思济里

一小区规划理论与实践 PLANNING THEORY AND PRACTICE ON RESIDENTIAL QUARTERS



◆北京市建筑设计研究院
BEIJING INSTITUTE OF ARCHITECTURAL DESIGN & RESEARCH

中国建筑工业出版社

CHINA ARCHITECTURE & BUILDING PRESS

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本书介绍荣获建设部城市住宅小区建设试点综合金牌奖和规划设计、建筑设计、施工质量、科技进步四项一等奖的恩济里小区的设计理论和实践经验。内容包括小区概况、组团布置、空间处理、住宅设计、公建安排、绿化系统、交通组织、景观环境等八部分。全书共展示照片115幅,设计图67张。

本书可供建筑设计、研究、教学等有关人员参考。

责任编辑 刘茂榆 技术设计 刘玉英

恩济里——小区规划理论与实践

北京市建筑设计研究院

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恩济里小区以其独特的风貌展现在北京古老的慈寿寺塔以西,占地9.98公顷,总建筑面积14.08万平方米。这个小区1994年建成后被首规委办和市建委授予"北京市优质居住区"称号,当年7月获建设部城市住宅小区建设试点综合金牌奖和规划设计、建筑设计、施工质量、科技进步四项一等奖,1995年获中国当代环境艺术优秀作品奖。据不完全统计,一年来到小区参观访问者近5千人。外区物业管理公司的同志讲,这里的住户对小区的规划品和居住条件基本满意。我也曾走访过几户人家,看得出住户对自己拥有的居住空间和环境十分珍爱,他们各据所好装修房间,布置家具,而且都那么自得。我确实使我们组织编写这本恩济里小区规划设计经验的书,就规划

理论、创作思路、设计手法等与同行们进行交流探讨。

这本书的主编和撰稿是恩济里小区的总规划设计师白德懋, 白总是我院副总建筑师, 我国著名的规划设计专家, 他在城市规划设计理论研究和实践上学识渊博, 造诣很深。1985年他负责的"居住区详细规划研究"专题成果获国家科技进步奖, 这期间他主持的"富强西里小区"获市优秀小区规划奖和全国优秀工程设计银质奖; 1987年白总负责居住区规划研究课题, 并联系实际承接了恩恩,并联系实际承接了恩恩,并联系实际承接了恩恩,付出了很大心血。一分耕耘, 一分收获, 1993年专题研究成果《居住区规划与环境设计》一书出版, 1994年恩济里小区建成使用。可以说, 恩济里小区规划正是按白总论著中的理论和观点塑造的, 即依据"三个观点"——城

PREFACE

The Enjili Residential Quarter, occupying 9.98 hectares of land and with a total floor area of 140,800 square meters, is located to the west of the ancient Cishousi Pagoda in Beijing. It has a unique style and characteristic. This residential quarter, just after its completion in 1994, was named as "Beijing's quality residential quarter" by Beijing Planning Commission and Beijing Construction Commission, and was also awarded a gold medal for the comprehensive pilot project in urban residential quarters construction, as well as four first-grade prizes for planning, architectural designing, construction quality and scientific progress by the Ministry of Construction in July of the same year, and was selected as an outstanding work of China's modern environmental arts in 1995.

Incomplete statistics show that the number of visitors to this residential quarter reached 5,000 in the past year. According to the account of the property management company of the residential quarter, residents have shown their contentedness and satisfaction with the planning, layout and living environment here. I also visited several families. I personally felt that they loved dearly their living space and environment. According to their own inclination and preference, they arranged and decorated their furniture and houses, and they were self-satisfied with what they had done. I felt that they were really enjoying their family happiness. Gratification naturally arose from the bottom of my heart, and such gratification was soon overtaken by the

responsibility of my profession: I should sum up the experience in the planning and designing work of the Enjili Residential Quarter and find the law and principles, and share the understanding, experience and lessons with my colleagues. This will benefit the prosperity of designing creation and promote academic exchanges. Based on such thinkings, this photo album, a combination of theory and practice in planning and designing, has been arranged and compiled.

