

Field Report

Courtyard Houses of Beijing: Lessons from the Renewal

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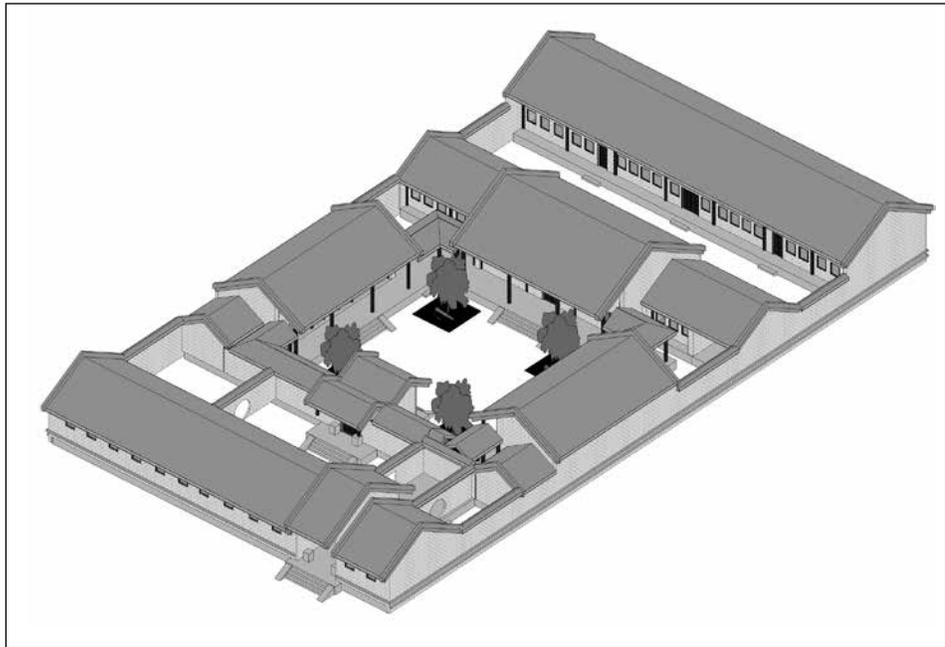
Courtyard houses served as a traditional dwelling type for single, extended families in Beijing for centuries. However, the twentieth century brought significant changes, as individual houses were divided into multiple units and their courtyards filled in for ancillary structures such as kitchens and storage sheds. This study combines architectural and ethnographic research to examine a project initiated by the Beijing municipal government in 2005 to renew dilapidated courtyard housing over a period of 25 years. Reflecting consideration of the lived experiences of residents and the author's on-site observations, the study found that the project displays many deficiencies. Besides infrastructure and construction-quality issues, the renewed courtyards and interior spaces are too small to accommodate the daily needs of residents. The appraisal concludes by offering four lessons for future practice.

The courtyard house is one of the oldest dwelling typologies, spanning at least five thousand years and occurring in distinctive forms across climates and cultures in many parts of the world.¹ Archaeological excavations have traced the earliest courtyard house in China to the Middle Neolithic period, represented by the Yangshao culture (5000–3000 BCE).² The ancient Chinese favored this housing form because enclosing walls helped maximize privacy and protect them from wind, noise, dust and other threats. Meanwhile, the courtyard itself provided light, air and views, as well as acting as a family activity space when weather permitted.³ Philosophically, courtyards were also seen as links between heaven and earth, and offering sacrifices in them was considered crucial to bringing harmony and good fortune.⁴

Beijing *siheyuan* are commonly regarded as the most outstanding example of the northern type of Chinese courtyard house (FIG. 1). Originally designed for one extended family, a fully developed *siheyuan* had four basic characteristics: introverted form, a cen-

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FIGURE 1. Conceptual model of a typical/standard Beijing siheyuan for use by a single, extended family. Computer model, Donia Zhang, 2014.



tral axis, bilateral symmetry, and hierarchical structure.⁵ As a result of China’s population increase, natural disasters and decay, political movements, the Cultural Revolution (1966–1976), and recent rapid economic growth and real estate development, there has been a wholesale destruction of Beijing *siheyuan* and the *hutong* (lanes) on which they were situated since the mid-twentieth century (FIG. 2).⁶

Awareness of the need to conserve *siheyuan* first emerged in 1984, when the Beijing municipal government initiated a protection plan for a small portion of the courtyard houses remaining in the old city.⁷ And in 1992 the State Council approved the *Beijing Master Plan 1991–2010*, which highlighted the need for a balance between development and conservation of cultural heritage.⁸

In 2002 the *Conservation Plan of Historic and Cultural Beijing* provided more detailed guidelines for the conservation of traditional courtyard houses. It also designated 25 areas for protected status. In 2002, the Beijing City Planning Committee also endorsed the principle of large-scale inner-city regeneration to restore, rebuild and remodel dilapidated courtyard houses to their *original state*. The Beijing Construction Committee subsequently issued a *Technical Guide* establishing a code to “repair the old to appear old.” Five articles from that document deserve special attention here:

1. Conservation and renewal of dilapidated courtyard houses must take the courtyard as the basic unit; damage should not be made to the original courtyard system and *hutong* structure (article 5.2.4).

