

Comparison Study on Residential Satisfaction in Traditional and Redeveloped Urban Neighborhood Forms: A Tale of Three Neighborhood in Inner City Beijing

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Different Neighborhoods of Urban Forms in US

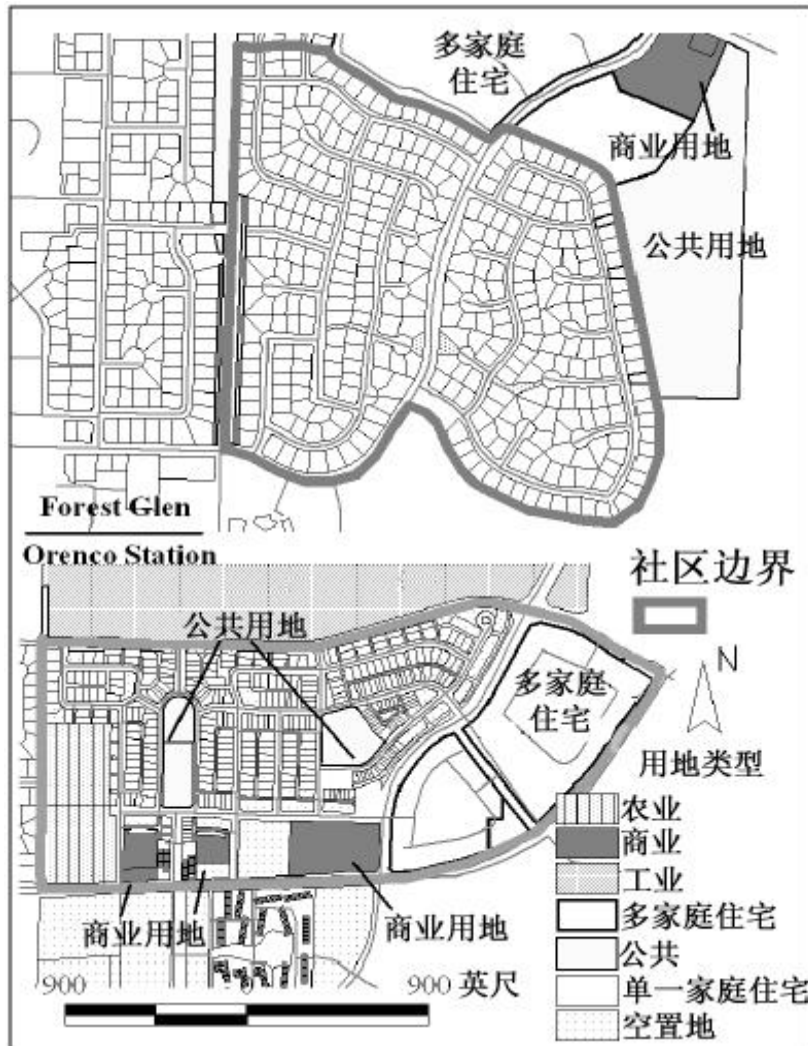


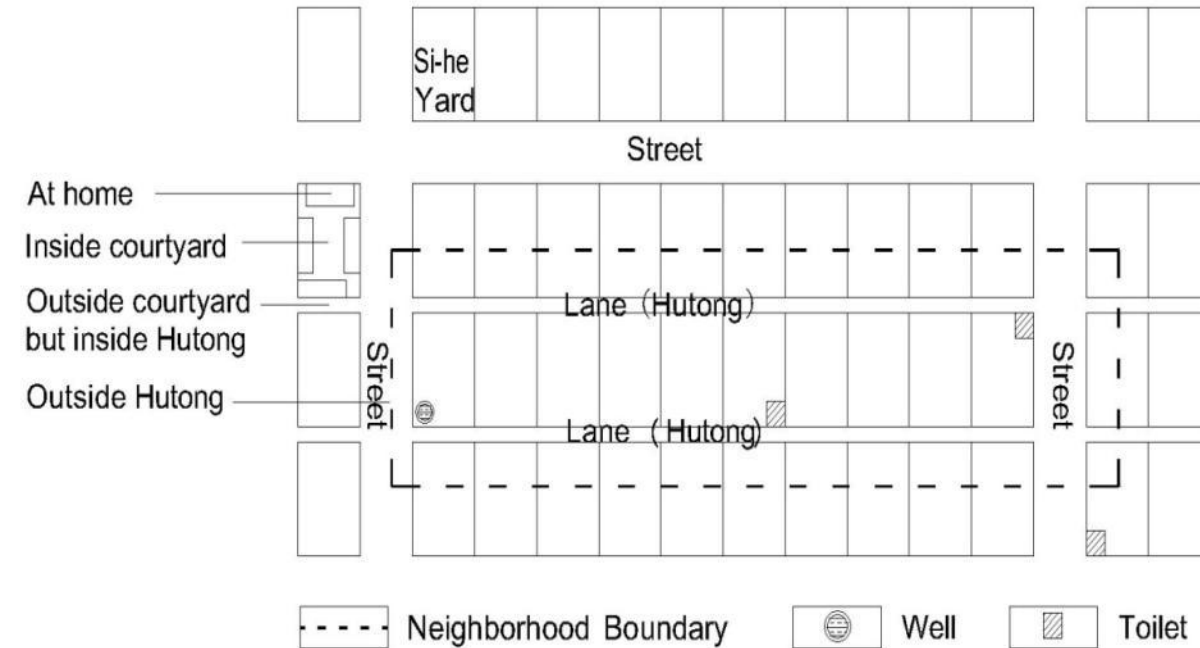
Fig Comparison between Suburban and New Urbanism Neighborhood
(Source: Song and Knaap, 2004, Fig 5)