The editor-in-chief and compiler of this book is Bai Demao, the chief planner and designer of the Enjili Residential Quarter. Being a famous expert in planning and designing in the country, Bai is the deputy chief architect of Beijing Institute of Architectural Design and Research. Bai has great attainments in theoretical research and practice in urban planning and designing. In 1985, the special subject research entitled "Research in Detailed Planning of the Residential Quarters" won a prize of the state's science and technology progress. In the meantime, the "Fuqiang Xili Residential Quarter" which he was in charge of, won "the award of outstanding planning of Beijing's residential quarter" and a silver medal for excellent designing of projects in the country. In 1987, Bai was in charge of research subject on the planning of residential quarters, and by applying theory into reality, he undertook the architecture designing task of the Enjili Residential Quarter. Bai applied the theory into the construction of the residential quarter while completing his research work. In

市的观点、人的观点、联系实际的观点,抓住两个环节——调查研究和理论指导。也可以说恩济里小区就是《居住区规划与环境设计》理论的图解和检验。恩济里小区规划设计研究成果得到专家们较高的评价:"恩济里小区规划创造性地运用城市设计原理,以人为主,从使用功能出发,在空间层次划分、住宅组团组合、景观序列布置、小区识别性、体现地方特色、创造良好的功能环境和景观环境方面构思和手法新颖,做到了科学性与艺术性的有机结合。"

恩济里小区的规划设计成果,是集体智慧的结晶,工程主持人叶谋兆从规划研究到工程实践密切协助白总工作,另一位年轻的工程主持人刘晓钟积极努力,勇挑重担。第六设计所的所长林晨、白俊琪组织各专业设计力量

動奋工作,努力完成规划设计和科研任务。为了设计多样化,宋融副总建筑师专门为恩济里创作了住宅新品种。金牌的取得是规划设计和开发、施工、管理以及园林市政等诸多部门在市领导小组指挥下通力合作的结果。

这本书由吴竹涟同志协助编排,内容实在,专业性强,可供技术交流,适合专业技术人员阅读参考,也是一份居住区规划设计的实例教材,即使非专业朋友阅读,因其内容围绕人与居住的课题,涉及居住心理、居住行为、居住文化、居住形态,加上图文并茂,读来也会有兴味的。

时代在前进,科技在发展,探索追求居住安静、安全、环境舒适、优美、生活方便的小区是常做常新的课题。

赵景昭 1995.8

1993, the book as the achievements of the monographic study, "Residential Quarters Planning and Environment Design" was published, and the Enjili Residential Quarter was completed and put into use in 1994. It may be deemed: the planning of the Enjili Residetial Quarter is a reflection of the theory and viewpoints of Bai's works, that is, the "three points of views" --from the city's viewpoint, from human's viewpoint and from the viewpoint of an integration of theory with practice, and two links-investigation and research, and theoretical guidance. It also may be interpreted that the Enjili Residential Quarter is an illustration and analysis on the theory of the book "Residential Quarters Planning and Environment Design." The planning, designing and architecture of the Enjili Residential Quarter have won praise from experts: "The planning of the Enjili Residential Quarter has creatively applied the theory on urban design. With human as the objective and the use function as the starting point, it is an organic integration of scientificalness and artistry in the division of spaces, the composition of housing clusters, the layout of scenery, the distinctiveness of the residential quarter, the reflection of local characteristics and the creation of sound function environment and visual environment,"

The Enjili Residential Quarter also is a fruit of collective wisdom in planning and designing. Project coordinators Ye Maozhao and Liu Xiaozhong vigorously assisted Bai's work. Lin Chen and Bai

Junqi, directors of No.6 Designing Department of the Institute, also organized various professional designing personnel, working hard to complete all designing documents and research work. Deputy chief architect Song Rong created specially new variety of houses for the Enjili Residential Quarter. Of course, this gold medal should be attributed to all aspects, including planning and designing, development, construction, management, gardening and infrastructure engineering, which worked under the leadership of the municipal leading group, Beijing Planning Commission and Beijing Construction Commission.