Year	Siheyuan (courtyard houses)	Hutong (lanes)
1949	100 percent (of 62 sq. km. of inner-city land area)	7000
1990	1.9 percent (805 courtyard houses in relatively good condition in the conservation areas)	3900
2003	1.5 percent (658 courtyard houses in relatively good condition in the conservation areas)	1570
2004	1.3 percent (539 courtyard houses in relatively good condition in the conservation areas)	1200

FIGURE 2. Destruction and conservation of siheyuan and hutong in inner Beijing. Source: author’s summary, based on Abramson, “Beijing’s Preservation Policy and the Fate of the Siheyuan”; Beijing City Planning Chart, 1949–2005; M. Collins, “Protecting the Ancient Alleys of Beijing,” *Contemporary Review*, Vol.286 No.1668 (2005), pp.34–38; Kong, *Dilapidated Housing Renewal and the Conservation of Traditional Courtyard Houses*; and M. Ornelas, “Beijing’s Rapid Urbanization and the Hutong,” *La Voz de Esperanza*, Vol.19 No.8 (2006), pp.7-9.

2. The form and color of new buildings in the old city must comply with the overall style and features of the old city (article 15.0.1).
3. For housing with pitched roofs in the old city, the color of the roof tiles must comply with a traditional grey tone; it is prohibited to apply glazed tile roofs indiscriminately (article 15.0.3).
4. For dilapidated courtyard houses in the conservation zones, the renewal must gradually restore their traditional style and features (article 17.0.2).
5. Land development in the old city should be combined with conservation and renewal in the imperial city, and reduce population density in the conservation zones (article 9.3.3).⁹

New regulations thus explicitly called for the conservation of the courtyard form and a traditional housing style, with the goal not only to maintain the practical value of traditional courtyard houses, but also to reflect the old grace of Beijing. Since 2005 the Beijing municipal government

has been engaged in a planned 25-year effort (2005–2030) to invest ¥0.5 billion (US\$783 million) annually to renew dilapidated *siheyuan* and improve living conditions for households in the inner city.¹⁰

A part of this broad initiative, the specific project studied in this report lies northwest of the Forbidden City, adjacent to Beijing’s Xisibei conservation zone (FIG. 3). Historically, the area was an exclusively residential district occupied by high officials and dignitaries. Most of its houses were built in grand scale and style at the end of the Qing dynasty (1644–1911) and during the early years of the Republic of China (1911–1949). About 40 percent of its buildings were found to be in need of restoration. In particular, improvised extensions in their courtyards occupied about 50 percent of their sites, totaling 75 percent of the built-up area of each compound. The additional structures destroyed the original form and aesthetic quality of these houses, blocked light and reduced air flow, and greatly reduced the quality of life for their residents.¹¹

In its 2002 directive, the Beijing City Planning Committee stipulated that making adjustments to the unplanned buildings inside each courtyard was an effective way to con-

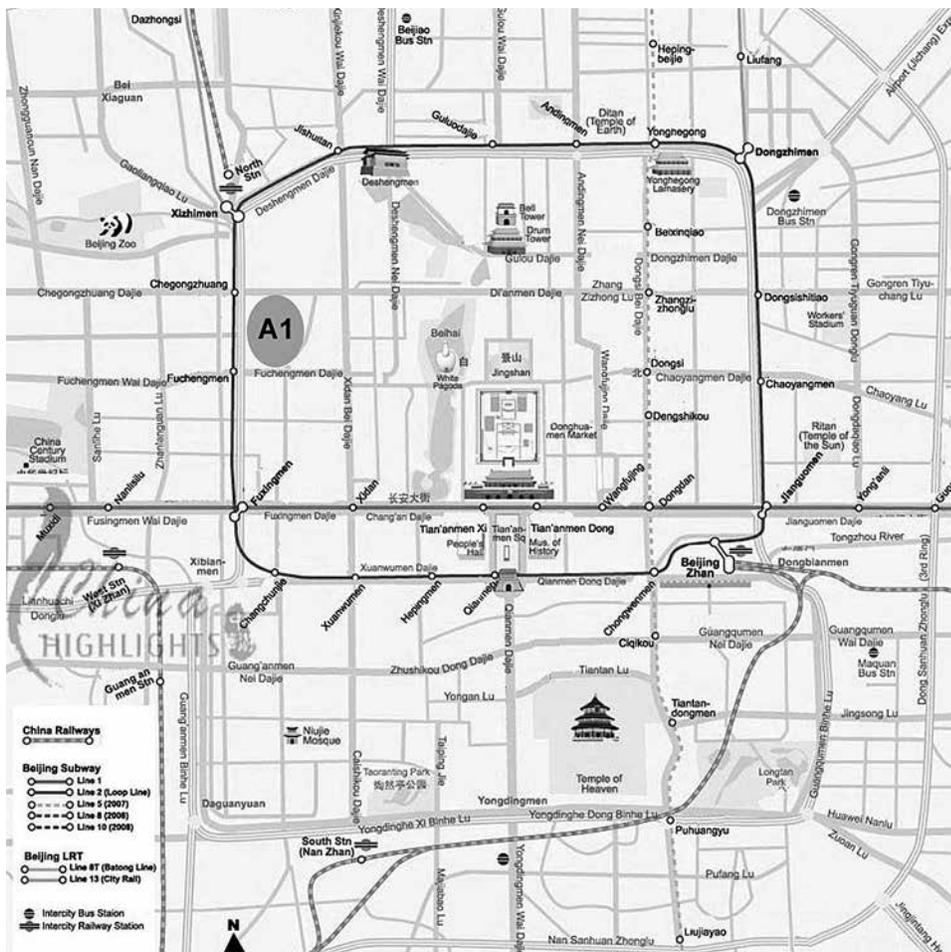


FIGURE 3. Map of Beijing showing the case location of the renewed traditional courtyard houses (A1) adjacent to the Xisibei conservation zone. Source: http://www.orangesmile.com/common/img_city_maps/beijing-map-4.jpg

