled by Yan Xishan (阎锡山, 1883–1960) from 1911. Japan invaded China in 1937 and made damages to Pingyao. During the Chinese Civil War (1945–1949), the Nationalist Army abandoned the city before fleeing to Taiwan in 1949, Pingyao was then returned to the people. Secondly, Pingyao is situated in a dry land that generally has less groundwater, as such, it has not been run over by modern industrial development. Thirdly, for many years, Pingyao local government had financial difficulties to renovate the Old City. After the reform and opening-up in 1978, the State Council announced in 1986 that Pingyao was a national historic and cultural city, and it was listed as a World Heritage Site in 1997, making Pingyao Historic City a fully protected status, which has become a huge resource for tourism development and a pillar industry for its local economy [1, 4].

From the “Master Plan of Pingyao County” (Pingyao Xiancheng Zongti Guihua) compiled and edited by Pingyao County Government in 1980, to the ongoing revision of “Regulations on the Protection of Pingyao Historic City in Shanxi Province” (Shanxi Sheng Pingyao Gucheng Baohu Tiaoli), Pingyao has always adhered to the practice of overall protection of its historic features, not only to fully realize its cultural values, but also to enable Pingyao to gain continuous vitality. Pingyao Old City is still alive today, with everyday life lived in an orderly and rhythmic manner [1].

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3 《平遥县城总体规划》
4 《山西省平遥古城保护条例》
3. PINGYAO HISTORIC ARCHITECTURE

There are six historic temple complexes organized symmetrically along the South Avenue, which is also the central axis of Pingyao Old City: Chenghuang/City God Temple in the east [Figures 6–7], County Government Office in the west [Figure 8], Confucian Temple (文庙) in the east [Figures 9–10], Martial Arts Temple (武庙/关帝庙) in the west, Daoist Temple (清虚观 Qingxu Temple) in the east, and Jifu Temple (吉甫庙, destroyed) in the west. Moreover, Zhenguo Temple (镇国寺) is located 10 km from Pingyao in the Haodong Village, and Shuanglin Temple (双林寺) is situated about 6 km southwest of Pingyao in the Qiaotou Village [1, 2, 4]. There is also a Catholic Church (天主堂) in Pingyao Old City [Figure 11], revealing Western cultural infiltration into this inland Chinese city.

Nevertheless, the two main authorities ruling Pingyao Historic City were Chenghuang/City God Temple and County Government Office, which acted as a pair of yin and yang that complemented each other. The County Government Office (yang) controlled the living, whereas the Chenghuang/City God Temple (yin) regulated the dead. Collectively, they reflect traditional Chinese idea of “human and nature governing together” in feudal society. The Confucian Temple (yin) and Martial Arts Temple (yang) is another pair of yin and yang interplay that embody Han Chinese cultural notion of “respecting literature and advocating martial arts” [2, 4, 7].
In the 3rd year of Daoguang (道光) (1823), a time-honored dyeing shop “Xi Yucheng” (西裕成) on Pingyao’s West Avenue was replaced with the signboard “Rishengchang” (日升昌), which literally means “Rising Sun with Prosperity” [Figure 12]. Rishengchang was China’s first currency exchange shop or remittance bank, called piaohao, that accepted the bearers’ certificates from one city/place, to be redeemed for cash in another city/place. The piaohao system ended the escort ushering cash in the past, making long-distance remittances safer, and had greatly accelerated business operations [5,9]. The famous writer, Yu Qiuyu (余秋雨), regarded Rishengchang as the “Grandfather” of China’s commercial industry; it was indeed a milestone of China’s economic development. In the 1840s, Rishengchang successively established branches in over 30 cities across China, and at the end of the Qing dynasty (1911) even reached Mongolia, Russia, Korea, Japan, India, Singapore, Europe, America, and other parts of the world. It had created a unique Chinese financial management model through strict self-discipline, forming a piaohao culture embedded with Chinese philosophy and rules that they formulated and implemented, which were the secret of their success. Driven by Rishengchang piaohao, China’s financial industry developed rapidly and established 51 piaohao nationwide, Shanxi had 43 (84%), and Pingyao had 22 (43%) [2,4,10].