Wu Zhulian also assisted in compiling this book which is rich and specific in contents. It shall serve as a reference book for professionals and technical personnel, it also is a text book of case study on the planning and designing of residential quarters. Readers from other professions will also enjoy reading this book since it is about human settlements involving living mode, culture, psychology and behavior with photos and pictures illustrated.

The era is progressing and so are the science and technology. The work to explore and research on residential quarters with tranquil, safe, beautiful and convenient environment is a subject that will never lose its charm.

Zhao Jingzhao August 1995

此为试读,需要完整PDF请访问:



承院领导的安排,让我负责居住区规划的专题研究,有机会深入到居住区的方方面面。在逐步深入的过程中,越发感到居住问题同老百姓的关系太密切了。尤其是通过向居民调查发现,"民以食为天"之后要加上一句:"人以住为先"。吃饱还得住好。

如果家里冬天晒不到阳光,夏天通风不好,会给人带来多少烦恼;如果白天上班去总怕家里给撬了,工作怎么也踏不下心来,作为一个城市规划和建筑设计工作者理应为居民操这份心思。

专题调查研究中,大量事实说明,居住区规划设计不 仅涉及建筑实体处理,同时贯穿着社会、经济和生理、生

态、生活、安全等环境问题。这就向建筑师提出更高的要求。要求我们懂得社会学、经济学和环境心理学。然而更重要的是心目中时刻想着群众,因为人始终是规划设计的主体,物是为人服务的。

我曾经说过:做好一个小区规划,难,也不难。说难是因为过去那一套规划的布置手法不行了,单纯在构图上追求形状变化,房子这样摆,那样摆,摆来摆去只要有人说不好就会被推翻,一次次通不过,因为缺乏依据。说不难是因为小区规划的对象是我们所熟悉的人与物,对老百姓的思想、感情、爱好和需求是能够理解的。只要我们设身处地为他们着想,把自己放进去,掌握小区的内在规

FOREWORD

Entrusted by the leaders of the Institute to be in charge of the special subject research on the planning of residential quarters, I had the opportunity to touch on every aspect of the residential quarters. The deeper I did the research and investigation, the more I came to realize that housing issue was so closely connected with the residents. Through the survey among the residents, I thought that it would be more accurate and proper to add one more sentence of "residence is the priority of the people" to the proverb of "food is the first necessity of the people." A better living shall also be connected with a better housing.

If a house does not get any sunshine in winter and has poor ventilation in summer, what an annoyance it brings to the family; if one goes to work worrying that his or her house might be robbed, how can he or she be concentrated on his or her work. As a worker in urban planning and architectural design, I feel obligated to take these things into consideration.

In the special subject survey, facts show that the planning and design of residential quarters are not just a matter of the

construction objects, it also relates with social, economic, physiology, ecology, living and safety environment issues. This means a higher demand on architects. It requires us to know sociology, economics and environment psychology. What is more important is to consider the interests of the masses all the time, because human is always the objects of residential planning and design, and buildings are set to serve the people.

I once said: "it is difficult to design a residential quarter but it is not difficult in a way". When we say it is difficult, it's because the old planning and layout methods have become outdated. If just seeking for changes in the pattern of housing layout and paying attention only to their arrangement, the designing may be rejected whenever there is objection. When we say it's not difficult, its's because residential quarters are to be designed for the people and the architects and designers are familiar with and well understand the thinking, feelings, inclination and demands of the masses. As long as we put ourselves in the position of the masses and consider the designing of the residential quarter from their point

律,结合当时当地的实际进行创作,做好一个小区规划是不难的。就怕不屑这样做,不肯下功夫。

为了体现上述观点和认识,我们将这项专题研究成果全面地贯彻到恩济里小区中去;同时也是对研究成果的一种检验。

可以认为,恩济里的创作经验是:充分满足居民的各种需求,综合体现社会、经济和环境效益,正确反映当地的地理气候条件和历史文脉,密切结合现场的地形、地物和周围实际,刻意追求小区的特色和识别性,努力为居民创造一个安静、安全、舒适、方便和优美的生活居住环境。当然小区的成功离不开各级领导的支持、有关单位的共