serve these traditional houses. Because conservation areas often have high population densities but little public green space, it further mandated the preservation of precious, mature trees inside their courtyards. It further encouraged the construction of “sunken courtyards” or extra outdoor canopies as a way to meet functional requirements.¹²

At the time the city began its work, many *siheyuan* lacked modern facilities. One main problem was inadequate electricity service, which led many residents to heat with coal, causing severe air pollution. Since the area was not equipped with gas pipes, most households similarly were forced to use liquefied gas in tanks for cooking. Moreover, many courtyard compounds shared only one water tap, which was inconvenient for the residents. Drainage pipes were also often blocked due to long periods of disrepair. The Planning Committee stipulated that interior renovations fully support contemporary life by increasing electric service, and by installing modern bathrooms, kitchens, and water pipes (although it did not mention specific provisions for each household). It further noted that restoring the architectural character of *siheyuan* while adding such features might require digging basement areas to utilize the potential for underground space.¹³

At the time the new regulations were announced, there were 3,870 households living in dilapidated *siheyuan* in the study area. This comprised 9,942 permanent residents, with an additional floating population of 1,000 from outside Beijing. Workers were the largest single group within this population, accounting for 34 percent.¹⁴

RESEARCH METHODS AND PROCESS

The research used both architectural and ethnographic methods to examine architectural, environmental, spatial, constructional, social, cultural and behavioral aspects of the courtyard housing renewal project. Data included on-site surveys, interviews, observations, and photos collected from the study area adjacent to Beijing’s Xisibei conservation zone.

The fieldwork was conducted between November and December 2007. Forty completed surveys were collected by approaching individual households and leaving questionnaires for pick-up a week later (although a few residents filled them out immediately). The 24 respondents who provided contact information enabled the researcher to later carry out semi-structured interviews with thirteen residents by phone and via email in 2008. To put the interviewees at ease and encourage them to talk freely on sensitive issues, no tape-recording was used. Notes taken during telephone interviews were transcribed on the same day and translated into English by the researcher/author. On average, each telephone interview lasted 25 minutes, with the longest spanning 50 minutes, and the shortest five minutes. The accompanying three tables show the demographic composition, education levels, and occupations of the sample population (FIGS. 4–6).

Residents Information		Beijing <i>Siheyuan</i> Residents (n=40)
Age (average)		53
Gender	Male	43%
	Female	55%
	Not known	2%
Marital status	Single	10%
	Married	70%
	Divorced/Widowed	10%
Years of residency (average)		34
Household size (average)		3.92

FIGURE 4. Composition of residents in the study area.

Education Level	Beijing <i>Siheyuan</i> Residents (n=40)
1. Primary School	5%
2. Junior Middle School	23%
3. Senior Middle School	40%
4. College Certificate	0%
5. College Diploma	3%
6. Associate Degree	8%
7. Bachelor’s Degree	18%
8. Master’s Degree	0%
9. Doctoral Degree	0%

FIGURE 5. Education level of residents in the study area.

The following sections discuss findings of the study in relation to several key areas of concern: form and environmental quality, space and construction quality, housing and living costs, social cohesion, and cultural activities.

Occupation	Beijing Siheyuan Residents (n=40)
1. Legislators, senior officials and managers	3%
2. Professionals	10%
3. Technicians and associate professionals	5%
4. Clerks	13%
5. Service workers and shop and market sales workers	5%
6. Skilled agricultural and fishery workers	0%
7. Craft and related trades workers	3%
8. Plant and machine operators and assemblers	35%
9. Elementary occupations (e.g., street vendors, domestic helpers, cleaners and launderers, building caretakers, window and related cleaners, messengers, porters, doorkeepers, garbage collectors, etc.)	0%
10. Armed forces	3%
11. Other	20%

FIGURE 6. Occupations of residents in the study area.

FORM AND ENVIRONMENTAL QUALITY

After renewal, the reconstructed grey-brick exteriors of the courtyard houses helped preserve Beijing's traditional cityscape (FIG. 7). But the remodel was not always functional. Four of thirteen interviewed residents reported that the thickness of the walls had been reduced from 57 cm. (or 37 cm.) to 24 cm. without improving the quality of living spaces. They reported that thermal insulation was poorer and that they feared the new walls would be more vulnerable to earthquakes. When asked, "How does the space (interior and exterior) of the renewed courtyard house help or hinder your daily/cultural activities?" one resident responded:

The living space has not been enlarged; there were a few houses enlarged by reducing the width of the walls from 57 centimeters to 24 centimeters. By demolition and reconstruction on site, they have basically maintained the original living space. The largest room is but twelve square meters. The courtyards have not been enlarged either, and in some cases they have even been reduced.



FIGURE 7. Street scene showing the renewed traditional courtyard houses on Suluobo Hutong.