China’s economy at the time had a combination of farming and weaving for self-sufficiency, but the dawn of national capitalism was already on its way. There was a saying in Pingyao that “If one can get a job in piaohao, he won’t want to change it to a county official.” Hao Xinxi (郝 新 喜), a specialist from the Pingyao Historic City Protection Experts Committee, said: “The wealth center in the middle of the Qing dynasty was not on the coast or in the capital of Beijing, it was in Taigu, Qi County, and Pingyao in the inland of Shanxi, and Pingyao was the best” [1, 2, 4].

5 The escort’s heyday began with the establishment of the first “Rishengchang” piaohao in 1823, and its business extended as far as Khyagt in the north and Guangzhou in the south of China. Since the “Boxer Rebellion” broke out (1899–1901), escort began to decline, with China’s last member of escort going out of business in 1922, the Chinese escort came to an end [11].
When Shanxi piaohao was most prosperous, it transferred 800 million taels of silver each year, controlled half of China’s circulating funds, dominated its financial capital, and connected global market through overseas branches across the world. The end of the 19th century was the heyday of Shanxi piaohao; it was also the time when Western powers turned from commodity expansion to capital expansion, with Chinese piaohao and Western banks running head on. The deep inland Pingyao, and the rising Shanghai from the sea, have fought a financial battle [[1], [10]].

In the early 20th century, foreign banks entered into China and established a number of related commercial banks with the weak Qing government which only lasted until 1911. It took away a large amount of official currency exchange business from Shanxi piaohao, at the same time, absorbed a large number of deposits with a higher deposit interest rate. Some piaohao managers strongly demanded change, but because the owner and the big shopkeepers had lived in Shanxi piaohao headquarters for a long time, they could not perceive the trend of social change and still stuck to their old experience, which had gradually become a self-styled institutional restraint. Foreign banks and capital compradors gradually developed in the market at the end of the Qing dynasty and the beginning of the Republic of China (1912–1949), eventually controlled China’s economic lifeline, formed a huge cannibalization of China’s piaohao, and caused Shanxi piaohao to irretrievably decline. In 1932, Rishengchang was deserted and struggling due to business difficulties, and the piaohao was changed to a bank. Finally, the two doors of Rishengchang, which had opened for over 100 years, shut down completely, and reluctantly withdrew from history. It once created a profit of 15 million taels of silver, equivalent to ¥12 billion RMB today. Because of its very complete set of cryptographic technology, there had never been an incident in which silver was “impersonated,” which was a myth of that era. More than half a century later, Rishengchang reemerged as a museum. Pingyao has thus preserved a precious cultural heritage for the world [[1]].
As a cultural city, Pingyao has also kept many couplets displayed at the gates and doorframes of historic buildings. Among them, some are enriching ideas for business to thrive, some are virtues that families rely on for prosperity and development, some are mottos that stand in the world, and some are philosophical maxims and practical advices. For example, this couplet admonishes people to endure hard work: “The sword edge is sharp due to grinding, and the plum blossom is fragrant from the bitter cold” (from Ming-dynasty “Worthy Articles to Caution the World”), which is hung in the backyard of Huiwulin (汇武林) [12].

Beginning in 2000, the “Celebrating New Year in Pingyao” activity and the Jinshangshe Fire Festival have developed into a series of large-scale Chinese New Year celebrations during the 23rd of the 12th lunar month to the 16th of the first lunar month. Since 2001, the Pingyao International Photography Festival (PIP) has been held annually, which is an event for photographers from all over the world to showcase their skills in photography. In 2005, PIP was rated as “China’s Top Ten Influential International Festivals” by the International Festivals Association (IFEA). Pingyao Diesel Engine Factory ceased production in 2002 and has become the main exhibition area for PIP. Annually, heavyweight photography masterpieces are exhibited in the abandoned factory, transforming the space into an art gallery [1, 4].

In 2013, China’s first large-scale situational experience performance “Seeing Pingyao Again” (《又见平遥》) was launched, allowing tourists from afar to walk into the homes of the local residents, as if they traveled through time and space and penetrated into the lives of Pingyao people. Since 2017, the Pingyao International Film Festival (PYIFF) has been held annually to encourage communication and cooperation between Chinese and international filmmakers. On Pingyao’s magnificent city wall, it is written: “The way of heaven is to reward hard work, and the way of earth is to reward kindness.” Its streets and lanes of the market has the essence of “The way of humanity is to reward honesty, and the way of business is to reward faith” [1].

