

**THE DESIGN OF A CULTURAL EXCHANGE CENTER
FOR BEIJING, CHINA**

By

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Bachelor of Architecture

Xian Institute of Metallurgy and Construction Engineering
Xian, People's Republic of China, 1984

**A THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE**

MASTER OF ARCHITECTURE

**KANSAS STATE UNIVERSITY
Manhattan, Kansas**

1990

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Notes:

- * Figure 1.01 came from the reference "China --- the Land and the People"
- * Figure 1.02 came from the reference "Liang, Ssu-cheng: 1901-1972: A Pictorial History of Chinese Architecture"
- * Figure 3.01, 3.02, 3.03, 3.04 came from the reference "Architecture: Form . Space & Order"
- * Figure 3.13, 3.14 and 3.15 came from the reference "An Analysis of Chinese Classical Garden"

* Figure 5.01, 5.02 came from the reference "Beijing: the Cornucopia of Classical Chinese Architecture"

* Figure 5.03, 5.04, 5.05, 5.06, 5.07, 5.08, 5.09 and 5.10 came from the program of AIAS's "1989 Spring International Design Competition"

* All graphic material not credited to others is by the author

ACKNOWLEDGEMENTS

I would like to extend gratitude to my major advisor, Prof. Bernd Foerster, for his guidance and supervision throughout the course of this study. Thanks are extended to my other two members on the advisory committee, Prof. Ray Weisenburger and Prof. Gwen Owens-Wilson, for their advice and help.

My appreciation is also extended to my friend, Ken Pyle, for unselfishly offering his time and to help me collect information and to correct my English.

A very special thanks is extended to my father, Prof. Zhougkui Li, my mother, Prof. Huiwen Chen and sister, Rose Li for their continual family support through many letters and long-distance phone calls. My father was of great help to me in my research endeavors. He went to the design site himself to take pictures and collect information.

I also thank my lovely wife Jing Li, without whose continual love, encouragement and support I could not have completed this endeavor.

My gratitude also goes to my uncle, Stanley Ho, aunt, Joy Ho and My cousins, Howard Ho and Edward Ho for their love and support.

PURPOSE OF THE STUDY

Architecture is one of the most important parts that compose a culture, even the famous Chinese architect, professor Liang S'su-ch'eng emphasized that: " Architecture is the crystallization of human culture ". Architecture is not only a component of culture, but also a central part of it. In every period, society did its best to build some significant architecture which represented the highest level of the science, technology, art and culture at that time.

China is where it all began: the Yellow River, the yellow land, the yellow wind, the overflowing of yellow people, the yellow floods, the harvests of yellow wheat, the "yellow" mind, the "yellow" culture, the purple city in Beijing with the yellow roofs. Furthermore, the yellow-colored imperial "dragon robe", the "yellow" invasions, "gray" Great Wall....."red" Cultural Revolution". This is China! Professor Liang S'su-ch'eng made a very good comment on Chinese culture: "In human history, the culture of every nation produced its architecture with its prosperity and decline. In the existing culture of the world, Chinese culture is the oldest and the longest-living except our neighbor, India whose culture was born almost at the same time as ours. So our architecture was also the oldest and the longest-living system. In human history, other cultures

which formed at the same time as China or earlier, or later, such as Ancient Egypt, Babylon, Ancient Persia, Ancient Greece and later Ancient Rome, all became the historical remains of the past. But our Chinese culture has kept its blood and veins without a break and has grown vigorously for more than four thousand years."

British architect, Andrew Boyd, wrote these words about Chinese architecture in his famous book "World Architecture, An Illustrated History:" Chinese culture grew up on the Neolithic culture on the Chinese native land and developed independently without any other interference. And it reached extremely mature condition very early. Since the Bronze Age, 1500 B.C., until the present century, it kept its continuity, integrity and unity thoroughly in the whole process of development....." "Chinese architecture was a typical component part of such Chinese culture and developed its unique characteristics very early. This unusual system continued in succession and, more or less, kept the certain tradition until the twentieth century. This continuity does not necessarily involve specific ancient objects, rather it created the unique principle of Chinese culture and architecture...." (page 31)

Because of many historical, traditional and political reasons, China always closed her vermilion gate and lost many chances to introduce her culture to the western countries.

As a son of China, an inheritor of Chinese culture, a continuer of Chinese culture, a developer of new Chinese culture, the author has a responsibility to introduce Chinese culture, especially architecture to the western countries. This kind of action, is advantageous to the development of Chinese architecture.

Finally, the oldest, largest, heaviest Chinese gate was opened slowly after so many years. The new, fresh wind from the west blew over the yellow river, the yellow land, the yellow people, the "yellow" mind and the "yellow" culture. May the fresh air bring the new mind, the new technique, the new culture, the newly developed land and may this study make a small contribution to the great change.

Yu Li

January, 1990

INTRODUCTION

This thesis is an attempt to explore two diverse cultures. To date, there appear to be few precedents for cultural exchange buildings, thus allowing for an innovative interpretation.

The primary purpose of this study is to explore American and Chinese cultures through architecture in order to seek a new direction for traditional Chinese architecture; and to develop an understanding of a building that facilitates cultural exchange.

Goals:

- * to undertake a cross-cultural study to address architectural problem solving in a non-western developing nation with strong traditions;
- * to investigate the commonalities and divergences of Chinese and American cultures through architecture;
- * to design a facility which serves as a vehicle conducive to cultural exchange and understanding between East and West;
- * to be innovative and progressive, yet sensitive to the context of a symbol-rich and ancient city;
- * to explore the significance of a new building type which is in itself culturally expressive and at the same time symbolizes interactive exchange of philosophy and ideas through built form;

The comparative analysis of the basic characteristics of Chinese and American cultures will concentrate on home, family and religion, and extend into architecture, exploring the commonality and divergence of conceptions of space, mass and garden. The purpose of this study is to suggest ways to represent traditional Chinese architectural values in modern society with modern means.

CHAPTER ONE:

CHINA: PAST, PRESENT AND FUTURE

" For at least three centuries, every traveller returning from Peking, Shanghai or Canton has been greeted by the demand, "What's China really like?" And everyone has been equally at a loss to give a satisfactory answer, realizing that it is impossible to explain China in simple terms - everyone, that is, except the wise man who simply replies quietly that, 'China is very far away...'"

----- "China Observed" by Charles Meyer (page 2)

There are thousands of books in western libraries that introduce China; this vast country whose area is as large as Europe from the Atlantic to the Ural mountains; a country with customs that are 'strange' to westerners; and a countless population, whose civilization dates back some four thousand years. In the west some of the keys necessary to unlock the 'secrets' of the real China are lacking. China has persisted in remaining at a distance. China is a country deeply rooted in its rich past and ancient traditions.

1. Geographical Context

China covers an area of about 9,600,000 sq. kilometers (3,705,000 sq. miles); 3438 miles from north to south, the distance from Copenhagen to Dakar; 3125 miles east to west,

the distance from Paris to Quebec (see Figure 1.01). And its population is particularly staggering; at least one billion, perhaps already reaching the 1,100 million mark; that means that virtually one out of every four people in the world is Chinese. China contains mountain peaks more than 8000 meters high in Tibet, where Everest is shared with Nepal, the 10,000 li (about 3,000 miles) of the Great Wall and the 800,00 year old fossils of Lantian Man.

China is divided into 31 administrative areas (provinces), including Taiwan Province and three municipalities directly under the government: Beijing, Shanghai and Tianjing. The whole country is characterized by its diversity. Mountains and plateaux make up sixty percent of the country. As an illustration of the contrasting climatic conditions, the temperature of the most north province can fall as low as -52°C (-61°F) in January; that in the southern provinces it exceeds 14°C (57°F) in January and rises to 28°C (82°F) in July, with 1700 millimeters of rain annually; that Tourfan is icy in winter -7°C (19°F), sweltering in summer 33°C (92°F) and only gets 20 millimeters of rain a year.

As a result of the processes of historical development, China is a multinational state. This ethnic diversity was represented by the five major groups: Chinese (or Han) people, Manchu, Mongol, Mohammedan, Tibetan and fifty other. The Chinese (or Han) people make up ninety-

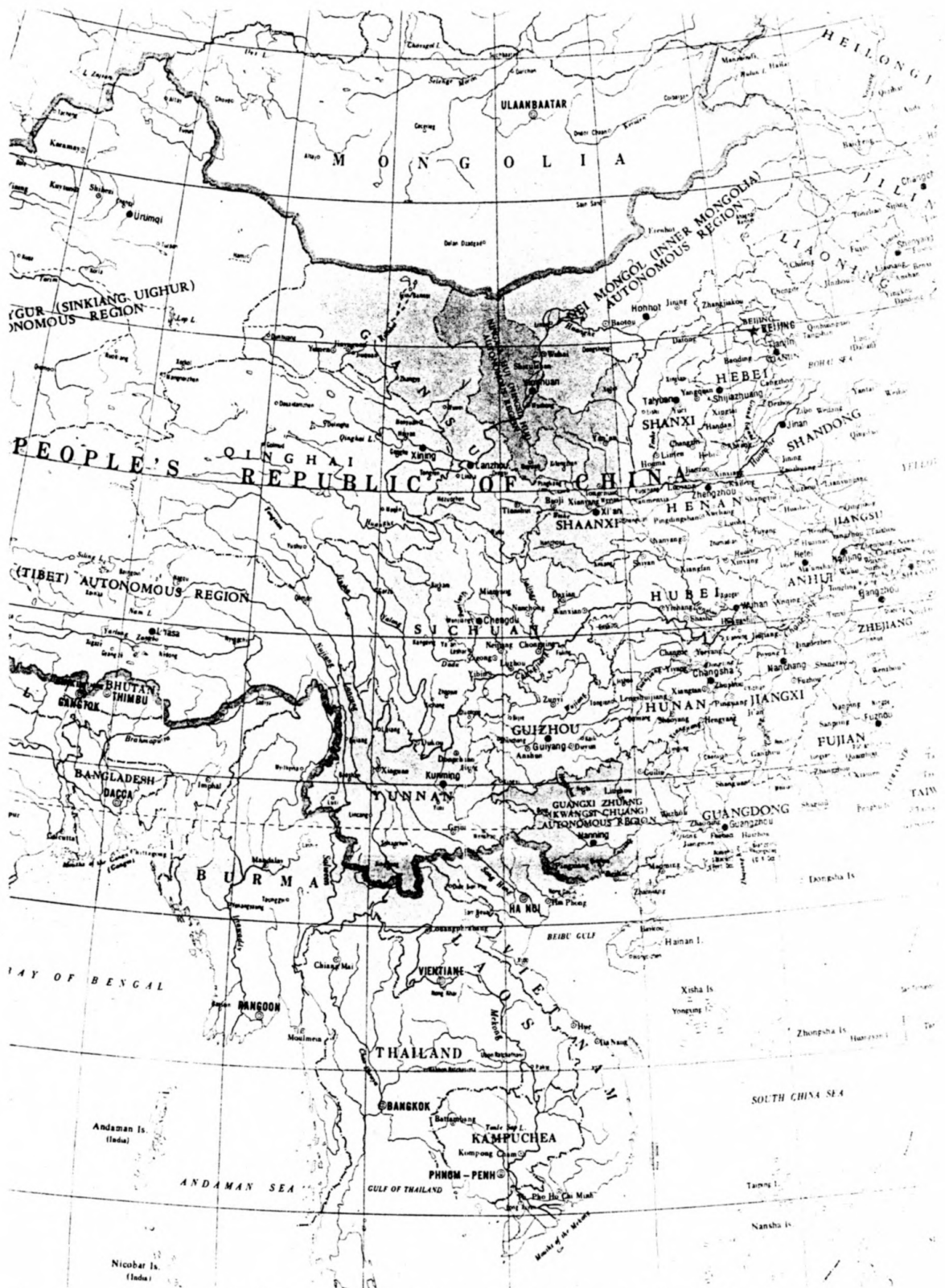


Figure 1.01: Map of People's Republic of China

four percent of the national population, but the minority nations possess vast territories and rich resources, about fifty to sixty percentage of the land area.

2. Legends and Cultural Sources

" Yao, we find that he was indeed worthy of the title of 'the well-deserving'. He was constantly attentive to his duties, very perspicacious, of evident virtue and rare prudence; and all this was innate and effortless. He was grave and respectful, knowing when to give in and when to condescend. His influence and renown spread to the far ends of the empire, to the final limits of heaven and earth"

(from ancient chinese book, "Shujing")

This edifying portrait of a sovereign, who is said to have reigned from 2357 to 2258 B.C. begins the historical classical tradition. But Yao belonged to a line that was already very old indeed, some 150 generations. He had illustrious predecessors, the Three August Ones, being Fuxi the Founder, who revealed the hidden meaning of the Eight Trigrams and formulated the rules of marriage, Zhenong, the Ploughman, who initiated agriculture and the use of medicinal plants, and Huangdi the Legislator, 'the yellow emperor', inventor of the rites, music and the calendar.

Yao, the well-deserving, was one of the five emperors of the golden age, when the Yellow River burst its banks and caused terrible flooding. His successor, Zhen, was

chosen by people for his exemplary virtues. He passed on power to Yu the great, who had tamed the waters and invented bronze coinage. The latter founded the Xia dynasty, whose seventeen emperors ruled from 2205 to 1766 B.C.

3. The Written History

The Chinese invented written history (see Figure 1.02), from the time of the Shang dynasty, 1766 to 1122 B.C. The Zhou succeeded the Shang and they ruled for 874 years, but growing steadily weaker. The nomadic peoples from the steppes began their invasions and the empire split up into rival kingdoms, whose unsettled history covers the period known as the "Spring and Autumn Annals" (722-481 B.C.) and that of "The Warring States" (475-221 B.C.). This time saw the invention of iron casting, rules for administration and taxation, multiplication tables. It was also the era of the philosophers: Confucius, Tchouangtseu, Mencius and many others.

From out of the Warring States came the first emperor, the king of Qin, who imposed his rule on all the neighboring states and founded the great unified empire of which he proclaimed himself Shi Huangdi (First August Sovereign) in 221 B.C. He centralized, established state control over all, organized, standardized, legislated; built up the Great Wall, the palaces, the roads, the canals; crushed the nobility, the scholars and the

Shang–Yin Dynasty	ca. 1766–ca. 1122 B.C.
Chou Dynasty Warring States Period	ca. 1122–221 B.C. 403–221 B.C.
Ch'in Dynasty	221–206 B.C.
Han Dynasty Eastern Han	206 B.C. –220 A.D. 25–220
Six Dynasties Northern Wei Period Northern Ch'i Period	ca. 220–581 386–534 550–577
Sui Dynasty	581–618
T'ang Dynasty	618–907
Five Dynasties	907–960
(Northern) Sung Dynasty Liao Dynasty	960–1126 947–1125 (in North China)
(Southern) Sung Dynasty Chin Dynasty	1127–1279 1115–1234 (in North China)
Yuan Dynasty (Mongol)	1279–1368
Ming Dynasty	1368–1644
Ch'ing Dynasty (Manchu)	1644–1912
Republic Sino-Japanese War	1912–1949 1937–1945
People's Republic	1949–

Figure 1.02: Chinese Dynasties and Periods

tradesmen and all in eleven years. The name of his rule, Qin(Ts'in), possibly gave the empire its name in the west, China.

His son lasted less than three years on the throne. A man of the people, Liu Bang, at the head of a peasant army, took over the power and became the Emperor Gaozu, founder of the Han dynasty in 202 B.C. The Han, whose empire was the most populated, advanced and rich in the world, experienced some difficult times with the temporary usurpation of Wang Mang at the beginning of the Christian era, the revolt of the 'Red Eyebrows' and, in 184, the 'Yellow Turban' rebellion, which drove them from power and ended the dynasty.

During the four centuries which followed, the empire was divided into Three Kingdoms (220-265 A.D.), then united under the Jin for less than forty years, then fell apart again into the 'Sixteen Kingdom of the Five Barbarians', founded in the north by Tibetans, Mongols, Turks and other invaders, and the Southern Dynasties(Song, Qi, Liang, Chen). In 589 the Sui re-established a certain unity in this chaos. Finally, in 618, the Tang inaugurated an era of splendor that was to last for three centuries; the classical civilization then reached its apogee in the arts, poetry, sciences, engineering, religious thought and so on, and its influence spread into western and central Asia. But the Tang dynasty had its set-backs with rebellions, too.

Finally insurrections of peasant armies broke out virtually everywhere at the beginning of the tenth century and the dynasty was swallowed up.

China found itself divided once again, this time for fifty-three years among the Five Dynasties in the North, and the Ten kingdoms in the South. At last a little-known general founded the Song dynasty in 960 and re-united the empire. For three centuries the Chinese civilization shone with an incomparable brightness. But the people of the steppes in the west and the north, such as Khitan and Mongols, under the leadership of Gengis Khan, cast covetous eyes towards the riches in China.

They occupied China and imposed their laws: then, in 1271, Koubilai, Gengis Khan's son-in-law, founded the Chinese Yuan dynasty, which lasted less than a hundred years. One of the rebel leaders, one of the poorest of the poor, took the throne and became the Emperor Hongwu, first of the Ming dynasty, in 1368. Once again rebels came out of the depths of Sichuan under the leadership of a herdsman and took over several provinces in 1640 and Beijing itself in 1644. But their victory was snatched from them by a loyalist general who opened the way to the throne for the Manchus.

The Manchu Qing dynasty lasted 266 years. It experienced its time of glory with the first emperors, Kangxi, Yongzheng and Qianlong, then fell into a slow

decline from 1795 onwards until the 1911 revolution leded by Sun Yat Sen which established the republic. But throughout the nineteenth and the first part of the twentieth century, the western powers, and Japan brought the ruin and decadence of the Chinese world through their territorial and mercantile ambitions. It was not until Mao Tse-tung and the Chinese Communist Party, on 1 October 1949, that China Began to find her place in the world once again.

In his book "China Observed", Mr. Charles Meyer commented on Chinese history: "Chinese history often confuses us and always seems terribly complicated with its alternating dark and light period; its dynasties growing up from peasant revolts and disappearing again when they lost the 'Mandate of Heaven'; its civil wars and political manoeuvring with incomprehensible rules; the periodic invasion from 'barbarians' who were swiftly absorbed and transformed into the son of Han. China's historical vicissitudes have sometimes been contrasted with the apparent immutability of its institutions, but it would be fairer to emphasis the continuity of the state through the stability of its social structures, laid down by Qin Shi Huanhdi twenty-one centuries ago" (page 162-163).

Basically this institution is a hierarchy. It begins with the Emperor and extends down in successive stages to his officials (from the imperial city to the provincial

capitals, to central town, to the market centers, and finally to the smaller towns and villages). The family is similarly structured, with the patriarch (founder of the family tree) of previous generations honored long after his death; and the latter's authority and prestige extending down to the succeeding generations. This structure is like that of an Egyptian pyramid which manifests the innumerable, insignificant individuals supporting a superman, 'the son of heaven', and his authority. Social mores, prescribing appropriate behavior between individuals in this hierarchy, as well as standards for dressing, art, literature, and even architecture (form and ornament) are all integral with this authoritarian institution. Even the economic structures of traditional China are carefully controlled by a time honored and authoritarian status-quo.

4. The Present and the Future: Developments and Problems

China began to open her door after the Cultural Revolution and the new policy has attracted western investment and with it western culture including architecture. Many new urban and economic developments illustrate China's determination to become a major competitor in the world economy by the year 2000. New science and technology came into China and at the same time new arts, thoughts, theories, literature and architecture were imported into China. But the new role of the West

raises many questions. Will western culture destroy Chinese traditional culture? Will western living-style change the Chinese traditional living-style? How does China mix western culture and develop her new culture in the modern world? How do Chinese architects develop the Chinese traditional Architecture? Are western buildings appropriate models for future construction in China? Do imported designs provoke a loss of indigenous tradition and culture? As China charts its path into a future with modern technology, can the fragile identity of the Chinese city be maintained?

CHAPTER TWO: CHINESE AND AMERICAN CULTURES

----- COMMONALITY AND DIVERGENCE

1. Prologue: Two Stories

In 1986, the following episode was reported by a Chinese newspaper:

In a village of the northern China, a couple had been married for several years and had four girls, but never had a boy. It is a traditional Chinese feudal idea that only a boy can continue the family. This idea is an outgrowth of "regarding men as superior to women". So the husband was derided by his neighbors while the wife was scolded by parents-in-law as "a hen without eggs". Under the pressure from the family and society, the husband had to sign a financial contract with a poor young girl to make a boy with him, as totally arranged by his parents. Afterwards, the husband and the girl did have a boy but the girl loved the baby-boy and didn't want to give the boy to the man's parents. Finally the man's parents assembled the people in the village and expelled the girl from the village.....

The author's American friends sympathize with the girl's misfortune, and they cannot understand why the husband was despised by his society for not having a son, why the husband had to follow his parents' arrangement, and why the girl did not have the right to have the baby.

In 1985, the following episode was reported by a local newspaper in New Jersey:

A doctor and his wife, also a doctor, could not have children. So they hired a woman for \$10,000.00 to become pregnant by artificial insemination with the doctor's sperm. After the birth of the baby girl, the woman refused to give up the baby. The doctor and his wife sued the woman for custody of the baby. They stated that they had a legal contract with the woman and she should honor that contract. The courts awarded custody of the baby to the doctor and his wife, but gave visitation rights to the birth mother.

The contrast epitomized in these two episodes arises out of the basic and characteristic ways in which people in each society see their past, present and future. This common outlook has been variously termed "social character," "themes of culture," "way of life," or "philosophy of life."