Two other residents complained that nails could no longer be driven into the walls or else the bricks would crack. Thus, six of thirteen residents noted major problems with the quality of wall reconstruction.

Five of thirteen interviewed residents commented positively that a new rear window brought in more light and improved ventilation in their rooms (FIGS. 8, 9). However, two residents complained that after renewal their rooms still had no natural light, as there was either no rear window, or else it was still blocked by building extensions in the courtyard.

Six of thirteen interviewed residents disliked the fact that there were still too many households in the compound. The survey showed that, on average, ten households still shared a renewed *siheyuan*, and that extensions still created situations in which the buildings were too close to one another (FIGS. 10–12). Residents complained that the renewed outdoor spaces could not really be called "courtyards" because they were too small. The renewal thus did not return the houses to their *original form* — only to their more recent, filled-in state. As one resident said:

The house is better after renewal, but living space has not been increased. The courtyard has become smaller and unsafe; it will be dangerous in case of fire or emergency. This should no longer be called "courtyard" but rather "courthouse" because there is no yard anymore.

A second resident complained:

By demolishing and rebuilding as it was on site, the courtyard is too crowded. There have been many self-built kitchens, and there is no space to sunbathe or dry clothes. The courtyard is too small, and the population too big. I had hoped there would no longer be self-built



FIGURE 8. Dilapidated courtyard house on Qingfeng Hutong before renovation.



FIGURE 11. Renewed courtyard house on Suluobo Hutong in which the courtyard has become a narrow passageway.



FIGURE 9. Renewed courtyard house on Qingfeng Hutong.



FIGURE 12. Narrow walkway inside a renewed courtyard house on Suluobo Hutong.



FIGURE 10. Renewed courtyard house on Suluobo Hutong with protruding building extensions that leave very little usable space.

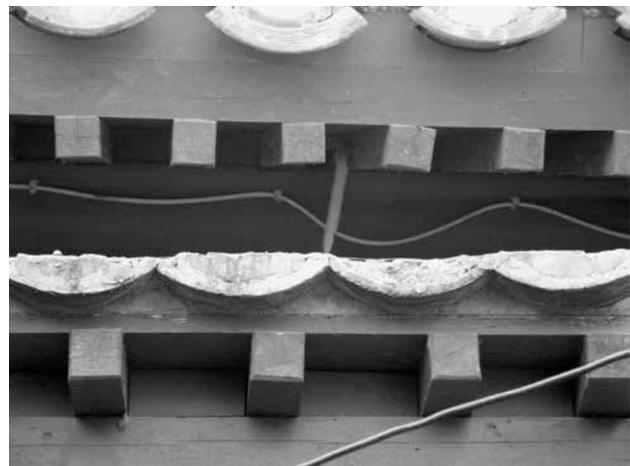


FIGURE 13. Roof tiles are filled in with cement at a renewed courtyard house on Qingfeng Hutong.

extensions, to make the courtyard bigger. In the 1950s, we planted a row of flowers in front of the house. But now the courtyard is occupied by ad hoc extensions, and there is no space for flowers.

A third lamented:

Due to the small space each household has and the extensions built, the courtyard is changed and distorted beyond recognition. There was originally a screen wall in the courtyard, but it was removed long ago and replaced with a kitchen. The courtyard designs were not flawed. Current problems are related to overpopulation and living conditions, not the architecture.

A fourth revealed:

The house is renewed, but with no increase in living space. We still prefer larger rooms — we had to reduce the courtyard to enlarge the living space, as there is no choice. Many neighbors complain about their poor living conditions here.

The small exterior spaces provided in the renewal project do not reflect understanding of how an adequately sized courtyard might be used. To achieve the same amount of sunlight as in a classical Beijing *siheyuan*, the ratio of building height to courtyard width must be at least 1:3. This would mean a minimum width of nine meters if the surrounding buildings are three meters high.¹⁵ The renewed courtyard houses clearly did not meet this criterion, and residents could not make adequate use of the small outdoor spaces provided. Parked bicycles made the already limited outdoor spaces even more congested for foot traffic.

In addition to the thin walls and undersized outdoor areas, the residents cited problems with the roofs in the renewed buildings. Although the new roofs took the same form as the original ones, reduced tile thickness and the elimination of eaves decreased their protective function. After renewal, four of thirteen residents interviewed were critical of the thinner roofs, which resulted in poorer thermal insulation. And only two years after the reconstruction, some tiles were falling off, creating a problem with leaks. The lack of eaves created additional weatherproofing problems (FIG. 13).

SPACE AND CONSTRUCTION QUALITY

Three of thirteen interviewed residents commented positively that the condition of their houses was much better than before. However, as indicated earlier, the renewal did not solve problems related to a scarcity of living space (FIGS. 14, 15). Five residents were dissatisfied that demolition and reconstruction on the old building footprint had not increased the size of their original living spaces. Some houses were slightly enlarged (by four square meters) by reducing the thickness of exterior walls. But this resulted in poorer sound and thermal insulation, and was perceived as potentially increasing the danger in case of an earthquake. Ceilings were also lowered, making residents feel more compressed and worsening air-flow. As one resident suggested:



FIGURE 14. The renewal of a courtyard house on Qingfeng Hutong has not increased its interior space.



FIGURE 15. Bedroom of a three-person household after building renewal on Qingfeng Hutong.