3.1 Pingyao residential architecture
Pingyao Historic City has retained its original urban pattern since it was rebuilt in the 3rd year of Hongwu (1370), with about 3,800 courtyard houses of the Ming and Qing dynasties, and more than 400 of them are of high preservation value. There are 42,000 urban residents still living in these houses, maintaining their basic historic features. The layouts of the houses are compact, with clear axes, bilateral symmetry, and distinct hierarchy. The exquisite wood carvings, brick carvings, and stone carvings, as well as the rustic papercut window grilles, are vivid. They embody the historic and cultural characteristics of Han architecture around the 14th–19th centuries, and are important references for studying the social norms, economic structure, military defense, religious beliefs, traditional thoughts, and ethical forms of human habitat during this period. So far, it is the most intact longstanding inhabitant community in Han Chinese region. Besides Pingyao Old City, an old village nearby has not only kept traditional houses, but also traditional values of simplicity in life [1, 2, 4, 5].

Since 2012, the preservation of Pingyao historic homes has been carried out when the Global Heritage Fund helped the Planning Bureau to establish a program to preserve the courtyard houses. The plan has strict guidelines regarding which houses are eligible for it. After restoration, some owners have turned their residences into guest houses, catering to Pingyao’s increasing tourists [13] [Figure 13]. Also in 2012, another initiative by the Urban and Rural Planning Bureau of Shanxi Pingyao County started to renovate the first batch of 48 private old dwellings of

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6 “宝剑锋从磨砺出，梅花香自苦寒来”（出自明朝《警世贤文·勤奋篇》）
7 “我在平遥过大年”
several hundred years, which entered the final stage in September 2014. Later in 2014, the Planning Bureau launched the second batch of 39 houses to restore to their traditional style. The government invested ¥6-7 million RMB (≈ $1 million USD) to compensate the renovation project [14].

Figure 13. A restored courtyard house turned into guest house, catering to Pingyao’s increasing tourists. Source: Photo by the author, 2017

4. QIAO FAMILY COURTYARD

Praised as “a pearl of northern Chinese residential architecture in the Qing dynasty,” Qiao Family Courtyard, or Qiao Family Compound, is located in Qiaojiapu Village of Qi County, about 36 km northeast of Pingyao Historic City. This large square-shaped compound is surrounded by a fully enclosed grey brick wall of 10 m high, covering a land area of 8,724 sqm and built-up area of 4,175 sqm, consisting of six large courtyards, 20 small yards, and 313 rooms. The initial construction started in 1755, and the last expansion occurred in 1937.

Viewed from above, the complex resembles the Chinese character “Double Happiness” (囍), with a peaceful and quiet alley as the long horizontal line in the character [Figure 14]. It is said that the rigorous structure of the compound was not deliberately designed, but a coincidence formed unintentionally after three large-scale constructions by six generations of the Qiao Family, and the family had lived here for over 180 years. A saying in China is that “For Imperial Palaces there is the Forbidden City, and for private residences one should look at the Qiao Family Courtyard” [9, 5, 15, 16].

Figure 14. Qiao Family Courtyard Map. Source: Photo by the author, 2017

4.1 Architectural form and space

Qiao Family Compound faces streets on three sides with a majestic appearance. The gate sits west and faces east, with a high floor above the arched gateway, in the middle of which a plaque reads “Fu Zhong Langhuan” (福种琅嬛), meaning “Good Fortune Grows in the Blessed Place.” The story behind the plaque is that when the Boxer Rebellion (1899–1901) broke out while the Eight-Nation Alliance invaded Beijing (1900‒1901), Empress Cixi fled to Xi’an in the summer of 1900. She stopped at Qiao Family Compound and the family greeted her with a big banquet in the Middle Hall. Thereafter, the Governor of Shanxi received an instruction from the Empress to present this plaque as a gift to the Qiao Family [3, 5, 15, 16].