2. Situation-centered vs. Individual-centered

Individuals differ as to temperament, taste, potentiality. Everyone should be part of the order of nature and society. So "doing one's own thing" is unrealistic and non-human for both societies. No matter how committed a society is to the individualistic philosophy, it cannot function without having to organize its members according to certain general principles. Both Chinese and Western societies have social structures and value systems that regulate the behavior of the individual. The

difference between the two societies concerns the degree of the regulation. Basically the Chinese and American way of life may be reduced to two sets of contrasts. First, in the American way of life the emphasis is placed upon the predilections of the individual, a characteristic we shall call Individual-centered. This is in contrast to the emphasis the Chinese put upon an individual's appropriate place and behavior among his fellow men, a characteristic we shall term Situation-centered.

Situation-centered is a concept which means more than group-centered. Specifically, the Chinese individual is more sensitive to the overall structure of society and how he fits into it. This includes his relationship with family, neighbors, colleagues, and even government. The Western individual is, of course, also interested in these relationships, but not nearly as much as his Chinese counterpart.

3. Emotionality

The second fundamental contrast between Chinese and American ways of life is the prominence of emotions in the latter as compared with the tendency of the Chinese to underplay all matters of the heart. Perhaps this is a direct result of the first contrast: being more individual-centered, the American tends toward social and psychological isolation. His happiness, therefore, tends to be more ecstatic, just as his sorrow is likely to be more

miserable. A strong emotionality is inevitable since the emotions are concentrated in one individual.

Being more situation-centered, the Chinese is inclined to be more socially or psychologically dependent on others, because he is tied closer to his world and his fellow men. His happiness and his sorrow tend to be mild since they are shared and, to a greater degree, controlled.

These contrasting ways of life will be the key to this exploration of the two different cultures, including their respective architecture.

4. The Home

An American house usually has a yard, large or small. It may have a hedge, but rarely is there a wall so high that a passer-by cannot see the windows. The majority of American houses have neither hedges nor outside walls. Usually the interior is shielded from exterior view only by window curtains or blinds, and only during part of the day.

The majority of traditional Chinese houses are surrounded by such high walls that only the roofs are visible from the outside, and solid gates separate the interior grounds from the outside world. In addition, there is usually a shadow wall (Yin Bi) placed directly in front of the gates. The outside shadow wall keeps the home from direct exposure to the unseen spirits.

Inside the home, the contrast between China and America is reversed. The American emphasis within the home

is on privacy. There are not only doors to the bathrooms but also to the bedrooms, and often to the living room and even the kitchen. Space and possessions are individualized. Parents have little liberty in the rooms of the children, and children cannot do what they want in those parts of the house regarded as pre-eminently their parents' domain. Among some sections of the American population this rule of privacy extends to the husband and wife, so that each has a separate bedroom.

Within the Chinese home, on the other hand, privacy hardly exists at all, except between members of opposite sexes who are not spouses. Chinese children, even in homes which have ample room, often share the same chambers with their parents until they reach adolescence. Not only do parents have freedom of action with reference to the children's belongings, but the youngsters can also use the possessions of the their parents if they can lay their hands on them. If children damage their parents' possessions they are scolded, not because they touched things that were not theirs but because they are too young to handle them with proper care.

Such an arrangement of a house would be very offensive to Americans. The American physical environment establishes strong lines of individual distinction within the home, but there is very little stress on separation of the yard from the outside world, which is exactly the reverse of the

Chinese home.

5. The Family

The difference between Chinese and American homes reflects their contrasting patterns of behavior in the family.

Americans are very verbal about their children's rights and are concerned with the welfare of their children. American do not only study their children's behavior - they glorify it. Chinese do not only take their children for granted - they minimize them. The important thing to Americans is what parents should do for their children; to Chinese, what children should do for their parents. Most American parents encourage their children very early to do things for themselves - to feed themselves, to make their own decisions - to follow their own predilections. they expect their environment to be sensitive to them. Chinese children learn to see the world in terms of a network of relations. They not only have to submit to their parents, but also have little choice of their wider social relationships and what they individually would like to do about them. When children might get into trouble, the characteristic advice to Chinese children is "Don't get into trouble outside, but if there is danger, run home." The Chinese children are obliged to be sensitive to their environment.

Through consciously encouraging their children to grow

up in some ways, American parents refuse to let the youngsters enter the real world of the adults. They leave their children with sitters when they go to parties. If they entertain at home, they usually put the youngsters to bed before the guests arrive. Children have no part in their parents' regular social activities. Chinese parents take their children with them not only to wedding feasts, funeral breakfasts, and religious celebrations, but also to purely social or business gatherings. Chinese youngsters enter into the adult world in the course of their mental and physical growth for their future life in this situation-centered society.

These two topics, home and family, reveal certain pronounced and consistent differences. The Chinese have close ties with their primary group, and this relation is basic and the permanent core of all others. They have little active interest in wider entanglements except where the latter enhance their position among their family, relatives and fellow villagers, or where they become necessary to protect themselves or others in the same groups. The American participates in a wide variety of relationships, all of which tend to be transitory. The least personal of this multitude of relationships, such as his ties with his nation, can be of the greatest importance to him, but often none of these relationships is intimate. The American's relationships tend to be transitory, because

within his ideal of self-reliance, human relations are self-centered and based on personal whim. This is in contrast to Chinese relations which are based more on social structure: the family, etc.

6. Religion

Even the Chinese religion is a reflection of the social structure. The Chinese spiritual world is polytheistic, utilizing entities from Buddhism, Taoism, and Ancestor Worship. The afterlife is seen as a mirror image of this world, with the spirits participating in a hierarchical social setting. When a family member dies, prayers are offered to any number of spirits, entreating them to help the departed function in the next world. Even fake money is burnt to help the dearly beloved bribe the necessary officials.

In contrast, Christianity and Judaism, the two monotheistic religions most common in the west, are essentially individualistic religions that emphasize a direct link between the one and only God and the individual human soul.

Another point in relation to religion is that the Chinese believer resorts little to prayers in a temple. Instead, a small shrine was built in most Chinese home. This indicates once again the importance of the family even in religious matters.

One final point on religion is the negation of the

individual that is emphasized in Buddhism. Self satisfaction and the accumulation of material things are discouraged. The individual is encouraged to find meaning in the successful carrying out of simple daily duties or responsibilities.

The Chinese have a situation-centered way of life while that of the Americans is centered around the individual. Through the home, family and religion, one can understand the essential differences between the two cultures.

CHAPTER THREE: COMPARATIVE ARCHITECTURE

1. Introduction To Chinese Architecture

During more than 3000 years of antiquity in China, totalitarian emperors reigned until the fall of the latest Qing dynasty in 1911. The persistent domination of feudalism was consistent with the teaching of the most influential Chinese philosopher, Confucius, who lived 2500 years ago. Confucius taught the ethical importance of ritual in political and private life and greatly influenced all aspects of Chinese culture. Confucianism retained its constant importance with feudal society as an essential part of the ruling mechanism in spite of all the peasant upheavals and changes of dynasty. Detailed disciplines demanded the people's blind loyalty to the emperor, who was recognized as the divine ruler, the son of heaven. The fundamental unit of feudalism was the extended family, in which reverence and absolute obedience to the patriarch was demanded. Loyalty to the emperor and filial obedience to the patriarch were the basic tenets of Confucianism.

Confucianism - with its rigid and hierarchical conception of social organization - also dominated and strictly regulated the traditional architecture of China. This resulted subsequently in extremely restricted, formal, axial, symmetrical architectural layout of towns, temples, palaces, and residential courtyard houses. Thus, buildings

for all purposes shared a basically stereotyped layout, differing only in size, dimension, and ornamentation according to their functional needs. All buildings were ultimately regulated by the rank and social status of the occupants in the feudal society. This type of architecture is called "Northern Loyal Architecture".

Since the Warring States (475-221 B.C.) people tended to escape from reality and their distressed state of mind. Consequently, the other great school of ancient Chinese philosophy, Taoism, came into vogue.

Taoism summoned people back to nature. Laozi, the supposed founder of Taoism, had greatly influenced the Chinese garden by censuring mundane interests and by exhibiting an immense love for nature. The Taoist ideal of beauty is expressed in asymmetry, with a curviliner layout derived from nature and strikingly rebellious to the formal architectural tradition. The Chinese Garden is, in fact, another Chinese architectural system, one that contrasts with the formal axial and symmetrical system of classical architecture. Being given the title of garden, its spatial and architectural design were set free from official restrictions of buildings.

Basically there were two major architectural system in China. In fact, there were many sects of philosophy in ancient China; yet looking over their doctrine carefully, one might be surprised to see how similar they are in their

conception of space. It is very important to start with the Chinese and American conceptions of space for searching the commonality and divergence between Chinese architecture and American architecture. Looking into the Chinese conception of space helps to understand Chinese architecture better and to see more clearly how Chinese architecture related to the Chinese situation-centered way of life which is different from American individual-centered way of life.

2. The Chinese Concept of Space

There are many philosophical approaches in Chinese architecture. In spite of all the different terms and names they used, the central core was one space where bipolarities coexist harmoniously as one perfect whole, where the bipolarities in the course of time, move, change, interact and reciprocate. This coexistence as one perfect whole represents the Chinese understandings of their social system which is situation-centered.

Early in China, in or before the time of Zhou dynasty (11th B.C. - 711 B.C.), the Chinese philosophers believed in change. In the book "I-Ching" or "The Book of Changes", it was said that all things on the earth came from Change and Change was caused by interaction of the bipolarities of Yin and Yang. Firmness and suppleness interact with each other, change evolves. Related to this point, Space as experienced in Taoism has no real definite being, but is an

entity which existed before heaven and earth were formed. It is composed of all the WU, the non-being or non-substantial which cannot be named and has no form, and the YOU, the being or substantial which can be named and has form. Wu and You move around continuously as one uninterrupted whole, with no beginning and no end.

The philosopher Confucius inherited the doctrine of "I-Ching"; he was so close to it that part of "I-Ching" was once supposed to be written by him. Thus the idea of Change and of there being within the universe earthly phenomena and invisible power were similar to that of Taoism. Buddhism was imported to China in 67 A.D., and was soon assimilated into the Chinese culture. Its doctrine concerning space was the same: "space is color and color is space". "Space" in Buddhism means the non-substantial self, "color" means the substantial existence one can feel; the equivalency of the two implied transformability of the substantial and the spiritual.

Space in China, no matter if synonymous with the universe or with the earthly world, deals with both the substantial and non-substantial existence and is closely concerned with the incessant and infinite change and reciprocity between the two. According to Chinese Professor, Luo Xiaowei, "space in Chinese conception cannot be measured in size, defined in form, modified in orientation or expressed in language but is known only

through one's deep insight; it exists in man's intangible but logical understanding, modes and ways of thinking, and also on man's aesthetic sense." In fact, the similarity in their value of space make the different approaches to philosophy coexist peacefully in the long history of China.

Confucianism emphasizes the relationships between people. Its aim was to seek for a way to achieve what the supernatural meant, namely a way for people to live together peacefully and harmoniously. Therefore Confucius required everyone to practice Ren, benevolence, toward each other. To guarantee the realization of Ren or avoid calamity by lack of consciousness, Confucius built up the doctrine of Li, the ethical code or the principle to keep things in order and to guide people right in their conduct. He pronounced Li as the frame of order of the world and believed if everybody was educated and disciplined with Li - e.g. father and son, husband and wife, ruler and subject - everyone knew how to act exactly in their given place, then an ideal world would be established according to heaven's will.

Thus, space in Confucianism is everything in its right place, right form, right size and right order, and the scale of being right is closely related to its social position. From that were produced certain tonal pattern and rhyme scheme for poetry, specified temperament and intonation for music, formulated styles for acting and

movement and stipulated color and form in opera costumes, especially in the arts of the imperial court. So it was in city layout and architecture. The doctrine of Li, the hierarchy of civil and religious power, determined that the palace of the sovereign or the living quarter of the master of the household be situated in the center of the city and lodging of the family and all the others allocated to their given place according to their social and family position. In architecture even the size, the color and material used were stipulated according to rank. All these typically represent the characteristics of the Chinese social system, which is situation-centered.

Such characteristics which compare with those of the West might seem more prominent in Chinese architecture. But in fact the real essence of Chinese arts and architecture which caused them to flourish into an advanced and unique culture, and make them distinguishable from the West was the Chinese conception of space.

When the Chinese conception of space is mentioned in architecture, many scholars like to quote Lao Zi, the founder of Taoism saying:

Moulding clay into a vessel, owing to its Wu there is the utility of a utensil;

Cutting doors and window for house, owing to its Wu there is the utility of a room;

Therefore being You is advantageous,

Being Wu is utilizable.

As mentioned before, You is substantial while Wu is non-substantial. Lao Zi used common sense to explain the interrelationship of You and Wu. Chinese Professor, Luo Xiaowei made a current translation for this quotation directly relating to architecture in her article "The Chinese Space" (page 94-95):

Moulding clay into a vessel, we find the utility in its hollowness;

Cutting doors and windows for a house we find the utility in its empty space.

Therefore the being of a thing is profitable, the non-being of things is serviceable.

Basically, this quotation explains the idea of the coexistence of the substantial and non-substantial, and the interaction and reciprocity of them with non-substantial as the driving power. This is the Chinese conception of space. Its effect on architecture was just as prominent as on other fields of art.

The coexistence of the substantial and non-substantial and the interplay between them are even more prominent in Chinese traditional architecture and garden. In painting, drama or poem no matter how close to the viewer, audience and reader, there is still a substantial distance between observer and object; but in architecture and garden, the viewer, and surroundings are combined into one. That means

the observer stands, moves and lives within the surroundings. Vision from a stationary (or comparatively stationary) viewpoint concerns only size and distance, but vision in motion concerns also space and time. The passiveness of architectural objects makes it possible for man to experience the infinitely multiplied vision by change of place, direction and sequence.

The Chinese conception of space emphasizes the coexistence of the substantial and non-substantial, and consider individual building and surroundings as one whole which is the basis of Chinese architectural design. More or less, the individual building is placed on a secondary level, which indirectly represent the characteristics of Chinese social system and the Chinese way of life, which is situation-centered.

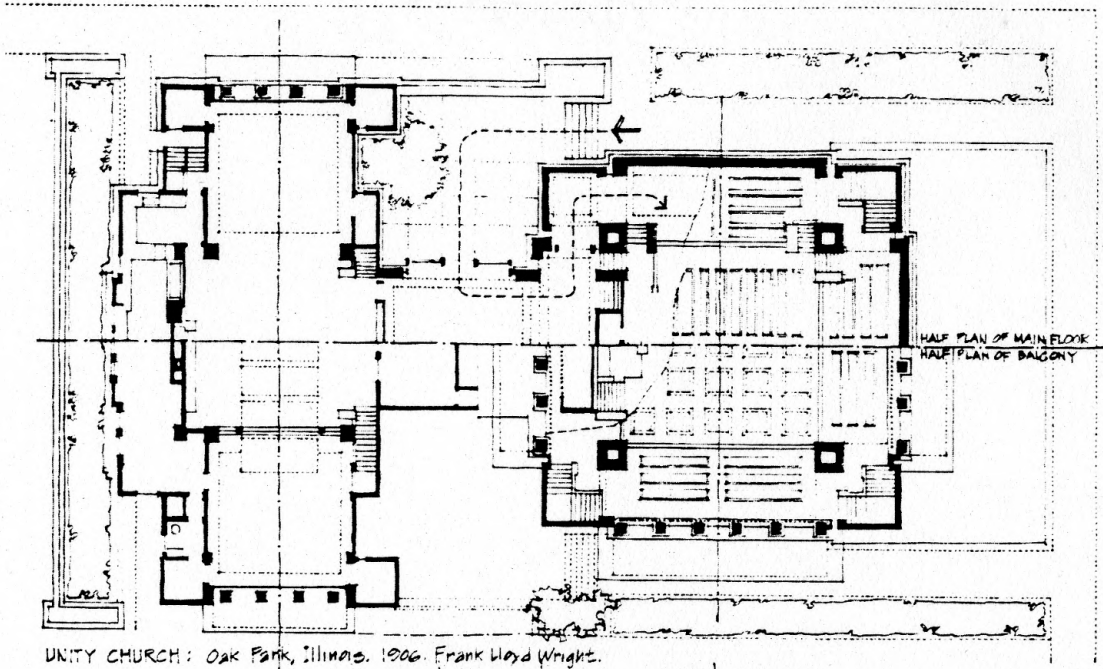
3. The American Concept of Space

American architecture does not appear to have any consistent concept of public and/or private space as the Chinese concept of space mentioned above that has guided the construction of built environment down through time. Perhaps the major reason for this is that American culture is a "melting pot" of the numerous ideas and customs of the different ethnic and national groups that have chosen to share this continent. Nevertheless, within the individual cultures that this culture is founded upon, one must

acknowledge many parallels to the spatial concepts in Chinese architecture, as described above.

American architecture utilized sophisticated ordering devices such as centrality, sequentiality, and symmetry. The symmetric and biaxial arrangement of spaces was quite similar to that of the forbidden City of Beijing. This use of symmetry as a means of expressing monumentality and formality for important buildings has been maintained to the present day. Examples of government buildings, as well as larger housing for the wealthy, can be found throughout the United States. The Unity Church in Oak Park, Illinois by Frank Lloyd Wright is another good example of symmetry (see Figure 3.01). A use of centrality in the U.S. also can be found in the great Rotunda of the Capitol building or more recently in the First Unitarian Church in Rochester, N.Y. by Louis Kahn (see Figure 3.02).

With the great cathedrals of the medieval period, more and more people were allowed to witness the great religious functions, necessitating the creation of great processions of the religious figures down the naves. This axially was made more meaningful by the east/west orientation of the nave, where the west served as the entrance and the altar and sanctuary to the east represented in Europe - the direction toward the Holy land. The tradition transferred to the U.S. and remained. The majority of American churches to this day still heed this sense of spatial order such as



UNITY CHURCH: Oak Park, Illinois. 1906. Frank Lloyd Wright.

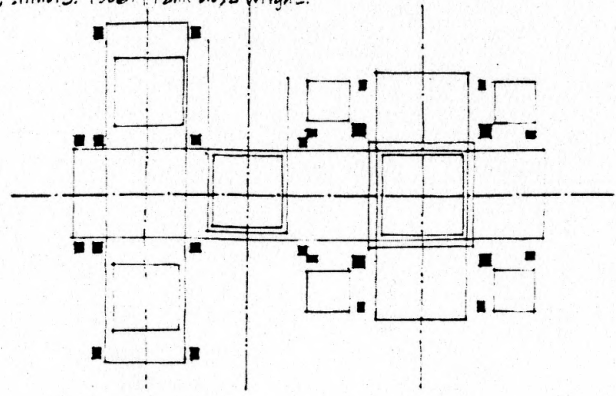


Figure 3.01: Unity Church

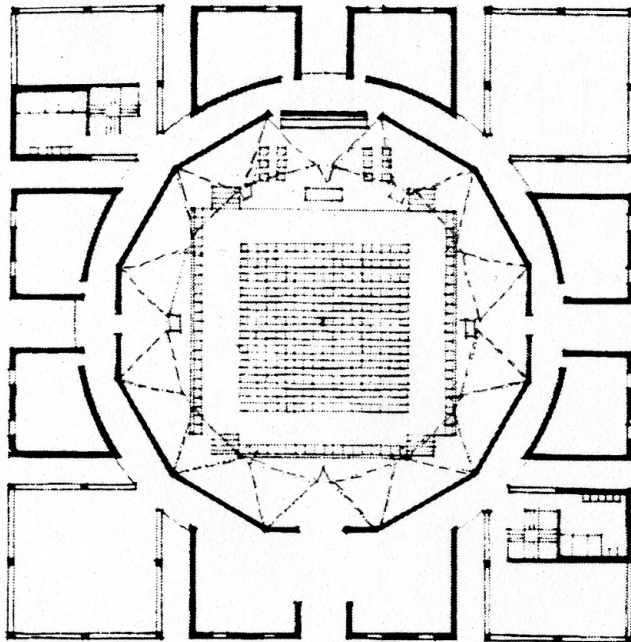


Figure 3.02: Unitarian Church

the Cathedral of St. John, the Divine in New York City.

Even the juxtaposition of spaces of varied character for dramatic effect can be found throughout Western architecture's history. The contrasting of light with dark, narrow with wide, low with high, and internal with external spaces have been explored with stunning results in the churches and palaces of numerous architectural masterpieces. One common theme was the use of constricted and dark staircases as an entryway to well-lit and large spaces. Here again, many of the larger churches in the U.S. try to capture these striking contrasts. Thus when walking into many churches one usually passes from a low constricted vestibule into a spacious nave. Frank Lloyd Wright is well known for using this kind of juxtaposition in his residential designs.