I had hoped the spatial structure of the reconstructed courtyard houses would be more standardized, and consider more of the practical use by the residents — reconstructing solid and durable houses, rather than having the exterior in one way and the interior in another. . . . After all, a house is valued more for its living function than its appearance.

Self-built kitchens and storage spaces also remained in the courtyards after renewal, reducing the outdoor spaces to narrow passageways. Two of thirteen interviewed residents suggested building partial basement kitchens and bathrooms to free up more space for courtyards. Seven residents recommended building entirely new two- to three-story courtyard houses, with private kitchens and bathrooms. Each would have two levels above ground and a partial basement, with each courtyard shared by four to five households. Two residents expressed a willingness to spend their own money to reconstruct their own house on site, which conformed to Zhao's 2000 findings.¹⁶

The survey thus indicated that the interior spaces of the renewed courtyard houses were too small to satisfy residents' current living requirements. An interior space of 120 to 180 sq.m. per unit for a three- to four-person household is generally satisfactory.¹⁷ The survey results further showed that, for practical reasons, most residents preferred to live on the ground/first floor (45 percent; n=40), and the second floor (38 percent), rather than on higher levels.

When asked, "What is your furniture style and what material is it made of? Why do you choose this style and material?" five of eleven interview respondents said their furniture was of traditional Chinese style, made either of real wood or particle board. Another five residents reported that their furniture was of modern style, made of plywood panels, which was less expensive and more convenient to use because it combined functions to save space.

Three of thirteen interviewed residents commented that certain facilities had been improved. After renewal, every household now had an electricity and water meter, and this reduced quarrels with neighbors over utility bills. It also reduced water usage, because residents were more careful using water when they had to pay for it themselves. However, the renewal had not provided a modern heating system. At the time of the survey (2007), most houses still relied on burning coal, exposing them to the risk of carbon monoxide poisoning. Several households had self-installed heating and air-conditioning units. But if they switched the air-conditioner on in the summer, they risked tripping a circuit breaker, since electricity service was still inadequate. Thus, the renewal had not adequately upgraded the infrastructure. As this resident noted:

Our courtyard house has over one hundred years of history; it lacks a heating supply system. There was a toilet in the courtyard before the 1960s; however, it was demol-

ished afterwards, and public toilets were installed in the hutong, so now the courtyard lacks a toilet and washroom.

According to another resident: "After renewal, we spent about ¥20,000 [US\$3,123] ourselves to replace the floor, heating system, and wall finishes."

China has fairly rigorous building codes.¹⁸ To enforce uniform construction regulations, the Ministry of Housing has issued a number of national directives. Among them are *Residential Design and Construction Specifications* (1987, 2003, 2006); *Civil Design General* (1987, 2005); and *Architectural Design Code for Fire Protection* (1987, 2006). There is also a Construction Documents Inspection Center to uphold these guidelines. Three of thirteen interviewed residents commented positively about the reconstruction quality and the improved environment. As one resident observed:

The quality of the reconstruction is pretty good. The previous old house had cracked bricks, which looked like "walnut shortbread." The reconstructed house used complete bricks of much better quality. The ceiling is higher, the rooms brighter; many households had their rear windows added, sunlight penetration and natural ventilation is much better now.

However, seven residents were critical that the present renewal had been hasty, careless, and substandard. Four residents observed that their walls cracked easily because of poor-quality cement, or no cement at all, between bricks (FIGS. 16, 17). Columns and beams also cracked because the timbers were not dry when they were installed (FIGS. 18). Others cited rain leaking into renewed but thinner gypsum ceiling boards (two of thirteen respondents); ceiling paint that was peeling off, and putty that was falling out of door and window frames (three of thirteen respondents) (FIGS. 19, 20); and floors that were not level or where poor cement had deteriorated into dust and debris underfoot (two of thirteen respondents). The rush to complete the work at the expense of construction quality was seen to have created a nuisance in the form of postrenewal repairs.

The Housing Management Office (a government-owned organization) is responsible for resolving such issues. Three of thirteen interviewed residents reported satisfaction with this agency. According to one: "Occasionally the roof leaks. The Housing Management Office asked the reconstruction team to repair it for us without extra charge." Another resident observed:

After reconstruction, the house does not leak in the rain, but thermal insulation is poorer. Different groups of contractors produce different quality of work. The contractors from outside Beijing do better jobs because they have stricter inspections. The contractors from Beijing are more careless.



FIGURE 16. (LEFT) Crack at the interior junction between a column and a wall in a renewed courtyard house on Qingfeng Hutong.
FIGURE 17. (RIGHT) Crack at the interior junction between a doorframe and a wall in a renewed courtyard house on Qingfeng Hutong.



FIGURE 18. A cracked exterior column at a renewed courtyard house on Qingfeng Hutong.



FIGURE 19. (LEFT) Unsupported by the doorframe, a beam's weight rests on a window at a renewed courtyard house on Qingfeng Hutong.
FIGURE 20. (RIGHT) Wall cracks and an unhinged window frame at a renewed courtyard house on Qingfeng Hutong.

HOUSING AND LIVING COSTS

Before 1949 housing stock in China had been exclusively in private ownership. In 1957–1958, a joint state-private transformation to public ownership occurred under Mao Zedong's socialist ideology of providing a shelter for everyone. Throughout late 1950s and 1960s, private housing was gradually transferred to local governments, resulting in many nuclear working-class families moving into traditional courtyard houses. This transformed the originally single, extended-family courtyard houses into multifamily compounds (*dazayuan*).