At the top of the gate, a piece of bluestone with the two embedded characters “Gu Feng” (古风, meaning “Ancient Style”) conveys that although the homeowner was a businessman, he had cultural taste. On the

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8 “清代北方民居建筑的一颗明珠”
9 “皇家有故宫，民宅看乔家。”
10 琅嬛 Langhuan is a fairy cave in the legend and is a blessed place.
opposite side of the gate is a screen wall of 100 seal characters, resembling a hundred things related to longevity, such as yin yang, bagua, wind, rain, thunder, lightning, among others. There is also the pattern of Swastika engraved all around the screen wall, suggesting longevity without boundaries. On both sides of the screen wall is a seal couplet gifted from the Qing-dynasty Minister Zuo Zongtang (左宗棠) that says: “To curb people’s desires to restore the principles of nature, and to build morals to be able to write.” 11 The top board recommends: “Practicing the Way of Neutralization” (履和), indicating that the Qiao Family as a great merchant had upheld Confucian Doctrine of the Mean. The gate was inlaid with another couplet: “If the sons and grandsons are virtuous, the clan will be large; and if the brothers are harmonious, the family will be prosperous.” 12 As Qiao Zhiyong (乔致庸) donated a warship to the Beiyang Navy in his later years, Li Hongzhang (李鸿章) endowed this couplet to him as a reward [3, 16].

Upon entering the gate, a stone passage of 80 m long and 7 m wide divides the compound into two rows of north and south, with six large courtyards, three on each side [Figure 15]. From the north, there are the Northeast/Old Courtyard (老院), Northwest Courtyard (西北院), and the Study Courtyard (书房院). From the south, there are the Southeast Courtyard (东南院), Southwest Courtyard (西南院), and the New Courtyard (新院). The dwelling roofs are connected by a walkway, convenient for patrolling and safeguarding the compound at night [16].

The oldest part of Qiao Family Compound is in the northeast, with a series of five yards of three rises built in the 20th year of Qianlong (乾隆) (1755). On the door head, it is written: “Don’t Be Disrespectful” (勿不敬) [Figure 16], admonishing people to respect the elderly. Carved under the door head are three stars that represent “Good Fortune, Emolument, and Longevity” (福禄寿). After passing through the hallway, one enters the three-rise courtyard, whose main hall sits north and faces south, high and solid, with four large characters suggesting: “Being Kind Is Happiest” (为善最乐). From the third courtyard, one enters the small side-yard, and then to the private school.

The northwest of the Qiao Family Compound was built by Qiao Zhiyong in the Guangxu (光绪, 1871–1908) era. The three Chinese characters “In the Middle Hall” (在中堂) [Figure 17] are written on the door head. Here again, it reflects Confucian Doctrine of the Mean to be impartial. This three-rise courtyard is the most magnificent in Qiao Family Compound, with festive red lanterns all over it [Figure 18]. At the end of the alley, one can see the Ancestral Hall that is only 10 sqm. According to the local customs, the size of the Ancestral Hall should be compliant with the rank of the official in the family. Because the Qiao Family did not produce any high official, their Ancestral Hall is naturally a little humble.

Figure 15. Passage dividing the Qiao Family Compound into north and south. Source: Photo by the author, 2017

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11 “损人欲以复天理，蓄道德而能文章。”
12 “子孙贤，族将大；兄弟睦，家之肥。”
Figure 16. The northeast is the oldest part of Qiao Family Courtyard, on the door head, it is written: “Don’t Be Disrespectful” (勿不敬), admonishing people to respect the elderly. Source: Photo by the author, 2017

Figure 17. The northwest of Qiao Family Courtyard with three characters “In the Middle Hall” (在中堂) written on the door head, reflecting Confucian Doctrine of the Mean to be impartial. Source: Photo by the author, 2017

Figure 18. The northwest three-rise courtyard is the most magnificent in Qiao Family Compound, with festive red lanterns all over it. Source: Photo by the author, 2017