Another sophisticated spatial concept is the interior/exterior duality of space. This skillful handling of concave/convex surfaces and interior/exterior duality is displayed by many of America's finer architects. Gwathway/Siegel utilized subtractive massing themes to establish sequences of spaces that possess varied degree of enclosure. Interior/exterior duality is revealed in by Charles Moore in many houses which possess sunken floors surrounded by columns within the central living room. The Moore House in Orinda, California (see Figure 3.03) and the Condominium Unit 5 in Sea Ranch, California (see Figure

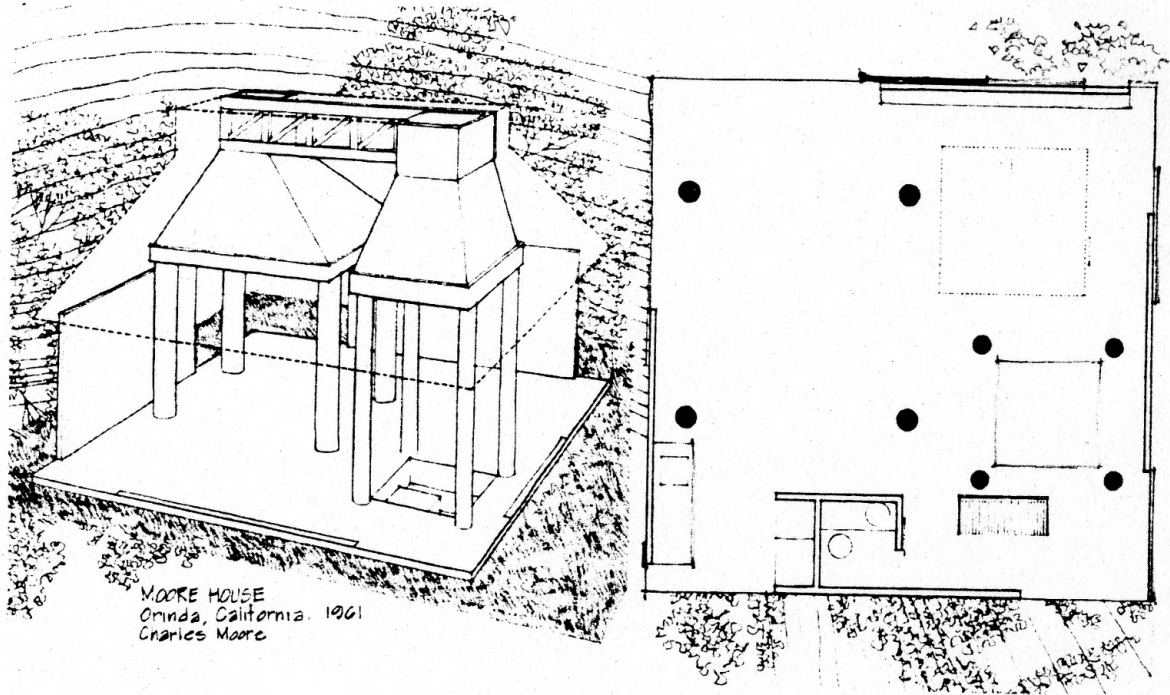


Figure 3.03: Moore House

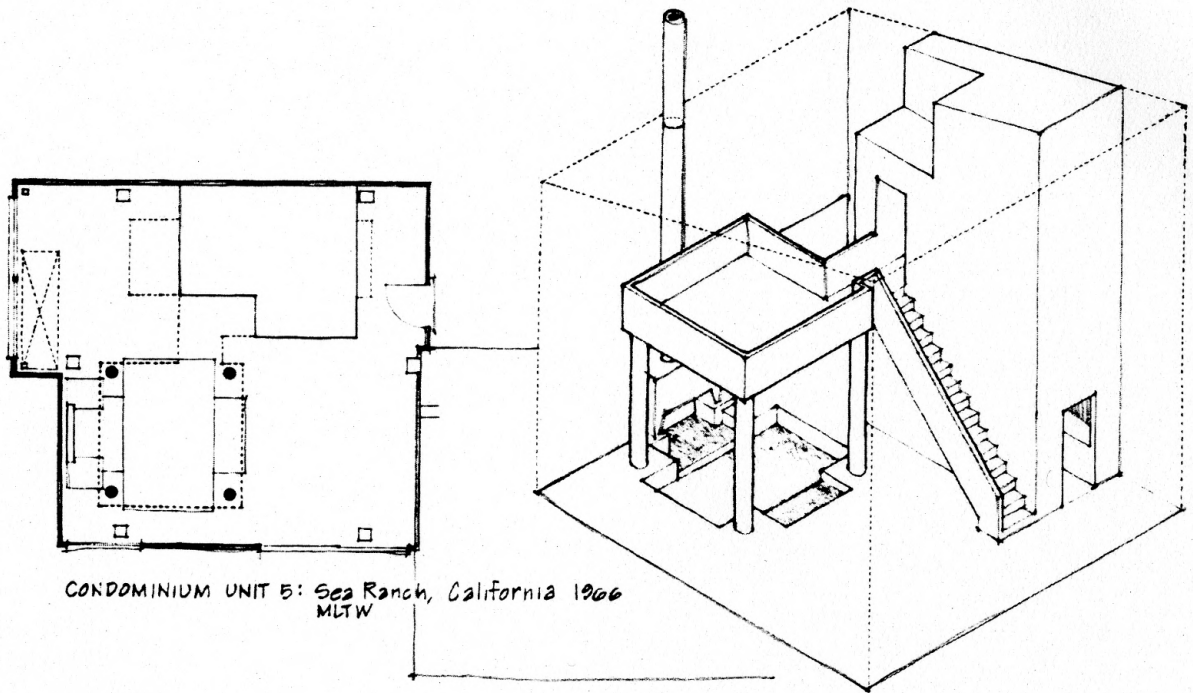


Figure 3.04: Condominium Unit 5

3.04) are good examples.

Despite the part of Western and American architecture that the varied handling of space has played, the most common focus in architecture is on the composition of decorative elements on the internal surfaces, especially, external facades. This is apparent in the historical textbooks on Western architecture which trace carefully the evolution of the use of classical elements such as the column and entablature that originated in Greece. Typically, one generation of architects, such as those of the beginning of the Italian Renaissance, would establish a set of rules. The following generation, the Mannerists, modified and even rebelled against the established architectural doctrine. In American architectural history, the same attention to historical styles is manifest: thus, the Georgian period utilizes the Renaissance and Baroque vocabularies as found in England in the eighteenth century; and the Greek Revival uses the columns and entablature of the ancient Greek temples, (see Figure 3.05, 3.06, 3.07, 3.08).

The point, here, is that Western and American scholarship focuses on these facade elements and compositions to the extent of ignoring other themes, such as the evolution of spacial types and orders. This gap is either the fault of scholarship or represents the actual discontinuity, over time, in Western spacial thinking.

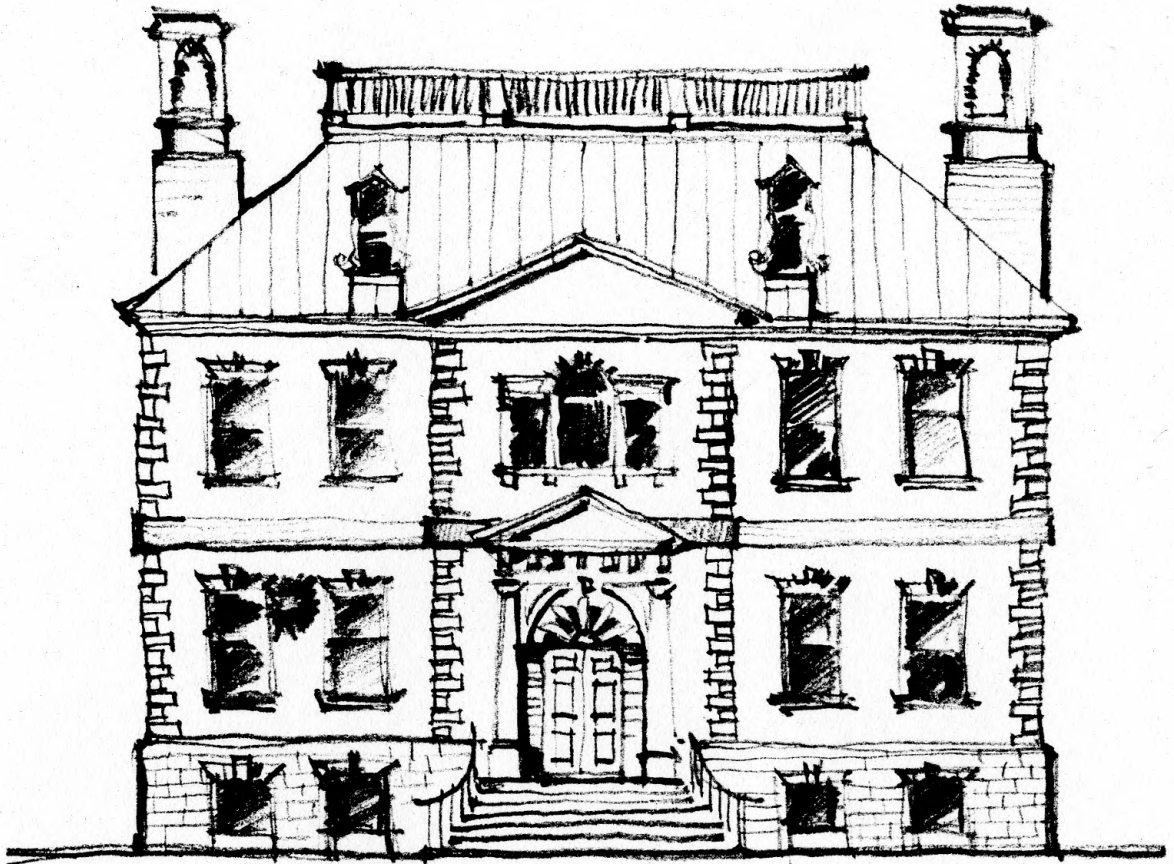


Figure 3.05: Mt. Pleasant Mansion



Figure 3.06: Dr. Upton Scott House



Figure 3.07: Old State Bank



Figure 3.08: James Lanier House

Perhaps the truth rests in a combination of the two. at the very least, the pervasive spacial orders found in Chinese architecture and urban design are not present in the West.

With the industrial revolution of the Nineteenth century, the dominance of the religious and imperial monumental structures in architecture came to an end. Instead, the public works and residences built by the new governments and the wealthy took their place. In addition, the growing middle classes brought architecture more than ever to the masses. In this period, which continues to this day, the satisfaction of individual needs and desires, in particular, functionalism, have become the dominating force in architecture.

Perhaps the United States was best prepared to make the break from the social and political orders of the feudal past. Lacking the imperial and ecclesiastical authorities of Europe, the wealthy entrepreneurs and participants in the thriving democracy were more free to pursue their own aesthetic inclinations. More importantly, the all-important goal of profit made its mark on the town and cityscapes.

There were forces, and individuals who fought for a more structured spatial order in the growth of American cities. The grand avenues of Paris, with the great buildings of state at either end, were the model for

L'Enfant in his layout for Washington, D.C. The great parks of New York City, as conceived by Olmstead, saved the masses from an undifferentiated grid of streets. However, the forces of greed through speculative development easily swept away even the town greens that characterized so many of the earlier settlements.

While the spatial concepts mentioned above can still be found in numerous works of American architecture, their diversity and the lack of any foundation of spatial thinking is apparent. Unfortunately, an insensitivity, especially toward external space, is all too common.

In his book, "Meaning in Western Architecture", Norberg-Schultz criticizes the lack of attention paid by builders to the overall organization of urban environments. He cries out for the recognition of the "public existential space", that is, the shared sense of definition and character of specific neighborhoods with their special focal points. Throughout this text, Norberg-Schultz describes the historic existence of meaningful urban orders present in the numerous societies that make up the Western world. Spatial concepts like centrality, axiality, and symmetry that are apparent in the site planning of ancient and imperial eras have been lost to the chaos of the post-industrial period.

Contemporary America most represents the somewhat disordered approach to contemporary Western space.

Carrying out his individual-centered character, the American builder is apt to construct the most impressive facade that his funds allow. Thus, a city, like New York City, is apt to have one glorious high rise after another, each competing with the other for the passer-by's attention. The old landmarks, such as churches, public buildings, and squares have become lost in numerous urban canyons.

A prominent example of this insensitivity can be found in the skyscrapers of Midtown Manhattan. The heralded AT&T building is a powerful but graceful structure, capable of being the focal point of any great avenue or public space. Unfortunately, its grandeur is all but lost to the ninety feet of space, i.e. Madison Avenue, that it fronts. Immediately adjacent to it are several competitors, such as the IBM building, which basically ignore each other and further prohibit even the oblique views of the individual buildings.

From a planning perspective, the lack of any consistent order and the minimal protection of an urban system where it exists, perhaps contributes to the openness of contemporary American society. For example, if one's immediate neighborhood is relatively undifferentiated from adjacent neighborhoods, the individual's sense of communality with his immediate neighbors is lessened. Instead, the broader group of citizens is emphasized.

However, if this last group is too large, it becomes less and less meaningful to the individual members. On the one hand, the individual has a tremendous amount of freedom to act as he pleases, for he does not have a select group of individuals that know him well. On the other hand, a sense of isolation is increasingly likely, because he does not have the automatic brotherhood that a more closed society offers. These phenomena perhaps symbolize an essential characteristic of contemporary American society, that is, its individual-centeredness.

To conclude this study of basic spatial themes in American and Chinese architecture, perhaps several contrasts can be pointed out. While many spacial concepts are shared by both cultures, the Chinese system of spatial order is perhaps more refined and involved, as well as more important to the individual works of architecture. Just as important, the Chinese sense of spatial order has been maintained with little change from the beginning of its history. This standardized system is a prime example of the situation-centered Chinese society, for these concepts are still an integral part of every individual.

4. Building and Mass

Some might think the difference between Chinese architecture and that of the West lies in the construction because Chinese architecture is mostly timber framed and the Western mostly masonry. Some may think the differences

are in the rigid order in the allocation of space in place as influenced by Confucianism. While such differences are significant, much more important is the composition of space.

In Western masonry architecture the composition of enclosed space is, as Aristotle once said, to combine pieces of elements into one unity, thus the more space a building has the bigger the mass. In Chinese traditional architecture, the composition of enclosed space is to relate space of tangled forms in proximity by a common void. The common, courtyard which makes the enclosed-spaces relate to each other, is surrounded by enclosed-spaces and has the same values as the enclosed spaces. This means that many activities take place there, no matter whether in a palace, temple or house. The size and shape of a courtyard is determined by the physical, spiritual and economic needs of the owner or user of the building, and also by geographical and climatic causes.

When the enclosed and open space afforded by one courtyard is not enough, another or more courtyards are added. So the courtyard along with its surroundings becomes another basic unit for the composition of space on a higher level. Therefore in Chinese traditional architecture, a big building is not a big mass but a group of interwoven enclosed and open, solid and void, high and low spaces. Their relationship correspond with the coexistence and

interaction of the substantial and non-substantial.

Although Confucianism made the layout of courtyards rigid along one or several axes, with the courtyard of main halls located almost on the mid-length of the central axis, in informal architecture such as small houses, there are courtyards on minor axes or houses in the garden, and the layout is free and vivacious, (see figure 3.09).

Maybe the Western term "flowing" is the right word to be applied to the expression of such an organization of space. When one rambles from one courtyard to another, the invitation by the emptiness of the void, the repulsion by the mass of the enclosure or the possibility of penetration through the emptiness within the mass guide one to flow naturally from one into other. The contrast or complement of light, color, size, texture, shape, and sound of every different unit in succession, the variation and interplaying of solid and void, high and low, exterior and interior, dispersive and dense, straight and curved of buildings, besides the flowing space not only horizontally but vertically..... all of these attract attention and contribute to the visual experience. These will give the sense of a space that grows endlessly, from non-substantial to substantial and from non-substantial to substantial existence.

The Forbidden City in Beijing is a good example. Passing through the grandiose central axis which dominantly

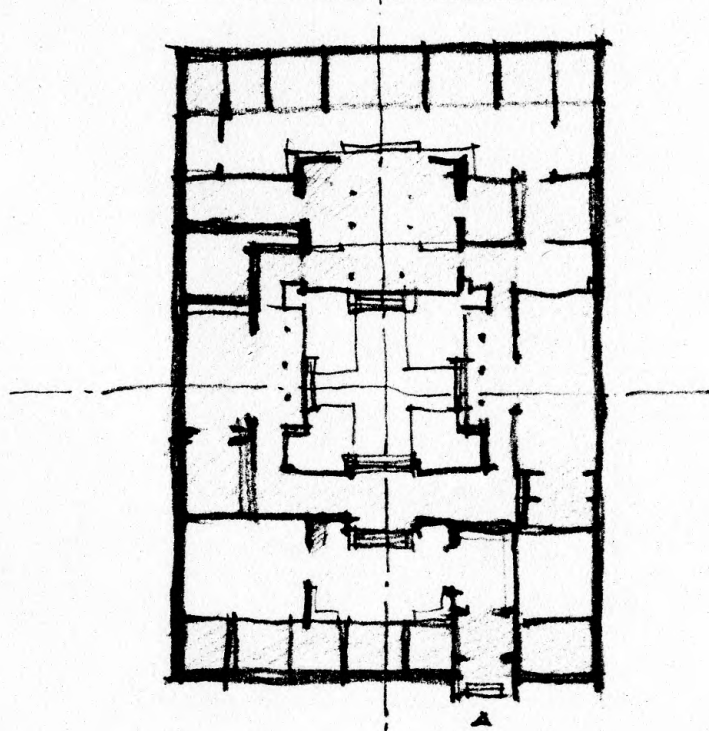
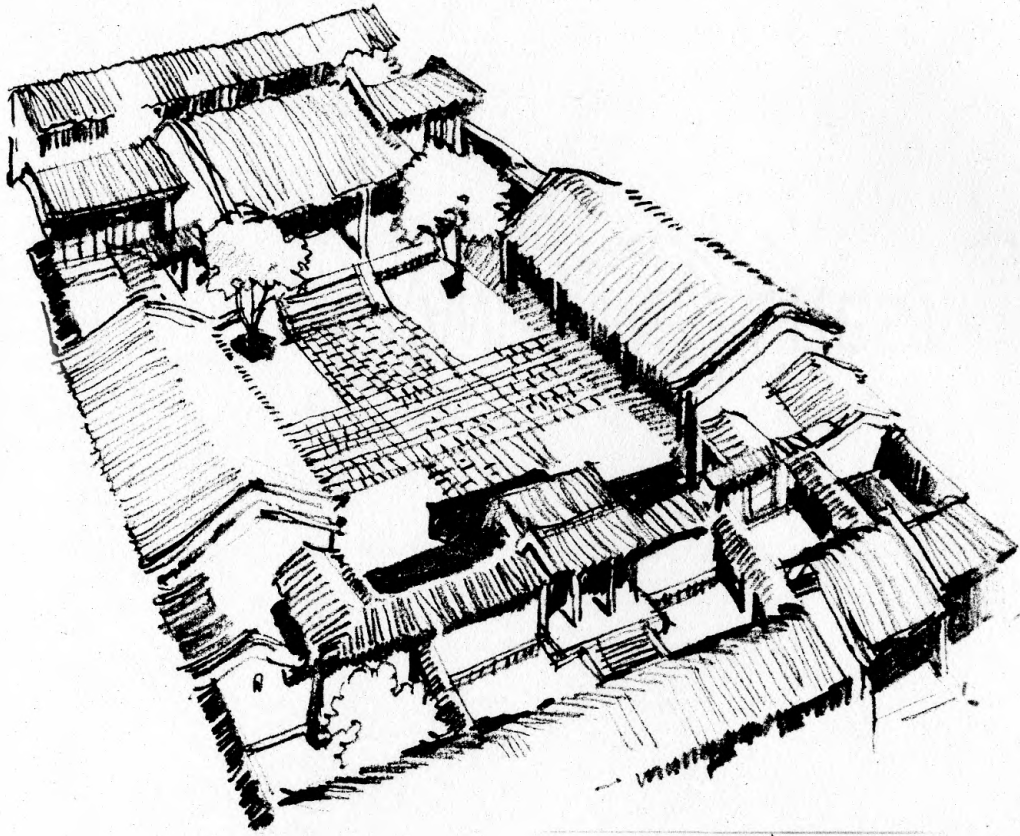


Figure 3.09: Beijing Courtyard House

controls and holds the environment, one will experience twelve different courtyards, each with its own scenery and its own meaning and every scenery changes dramatically into another from exterior to interior or vice versa. It is the change that urges people to penetrate further with the expectation to find and feel more.

Another very good example is the entrance of the garden house named Liu Garden. By the means of spatial contrast and leading views, the designer successfully emphasized the main space in the Liu Garden, (see Figure 3.10, 3.11, 3.12).

5. Gardens

About the differences between the Chinese and European Garden, in his book "landscape design in Chinese garden, Professor Frances Ya-sing Tsu mentioned that " the Chinese garden differs substantially in content from gardens in the rest of the world. Gardens in the Western tradition are a product of leisure, serving no immediate practical purpose, while the Chinese traditional garden is a microcosm for living. A Western garden, classic or naturalistic, is the link between people and the world in which plant material is used as the major component, while a Chinese garden is a built environment of livable spaces with natural and artificial components to fulfill physical and spiritual human need" (page 31).