1 Introduction

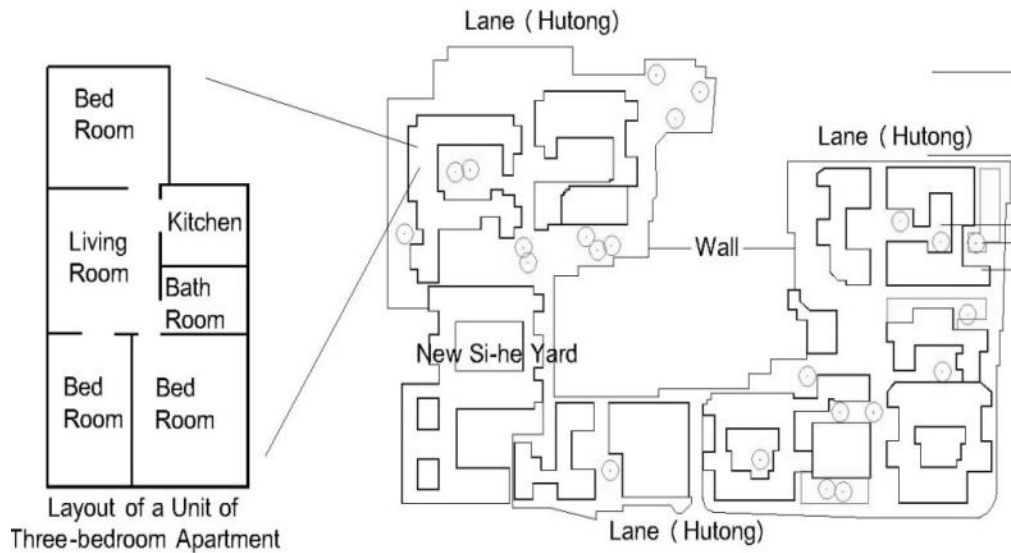
- Research Question: In the context of Chinese inner city, after redevelopment:
 - **Good Physical Form = Good Social Form ?**
- After rapid renewal in the inner city since 1990s, it's time to reflect on the redevelopment policies.
- Focus on the Quality of Life: Better off or even worse?

Redeveloped Policy	Neighborhood
Largely remain the same	traditional Si-he courtyard neighborhood
Re-establish the old as ancient (<i>Xiu Jiu Ru Jiu</i>)	the <i>New Si-He Courtyard</i> neighborhood
Large scale redevelopment in a bulldozer way	new “Xiao Qu ” neighborhood

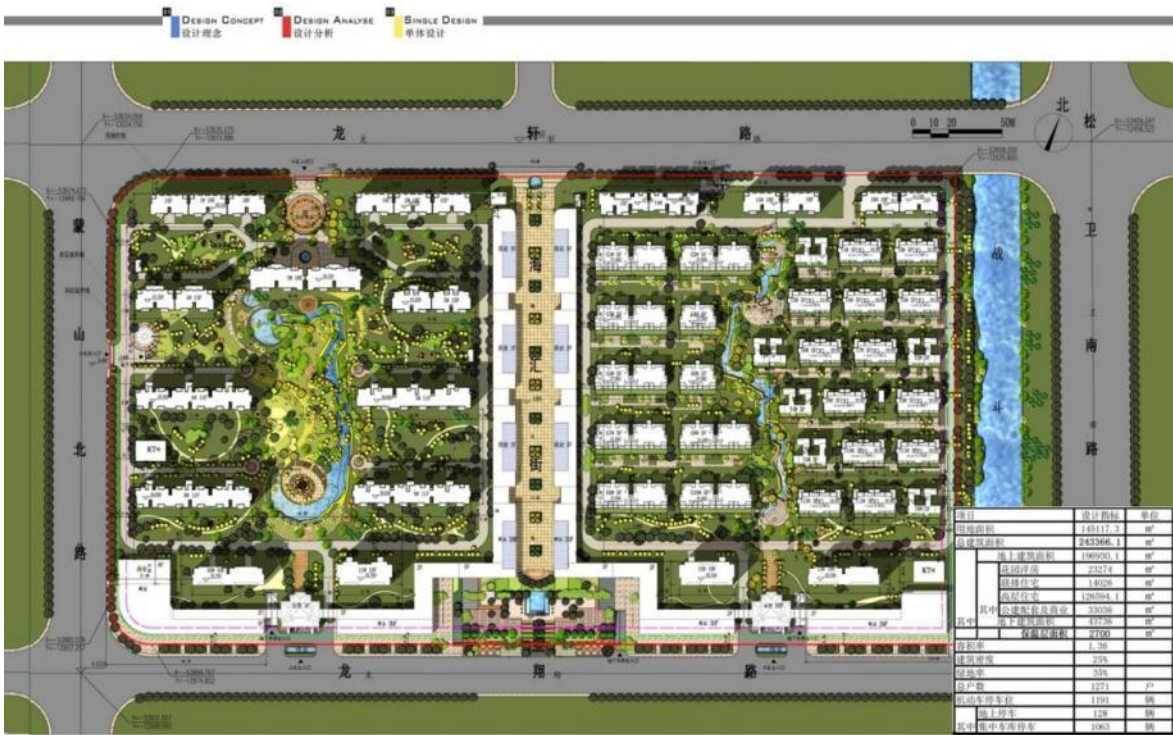
Traditional Si-he Courtyard Neighborhood