The southwest New Courtyard was the last built by Qiao Zhiyong’s grandchildren after they returned from studying in Europe and the United States. The door head is written with the three characters: “Learning to Suffer Losses” (学吃亏). Qiao Zhiyong lived at a time of social turbulence. After the Boxer Rebellion (1899–1901) erupted, he felt that he could not rely on the government to do business. He bought four yards which happened to be at a crossroad of the town, and made them as an enclosed compound for his private residence. Due to the large sum of silver spent, one corner of the compound could not be built and became the so-called “garden” [Figure 19]. Thereafter, Qiao Family Compound became a closed fortress and the specific affairs were completed by his grandson Qiao Yingxia (乔映霞). Although it is not the largest compound among Shanxi shangren’s homes, it is the first and only national cultural relic protection unit of them that has been preserved today because it has maintained the original structure. Qiao Family Compound became famous after Zhang Yimou’s (张艺谋) 1991 film “Raise the Red Lantern” (《大红灯笼高高挂》) that was shot here, however the story was unrelated to the Qiao Family. Hu Mei’s (胡玫) 45-episode 2006 TV series “Qiao’s Grand Courtyard” (《乔家大院》) is based on the business history of Qiao Zhiyong. The character Qiao Zhiyong was played by Chen
Jianbin (陈建斌). His wife Lu Yuhan (陆玉菡) in the TV series is fictitious and was played by Jiang Qinrin (蒋勤勤).

4.2 Social, cultural, and economic dimensions
The Qiao Family settling down in Qiaojiapu Village of Qi County can be traced back at least during the “Hongtong Big Pagoda Tree Immigration” in the Hongwu period (1368–1399). Qiao Guifa (乔贵发, 1718–1790) was the founder of Qiao family business. During the Qianlong period (1711–1799) in 1736, Qiao Guifa left Qiaojiapu and spent 30 years in Baotou, Mongolia. He had worked as a clerk in the Hecheng pawnshop in Laoguanying Village of Saraqiting for over 10 years, then began his own business by selling tofu, biscuits, groceries, and silverware. Because of his good management skills, his business thrived.

In the 31st year of Qianlong (1766), at the age of 48, Qiao Guifa returned to his hometown and built the first courtyard of Qiao Family Compound. It was in this year that Qiao Guifa got married. Thereafter, he established the Qiao Family’s Six Rules: (1) Not allowed to have concubines, (2) Not allowed to gamble, (3) Not allowed to seek prostitute, (4) Not allowed to take drugs, (5) Not allowed to abuse servants, and (6) Not allowed to drink alcohol [17] [Figure 20], among three other rubrics.

Qiao Guifa developed the enterprise name Guangshenggong (广盛公, later changed to Fushenggong 复盛公) in Baotou, and the business flourished. By the time of Tongzhi (同治, 1862–1875), his business in Baotou had expanded from Fushenggong to Fushengquan 复盛全, Fushengxi 复盛西, with 19 shops and over 1,000 buildings, almost controlling the entire Baotou city’s commerce. Thus, there is the saying: “There was Fushenggong first, then Baotou City,” revealing Qiao Family’s contributions to Baotou at the time. In 1881, Qiao Family opened Dadeheng (大德恒)piaohao; in 1883, they opened Dadetong (大德通)piaohao, both headquartered in Qi County.

In its heyday, Qiao Family had an asset of 10 million taels of silver, equivalent to ¥8 billion RMB today. If it were replaced with 50 taels of gold ingots, it could pave the road from Qi County in Shanxi, all the way to Ulaanbaatar in Mongolia [3, 16].

Qiao Zhiyong lived 89 years and went through the five dynasties of Jiaqing (嘉庆, 1760–1820), Daoguang (道光, 1782–1850), Xianfeng (咸丰, 1831–1861), Tongzhi (同治, 1856–1875), and Guangxu (光绪, 1871–1908). By the end of Qing dynasty (1644–1911), Qiao Family had over 200 branches of piaohao, money houses, pawnshops, and grain shops all over China, with assets reaching tens of millions of taels of silver. In the hands of Qiao Zhiyong, Qiao family business had completed two major transformations. The first was the expansion in the number of business establishments and categories that had broken through grain, oil, and daily miscellaneous goods, to pawn, leather goods, horses, and so on, which set a powerful precedent in joint ventures. The second was to successfully transfer from family business to financial industry that had enabled the family wealth to grow exponentially. Thus, Qiao Zhiyong’s ideal of

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13 “洪洞大槐树移民”
14 “先有复盛公，后有包头城。”
“Goods Connecting the World” (货通天下) and “Currency Connecting the World” (汇通天下) were finally realized [3, 17].