The Chinese naturalistic garden and the European

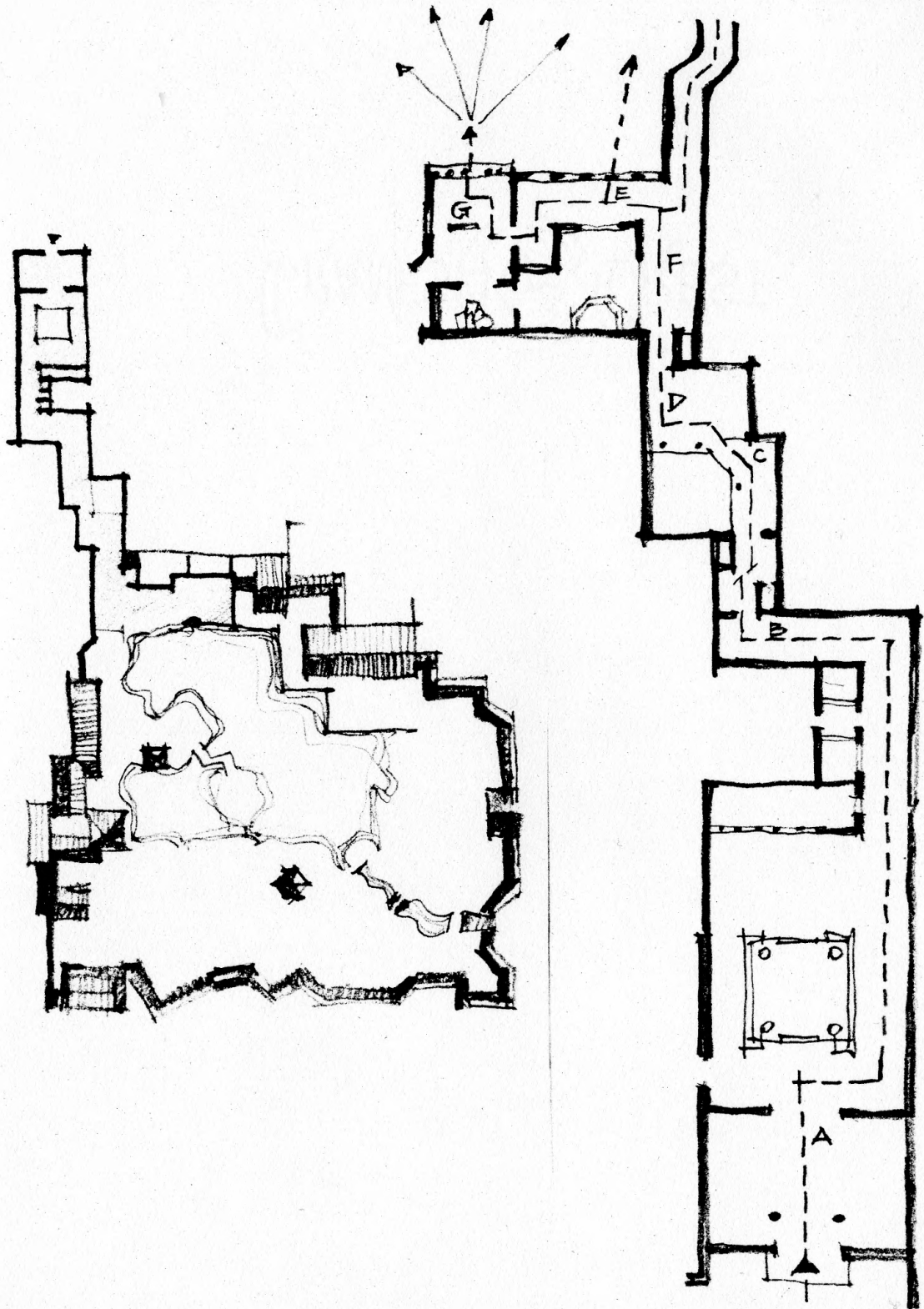


Figure 3.10: Entrance Design of Liu Garden

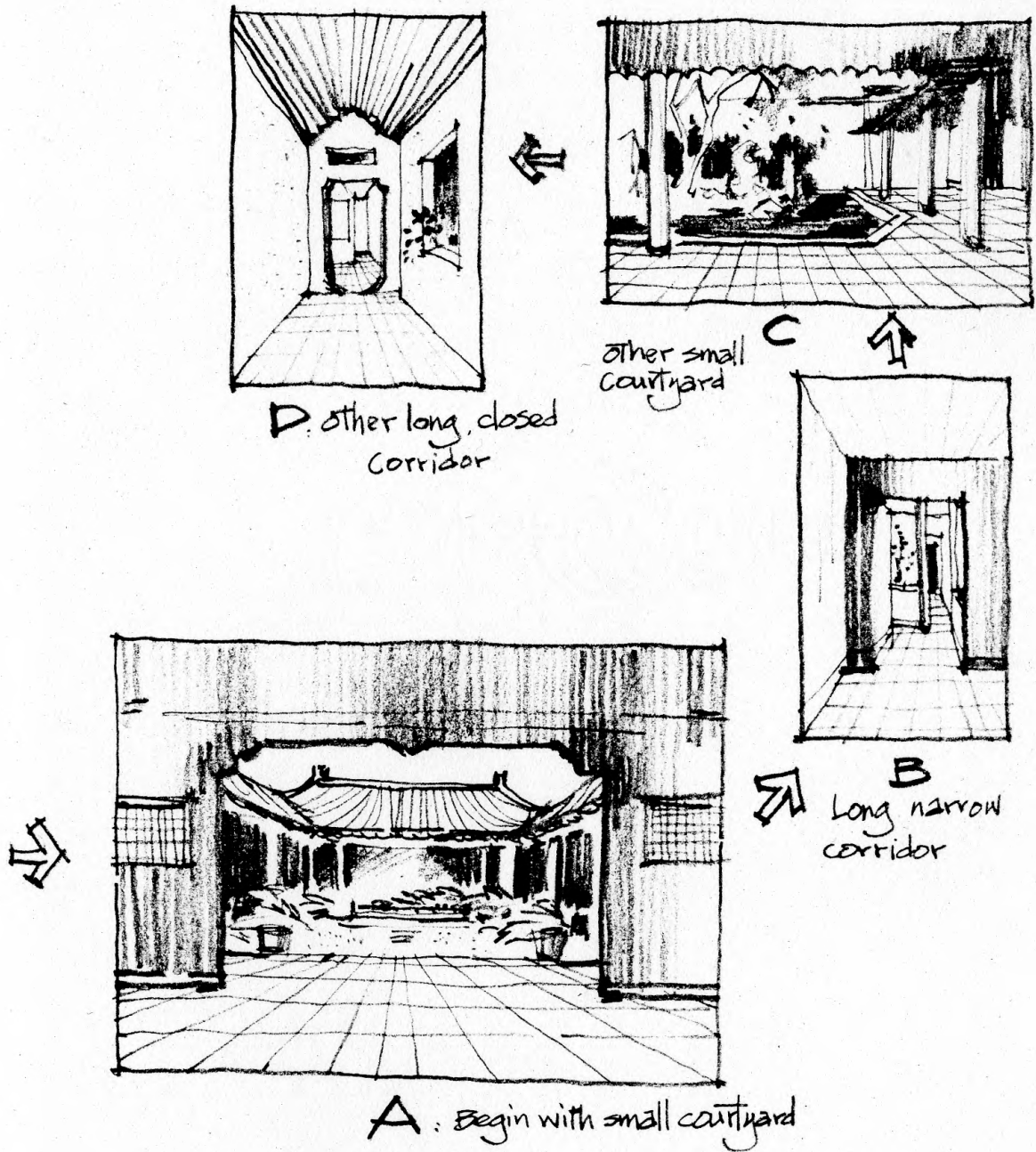
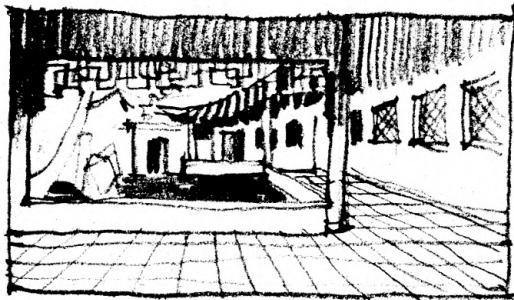


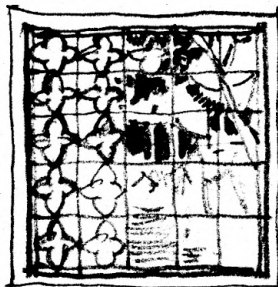
Figure 3.11: Entrance Design of Liu Garden



G Suddenly opened after corridor



F. pass last, small courtyard



E Looking sense of main space
through window

Figure 3.12: Entrance Design of Liu Garden

geometrical garden are the world's two major ancient garden systems. The ancient Western garden, with a layout based on a rectilinear tradition, can be traced back to Egyptian and Islamic influence. The Renaissance Italian and French gardens are planned in axial and symmetrical layout with series of geometrically shaped parterres and rectilinear paths, assimilating a spatial structure of rooms and corridors in architectural design. Geometrical gardens of the West present a strong artificially created order in opposition to nature, human power expressed by organizing nature under the control of human will.

Classic gardens of Western tradition, including American, were built around edifices with garden architecture consisting of terraces, parterres, fountains, flights of stairs, railings, and retaining walls, architectural features --- a trellis, an open gallery, a pavilion, or a small garden house --- are founded in extended landscape gardens, dispersed in the planted landscape; they usually serve as ornaments rather than lending themselves to a practical function such as a rest stop. The garden sets off the edifice; it becomes the approach or the background for the ornamental architectural features.

The Chinese garden belongs to an entirely different thought and is a combination of poem, painting, drama, landscape and architecture. As the garden was considered a

microcosm of nature, the aim of Chinese garden design is to create a sense of infinite space. It is so infinite that there is always the feeling of no beginning and no end. The artists of Chinese garden design intentionally compose view-in-position and view-in-motion together so that no matter if the viewer is sitting or strolling around there are infinite varieties of views ahead. The change of position will be a change of views which are carefully attended.

According to this basic design concept, there are gazebos, pavilions, sculpturesque rocks, artificial hills and free-shaped ponds to set the scenes apart or to unite them; there are still waters peaceful as mirrors or running streams that come and go nowhere; there are winding paths and covered walkways going up and down, left and right with endless changes of scenes; there are windows which are useful and decorative and windows that provide glimpses or let the views penetrate from one side of a wall to the other; there are paintings, couplets and signs to make the space or place more meaningful. Just like calligraphy, literary comment, or seals integrated into Chinese paintings, they are a part of a garden but have meaning outside the garden. Every one of them can be the theme of a view from a certain view-point and becomes an accompaniment of others. In short it is the coexistence and interaction of all the substantial and non-substantial within and

outside the garden that make the Chinese garden the gem of Chinese culture.

A very good example is the design of Liu Garden in Suzhou, (see Figure 3.13, 3.14, 3.15).

In Western and American gardens, the garden is designed as an aspect of the building while the building is designed or arranged as an aspect of Chinese garden. This is another good example of the different basic characteristics in two different cultures: situation-centered and individual-centered.

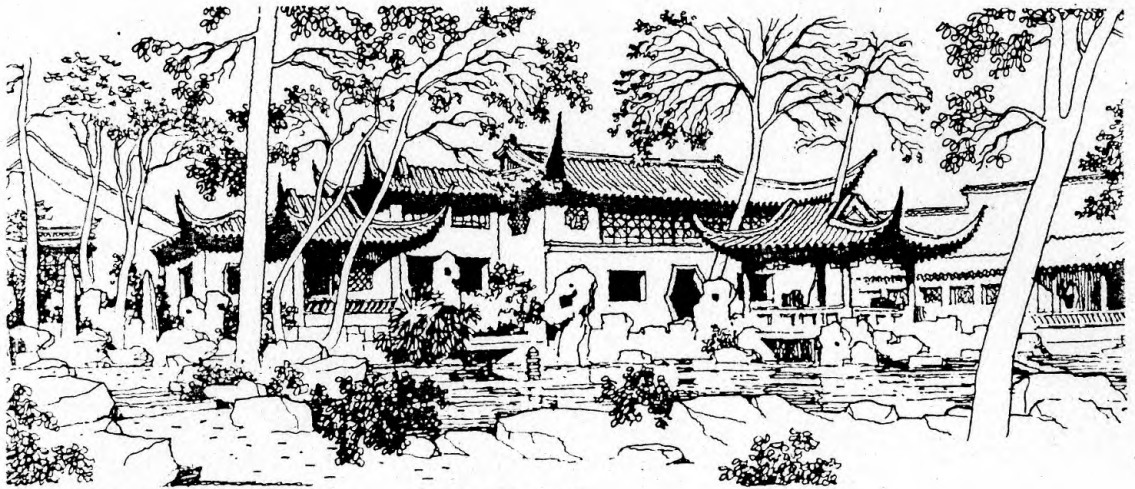


Figure 3.13: Perspectives of Liu Garden

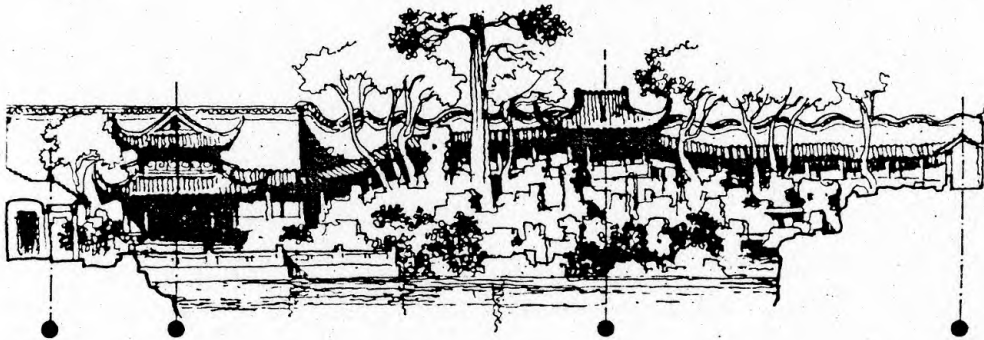
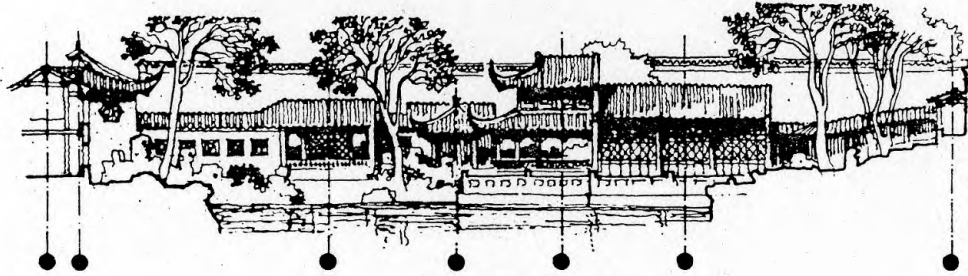
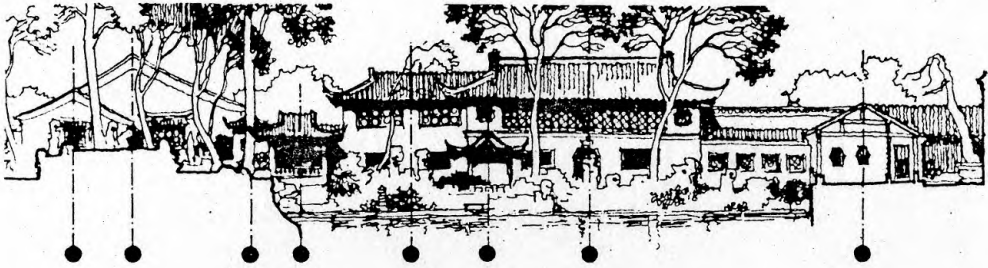
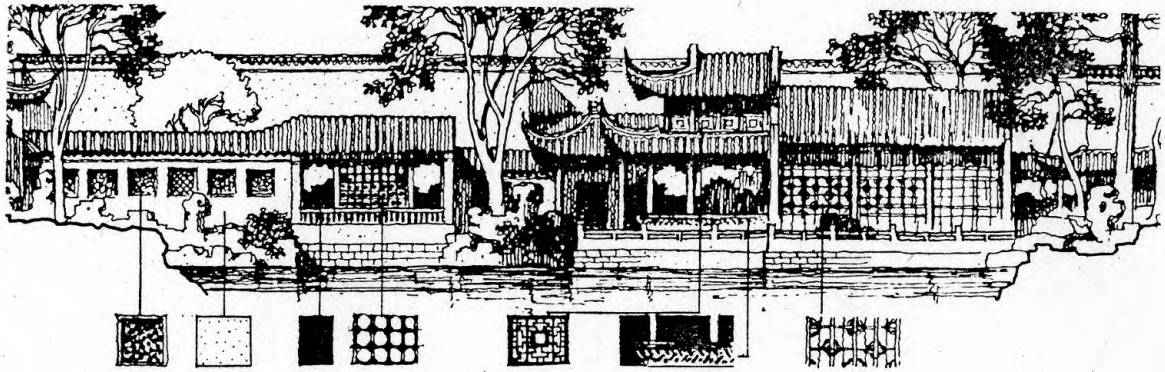


Figure 3.14: Perspectives of Liu Garden

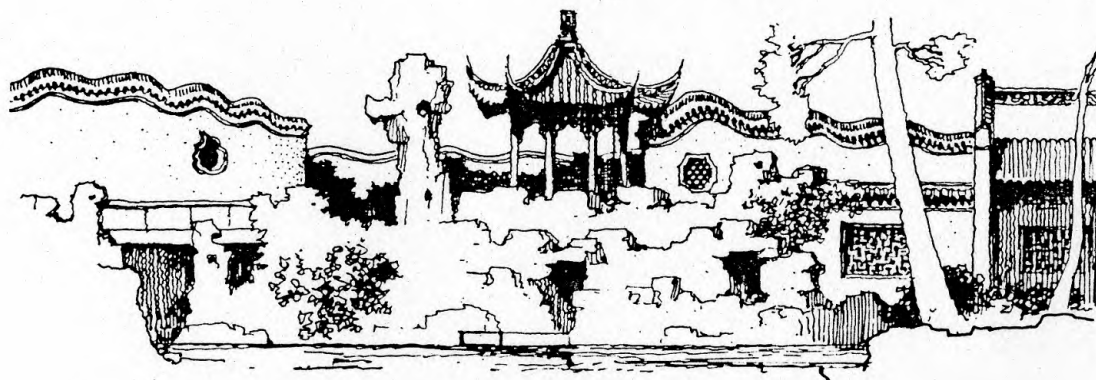


Figure 3.15: Perspectives of Liu Garden

CHAPTER FOUR: TRADITION OR INNOVATION:

DEVELOPMENT OF CHINESE ARCHITECTURE

China is a country with age-old cultural traditions characterized by unique styles in all spheres of culture. China had, long ago in its history, begun cultural exchanges with the outside world by land and sea, and absorbed foreign culture to enrich its own. However, the long-standing and consistent characteristics of China's traditional culture have remained intact.

Since the mid-nineteenth century, while the western powers crowded into China, many Chinese intellectuals, seeking political ways to strengthen the nation, have tried to explore means of developing China's new culture. The modern Western civilization had exerted a great impact on the aged China, and induced not only changes in the political and ideological fields, but had also shaken the time-worn ideology in aesthetics as well, causing Chinese culture to undergo a reformation. This reformation of culture was not quite clearly comprehended in the initial stage, usually both cultures existing in parallel. In the spheres of painting, music, drama, Western forms of expression had been absorbed in the traditional forms of the arts.

Before the founding of the People's Republic, quite a few talented artists had made unremitting efforts to mingle

the Chinese and Western culture. As early as in the Eighteenth Century, painters like F. Giuseppe Castiglione, an Italian Jesuit who served in the Chinese Imperial Court, began to introduce Western techniques and expression into traditional style of Chinese landscape painting. European orchestral music, which was introduced to China in the early Twentieth Century, has unveiled a new horizon with its power and grandeur unmatched by the ensemble of Chinese traditional strings and woodwinds. The traditional Chinese instrumental music has an Oriental flavour that the Western instruments can hardly express.

Modern China has absorbed a lot of Western cultures, but has not fallen into overall Westernization, nor has it refused to accept the outside-world art forms that had proved being finer, neither has China stubbornly adhered to time-worn traditions of its own.

Architecture, as a form of culture, has undergone drastic changes since the end of the last century. Unlike the other cultural forms, architecture finds its expression through huge consumption of resources. All changes in the architectural field, therefore, have primarily been inspired by the needs of people's material demand and by development of building techniques. But, why had the changes in ancient China's wooden structure, which formed a unique system in the world history of architecture, been so small during a period as long as several thousands of

years? It is simply because the social conditions, which were situation-centered, and building techniques underlying the system had long remained almost unchanged.

By the late Nineteen Century, the changes in social life and technical conditions indicated that the old building system could no longer remain what it had been. The abundant social life has required various types of building, new techniques in building, especially the applications of the Western methods of the bearing wall structure and later, reinforced concrete, combined with new types of building, brought into being a new design system.

The major contradiction became inevitable between this design system and building technique on the one hand, and the traditional form of architecture based on the old wooden frame on the other. Over a long period of time, what accompanied the rise of the new type of design system and technique could not but be the Western forms of architecture. It was not until the twenties of this century that some Western architects practicing in China and those early returned architects who had graduated aboard, began experimenting on new architectural forms with Chinese characteristics. The main concept is combining Western architecture with the traditional architecture of China, such buildings can be found in Shanghai, Beijing and Nanjing. These buildings are crowned with lofty roofs in the style of Chinese imperial palace or clad with Chinese

traditional decorative elements over cubic bodies. Even on the multi-storied buildings designed and built during that period people can find traditional or classical features of Chinese architecture going along with the obvious influence of American tall buildings.

In architecture, since 1950, in order to meet the requirements of socialistic construction and the growing needs of material and cultural life of the mass, large-scale construction has been carried out. "Creation" of a new style for Chinese architecture has become a major subject of common interest among all Chinese architects. Some Chinese architects proposed to promote the fine tradition of Chinese architecture, endeavoring to create new style in "national form". They advocated to apply official rules of the old Chinese architecture strictly to the design of new building, no matter what the overall layout or the decorative details. Such effort virtually made the ancient palatial architecture models for the new architecture. So the curved big roof, symmetry, traditional decorative elements are the main characteristic of this "national form" even through it is not appropriately applied to huge public buildings. The typical examples are the National Art Museum and Cultural Palace of Nationalities which are both grand in their symmetry and loftiness, (see Figure 4.01). The Great People's Hall and the Museum of Chinese History, both facing the Tian An Men



Figure 4.01: National Art Museum and Cultural Palace
of Nationalities in Beijing

Square in Beijing, are grandiose buildings. Basically the other large monumental buildings employ a similar approach and method.