The survey indicated that 13 percent of the original homeowners (n=40) still lived together with other working-class nuclear families in the renewed courtyard houses. When asked, "Are you planning to buy a house/apartment?" six of thirteen interviewed residents said they could not afford to buy a new apartment elsewhere in the city, and so had to remain where they were. As one resident lamented:

I want to buy a new home, but we belong to the working class. Both of us have retired, each with a pension of a little over ¥1000 [US\$156] per month — just enough for buying food, not enough for seeing a doctor. . . . There are two retirement pension distribution systems. The pensions from institutions and enterprises may have eight to ten times more. The distribution is uneven.

A second resident described her financial difficulty buying a new home:

My monthly pension is ¥1000 [US\$156], not enough for buying a new home. Water and electricity bills are not very high; the expenditure is mainly on food. A bag of rice costs over ¥10 [US\$1.56] now. My son just graduated from a university. His monthly salary is also ¥1000 [US\$156], and he gives me ¥200 [US\$30] per month. I try to spend as little as possible by cooking at home; it is also more hygienic that way. My husband passed away, and I am living by myself. To save electricity, I only switch on the television to watch the Chinese New Year's Gala — but not on ordinary days. Nowadays as long as you have money you can buy anything: in summer you can buy winter vegetables, and in winter you can buy summer vegetables, which was impossible in the past. The living standard has improved — at least I can eat my fill. But the society is very polarized; some people have several residences to rent to make money, whereas others cannot afford to buy one. The rich are few, but the poor are many.

A third resident complained about a similar situation:

We want to buy a new home, but we have no money. Our retirement pension is only a little over ¥1000 [US\$156] per month, and both of us have an elderly mother to look after. In case they have to see a doctor and seek medical treatment, it will need money. My daughter has applied to buy a medium-grade, medium-priced apartment [subsidized by the government]. But in her situation, she can only buy a one-bedroom unit outside the fifth or sixth ring road, without many ancillary facilities — very inconvenient. The social polarization between the rich and poor is getting very big now. Most of the houses in the city have been bought by the rich, and the poor can only buy cheaper homes further away from the city.

A fourth resident also described her family hardship:

We want to buy a new home, but my retirement pension is only ¥1350 [US\$210] per month. My husband passed away over thirty years ago, and now I live with a handicapped daughter so that I can take care of her. The government subsidizes ¥360 [US\$56] per month for the severely handicapped. I also have a son, who is 58 years old; my daughter-in-law is 57, and grandson is 30. The three of them live in a thirteen-square-meter room. As soon as my grandson's girlfriend heard that he did not have a house, she broke up with him. The greatest difficulty for common people in Beijing is the housing shortage. But those with power and money have several residences.

A fifth resident spoke of the inconvenience of buying a suburban home:

I have a plan to buy a new home, but right now the price is too high. I cannot afford to buy one in the city. But to buy one further away is too inconvenient. Those areas are not provided with enough public facilities, which makes transportation, shopping, and daily living all inconvenient.

A sixth resident mentioned the inconvenience of living in a suburban home:

We bought an apartment in the south of Beijing, far from the inner city. It is inconvenient for going to school, going to work, or seeing a doctor. The facilities in the suburban hospitals tend to be incomplete; good hospitals are mostly located in the inner city. Therefore, we only go there during weekends. On weekdays we still live in the old courtyard house.

Such comments reveal the sharp conflict in Beijing's inner city between market housing prices and residents' low incomes. Moreover, without substantial, good-quality public services, it is inconvenient to move to a less expensive suburban home.

SOCIAL COHESION

In his 2007 memoir *Living in the Old Beijing*, Hequn Bai recalled the experience of sharing a multifamily courtyard compound during the 1950s. He wrote that sincerity, honesty, trust and openness were the most treasured qualities among neighbors.¹⁹ Numerous recent studies suggest that despite physical deterioration and poor living conditions, residents prefer renovating existing Beijing *siheyuan* to relocating to highrise apartments.²⁰ Previous research has indicated that traditional courtyard houses foster better social relations than new housing forms, and that people living in traditional courtyard houses seem more satisfied with life because social connectedness among residents plays a more important role than housing conditions in relation to stress, life satisfaction, and health.²¹

In answering the question, “Which space helps your relationship with other families in the courtyard housing?” 60 percent of the survey respondents chose “courtyard,” followed by “*hutong*” (38 percent). During subsequent interviews, when asked “How does the renewed courtyard house help or hinder you to socialize/communicate with your neighbors?” five of thirteen residents observed that their neighborly relations are as good as before. As one resident observed: “The neighbors look after one another by watching their doors. The residents are basically the original residents [90 percent; n=40] on site, maintaining a good relation as in the old courtyard house.”

However, eight of thirteen interviewed residents noted their neighborly relations are not as harmonious as before, and that there is less communication or none at all. As this resident grimly described:

There is no socialization among the neighbors; there is a big difference between the rich and poor, and no communication between the two. They are like strangers. The relationship among people has changed over the last ten years. It is not the same as in the 1950s. People just care about themselves nowadays.