同努力和全体规划设计人员的通力协作,在统一构思的指导下,集思广益,发挥各自的积极性。

需要指出的是:本书得以出版,有赖于院科技信息 处吴竹涟副处长和索之娣、杨超英、刘河的辛勤劳动,院 第六设计所叶谋兆主任建筑 师和刘晓钟组长的配合帮 助。特此致意。

白德懋

1995.8

of view, master the internal law of residential quarter designing and make the designing and creation in consideration of the local conditions, it would not be difficult to work out a design for a residential quarter.

In order to reflect the above-mentioned points of view and understanding, we have thoroughly applied the research findings of this special subject research into the designing and construction of the Enjili Residential Quarter; it also is a test and experiment on the research findings.

The creation experience of the Enjili Residential Quarter could be summed up as follows: to satisfy the residents' various needs to the maximum; to comprehensively reflect social, economic and environmental benefits; to appropriately demonstrate the local geographical and climatic conditions and historical context; to closely integrate with the topography and existing features and the surrounding conditions; to painstakingly create the unique features and distinctiveness of the residential quarter; and vigorously create a tranquil, safe, comfortable, convenient and beautiful living environment. Of course, the success of this

residential quarter would not be achieved without the support by the leaders from all levels, the joint efforts by relevant units and the full cooperation among all designing and planning personnel. Under the direction of a unified framework, all contributed their wisdom and brought their creative efforts into full play.

What is worth mentioning is that the publication of this book to disseminate the creation experience of the Enjili Residential Quarter shall be credited to the hard work by Wu Zhulian, deputy chief of the science and information section of the Institute, as well as Suo Zhidi, Yang Chaoying and Liu He, the cooperation and assistance by Ye Maozhao, chief architect of No.6 Designing Department of the Institute, as well as group leader Liu Xiaozhong. I hereby express my thanks to all of them.

Bai Demao August 1995

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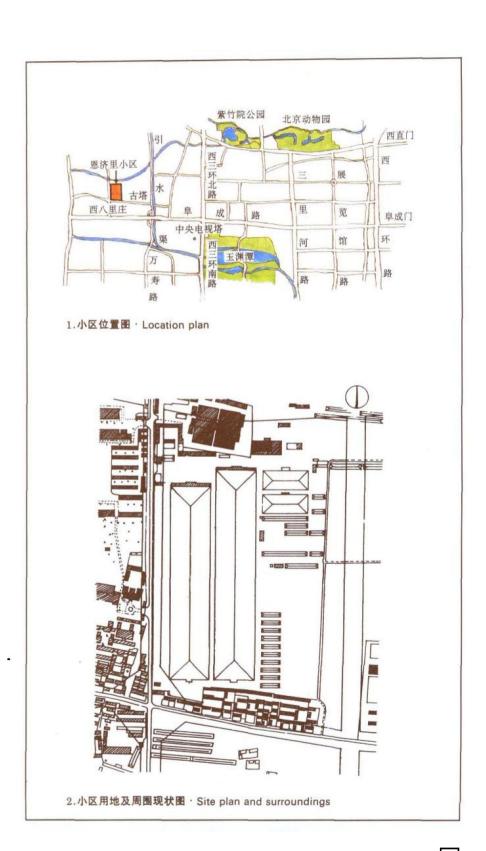
小区概况

General description

随着我国经济的发展和人民生活水平的提高,解决住房问题愈益显得重要。近年来,首都北京以每年700万平方米的建设量用来满足这项迫切需求。这批住宅主要集中在新建和改建的居住小区里。如何为居民创造一个居住安静、安全,环境舒适、优美和生活方便的小区成为规划设计和建设工作者不懈追求的目标。