During the ten years of the so-called Cultural Revolution, all of the cultural fields in China were subjected to unheard of calamities. Both native and foreign cultures were rejected without discrimination. Furthermore much famous traditional architecture was destroyed by "red guards".

It was not until the mid-seventies, when the ten years' upheaval was finally put to an end, that things began to take a decisive turn for the better. Particularly in recent years, as the result of the opening to the outside world and the vigorous promotion of a cultural exchange with other countries, various areas of culture in China began a new phase. In architecture, the new "open door" policy has attracted Western investment and with it Western architecture. The first hotels that were built in the new China were Becket's Great Wall Hotel and I.M.Pei's Fragrant Hills, (see figure 4.02).

Becket's Hotel, completed in 1983, is one of the most technically sophisticated buildings in China today. Becket says he argued with the Chinese that foreign visitors would want to see more traditional architectural features, and an attempt was made to include Chinese pavilions in the complex. The hotel's image on the Beijing horizon, however,

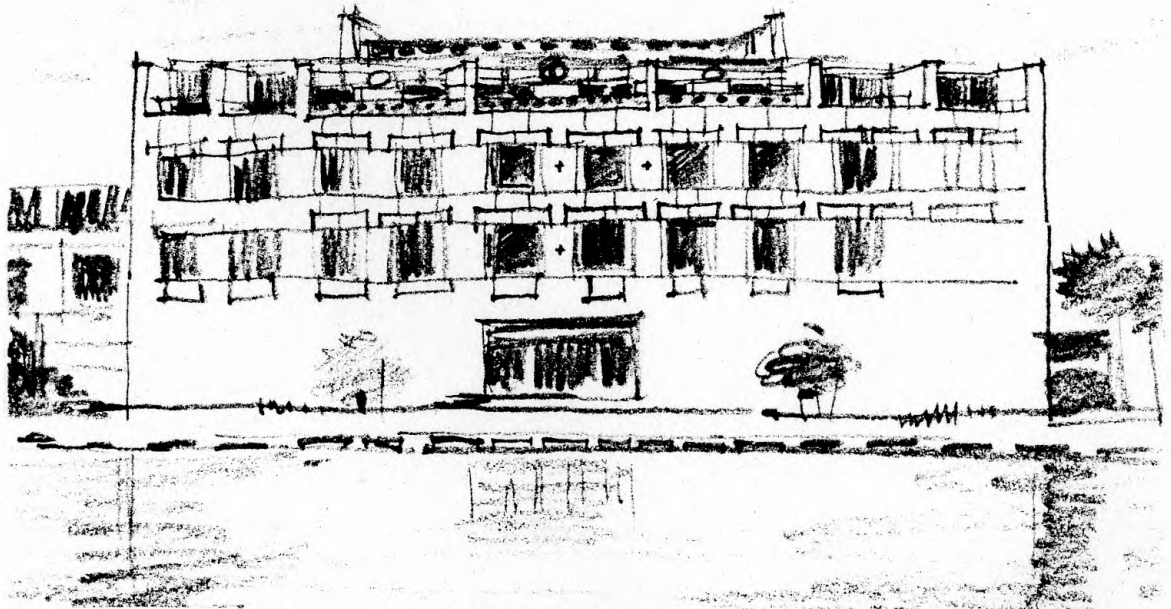


Figure 4.02: Great Wall Hotel and Fragrant Hill Hotel

is that of a Western reflective glass building. The hotel was the first curtain-wall structure in China. I.M. Pei's Fragrant Hills Hotel offered an alternative approach, drawn from the traditional Chinese architectural vocabulary, using "traditional decorative elements", and local materials and details. Pei's building has impressed critics in China. Since its opening in 1983, Fragrant Hills Hotel which has not been as financially successful as originally anticipated, has suffered considerable deterioration, attributable to the inferior quality of building materials and poor maintenance, both typical problems of recent construction in China. Nevertheless, Pei has given China a positive alternative model to consider.

With the new "open door" policy, Western theories and practice in modern architecture were introduced in their original versions, from Frank Lloyd Wright to Arata Isozake, and later Christopher Alexander's "Pattern Language". The debate went on among the younger architects about the significance of "post-modernism", high-rise vs medium-rise, modern vs traditional, and the meaning of heritage. Such debates are healthy signs for a developing country. Philip Cox, an outstanding Australian architect says: " I do believe that it is important for China to retain its Chinese tradition in architecture, it is so easy to be swamped by Westernism and to merely repeat the mistakes that Western society has made. With the new

building programmes your country faces, there is opportunity to express a unique Chinese culture and I am sure that rest of the world is awaiting, if not demanding this."

There currently are two main approaches in China: continuing traditional decorative elements and symmetric systems or completely copying Western modern architecture and technique. The designs in the twenties of this century and the "national form" in the fifties have similar methods and characteristics and both typically emphasized the traditional decorative elements such as curved big roofs. The "national form" was, more or less, affected by Confucianism which always wants to create standard rules for the whole nation. On the other hand, Becket's Great Wall Hotel was the typical example of the other approach, which means a loss of indigenous tradition and culture.

In the author's view, the architecture that follows the universal reductive syntax of the International Style, is repetitious, visually dull and insensitive to context and tradition. The aim should be the creation of a new architecture for China while responding to social and cultural forces and encompassing new technology, new materials and new construction methods. The new architecture should not be preoccupied with facades and overt references to the past. The approach should be to reappraise the past, discard all obsolete elements no

longer relevant to contemporary conditions, and create an architecture that reflects the old not in form, but in spirit. This spirit is the Chinese conception of space, which is the coexistence and interaction between the substantial and non-substantial. While addressing the functional requirements of spaces, importance should be attached to the inextricable relationship between a building and its surroundings, and especially not to overlook the importance of capturing the unity, harmony and scale that were once the essence of Chinese traditional urban and building design.

Furthermore, contemporary Chinese architecture should reflect our times, also preserving Chinese cultural identity. Proud of the unique Chinese architectural heritage, links should be maintained with this historical heritage without denying the new architecture those contributions that modern technology can make to improve the quality of people's lives. The most notable characteristics should be recalled through "quotation" from traditional Chinese architecture. The idea is the attempt to use an architectural language, familiar to the people. The aim is through assimilation and adaptation of traditional elements to communicate and express cultural identity and new visions.

In his book, "Meaning in Western Architecture", Christian Norberg-Schultz emphasized the relation between

the existence and meaning and said: "..... any human product may be considered a symbol or tool which serves the purpose of bring order (meaning) into certain relations between man and his environment " (page 428). The "spirit" and "quotation" are ways of communication between the past and present. These can offer certain characteristics which are familiar to the people and they can be expressed with modern technology. This is the proposed solution to the problem of preserving the Chinese cultural heritage while building for tomorrow's needs, and this approach will be followed in the design of a Cultural Exchange Center in Beijing.

CHAPTER FIVE:

DESIGN OF A CULTURAL EXCHANGE CENTER FOR BEIJING

The Cultural Exchange Center will be located in Beijing. As the vibrant capital city of the People's Republic of China, Beijing is the center of politics, economy, communication, transportation, science and culture. It covers an area of 16,800 sq. kilometers (6480 sq. miles) with a population of about 9 million people. The whole city is divided to 10 districts and 9 counties.

The climate of Beijing is the typical continental climate: in the long summer it is hot with a lot of rainfall; in the long winter it is cold and dry; spring and fall are very short. The temperature falls as low as -7°C to -4°C (19°F to 24°F) in January and rises to 25°C to 26°C (77°F to 79°F) in July. The annual rainfall totals 600 millimeters.

The people in Beijing include the Chinese, Manchu, Mongol and Mohammedan, all of whom take pride in Beijing's beauty: the blueness of the sky against the yellow roofs, the white marble and reddish walls of imperial city. The Beijngese humor and Beijing Opera are also treasured by its inhabitants.

1. Introduction: Historical Context

Beijing: The Cornucopia of Classical Chinese Architecture

Since the beginning of Chinese history, Beijing has

been associated with adventure and romance, as well as with monumental, magnificent buildings. In the past it was the seat of government for many ancient dynasties; today it is a densely populated metropolis and the capital of one quarter of the human race.

Some three thousand years ago Beijing was merely a small fort in the wilderness of the Hebei Plain north of the Yellow River. From the time of the Warring States (476-211 B.C.) it grew steadily in size and importance; but higher civilization came to Beijing only with the Tang dynasty (618-907 A.D.), when the city was named Youzhou.

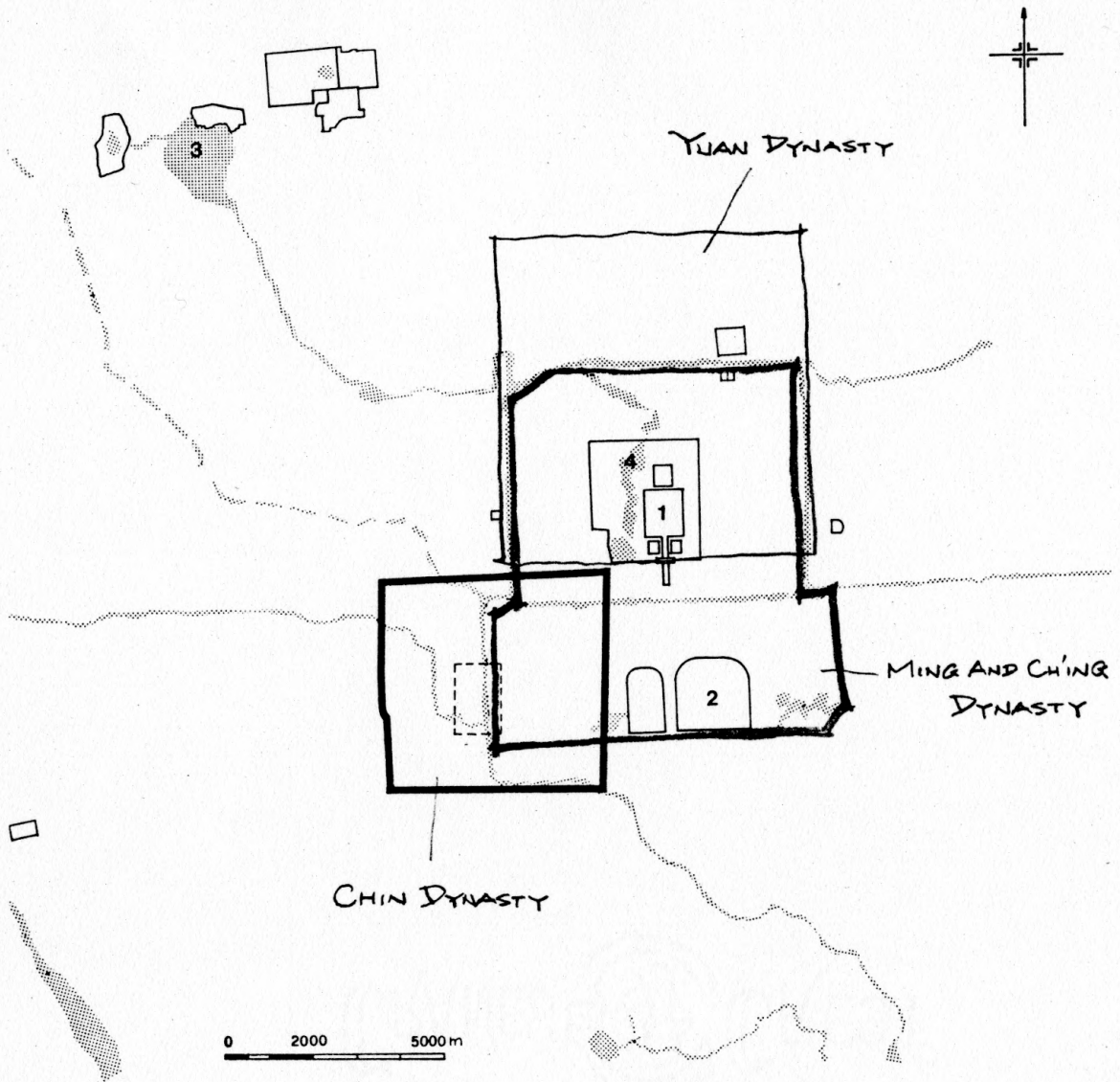
During the Liao dynasty (907-1125 A.D.) the Khitan Tartars built a great palace (Yanjing) near the present Temple of Agriculture. They ruled uneasily for a few decades, and then early in the eleventh century were conquered by the Chin Tartars (1125-1234 A.D.) who also built their palace in southwest Beijing, naming it Chin Zhong Du (the Central Capital of Chin).

In 1235 A.D. the Mongol cavalry, under the leadership of the great Khublai Khan, poured through an unguarded pass of the great Wall, destroyed the Chin empire and founded the Mongolian or Yuan dynasty (1279-1368 A.D.). In 1264 the Mongols replanned and started to rebuild the capital on a large scale, with Beihai (the North Sea) as the center. Based on the traditional Chinese layout, as set forth by confucianists, the city was square, formal and vast.

In 1368 Zhu Yuan Zhang, who became the first emperor of the Ming dynasty, overthrew the Yuan dynasty and moved the capital to Nanjing; but in 1403 Yongle, the third Ming emperor, returned to Beijing, and the city as it stands today retains much of the character of the Ming city of that time. Thus, Yongle can be called the founder of modern Beijing, even of the plan of the city dates from the earlier Yuan dynasty. Yongle modified the city considerably, making it much more Chinese in character and culture. Subsequently, in 1553, the boundary was extended southwest to include the business districts, and the approach from the main Gateway of the South to the Forbidden City was enlarged and made more splendid, (see Figure 5.01).

As in most ancient Chinese capitals, the emperor's palace was situated slightly north of the center of the city, with the homes of senior officials, temples and offices on either side. Like Changan, Beijing was enclosed by a high wall, and all main buildings faced due south. This is still considered the best orientation in most parts of China, for the south faces the warm winter sunshine and catches the cool summer breeze.

All roads run either north-south or east-west, dividing the city into rectangular blocks of single-storied buildings grouped around courtyards. This grid plan was established more than two thousand years ago based on Confucianism. The main road stretches for about four



- 1. FORBIDDEN CITY
- 2. TEMPLE OF HEAVEN
- 3. YI HE YUAN (SUMMER PALACE)
- 4. BEIHAI (NORTH SEA)

Figure 5.01: Skep Map of Beijing In the Chin, Yaun Ming and Qing Dynasty

kilometers from the Southern Gateway to Tien An Men in the north. Along this highway are other gateways, bridges, pavilions, courts and halls so that the overall impression is one of great magnificence, (see Figure 5.02).

Beijing is composed of three sections: the outer city, the inner Imperial City of Huang-chen, and within Huangchen, the Purple Forbidden City, enclosed by massive red walls. The grandeur of the Forbidden City, in contrast to outer Beijing, was to enhance the supremacy of the emperor, to glorify the "Tien Zi" or son of Heaven.

2. Description of the Site and Existing Conditions

2(a). The Site

The source of the Cultural Exchange Center's program is the "1989 Spring International Design Competition of American Institute of Architectural Students". AIAS provided site information which included site plans and pictures; In addition, AIAS provided a program which called for the demolition of the existing neighborhood. As explained below, modifications of this original program have been made by the author.

The site for the Cultural Exchange Center is situated adjacent to Ritan Park (Ritan meaning "temple of Sun") in the Embassy area of eastern Beijing. Ritan park is landscaped in the Chinese classical tradition and is visited throughout the day by Chinese and visitors from

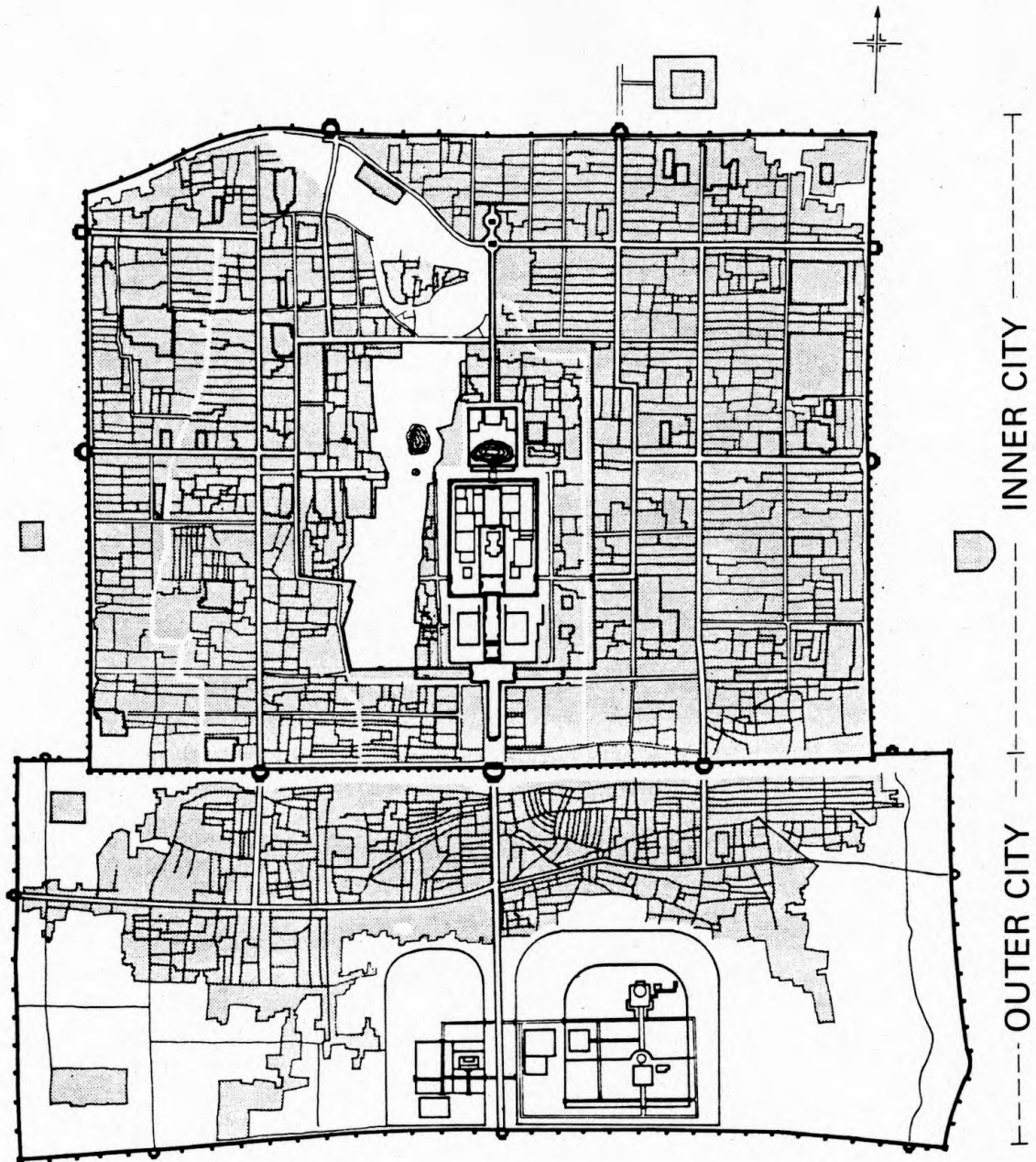


Figure 5.02: Map of Beijing During the Ming, Qing Dynasty

abroad. The park-like setting on the street is close to small commercial establishments, monuments, a hotel/visitor center, and low-rise residential units.

Jiangoumenwai Avenue, a central East-West artery through Beijing, is located nearby to the South, as are many noted buildings such as the Beijing Railway Station, The Great Hall of the People, the Tian An Men Palace Museum and several large parks and squares, (see Figure 5.03).

While the Embassy area is in the center of a busy commercial district, the site for the Cultural Exchange Center is located on a street which has very little traffic. Due to this unique off-street character, an urban microcosm of calm and tranquility exists, allowing a visitor to pause for introspection and for appreciation of the undisturbed streetscape.

2(b). Existing Condition

The competition site is currently occupied by low residential units surrounded by neighborhood markets and small shops. Immediately to the East is the four-story North Korean Chancery Building. To the West is a four-story local elementary school. Both buildings are modest in their design and character (see Figure 5.04, 5.05, 5.06, 5.07, 5.08, 5.09, 5.10). As exhibited in the site photos, the topography of the site is flat.