the *New Si-He Courtyard* neighborhood



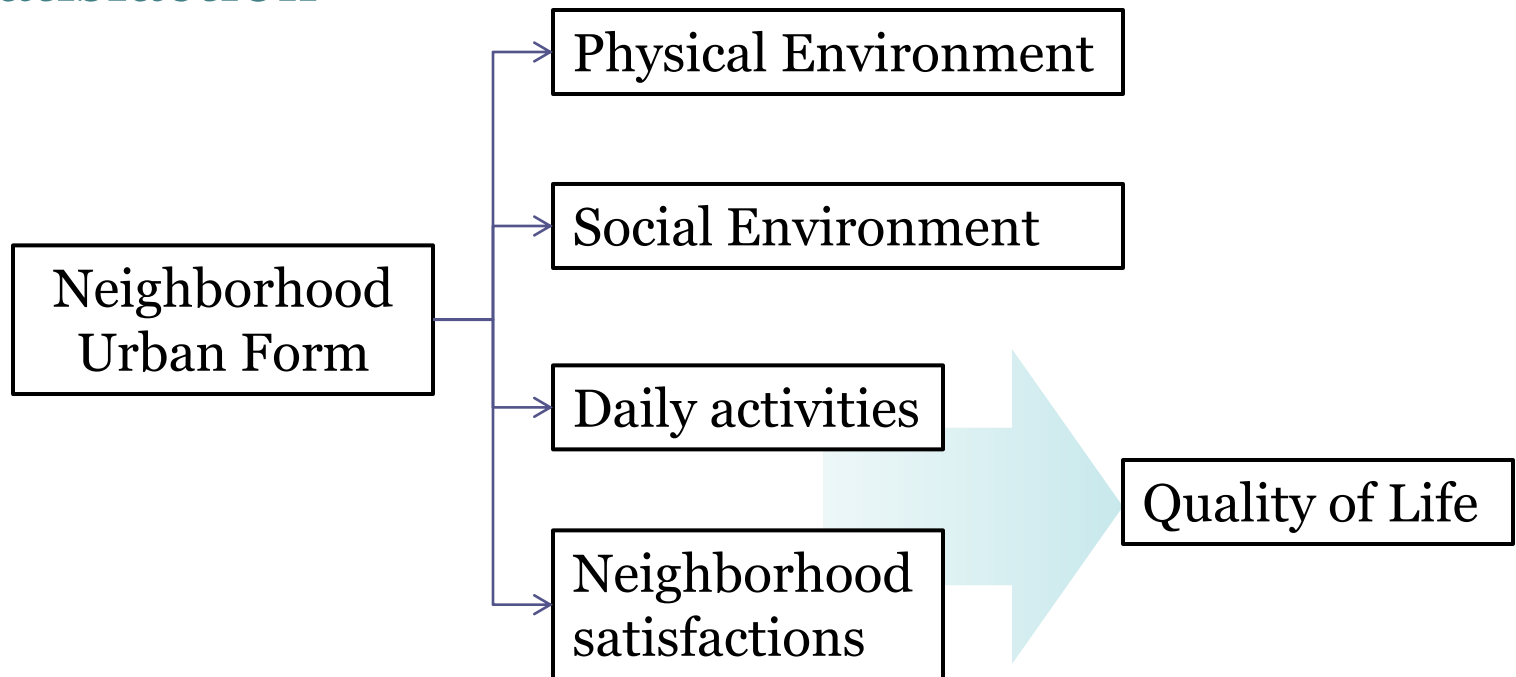
new "Xiao Qu" neighborhood



2 Inner City Renewal and Urban Form in Chinese Neighborhood

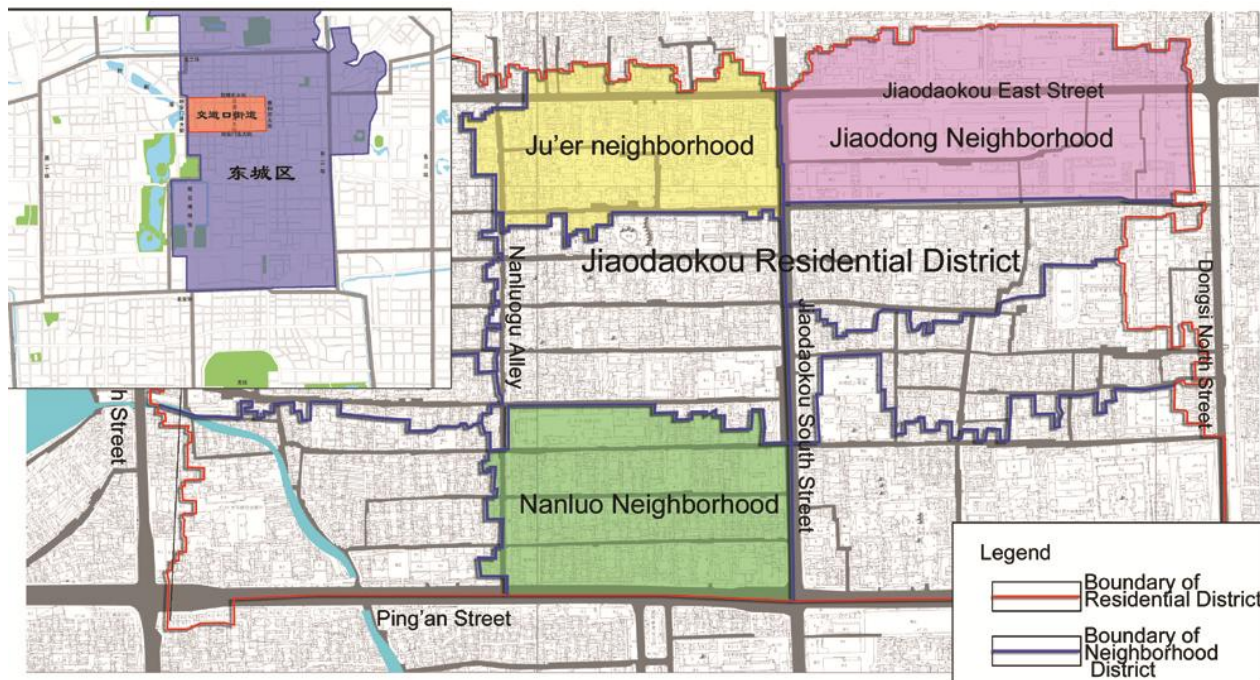
- 2.1 Inner city renewal in Chinese neighborhoods
 - ODHR projects, good initial to improve residential living quality in the old neighborhood in late 1980s (Wang 2003).
 - Turns to be “growth machine” in 1990s (Logan and Molotch 1987).
- 2.2 Evaluating the urban form of neighborhoods
 - More focus on physical aspects: spatial pattern, density, compactness, intensity, and extensity, scale, housing type, green space location (Williams, Burton et al. 2000)