北京市建筑设计研究院为此于1987年成立了居住区规划专题研究小组,进行了系统的调查、总结、分析和研究。研究工作中运用了社会学、生理学、环境学、心理学、行为学等手段,从宏观到微观,从实践到理论,提出了一系列实现上述目标的观点和方法。恩济里小区就是将这项研究成果全面地体现在规划设计中的一个试点。

恩济里小区位于北京市风景秀丽的西郊居住区,距阜成门约6公里。小区占地9.98公顷,东西宽217米,南北长平均约460米,四周为城市道路所包围。北临80米宽的计划城市干道,东侧有一条60米宽的绿化带,再往东与西八里庄古塔之间为相邻的新建小区,西边是六一学校,南边不远处是另一建成小区。小区用地内原为菜地,有玻璃温室,南部有若干旧民房,西北角有一个烟酒仓库需要搬迁。



1988年开始规划时,北京市城市 规划管理局下达了规划设计条件如 下:

- 一、住宅以多层为主,容积率为 1.2.
- 二、小区居民出行方向为东南 向, 因此主要入口在南边。商业网点 放在小区的东南角上。

三、小区内不设中学,中学生去 东边小区内的中学上学。设一个24班 小学,可容纳部分东边小区的小学生 来此上学。其余公共服务设施均按北 京市的定额指标配套设置。

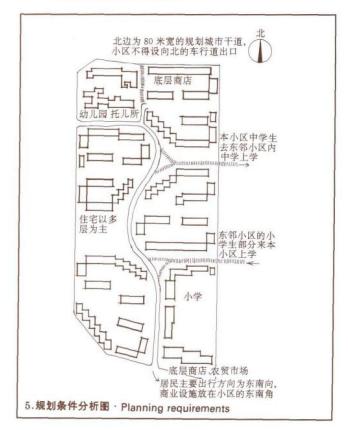
四、小区车行道不得直接通向北 边城市干道。

规划采取了多方案比较,最后集 中到甲、乙两个方案。其中乙方案由 于高层住宅比例大,不符合规划要 求,未被采纳。而甲方案被市规划局 和首都规划委员会顺利地审查批准。

在规划实施过程中,发现原在用 地西北角安排的出租办公楼不适当, 改为公寓楼,其余基本上按原规划方 案实现。



1. 向南看恩济庄小区·Enjizhuang, a neighbouring residential ter viewed from the north





4.向西看六一学校·The June-First Primary School viewed from the east



2.向东看60米绿化带·Green



住宅

公建



车行道

fittettt 步行道

青年公寓

商店

小学 3

青年活动站

管理处 出租办公楼

垃圾站

幼儿园

托儿所

9 老年活动站

10

11 造型小品

12 变电站

煤气调压站 13

高压线绿化带

6.甲方案总平面图



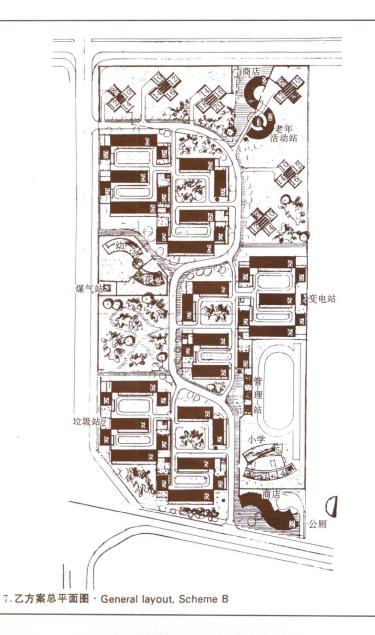
belt viewed from the west



3.向东看相邻小区·The adjacent quarters viewed from the west



General layout, Scheme A



工程于1989年8月开始施工,1990年已建成东组团的一部分住宅,迁入用地内旧民房中的住户。1990年7月经北京市上报建设部列入全国第三批城市住宅试点小区。1993年底除北公寓外已全部建成,陆续交付使用。小区总建筑面积140813平方米。其中多层住宅37幢、1574个单元,高层公寓2幢311个单元,两者合计114288平方米;可住1885户、6226人。其余为小学、托儿所、幼儿园、商店、自行车库、文化活动站、小区管理处以及垃圾站、变电室等配套公共建筑。