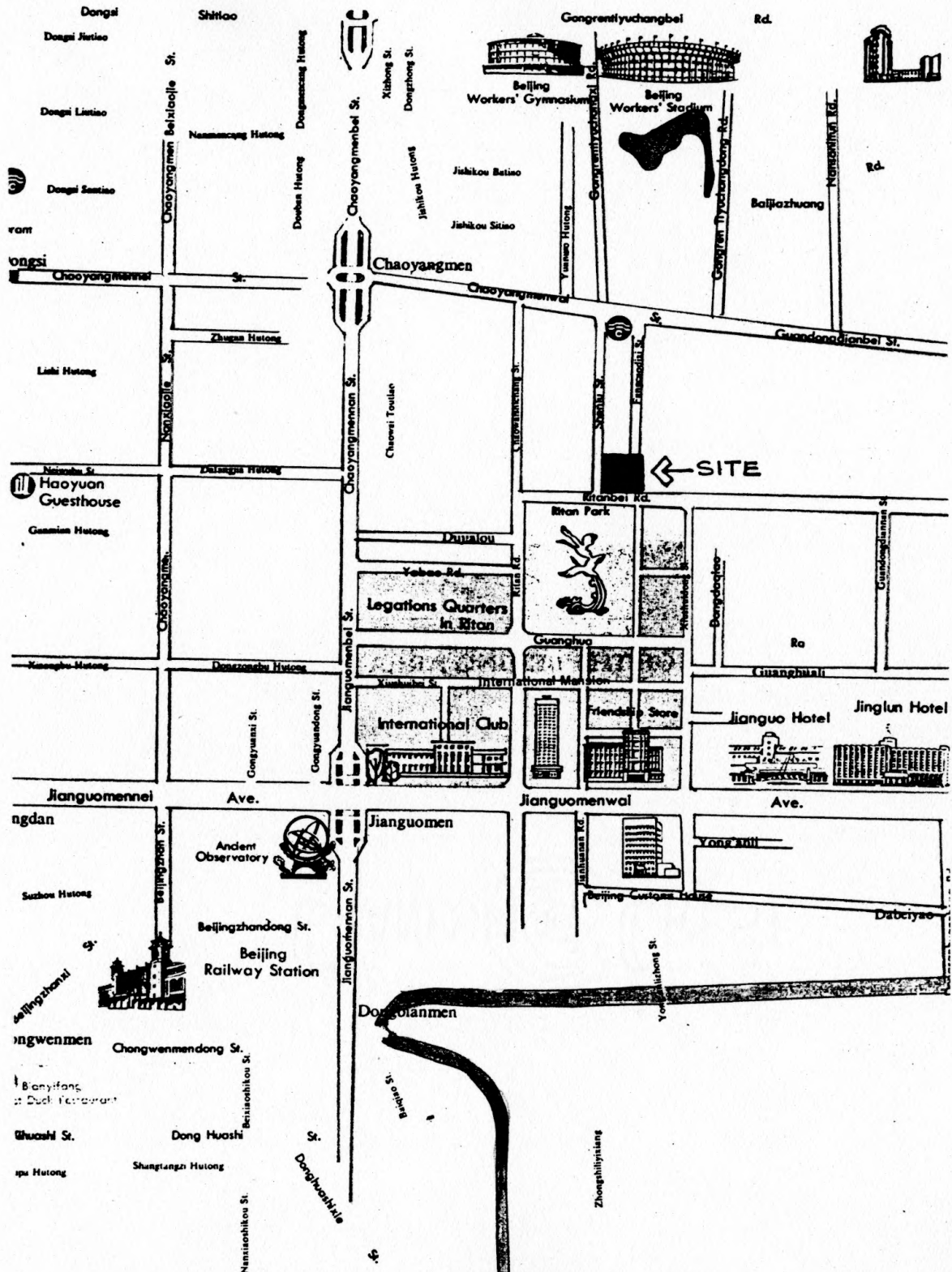
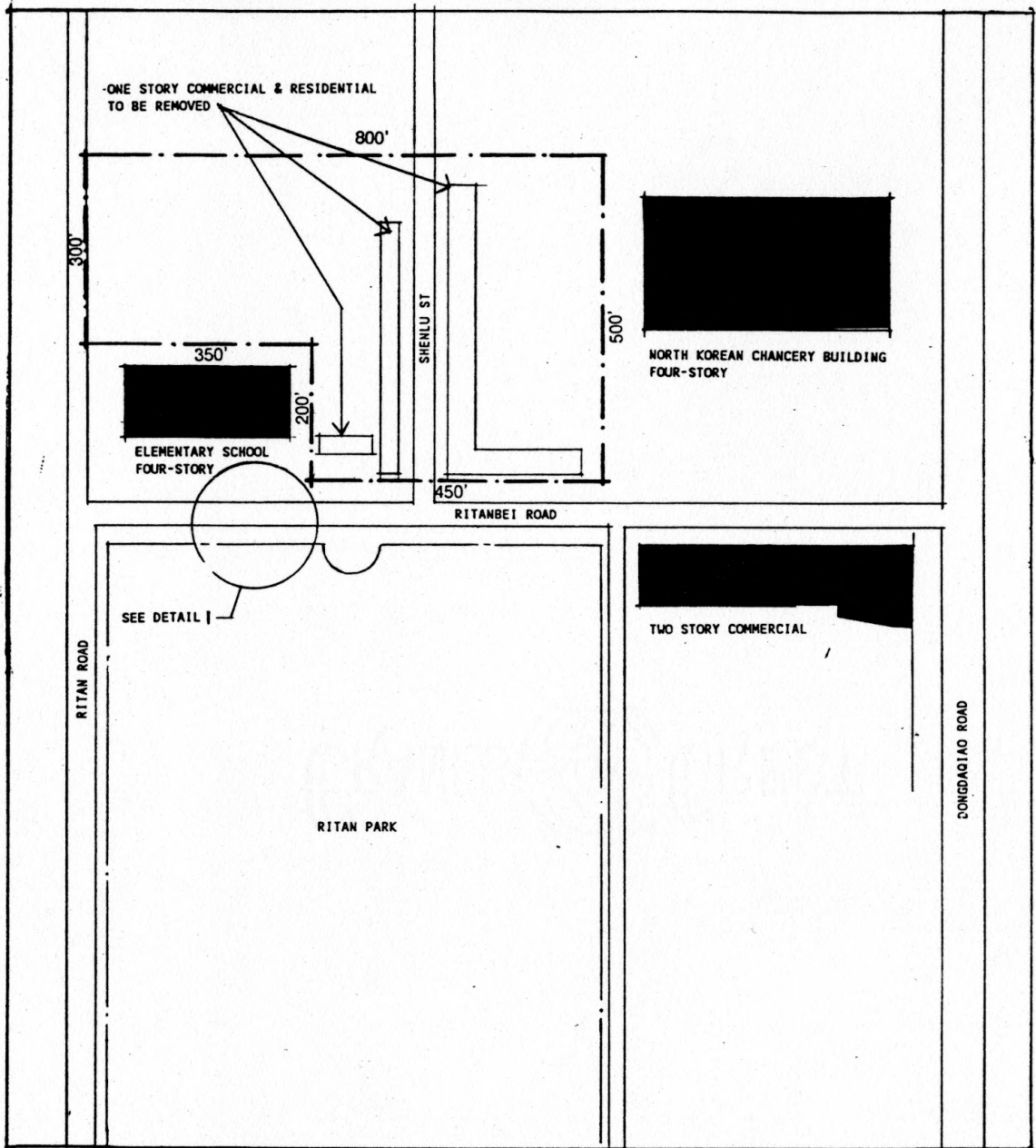


Figure 5.03: Map of the Vicinity of Design Site



SITE PLAN
A CULTURAL EXCHANGE CENTER
BEIJING, CHINA

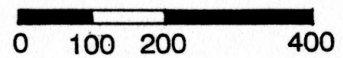
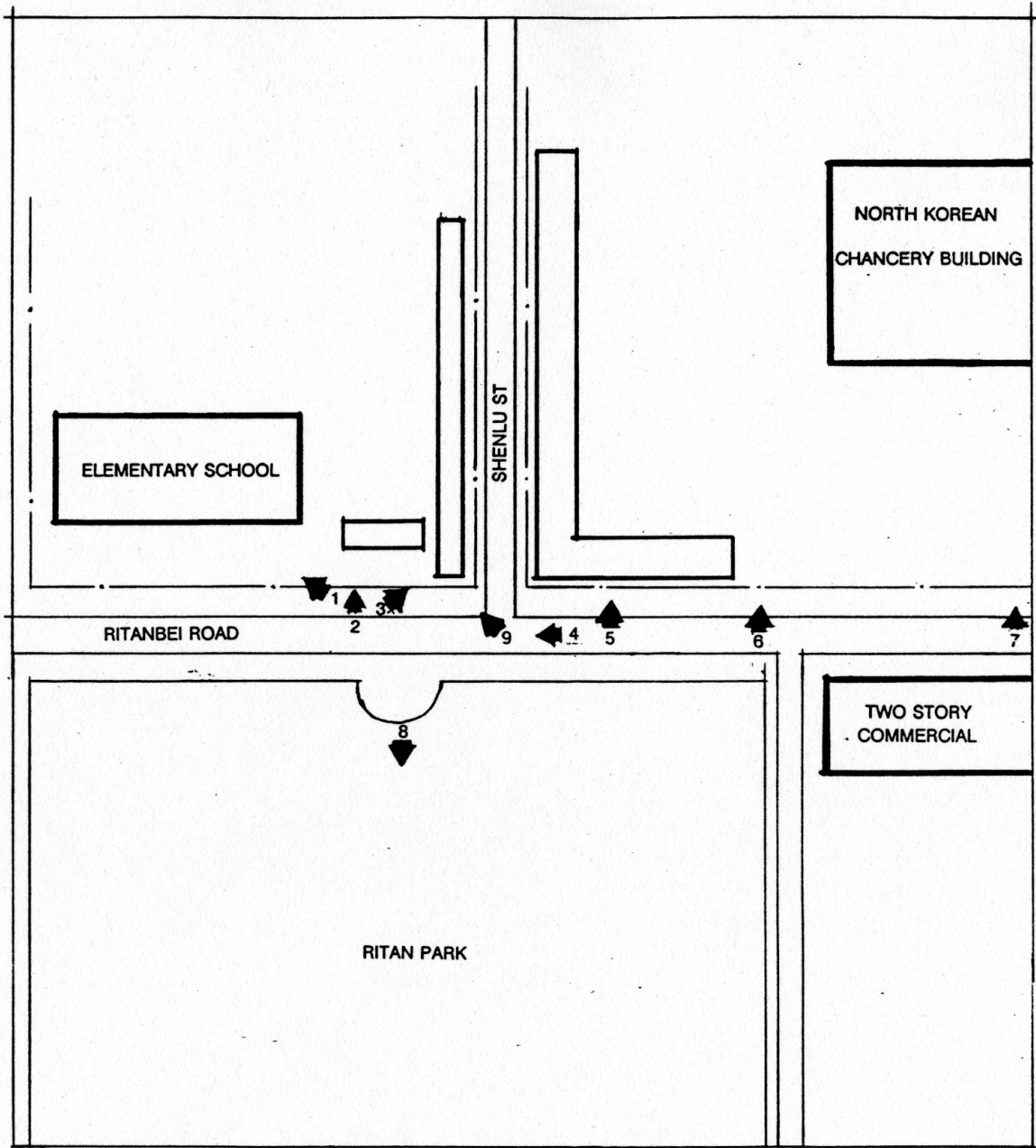
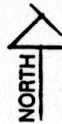