- 2.3 Residential satisfaction as a measure of redevelopment success
 - *purposive approach Vs. aspiration-gap approach* (Galster 1987)
 - Measure the quality of life by residential satisfaction



3 Cases of three Neighborhoods

- Jiaodaokou residential district
 - area=1.45 km², 53,000 permanent residents
 - population growth rate of -1.75%



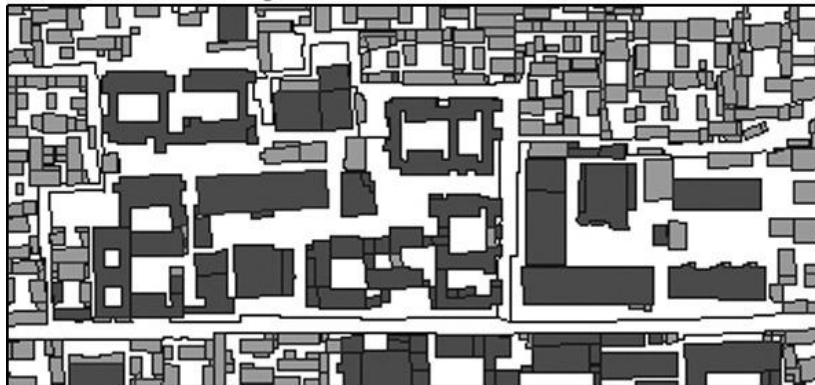
- Traditional Neighborhood



Nanluo neighborhood



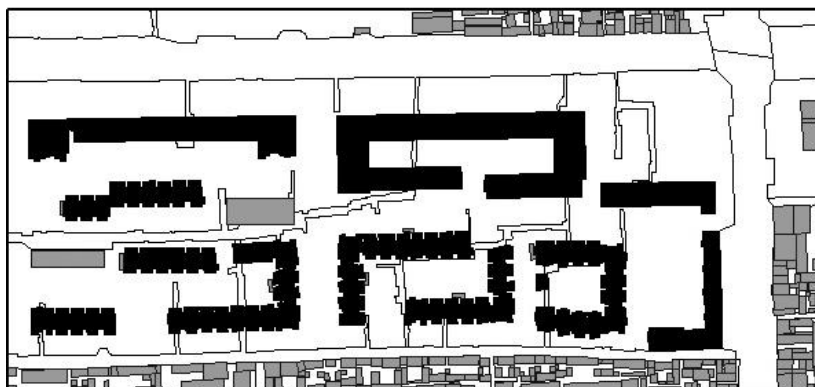
- Redeveloped the old as the ancient—*New Si-He Courtyard*



Ju'er neighborhood



- Redeveloped into totally new *xiao qu*



Jiaodong neighborhood



Legend

	Flat buildings		Low rise (2-6 stories)		High-rise (> 6 stories)
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Table 1 Basic Information on Questionnaire Samples

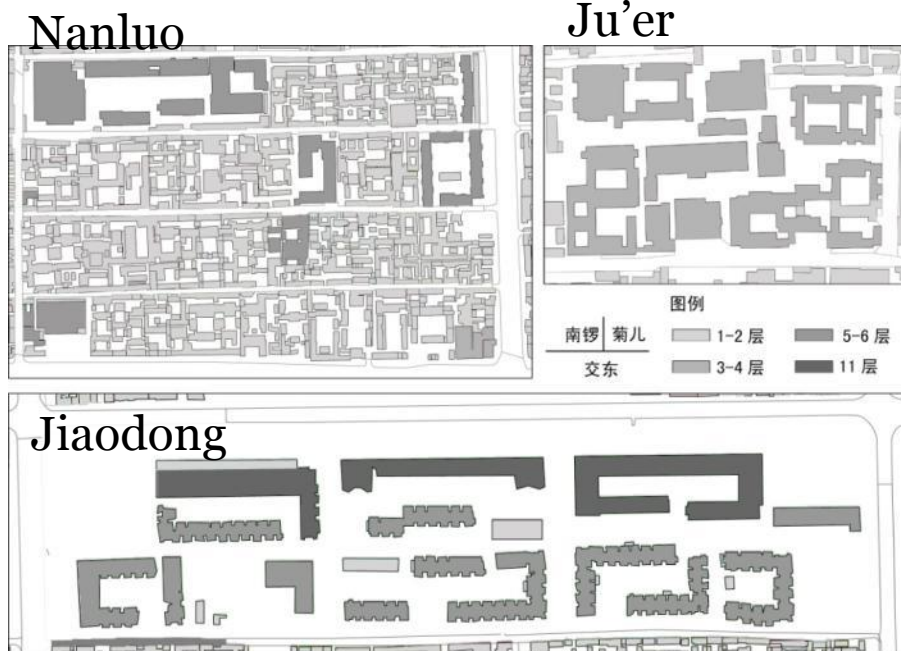
		Nanluo		Ju'er	
	Unit	Average	Standard Error or %	Average	Standard Error or %
Age	Year	56.23	12.68	49.71	11.57
Gender	1=Male	43	43.4%	18	40.0%
	0=Female	56	56.6%	27	60.0%
Education Level	1=Undergraduate or Upper	12	12.8%	3	7.9%
	2= Middle High	42	44.7%	17	44.7%
	3= Middle Low	35	37.2%	17	44.7%
	4=Primary School	5	5.3%	1	2.6%
	Housing Area		31.58	21.31	21.42
Courtyards size	Households	14.99	17.33	10.66	10.95
Family size	Individuals	3.45	1.25	3.37	1.13
Family income	Yaun/mon	2708.42	1978.10	1942.20	1310.95