经过多年来各方的努力, 恩济里 小区于1994年3月获"北京市优质居住小区"的称号, 1994年7月被建设部 授予城市住宅小区建设试点综合金 牌奖和规划设计、建筑设计、施工质量、科技进步4个一等奖。

GENERAL DESCRIPTION

To create a quiet, safe and comfortable residential quarter with beautiful environment and convenient facilities for all residents is the steadily pursued aim of our planners, architects and builders. For this purpose Beijing Institute of Architectural Design and Research has made systematic investigations, researches, studies, and analyses on the human environmental needs of the residents. Enjili Residential Quarter is a pilot project to justify the research result in the physical planning and the architectural design.

Enjili Residential Quarter, situated within a residential area in the scenic west suburb of Beijing, is 6 km away from Fuchengmen. It covers a site of 9.98 hectares with a east-west width of 217 m and a north-south length of 460 m and is surrounded with the city streets. The residential quarter has a total floor area of 140,813 m² with 114,288 m² for residential buildings, which can offer flats for 1885 households.

恩济里小区综合指标

项目	面 积	百分比	人均数
小区总用地	9.98公顷	100.0%	16.03m²/人
其中: 住宅用地	6.65公顷	66.7%	10.67m²/人
公建用地	2.109公顷	21.1%	3.39m²/人
道路用地	0.371公顷	3.7 %	0.60
绿化用地	0.85公顷	8.5 %	1.37m²/人

小区总建筑面积: 140813m² 其中: 居住建筑面积: 114288m²

公共建筑面积: 21890m²

人防面积: 4635m²

小区总户数: 1885户 小区总人数: 6226人 人口毛密度: 624人/公顷 人口净密度: 936人/公顷

居住建筑面积毛密度: 11452m²/公顷居住建筑面积净密度: 17186m²/公顷容积率: 1.41 住宅平均层数: 5.96层

东西向住户占总户数: 4.2%

1.最后实施的总平面图

· Final general layout for implementation

- 1.高层公寓
- 2.底层商业服务
- 3.底层农贸市场
- 4. 小区管理楼
- 5.底层居委会
- 6.信报箱群
- 7. 附建式地下存车
- 8.独立式地下存车
- 9.小学
- 10.托儿所
- 11.幼儿园
- 12.変电站
- 13.垃圾站
- 14. 小汽车停放
- 15.中心花园
- 16.公厕
- 1. High-rise apartment building
- 2. Shop under apartment building
- 3. Free market under apartment building
- 4.Management building
- 5.Neighbourhood committee office under residential building
- 6.Letters-newspapers boxes
- 7.Attached underground bicycle shed
- 8.Independent underground bicycle shed
- 9.Primary school
- 10. Kindergarten
- 11.Nursery
- 12.Transformer substation
- 13.Gabage disposal station
- 14.Car park
- 15.Central garden
- 16. Public lavatory