Figure 5.04: Site Plan

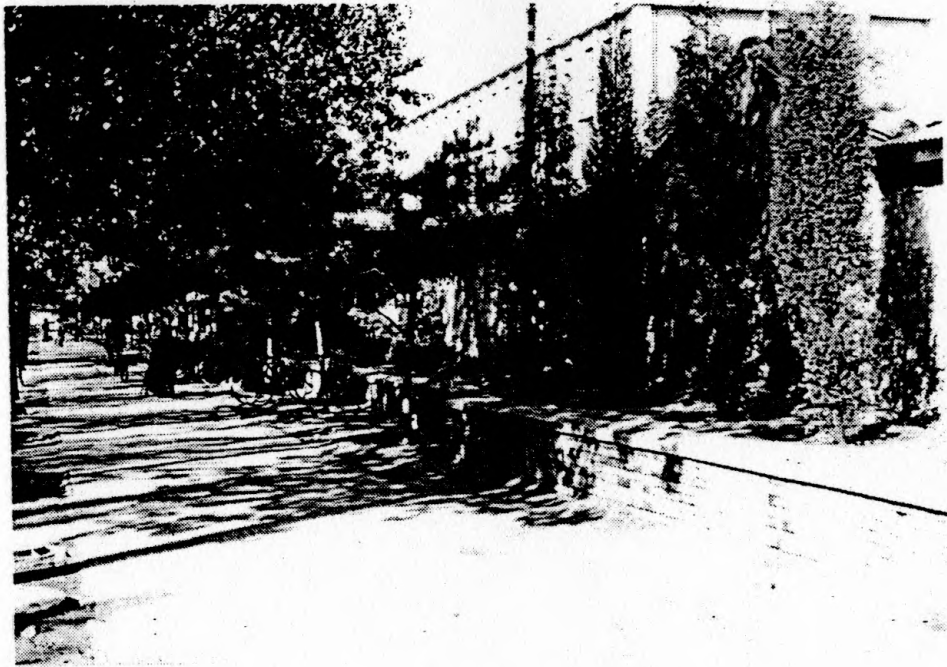


SITE PHOTO LOCATOR MAP
 A CULTURAL EXCHANGE CENTER
 BEIJING, CHINA

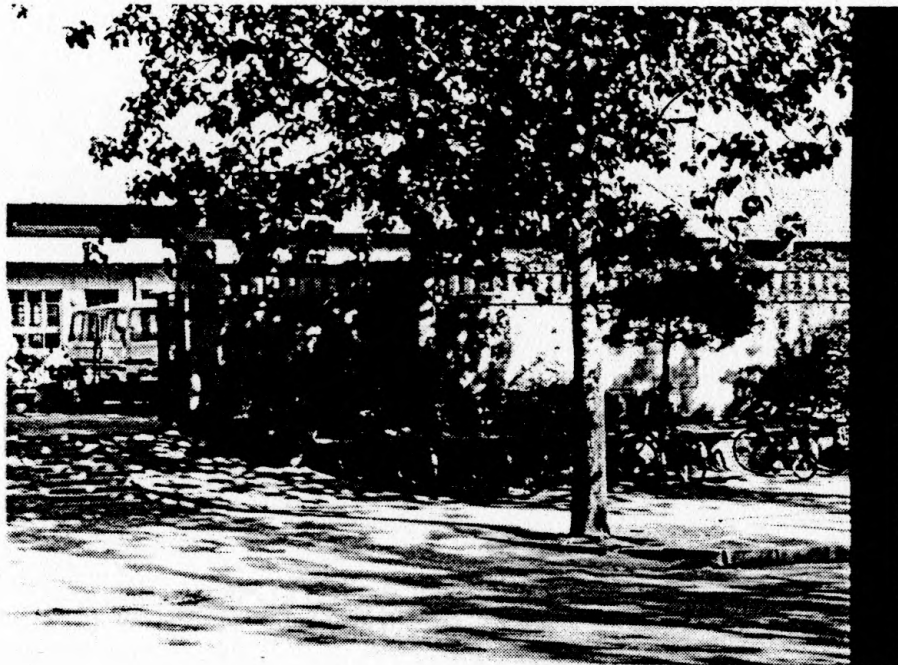


NO SCALE

Figure 5.05: Site Photo Locator Plan

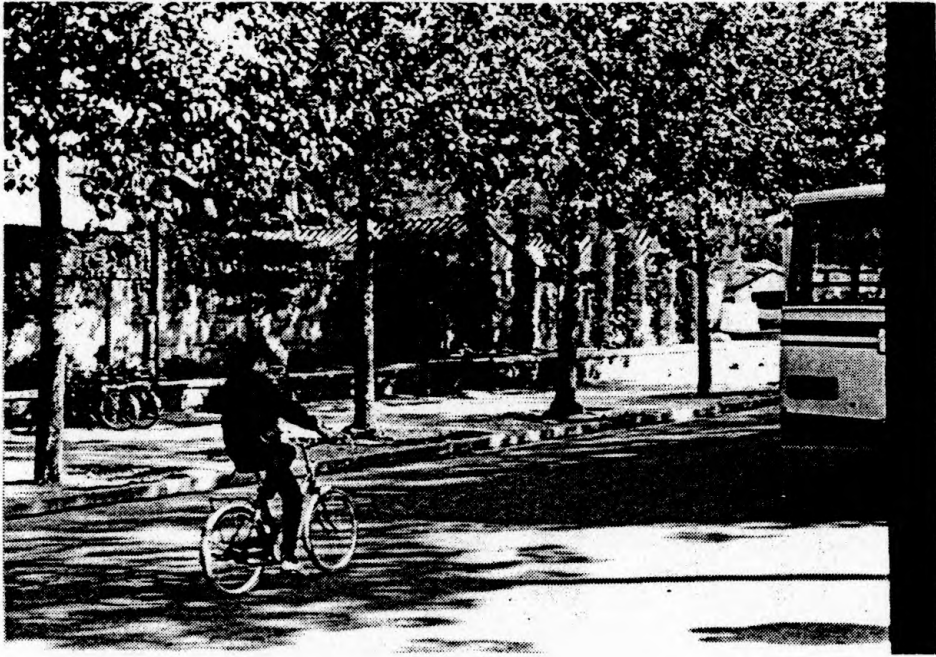


View #1
Looking Northwest



View #2
Looking North

Figure 5.06: Site Photo 1, 2

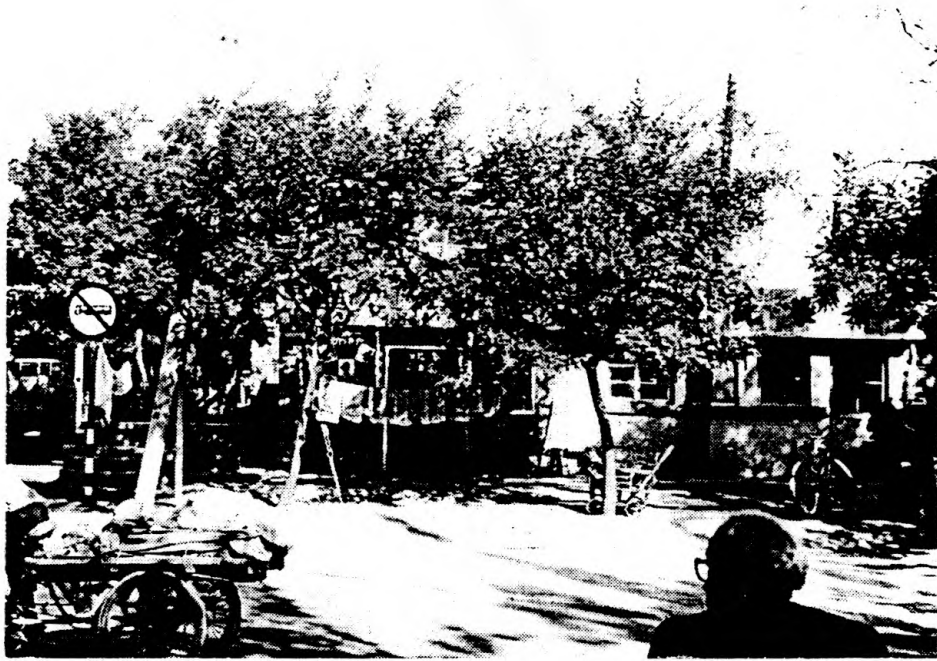


View #3
Looking Northeast

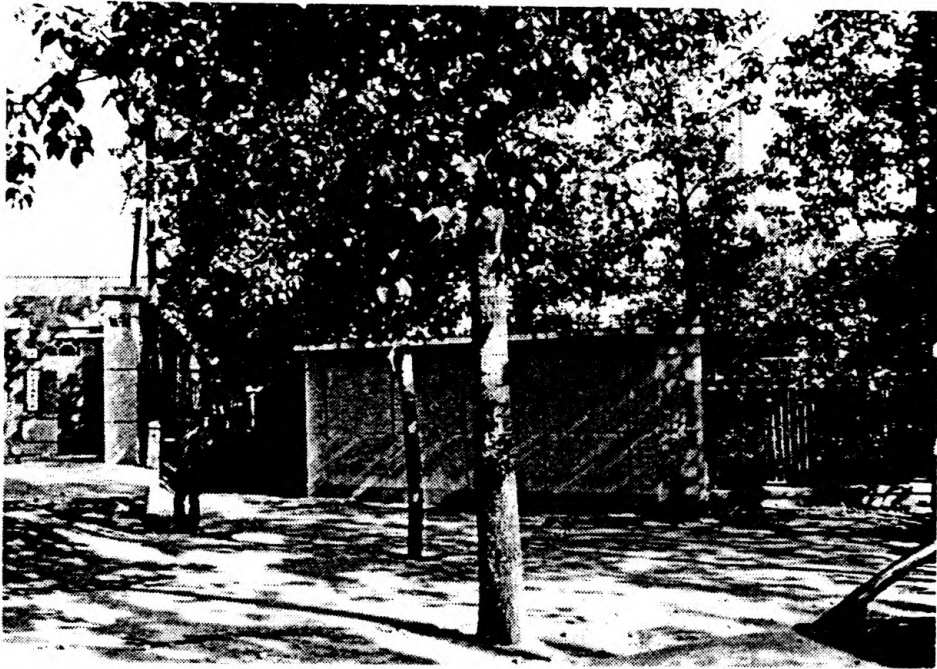


View #4
Looking West

Figure 5.07: Site Photo 3, 4

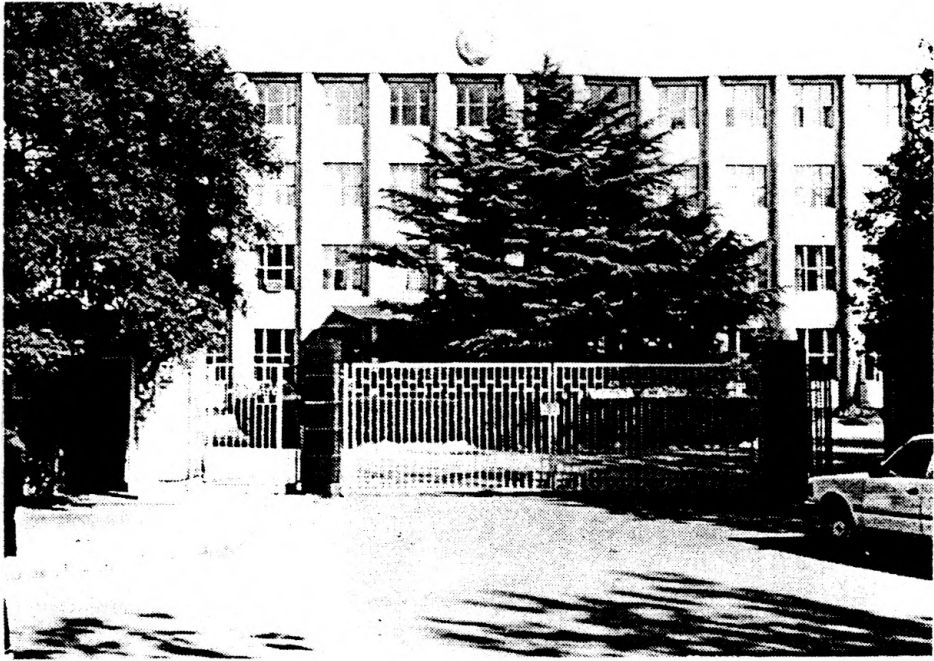


View #5
Looking North



View #6
Looking North

Figure 5.08: Site Photo 5, 6

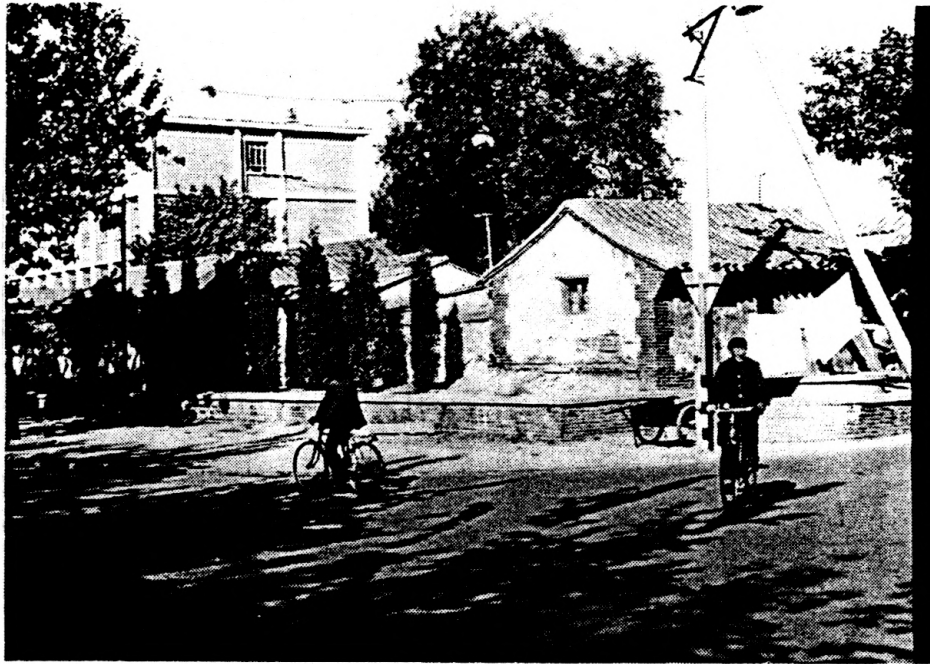


View #7
Looking North



View #8
Looking South

Figure 5.09: Site Photo 7, 8



View #9
Looking Northwest

Figure 5.10: Site Photo 9

3. Description of the Program

It is anticipated that the Cultural Exchange Center will become the site of major cultural events involving the People's Republic of China and all cultures of the world. The Center will also serve as liaison headquarters for Chinese organizations which are devoted to fostering continuing scholarly exchange and dialogue among these many cultures and the People's Republic of China. Accommodations and facilities will be provided for scholarly research, formal and informal gatherings of a scholarly nature, and office spaces for visiting scholars and their Chinese collaborators.

Major Spaces Considered:

1. A gallery for the visual and static arts.
Max.capacity: 3,000 sq.ft for 200 persons
2. A theatre/concert hall for the performing arts.
Capacity: 500 persons
3. A conference hall for lectures and symposia.
Capacity: 300 persons
4. A library:
 - * up to 30 periodicals and 5000 volumes
 - * reading spaces for 35 persons
 - * an audio-visual media room for 8-10 persons
 - *library staff offices, work/storage spaces and
toilets

5. Four to six (4-6) classrooms, seating 35 persons each for lectures, small group meeting and short courses
6. Six (6) three-person offices, for organizational liaisons.
7. Twelve (12) two-person offices for visiting scholars.
8. Administrative offices and associated facilities.
9. Open space, outdoor garden and landscaped spaces.
10. lobbies and circulation spaces.
11. Six (6) parking spaces for motor vehicles; adequate space for bicycles.
12. Lounge area with coffee/tea shops, etc.

4. Design Concept

The design concept for the Cultural Exchange Center for Beijing will be directly related to the studies of Chinese culture which is situation-centered as described in Chapter Two; Chinese architecture, the Chinese concept of space, garden, building and mass as mentioned in Chapter Three; as well as the new development of Chinese architecture described in Chapter Four. Two contrasting ways of life, situation-centered or individual-centered, are the key to the exploration of the two different cultures, including their respective architecture. The situation-centered culture produced the special Chinese architecture which are quite different from American architecture. This situation-centered architecture with the

different conception of space, namely the coexistence and interaction between the substantial and non-substantial, emphasizes the overall spatial layout, spatial sequences, spatial contrast, and juxtaposition. The understanding of the situation-centered architecture is basically represented in the site analysis, the improvement of the local economy and living environment, the cultural exchange concept, and the method of space design which includes axuality, centrality, climactic sequences, spatial contrasts and juxtaposition, and "quotation" from characteristics of traditional Chinese architecture.

4(a). Site: Situation-centered Architecture

Consideration of the design was started by looking at the whole neighborhood. The author is quite familiar with Beijing and has been to the site and Ritan Park several times. The author has quite a different understanding of the site than AIAS which calls it an "undeveloped area". The site is currently occupied by low residential units surrounded by neighborhood markets and small shops. Basically these houses possess the typical characteristics of the Beijing courtyard houses. In the house, a central axis orders the rooms, several of which face a common void or courtyard. This courtyard is usually located at the midpoint of the central axis. The age of these courtyard houses range from fifty to eighty years. Because the same families tend to occupy their respective residence for

several generations, these courtyard houses are the basis for a tightly woven urban fabric or neighborhood. These traditional courtyard houses and adjacent imperial garden compose a community of distinct local character.

4(b). Disagreement with AIAS's Program

Unfortunately, many of these current courtyard houses are old and worn-out. Thus, AIAS calls the neighborhood an "undeveloped area", and suggests that "the site will be cleared of all existing buildings". This represents the current problem of urban planning and reform in the historical districts of China.

There are two basic attitudes: enhancing and developing vs destroying and starting all over. The latter is still playing the main role in urban design of many Chinese cities. In large-scale cities such as Beijing, or Wuhan, designers and planners have reviewed the historic district, and traditional environment without a positive attitude and ignore the characteristics of historical buildings and the relationship between the old and new. They emphasize westernization or a brand new style of Chinese architecture. In small-scale cities or towns, the people, even the officers in the local government, also pay attention to westernization and treat the high rise buildings with curtain walls as the important symbol of the new society. For this, they carelessly destroyed the historical district and buildings. Many architects

mentioned these problems and criticized this kind of attitude in newspapers and magazines, but these actions still have not been overcome radically.

Through his article named Redirecting the Theater of the Built Environment in the book "Old and New Architecture", Mr. Robert Burley said: " There is a growing understanding that a successful community is not an instant achievement. A dozen new, tall buildings may make a marvelous exhibit and display, but they do not make a great city. A successful community depends on the work of many people, adding new to old."....." The growth of a community should be natural process, reflecting new requirements and evolving from one stage to another, rather than a series of radical confrontations. A community is the work of many architects and also of planning commissions, developers, owners and private citizens - a whole series of composers, conductors, performers and audiences - over a generation or more of time. It is public art of the highest order and the highest potential" (page 14). Based on this study, the author believes that designer has a strong responsibility to maintain the historical environment and culture. The right way to keep the historical and cultural identities of cities is by enhancing and developing the historical districts, especially through the harnessing of local forces, i.e. the residents, through economic development.

Another reason for the author's disagreement with the demolition aspect of the AIAS's program is the population problem. The program of "Cultural Exchange Center" covers only 12% to 15% of the site. To clear a large and densely populated district means that one must build a new large-scale residential district for the uprooted residents. This is extremely costly, especially in an area so densely populated. Furthermore, many people would have to leave their familiar land, environment and society which are so meaningful to them and would have to adapt themselves to new circumstances and a new society.

This thesis takes the view that it is possible to provide a Cultural Exchange Center that respects existing circulation and enhances the existing community. Land use should be compatible and fit the local character and texture. This can be accomplished by preserving as much of the original residential area as possible and mitigating the negative effect of a major intervention into the existing neighborhood.

The residents could be aided by providing customers for their commercial establishments. Thus the author recommends reserving and strengthening Shenlu Street by maintaining and adding to the existing commercial uses. Permanent businesses along the east side of the Shenlu Street as well as transient activities in the plaza on the north and west of the street would strengthen the local

economy. By such means, local people can use their own resources to make money and rebuild their environment (see Figure 5.11).

Another important reason for the author's disagreement with demolition is based on the cultural exchange concept. In the author's opinion, the westerners would like to see not only Chinese antiques and Chinese traditional buildings but also contemporary Chinese life. The latter may be far more important. The historical environment becomes a "living museum" full of local colors and cultural characteristics. In this "living museum", westerners could see and discover the real Chinese life, typical historical society and environment, local language and talk to ordinary people directly (see Figure 5.12).

This cultural exchange could be accomplished by creating an open space which connects the functions of Cultural Exchange Center, the commercial street (Shenlu Street) and the local residential environment. In other words, the Cultural Exchange Center will properly "melt" into the local environment and bestow new meanings on this "living museum".

Such open space is new to Chinese people, especially when compared with their enclosed courtyard houses. While public parks are also open, they do not possess the cultural and economic vitality that this "living museum" could foster. Here is a space where city residents would go



Figure 5.11: Reserving and Strengthening Local Economic Activities



Figure 5.12: Existing Neighborhood as a " Living Meseum"

and do as they please. The exciting but unstructured atmosphere and social setting could provide the Chinese with a sense of the vitality and freedom of Western urban focal points such as Washington Square Park in New York City.

The juxtaposition between this "living museum" and surrounding residences does not mean that the local inhabitants will lose their sense of separate communities. The large open spaces that make up the Cultural Exchange Center are well defined by the closely-woven fabric of urban Beijing with its narrow alleys, intersections and small squares. Most of the individual homes are entered from these more secluded passageways that will continue to be dominated by the immediate neighborhood. Typically, those private entrances provide a definitive barrier with a high wall and a gate that is almost always closed.

The "living museum" concept is to allow foreigners to witness the activities of the local people such as the hawking of an individual's wares, shopping, gathering at street corners to play Chinese chess or gossip. This does not mean that foreigners will interfere with these activities; and certainly there is little risk that the visitors will be able to intrude on the more private activities which will take place in the enclosed spaces of the Chinese homes.

In conclusion, the purpose of the "living museum" is

not to put private citizens on display. Rather it is to make the public spaces more open and vital, and to provide the local inhabitants with opportunities for financial gain.

4(c). Example of New Directions of Chinese Architecture

Spirit As Manifested in Chinese Spatial Orders:

i. Axiality and Centrality

Ritan park is a typical imperial park in Beijing with a central axis, symmetrical arrangement, rectangular form, and totally enclosed garden. The North/South axis of Ritan Park will be continued through the Cultural Exchange Center.

Within the project's site, this axis is articulated by a path with a distinct pavement and a row of columns on both sides. It extends to the center of the site where it is surrounded by water; the axis then continues to the commercial square, as symbolized by the circulation of water. Perpendicular to the above, the East-West axis acknowledges an existing street and connects the existing neighborhood in the West to the Cultural Exchange Center and, finally, to the neighborhood in the East (see Figure 5.13). These two axes intersect at the climactic center.

Along the west part of the east-west axis surrounded by theater, library and classrooms, scholars' rooms, the

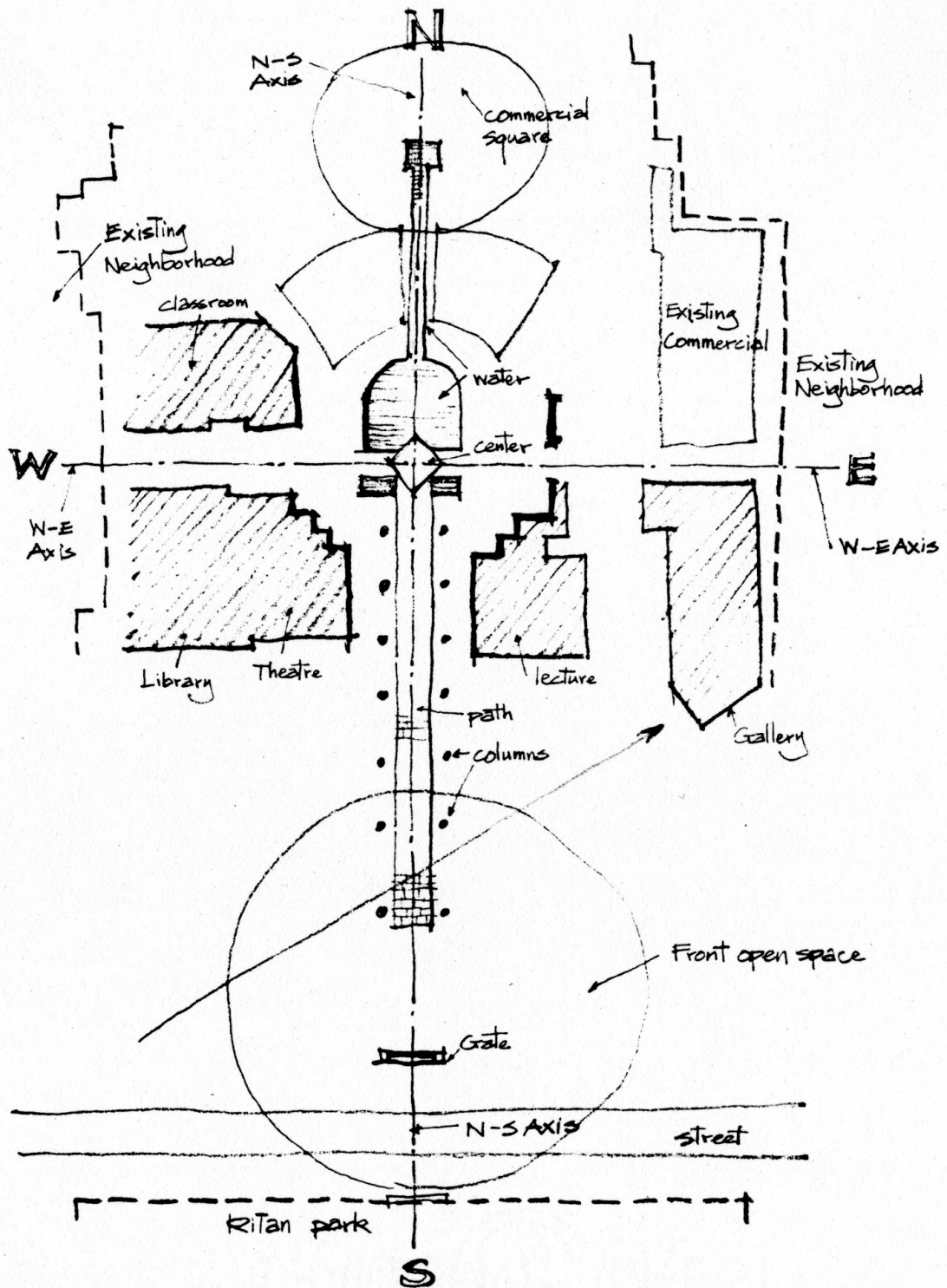


Figure 5.13: Axiality and Centrality

rectangular pools are utilized to emphasize the axis instead of a traditional path. The reason for this is the influence of the functions of the Cultural Exchange Center. The pools are designed to separate two different circulation paths: theater and library, which are more public and classrooms, scholars' rooms, which are more private.

This ordering technique is superimposed on the minor spatial themes discussed below. The different spaces are collected into a whole and represent the spatial order of the traditional Chinese architecture and the situation-centered society. Axiality is further discussed under the headings of Chinese Concept of Space, and Building and Mass in Chapter Three.

ii. Climactic Sequences

Further dramatizing this axiality and centrality is the existence of a climactic sequence of spaces, made possible by juxtapositions of contrasting spaces which lead into each other. This means was often used in Chinese Imperial palaces, such as, the Forbidden City in Beijing and was discussed in Building and Mass in Chapter Three.

The experience of this climactic sequence begins with a small-scale, simplified gate closest to the North end of Ritan Park. Then one enters the front open space which is surrounded by offices, entrance to the gallery and parking.

When one approaches the actual entrance of the Cultural Exchange Center, one sees the main outdoor gathering space through a big window; however one cannot enter the main space directly. Instead, one enters through the narrow and tortuous entrances on both sides of the window. Next one enters a semi-open space enclosed by the entrances of theater and lecture room. Finally the main open space, which is surrounded by water, is exposed. The axis continues beyond the stadium, led by the water through the long and narrow path. This water flows to the last open space, the commercial square to the North. In summary, this climactic sequence is composed of contrasting spaces and views. In this sequence, one goes from a small gate to an initial open space, to a narrow and tortuous space, to semi-open space, to a main open space, to a long and narrow space, to third open space which is the commercial square.

These open spaces also manifest the design principles of Chinese gardens. Specifically, they provide views-in-position by letting people stop to take a rest. At the same time, the narrow path, water and a series of columns lead people to the next space and provide views-in-motion. The view-in-position and view-in-motion are discussed on page 64 and 65 of Chapter three. Through all these elements such as the solid walls, open spaces, water, path and columns, the author intentionally composed views-in-position and views-in-motion together so that no matter if the viewer is

sitting or strolling around there are infinite varieties of views ahead. Change of position results in a change of views which are carefully attended. This design concept also represents the theme that in America gardens, the garden is designed as an aspect of the building while in China the building is designed or arranged as an aspect of the garden".

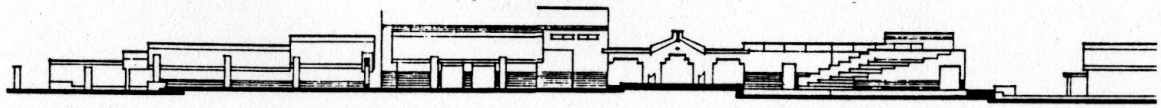
Furthermore, the commercial square is linked to the front open space by the existing commercial Shenlu Street. With detours the whole spatial sequence or system echoes the traditional Chinese spatial concept which is composed of the substantial, non-substantial, with no beginning or end, (see Figure 5.14, 5.15, 5.16, 5.17, 5.18, 5.19).

Spatial sequences are also important for the circulation in individual buildings. Once again, the design principles found in Chinese Gardens such as setting certain scenes, leading views and contrasting spaces are utilized in the interior circulation of the lounge and gallery in Cultural Exchange Center, (see Figure 5.20, 5.21, 5.22, 5.23, 5.24, 5.25, 5.26, 5.27).