Residents generally reported that if neighbors were dissatisfied with one another before renewal, they could at least tolerate this on the surface to maintain civility. However, during renewal many households tried to claim more space by extending exterior walls, maybe by just the width of one brick. Right after the renewal began, the problem became so acute that some neighbors had fistfights. Subsequently, those with sharp tongues sought to bully others, while older residents harassed newer ones. In several cases the police had to be called to mediate, with unsatisfactory results. Neighbors have stopped talking with each other, which is an unprecedented phenomenon (38 percent; n=13), followed by a gradual disinterest in resolving their conflict.

As the reconstruction work was completed, residents

generally let go of their grudges. However, a few still held resentments even if they now spoke with each other (38 percent). As one resident revealed:

My three-person family has lived in this thirteen-square-meter unit for 23 years. My daughter was five when we moved here, and now she is 28. Before renewal, we negotiated with all the residents in the courtyard, and all of them approved our request to add an additional room to our home. But last year, one night when the son of our next-door neighbor got drunk, he shouted at us in abusive language, saying that he was going to kill my whole family. My daughter phoned the police. The police came and calmed him down. But afterwards whenever they feel I can see or hear them, they slam their door to show their grievances. Now the neighbors are no longer as nice and friendly as twenty years ago [1980s]; people have a stronger idea of “social stratum” now. The neighbors are some good and some bad.

A second resident observed:

Before reconstruction, the neighbors were on friendly terms. During the reconstruction, for overtaking even a tiny piece of land, some neighbors fought furiously. They would not talk to each other after the reconstruction.

A third noted:

During the whole process of reconstruction, some residents had problems with the distance between the self-built extensions and the public spaces. It is a matter of one brick distance; they all wanted to take the opportunity to occupy more space. Right after reconstruction, the problem was very acute, but as time goes by, the issue is gradually eased. However, a few people still have hang-ups in their hearts.

A fourth declared:

After the reconstruction, the relationship among the neighbors was not as good as before; they had arguments about overtaking each other's space during the reconstruction process. Since the work has been completed, they just have to let it go. They still speak to each other when they meet, but there is a grudge there, and they have feelings of estrangement.

The decreased amount of space in the renewed courtyards has clearly had a negative impact on social relations among neighbors. However, organized communal activities may aid social relations, and two of thirteen interviewed residents reported partaking in organized communal health activities. Some senior residents listened to health lectures for

two hours each week at the Community Health Center (Xinjiekou Sanitation and Anti-Epidemic Station). A dedicated resident at Qingfeng Hutong also coordinated a reading club for retirees focused on Chinese classics, such as the Confucian *Analects*, Laozi's *Dao De Jing*, and *Disciples' Rules*. The group met regularly in a community garden during warm seasons, and it had expanded from around ten original members to more than twenty in 2007.

CULTURAL ACTIVITIES

Previous research suggests that residents conduct social and cultural activities in Beijing's traditional courtyards much more often than in the outdoor spaces of mid- or highrise apartment buildings. It suggests that this is because traditional courtyard houses contain a clearly defined hierarchy of spatial transitions from public to private that modern mid- or highrise housing lacks.²² Classical Beijing *siheyuan* could be used for a variety of cultural activities.²³ However, 22 of 40 survey respondents disclosed that little courtyard space is now left. Eight of thirteen residents interviewed later indicated that they would love to undertake cultural activities in the courtyards if they were bigger.

When asked, "What traditional Chinese cultural festivals do you celebrate at home and how do you celebrate them?" the most common survey answer was Spring Festival (or Chinese New Year: the first day of the first lunar month). Respondents said certain details were simplified and modern elements incorporated. At midnight, they would set off firecrackers or fireworks in their courtyards (23 percent; n=13) or *hutong*, give red envelopes with money to the children (3 percent), and stay up all night playing *majiang* (4 percent).

Mid-Autumn Festival (or Moon Festival: the fifteenth day of the eighth lunar month) was the second most celebrated festival among the survey respondents. When Beijing's traditional courtyards were big enough to hold a table and chairs, residents served plates of fruit and mooncakes from the table while enjoying the full moon. Now there are no spaces big enough in the courtyards for such festivities. Residents said they would love to look at the moon in a proper courtyard (22 percent; n=13). As this resident elaborated:

We celebrate Spring Festival, Lantern Festival, Blue Dragon Festival (or Dragon Raising Its Head), Dragon Boat Festival, and Mid-Autumn Festival. During the Spring Festival, we paste the character "福" [fu, meaning "good fortune"], New Year scrolls, couplet, and hang currency that are red and fiery on door panels. The New Year posters are difficult to buy nowadays because less people are making them. We used to go to a restaurant for a reunion dinner on New Year's Eve, but in the past two years we have cooked our own reunion dinner at home because the restaurants are always fully

booked. On New Year's Eve, my parents and siblings all come along and had a reunion dinner at home. At twelve o'clock midnight, we boiled dumplings to eat and set off fireworks in the courtyard. On the fifth day of the Lunar New Year, we also eat dumplings. On Lantern Festival, we eat yuanxiao (some boiled and some fried). On Dragon Raising Its Head, we eat spring pancakes, leek, eggs, bean sprouts, and bacon; this is called "biting the spring." On Dragon Boat Festival, we eat zongzi. On Mid-Autumn Festival, the family gathers together and eats mooncakes, including "natural red" and "natural white" [two native Beijing types of mooncakes], celebrate the harvest, and enjoy the full moon in the courtyard or hutong.