- Data

- Questionnaire of 150 residents from each neighborhood

4 Change on Neighborhood Urban Form

- 4.1 Density



Tab. Density in three Neighborhood

Neighborhood	Density (person/ha)	FAR	Average Stories	Housing Type
Nanluo	<u>435</u>	0.66	1.07	Courtyard
Ju'er	<u>264</u>	1.65	3.5	New courtyard
Jiaodong	<u>487</u>	1.44	8.3	High-rise apt building

Fig. Height of Building in three Neighborhoods

4.2 Mixed Use



Fig. Land Use Layout in three Neighborhoods

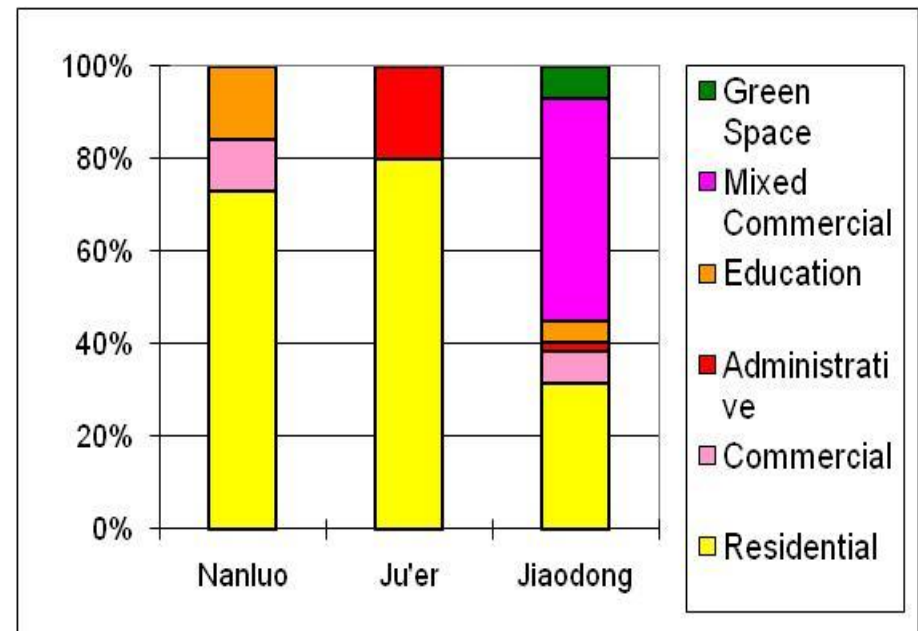


Fig. Land Use Composition in three Neighborhoods