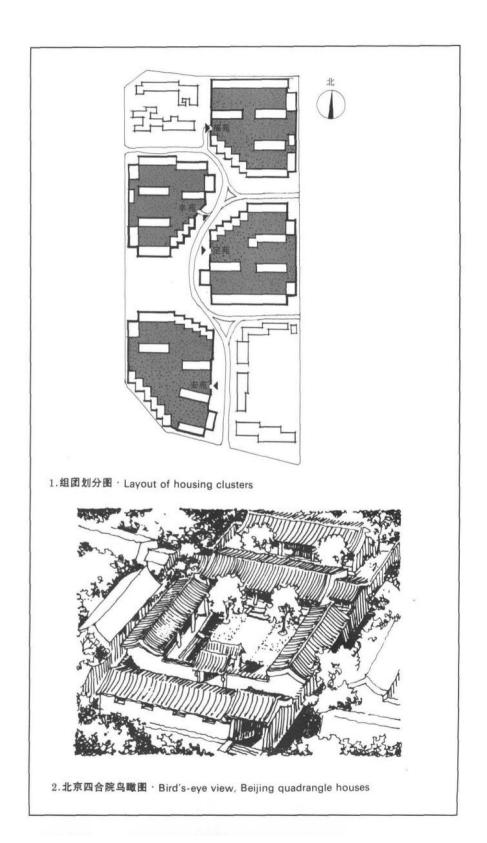


组团布置

Layout of housing clusters

恩济里小区的住宅,除东南角和 西北角各布置一幢高层公寓外, 均为 多层。多层住宅划分为4个组团。每个 组团由8~10幢单元住宅围合成内向 的庭院。住宅组团布置吸收了北京传 统四合院的优点——内向、对外封 闭、房子包围院子。组团只留一个入 口(周边过长的住宅首层留有消防通 道)。入口內即为组团的公共绿地,是 第一进院子。通过第一进院子才能进 到內部第二进院子。正象四合院只有 一个大门,进门后从外院到内院,一 进套一进,层层深入,越到里面越私 密、越安全。但传统的四合院是封建 社会的居住形态, 而现代居住形态则 要求将过去的独户独院演变成为多 戶共居, 却保留它的深层内涵, 因此 不妨称之为"扩大了的四合院"。

每个住宅组团容纳400户左右,相当于一个居民委员会的规模。居民委员会是很好的基层自治组织。400户左右居民生活在一起,能够互相照顾,互相帮助,逐步建立起密切的邻里关系。这样一种牢固的社会基层集体十分有利于整个社会的安定团结。这也就是为什么老北京如此怀念过去居住过的胡同。他们留恋的不是那设备陈旧的四合院房子,而是那里的故土人情,即长期建立起来的人与人亲密无间的关系。恩济里的4个组团分别命名为安苑、定苑、幸苑和福苑,正是小区住宅布置的立意所在。







- 3.北京四合院鸟瞰图·Bird's-eye view, Beijing quadrangle houses
- 4.胡同里的邻里交往·Neighbours' intercourse in hutong (lane)
- 5.安苑平面图·Anyuan cluster plan
- 6.思济里组团内的人际交往 Residents' intercourse in clusters of Enjili





为便于居民进行邻里交往,规划的任务是把室外"空间"创造成为"场所"。按照城市设计原理,"空间"与"场所"是两种不同的概念。那种干巴巴的、人们不愿逗留的空间不能称为场所,只有人们愿意去活动,而且感到舒畅、自在的空间才是场所。在恩济里小区的组团里,为居民提供了一个良好的室外活动场所。这里是一种用4层、5层和6层住宅建筑围合起来的空间,与外界隔开,不受干扰,令人踏实、放心。

然而围合的空间必须有宜人的 尺度。过于封闭使人压抑,太开敞了 又会失去场所感。恩济里小区组团的 住宅采用南北向住宅南向6层、北向5 层,用4层东西向住宅围合,而另一边用6层跌落到5层、4层的住宅围合,让人们在里边活动时既有围合感,又能看到相当一部分天空,没有闭塞、压抑的感觉。与此同时,在围合空间内布置了充足的绿化和必要的休息、游戏设施,也是创造场所的不可缺少的手段。

组团内所有住宅单元入口都面向庭院,居民进出互相看得见。这样布置不但有利于居民的交往,同时起到了"自然监视"的作用。因为只有看得见的地方、在有人使用的空间里,才是安全的。而罪犯往往是在人们看不见的地方乘机作案的。





- 1.4.5.6层住宅围合的组团空间·Spaces enclosed with 4.5.6 storey residential buildings
- 2.组团内休息、游戏设施·Leisure and play facilities in clusters
- 3.组团内休息、游戏设施·Leisure and play facilities in clusters
- 4.住宅单元入口相对·Gates of buildings facing each other