A second interviewee likewise noted:

We celebrate Spring Festival, Lantern Festival, Dragon Boat Festival, and Mid-Autumn Festival. During the Spring Festival, we hang New Year's posters showing fish and lanterns, make and eat dumplings, and have a reunion dinner in a restaurant. On Lantern Festival, the family gathers together and eats yuanxiao, sometimes at home and sometimes in a restaurant, then we go to the Temple Market to see the lantern exhibition; we do not hang lanterns at home anymore but did it in my childhood. On Dragon Boat Festival, the family gathers together; we used to make zongzi to eat, but now we buy zongzi. On Mid-Autumn Festival, the family gathers together in my mother's home, eating mooncakes and enjoying the full moon in the courtyard. Previously, the courtyard was big enough to hold a table, on which we placed some plates of fruits and mooncakes to eat while watching the full moon. Now there is no space in the courtyard for such festivity. If there were a courtyard, we would still like to admire the moon in the courtyard because that would put us in the right mood.

These descriptions offer a glimpse of the constancy and change in people's lives in Beijing today. As community/city parks/gardens are more usable than courtyards, they have become the most common site for cultural activities (63 percent; n=40), followed by *hutong* (35 percent). This finding was confirmed by the interviews. When asked where they partake in cultural activities, if not in courtyards, three of thirteen interviewed residents said they strolled or exercised in Beihai, Jingshan, or Yuyuantan parks in the morning. However, as one resident commented: "I go to Beihai and Jingshan parks every morning. It is about three to four bus stops, walking there and taking a bus back." Another resident similarly said: "The courtyard basically does not have much space left. We can only go to parks for activities. In the morning I go to Beihai and Jingshan parks, walking for an hour or so."

When asked, “Do you celebrate birthdays and wedding anniversaries at home?” five of thirteen interviewees said they did celebrate birthdays there, and four said they celebrated wedding anniversaries. Typically, they would either have a feast at home, or go out for a meal in a restaurant and sing karaoke. As one respondent said:

We celebrate birthdays of the elderly and the children, not the middle-aged. The elderly celebrate birthdays every year, particularly the seventieth and eightieth birthdays. The family gathers and eats noodles and peaches (normally made of flour). My son celebrates his birthdays by inviting me — his mother — for a meal because of the saying “The birthday of a child is the mother’s day of suffering.” We do not usually celebrate wedding anniversaries, except the thirtieth, when we had a meal in a restaurant.

Another interviewee similarly noted:

We celebrated my mother’s birthdays of eightieth, eighty-fifth, and ninetieth. I celebrated my sixtieth birthday by buying a birthday cake, eating noodles and peaches (possibly made of flour). My family had “four generations under one roof”; it was very lively when celebrating birthdays. We do not celebrate wedding anniversaries, but next year is our thirtieth anniversary, we prepare to celebrate it.

The survey findings further indicated that the residents’ main focus at home is the television (80 percent; n=40), followed by the computer (28 percent), the dining table (20 percent), and, lastly, their children (15 percent). This shows how modern technologies have changed lifestyles in Beijing today.

REFERENCE NOTES

This case is the first of the six case studies extracted from my doctoral thesis “Courtyard Housing and Cultural Sustainability: A Study of Housing Renewal and Redevelopment in Beijing and Suzhou” (2006–2012). The paper has presented more detailed interview data on this case. I would like to thank the director of the study, Dr. Marcel Vellinga, and advisor, Dr. Aylin Orbasli, both at Oxford Brookes University, for their critiques, constructive comments, and suggestions. Thanks also to the journal’s two anonymous reviewers for their constructive and helpful comments, and to David Moffat, for his editorial support. I am especially grateful to my parents, Junmin Zhang and Suzan Xiuzeng Li, for their unconditional sustenance throughout the project.

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LESSONS FROM THE RENEWAL

This case study of courtyard housing renewal in the western district of inner Beijing shows that the restoration has not returned the courtyards to their original forms. Rather, it has restored them to their more recent infilled states, which has resulted in a perpetuation of old problems related to scarce interior and exterior space, inadequate facilities, poor construction quality, and related social issues. Four lessons may be learned from the renewal.

First, *siheyuan* renovation should honor its traditional form by returning the courtyards to their original proportions. It should integrate long-term plans by creating rationalized interior and exterior spaces suitable for residents’ daily and cultural activities.²⁴

Second, housing restoration should make use of proper building materials and construction techniques. A more successful renewal program would require reconstructing large-scale infrastructure, including an integrated sewage system, an upgraded electric system, and a new water system. This would necessitate a more systematic approach, which cannot be done as part of the current, sporadic effort.

Third, neighborly relations are only partly influenced by the form and space of the courtyard housing. They are perhaps influenced even more by China’s changing and increasingly polarized society, socioeconomic difference, modern lifestyles, community involvement, and common language of residents. Reducing socioeconomic polarity can be an effective way to solve the social issues in housing renewal.

Fourth, a participatory approach involving residents in the renewal process may generate more satisfactory results. The residents are the ultimate stakeholders, for whom the housing product is intended. Relocating people to make more space is a project of social engineering that can become very complex and is beyond the scope of this paper.

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All photos are by the author and were taken in 2007.