4.3 Enclosure and Connectivity

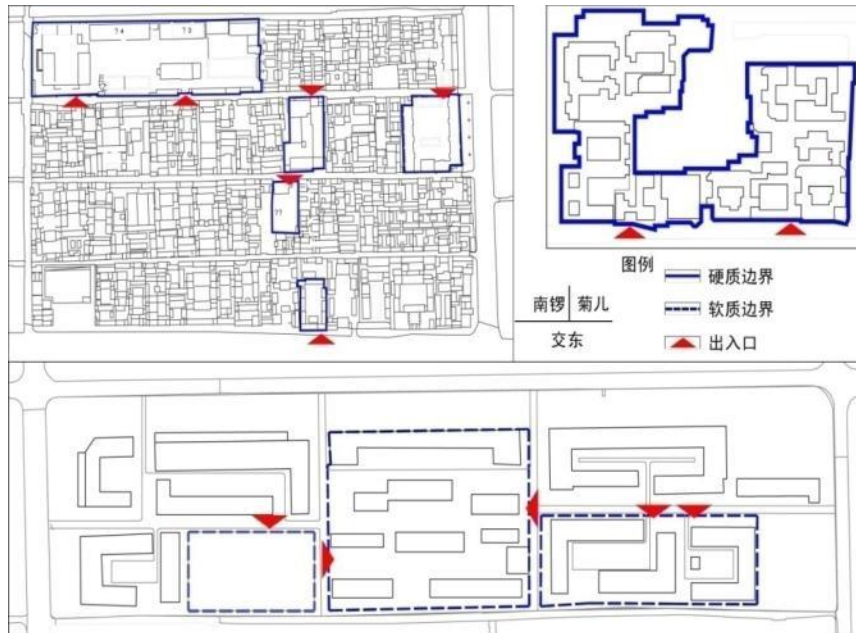


Fig. Enclosedness in three Neighborhoods

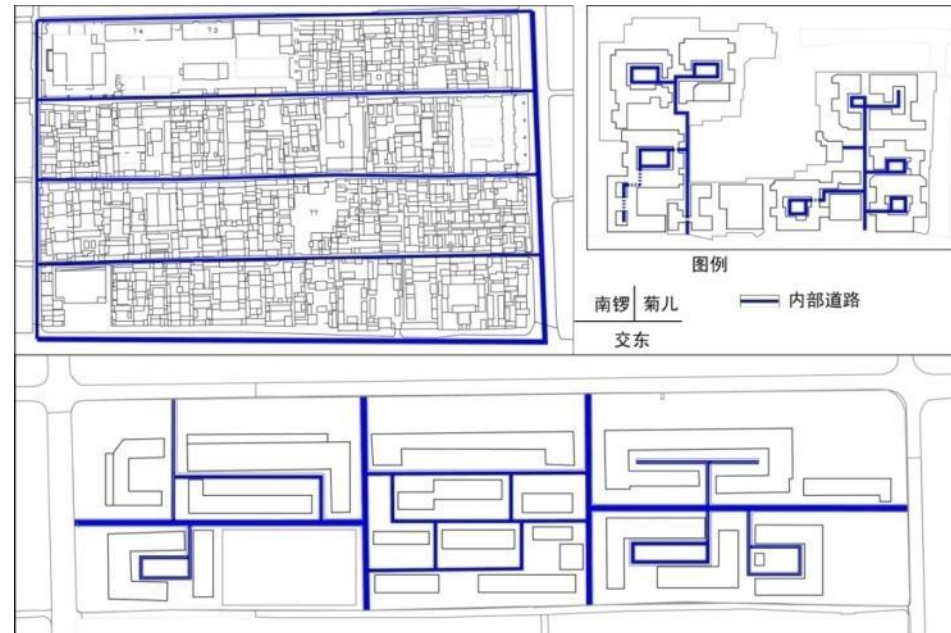


Fig. Connectivity in three Neighborhoods

4.4 Amenity and Public Space



Fig. Amenity and Facilities in three Neighborhoods

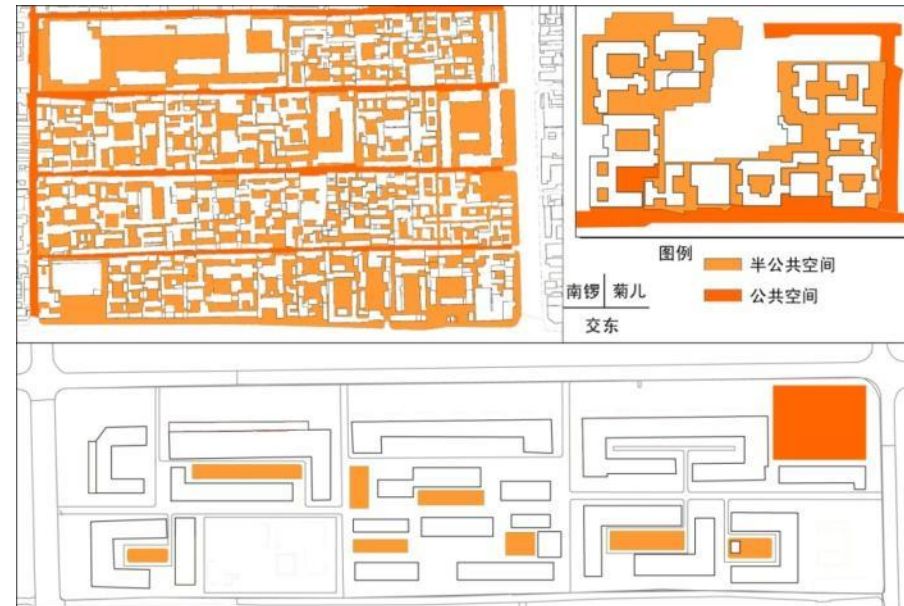


Fig. Public Space in three Neighborhoods

5 Daily Activities

- 5.1 Fewer outdoor activities in two redeveloped neighborhood

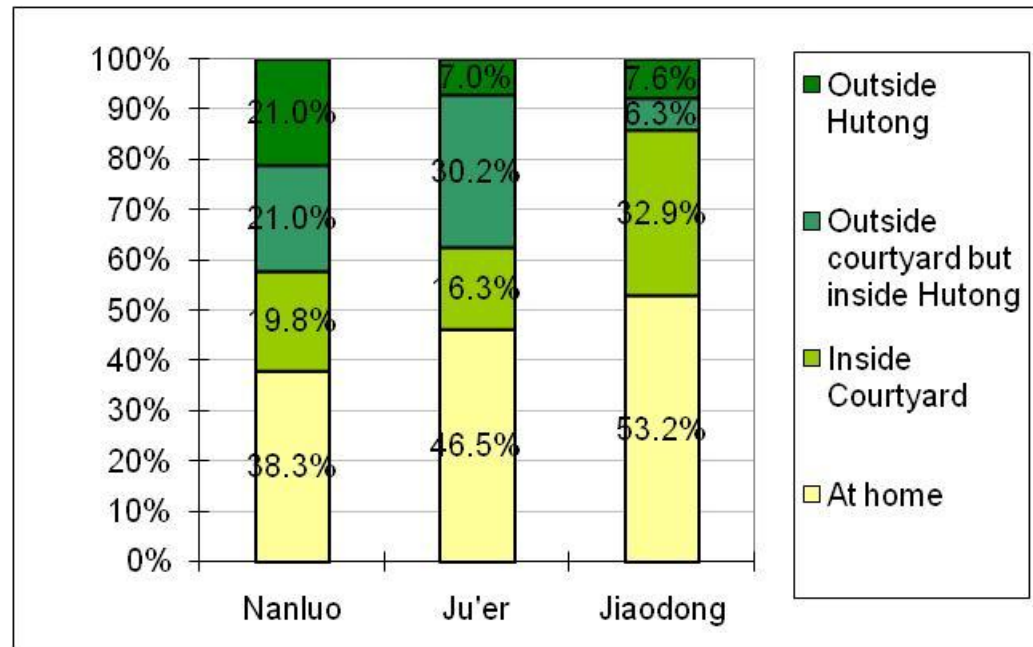


Fig. Outdoor Activities Range



Nanluo



Ju'er



Jiaodong



Ju'er