Figure 20. Qiao Family Six Rules. Source: Photo by the author, 2017

Qiao Zhiyong applied Confucian ethics to his business operations, which was to

\[\text{“Take what others abandon, sell with small profits, maintain credibility, and do not play hypocrisy.”} \]

He treated people with respect, and paid attention to honesty and morality.\[15\] He often cautioned his offspring that when conducting business, “trustworthiness” (信 xin) should be the priority, followed by “righteousness” (义 yi), and “profit” (利 li) was only the third concern. This principle was an important reason for his success. Qiao Zhiyong also advised his descendants: “Only unselfishness can be just and fair, and only justice and fairness can be a great weapon.” \[17\]

Qiao Zhiyong had married six wives. Because Qiao Family had a rule of not allowing concubines, they were all continued wives after the previous one died. His wives were from the Ma family (马氏), Gao family (高氏), Yang family (杨氏), Zhou family (周氏), Yang family (杨氏), and Yang family (杨氏). The six wives gave birth to six sons and three daughters, who all married to noble families. Marriage served as a matchmaking for Qiao family descendants to inherit the family enterprise to continue their bloodline. It was also considered as a resource, a tie of a larger scale and at a deeper level for business alliance. For example, a few women from the Qiao Family married to Taigu Cao Family (曹家), and vice versa; several women from the Qiao Family married to Yuci Chang Family (常家), and vice versa. As a result, the great merchants in Jinzhong almost all became relatives of the Qiao Family. Consequently, they formed a powerful network of relationships and social force. Qiao Zhiyong also made friends with government officials to seek protection, and established alliances with other prominent merchants. Moreover, he was kind to the villagers and servants, did charity work by providing relief to the poor. In the three years of Guangxu (光绪) when a severe drought happened, he opened the family granary to help the victims [3, 17].

15 "人弃我取，薄利广销，维护信誉，不弄虚伪。"
16 "诚信为本，以德经商。"
17 "唯无私才可大公，唯大公才可大器。"
Qiao Family attached great importance to education, although they only advocated “learning for application” (学以致用) rather than “learning for officialdom” (学以致仕). Its private school always hired famous teachers. With their generous pay, the well-educated teachers often made their greatest efforts in instilling knowledge in the students so that the children of Qiao Family had a high level of cultural accomplishments, albeit they did not take the exam to become officials. Instead, they conducted business and enjoyed wealth and honor.

Qiao family wealth was inevitably weakened due to the family division (分家). There had been serious disagreement about whether to maintain the big family. Qiao Yingxia (乔映霞), the first grandson and successor of Qiao Zhiyong, could not bear to divide his grandfather’s vast legacy in his hands. However, those who did not want to be restrained by him strongly advocated division. After years of stalemate between the two forces, the fashionable young man Qiao Jian (乔健) returned to Qiaojiapu and supported division. Qiao Yingxia agreed to it. Thus, in 1930, the Qiao Family who had sustained a unification for over 100 years, carried out a property division. Subsequently, the Middle Hall lost its former function as the family hub, and when there was a big investment opportunity, the family could not pull their revenues together, which had negatively impacted the continued development of the family business [5, 15, 17].

When the Japanese invaded China in 1937 and conquered Qi County in 1938, the Qiao Family felt unsafe to stay in Shanxi and left the compound. In the early 1940s, they returned briefly but eventually left again and never came back. Since the founding of the People’s Republic of China in 1949, Qiao Family Compound became Qi County Government Office. Later, it was used as the People’s Hospital and a grain warehouse, and then occupied by the Party School of Jinzhong Prefecture Committee. During the Cultural Revolution (1966‒1976), some revolutionary cadres planned to “dismantle the compound and build a school” and tore down several halls and wing rooms. Fortunately, the damage was small. In 1986, Qiao Family Compound was converted into a folk museum [17].