5.2 Transportation choice

- Greener choice in the traditional and *New Sihe* courtyard neighborhood

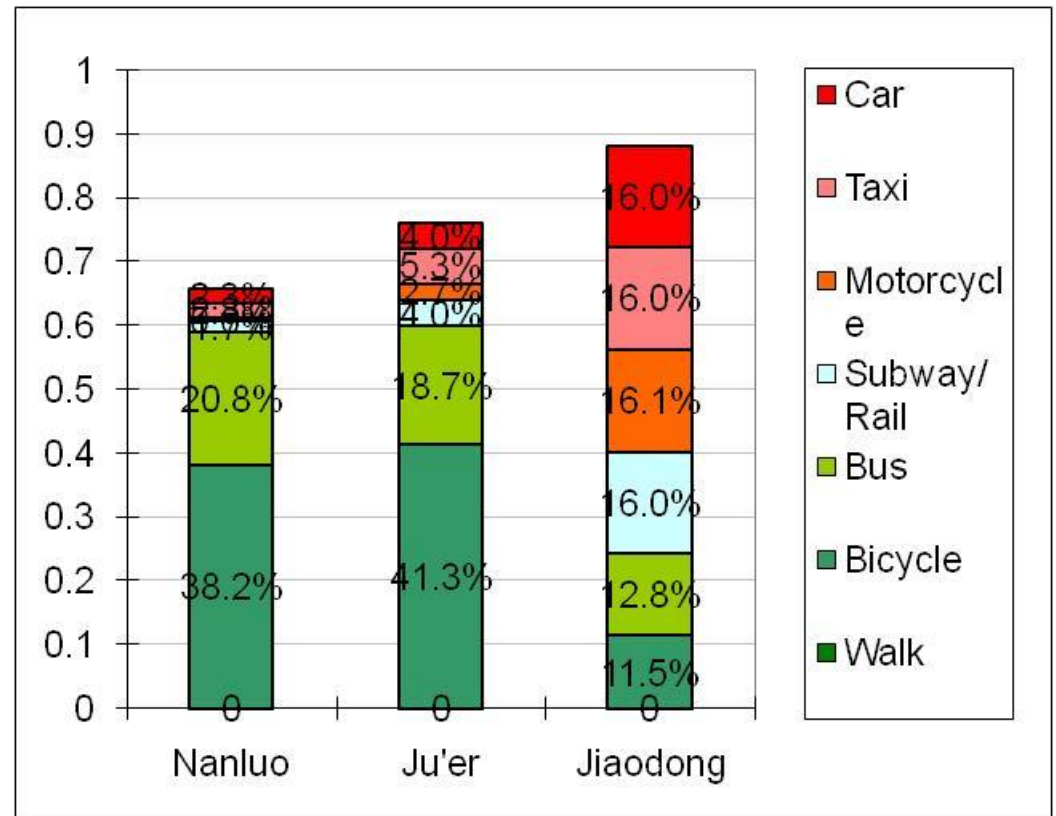


Fig. Transportation choice

5.3 Social Segregation

- Simpson Index

- “measures the probability that two individuals randomly selected from a sample will belong to the same category”(Talen 2006, p.433).

- $$A = \frac{N(N-1)}{\sum_i n_i(n_i-1)}$$

Tab social segregation within neighborhood

Num. of Households	Low income	Middle income	High income	Simpson Index
Nanluo	5	53	33	5.177
Ju'er	5	26	10	2.158
Jiaodong	4	61	27	1.893

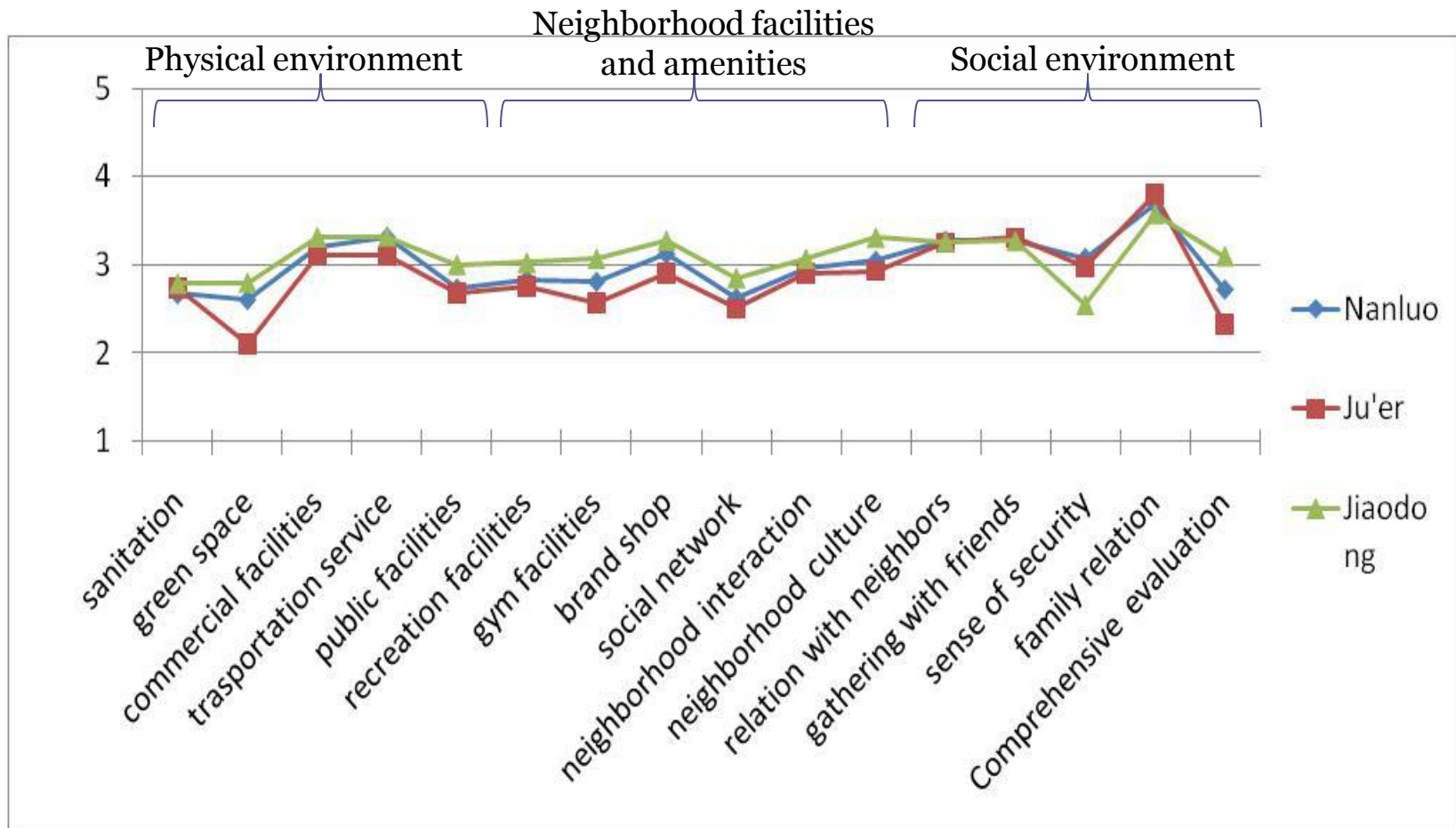
6 Neighborhood Satisfaction

- 6.1 Social Interaction

Tab. Social Interaction in the three neighborhood

Neighborhood			Nanluo	Ju'er	Jiaodong
Num. of neighbors know the first name	Mean		<u>14.99</u>	<u>6.21</u>	<u>1.63</u>
	Stan.D		17.33	7.69	2.73
Num. of neighbors who will say hello	Mean		<u>7.74</u>	<u>5.68</u>	<u>3.79</u>
	Stan.D in group		15.81	3.82	7.07
Social Gathering or Group Recreation Activities	Activity Time (Each time, min)	Mean	88.14	76.25	71.77
		Stan.D in group	72.78	53.70	51.10
	Travel Time (one way,min)	Mean	30.48	58.92	20.59
		Stan.D in group	31.51	68.67	29.33
	Cost (Yuan)	Mean	12.89	20.59	15.37
		Stan.D in group	24.72	59.79	46.20

6.2 Perception of Satisfaction



(five-point scale: “5=very satisfied”, “4=satisfied”, “3=average”, “2=dissatisfied” and “1=very dissatisfied”)

Table 5. Linear Regression Model of Neighborhood Satisfaction

	Unit	Regression 1		Regression 2		Regression 3		Regression 4	
Dependent variable	Scales	Comprehensive satisfaction		Physical environment		Neighborhood facilities and amenities		Social environment	
Constant		4.3224		3.4703		2.8457		3.3851	
Independent variables		β	Sig	β	Sig	β	Sig	β	Sig
	1=Nanluo								
Neighborhood	0=Ju'er	-0.4945	<u>0.0229</u>	-0.2505	0.2404	-0.2437	0.1771	-0.2356	0.1724
Age	years	0.0074	0.4504	0.0007	0.9395	0.0069	0.4006	0.0070	0.3697
	1=male								
Gender	0=female	0.3510	<u>0.0694</u>	0.2893	0.1301	0.1740	0.2800	0.1809	0.2403
	1=university								
	2=middle high								
	3=middle low								
Education level	4=primary school	-0.0726	0.5284	0.0159	0.8893	0.0548	0.5694	-0.0966	0.2953
Courtyard size	households	0.0092	0.1421	0.0021	0.7328	0.0016	0.7534	-0.0006	0.9048
Housing area	m ²	-0.0072	0.2272	0.0007	0.9080	-0.0004	0.9312	-0.0058	0.2184
Family size	individuals	-0.2696	<u>0.0217</u>	-0.1368	0.2355	-0.0300	0.7575	-0.1763	<u>0.0598</u>
Family income	Yuan/month	0.0001	0.1493	0.0001	0.1476	0.0001	0.2062	0.0000	0.4807
Individual income	Yuan/month	-0.0002	0.1869	-0.0004	<u>0.0172</u>	-0.0002	<u>0.0942</u>	-0.0002	0.1917
Family expenditure	Yuan/month	-0.0001	0.3812	-0.0001	0.4660	-0.0001	0.1556	-0.0001	0.4721

- Just compare the satisfaction between Nanluo and Ju'er neighborhood

- Individual factors also matters

Check list

- So, large scale redevelopment (Jiaodong) may physically improved, but social environment and satisfaction can be decreased.
- Redeveloped as the ancient (Ju'er) might be even worse, because either physically or socially improved.

	Nanluo	Ju'er	Jiaodong
Density	-	×	√
Mixed Use	-	×	√
Connectiveness	√	×	-
Accessibility	-	×	√
Amenities	-	×	√
Public Space	√	-	×
Social Diversity	√	-	×
Daily Activities	√	-	×
Transportation Choice	√	-	×
Social Interaction	√	-	×
Neighborhood Satisfaction	√	×	-

7 Conclusion

- In context of Chinese inner city renewal,
Good Physical Form \neq Good Social Form
- Is Ju'er Hutong a successful model to make improvement over others?
- Implication to planners: Reflection on current inner city renewal policy.
- Out of the “Growth Machine”, and more emphasized on life quality and social capital in neighborhood.

- Thanks and welcome questions!

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