The massive Qiao family enterprise was forced to be cleared up in 1951‒1953. At the time, Qiao Jian (乔健) and Qiao Ji (乔仡), the last generation in charge of Qiao family business, did not forget the benevolent rules of their ancestors to treat employees favorably. They split the cash into two parts, and took only half for themselves. The other half was distributed to the employees for their livelihoods. Thousands of rooms and over 300 acres of wetland were given to the shopkeepers. After the Qiao Family made this last curtain call in Baotou, they finally withdrew from history. Although Qiao family business has ended, the family spirit of cherishing “Integrity and Loyalty” (诚信忠义) has continued [17].

Qiao Family has now passed down to the ninth generation, most of whom belong to the working class but still attach great importance to education. There are over 70 family members, none of them has committed to crime. Among the 20 descendants, two have doctorates, three have master’s degrees, and 12 have university undergraduate degrees. They mostly live in Beijing. Every few years, they would go to Qiao Family Courtyard to meet and commemorate their ancestors [16].

5. DISCUSSION
In China, there was a widespread belief that “no businessman is not a profiteer” (无商不奸). However, Shanxi shangren demonstrated noble business ethics and superb wisdom with their outstanding practices of morality and justice. The kernel of Shanxi merchant culture can be summarized in three words: honesty (诚), trustworthiness (信), and righteousness (义). It was Confucian business culture endowed with the spirit of time that had contributed to their success. It was the energy of this cultural core that had launched an unprecedented phenomenon of Shanxi
shangren in the history of Chinese entrepreneurs.

The factors attributed to the success of Shanxi shangren can be summarized as such: daring to take risks, able to bear hardships, hardworking, enterprising, pioneering, innovating, work ethics, long-distance trade, emphasis on goodwill, treating coworkers with respect, knowing and trusting people, rewarding employees, control of profit, excellent management strategies, dictatorship of chief shopkeeper, apprenticeship system of young staff, body stock system, bidding system, strict piaohao rules, strict accounting, and concern of credibility. During the 300 years of Qing dynasty, the Shanxi shangren in Qi County, Taigu, Pingyao, Jiexiu, Yuci, and other counties, took a leading role, whose accomplishments mostly relied on Han-Mongolian trade, Sino-Russian trade, and the subsequent rise of piaohao financial industry [17].

The prosperity of Shanxi shangren lasted for 500 years, having achieved the mission of dominating the business world for half a millennium. Its decline was only a matter of decades. The aggression of foreign capitalist economy, the uncertain domestic and foreign situations, the development of modern transportation, the southward movement of North Road trade, the vicious squeeze of the Qing court, and the conservative business rules, have let Shanxi shangren fail to follow the historic trend, making them fall towards recession. The Shanxi merchant group was completely destroyed in the early 1950s, however, its culture has perpetuated [17].

6. CONCLUSION

This article provided an in-depth study of Pingyao historic city planning and vernacular architecture in the Ming and Qing dynasties, with a focus on its iconic buildings of social, cultural, and economic dimensions. The study shows that what has made Pingyao Historic City resilient and responsible are its people, who have embraced traditional Chinese cultural values of honesty and simplicity in life. The city wall has indeed helped Pingyao to survive from a catastrophic flood in 1977, and the city wall collapsed afterwards. It was Pingyao residents who have worked hard together to restore the city wall to its original form and scale.

The findings also reveal that what has made Qiao Family Courtyard resilient and responsible are their family members who had followed Confucian ethics of honesty, trustworthiness, and righteousness when conducting their family business. Moreover, they had followed a good set of management strategies, including the piaohao system, among others.

Shanxi shangren had held sway over Chinese business world for 500 years. They had further reached other parts of the world with a strong economic force, and their decline was only since the early 1950s. Although Shanxi merchants have retired from history, their legacy and business ethics have sustained as an outstanding example for newer generations.

The piaohao financial system was China’s radical invention nearly 200 years ago (1823). In contemporary world, the advances in Chinese digital currency [18-20] can be regarded as China’s new contribution to global economy, whose power and potential cannot be underestimated.

CONFLICT OF INTEREST

The author declares no conflict of interest.

FUNDING

The research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

FURTHER DISCLOSURE

This paper was presented at the 4th International Conference on Resilient and
RESponsible Architecture and Urbanism (RRAU Online), Selangor, Malaysia, December 3–5, 2021.

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