Similarly, spatial contrasts and juxtapositions are also important in the design of the exterior spaces along the commercial street, (see Figure 5.28, 5.29, 5.30).

iii. Natural Circulation As A Unifying Element

Natural circulation of water is a very important part



A-A Section

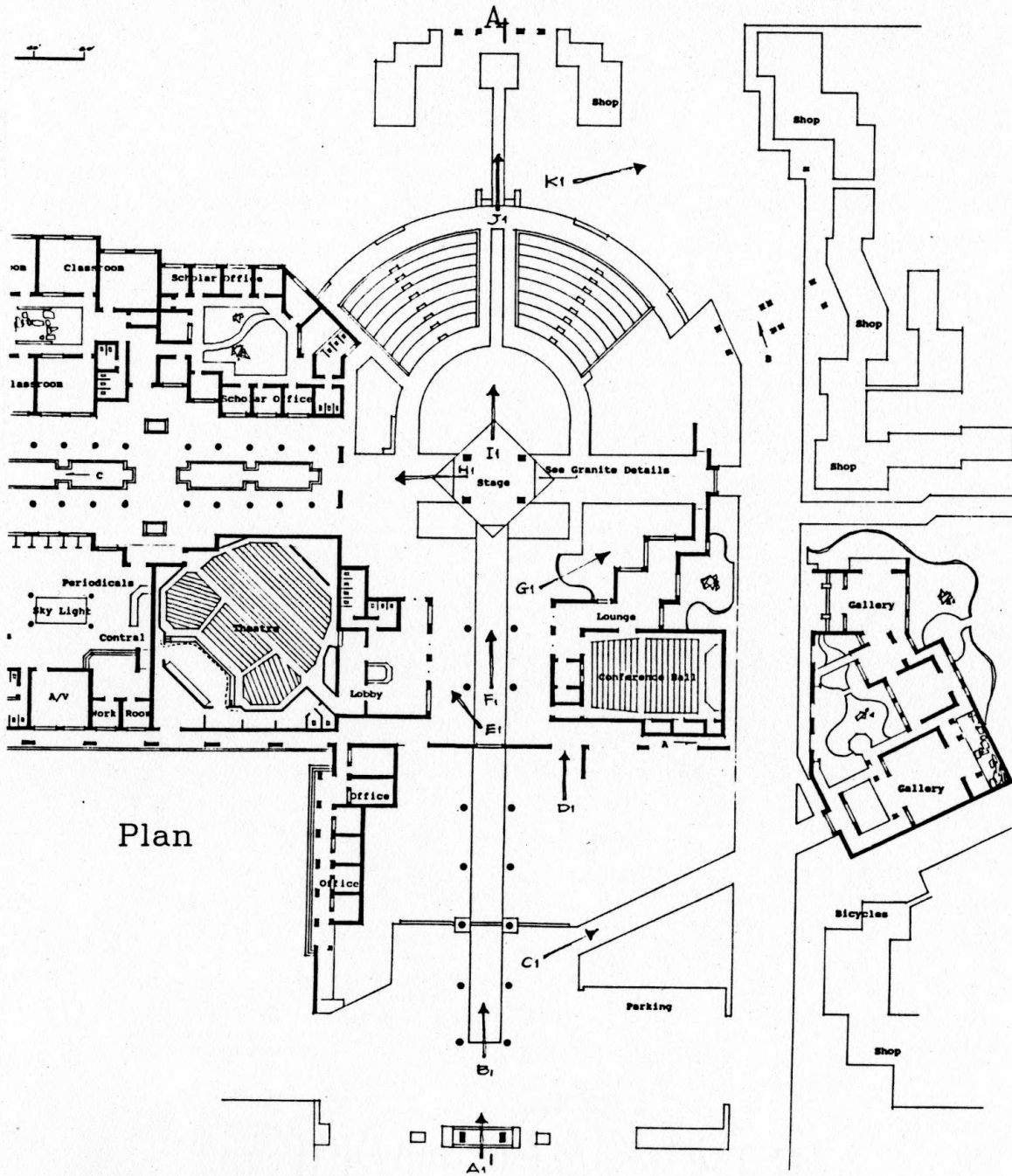
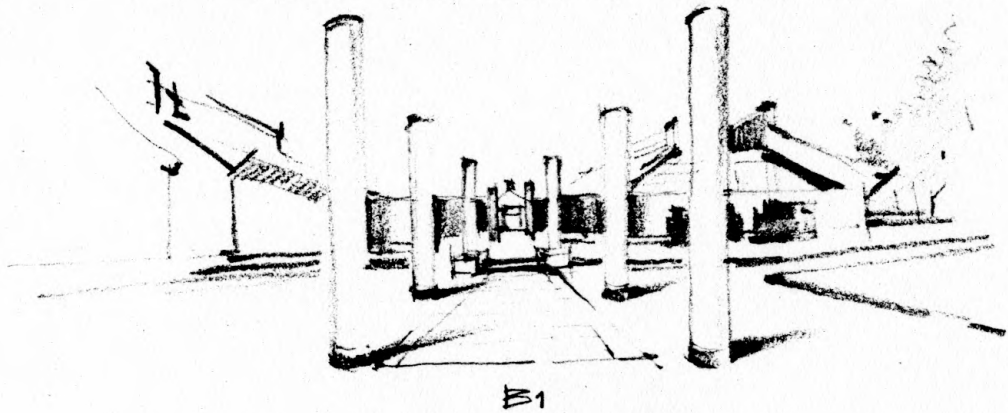


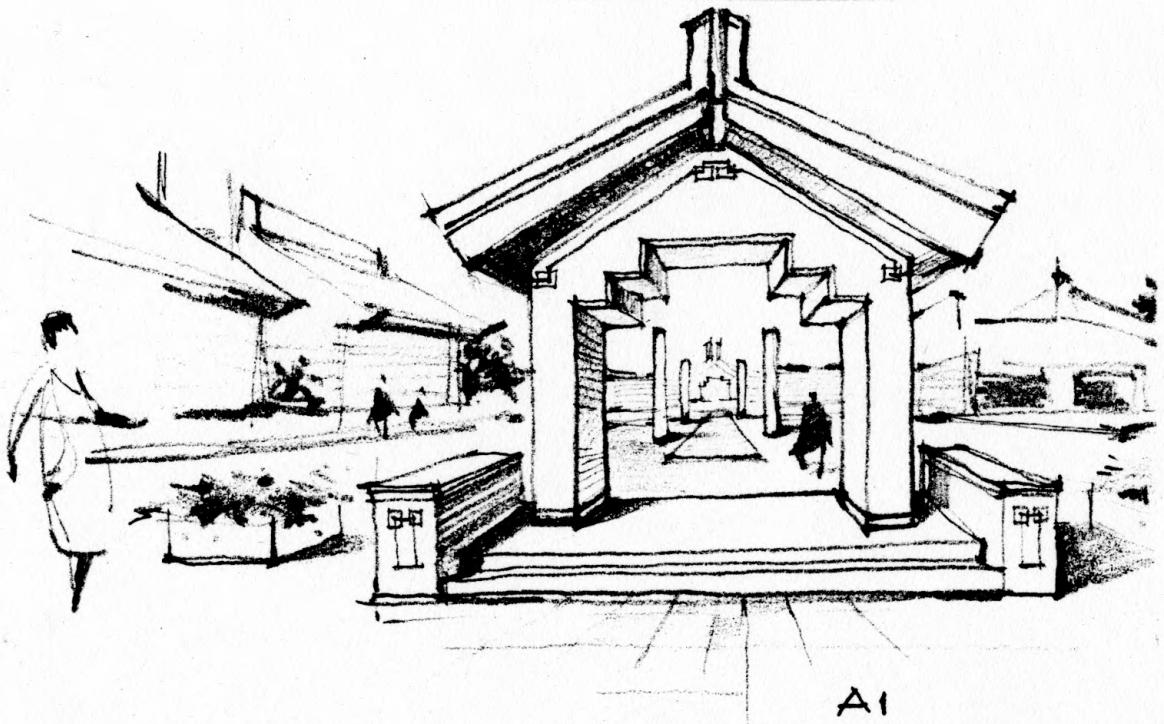
Figure 5.14: View Map #1



C1

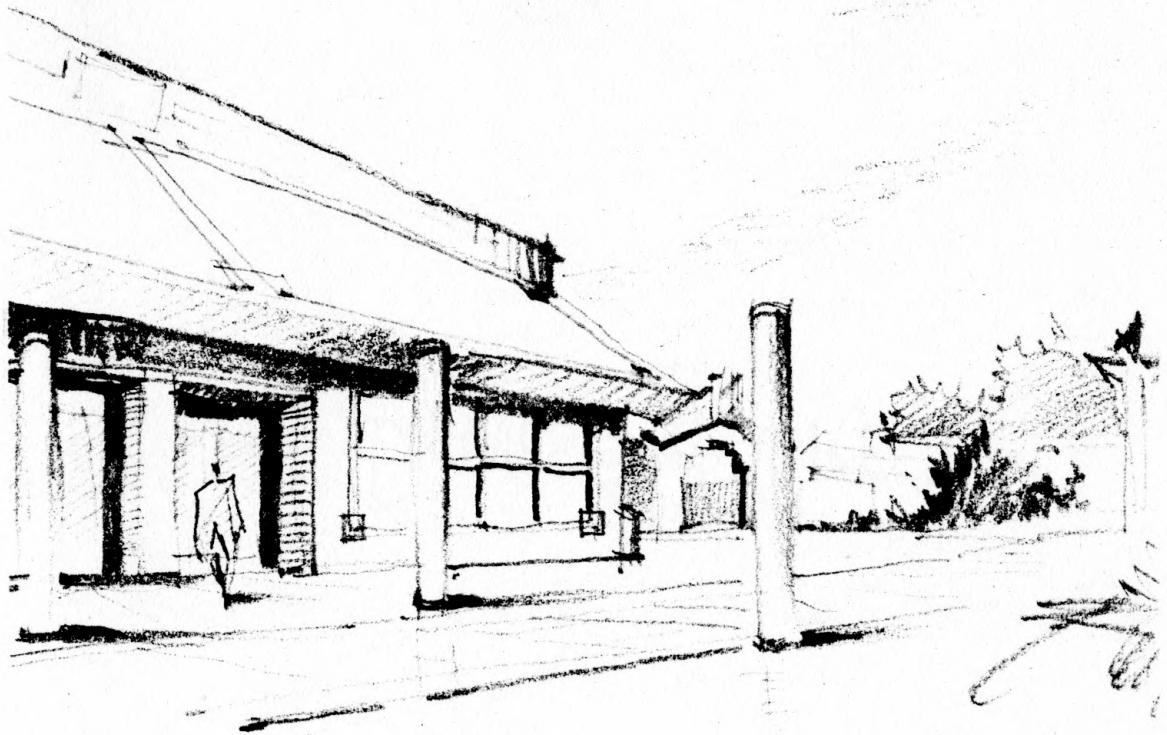


B1

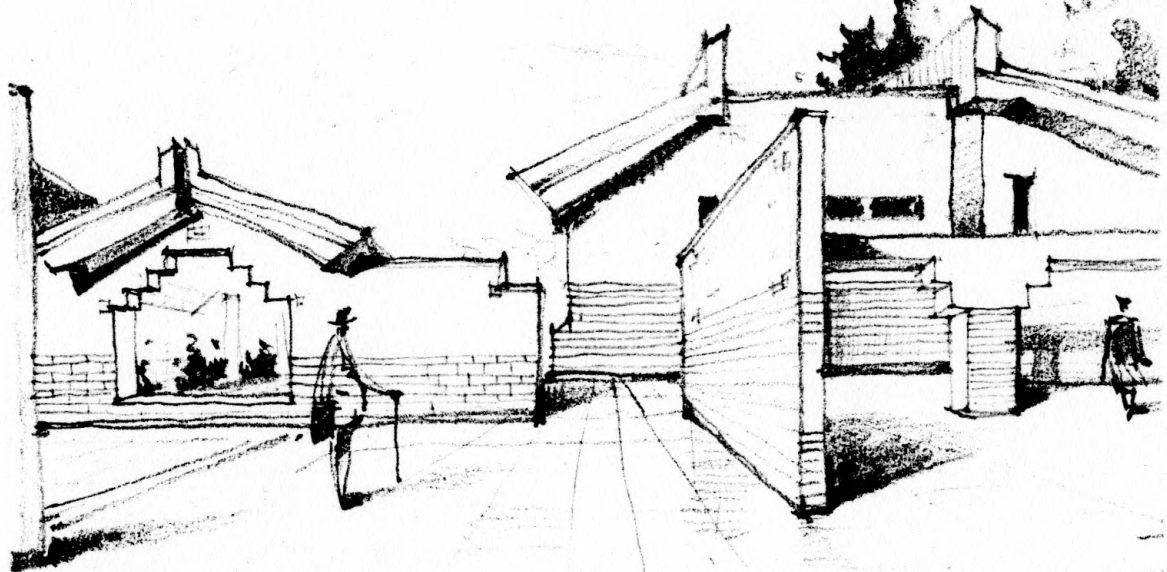


A1

Figure 5.15: Perspective View A1, B1, C1



E1



D1

Figure 5.16: Perspective View D1, E1

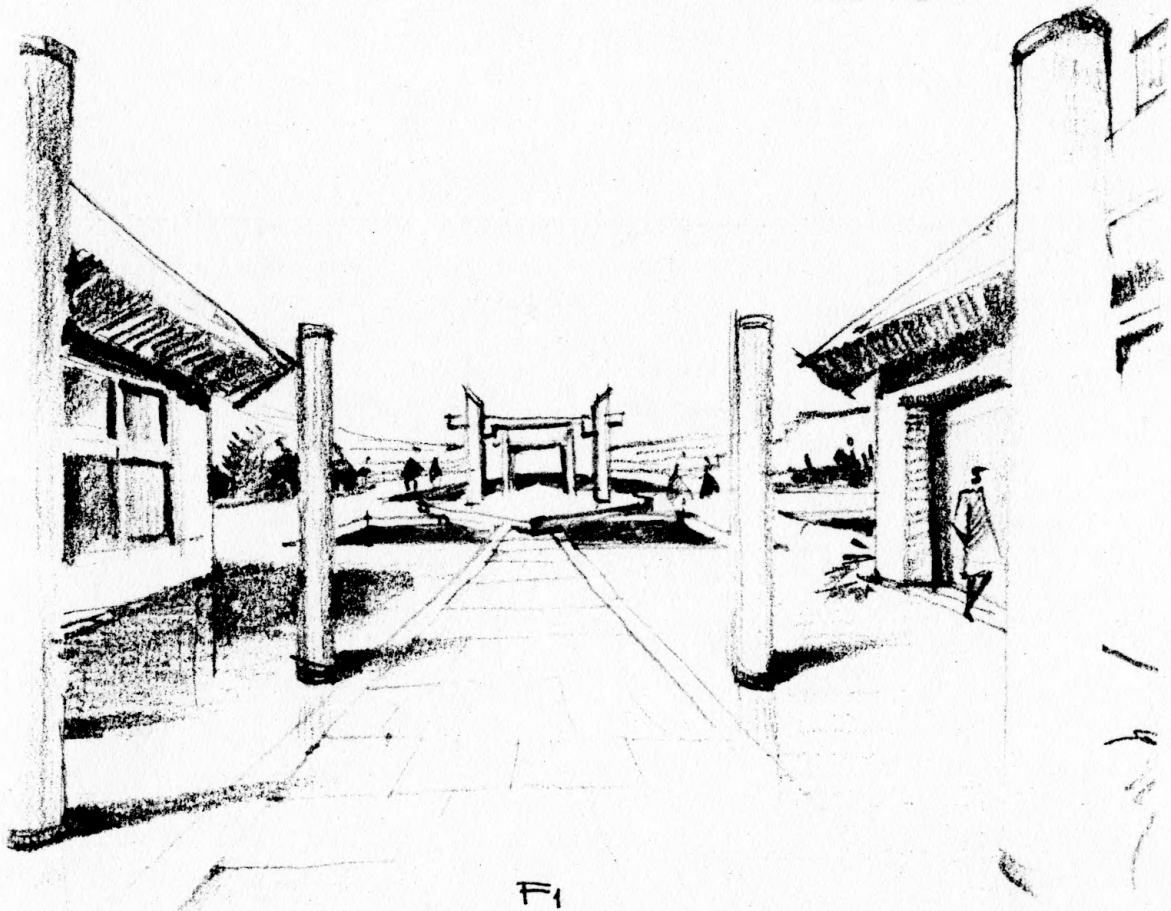
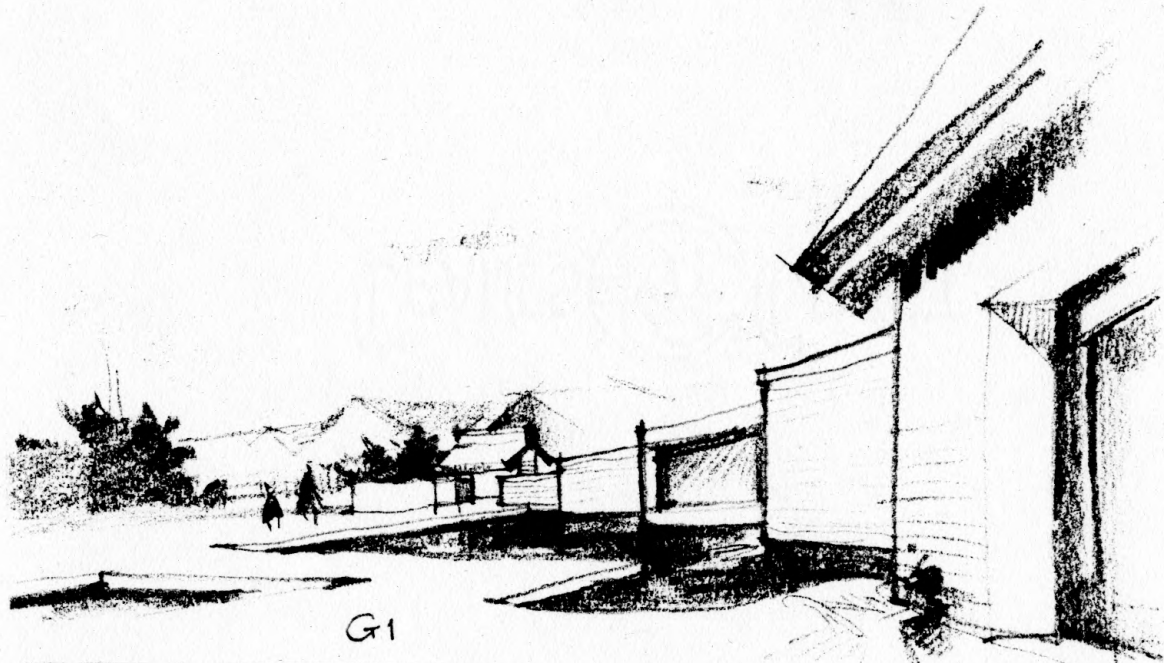
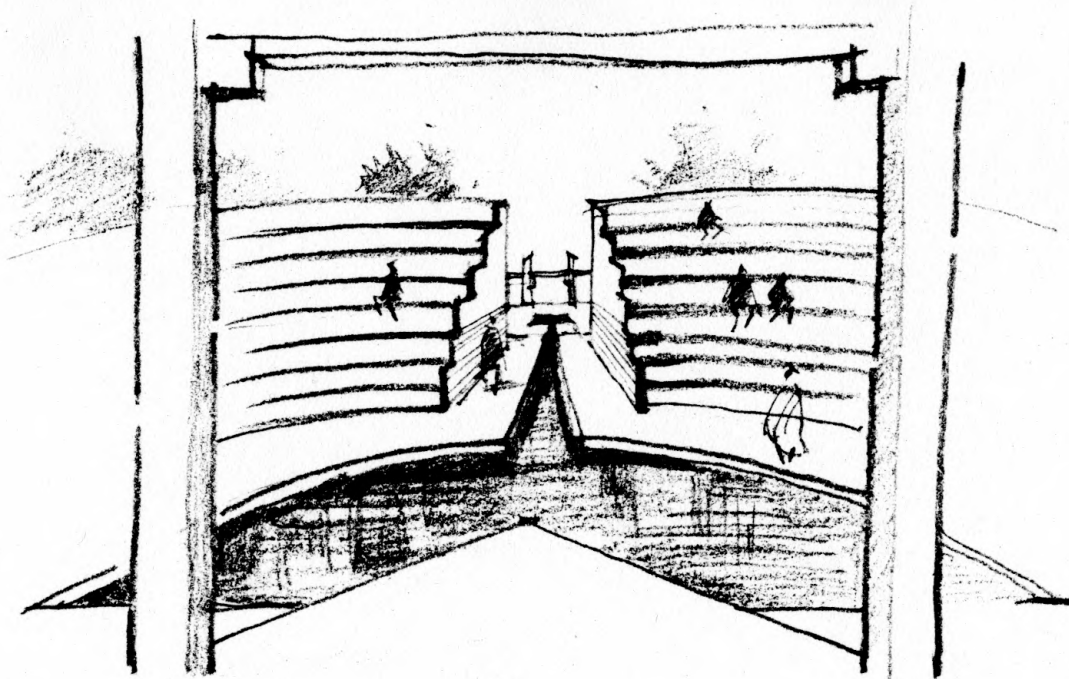
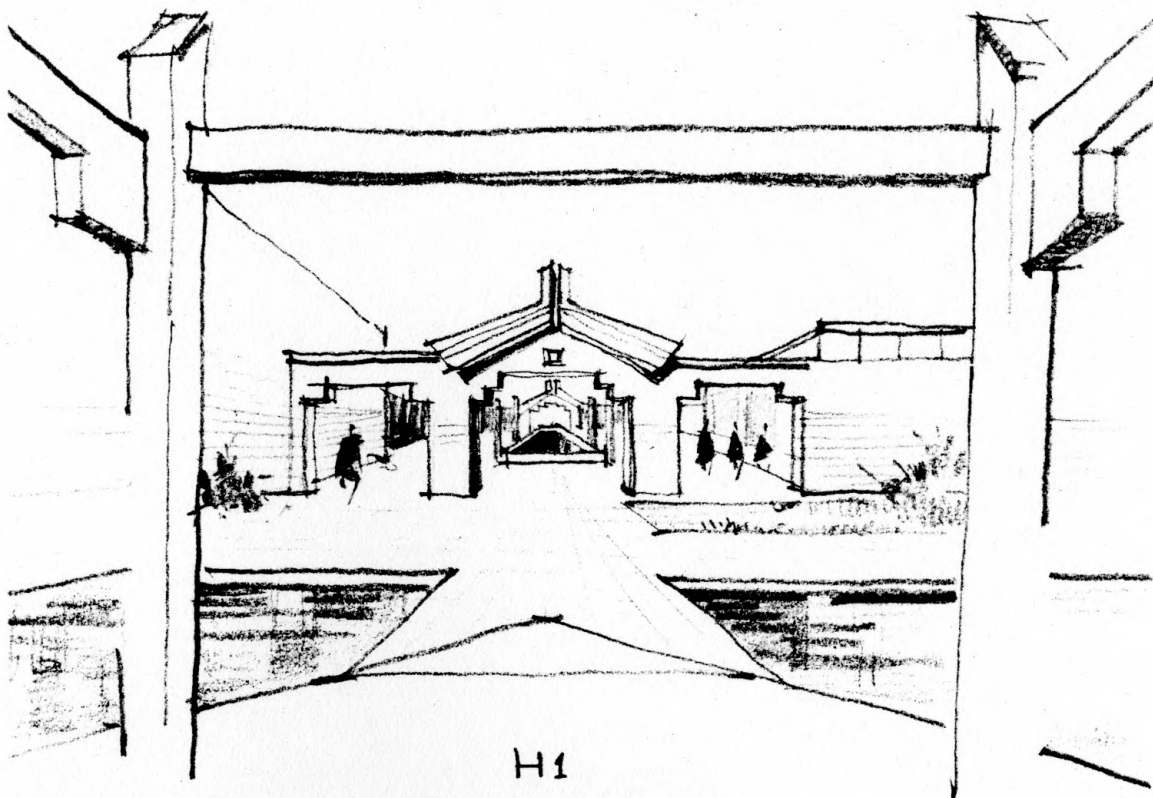


Figure 5.17: Perspective View F1, G1

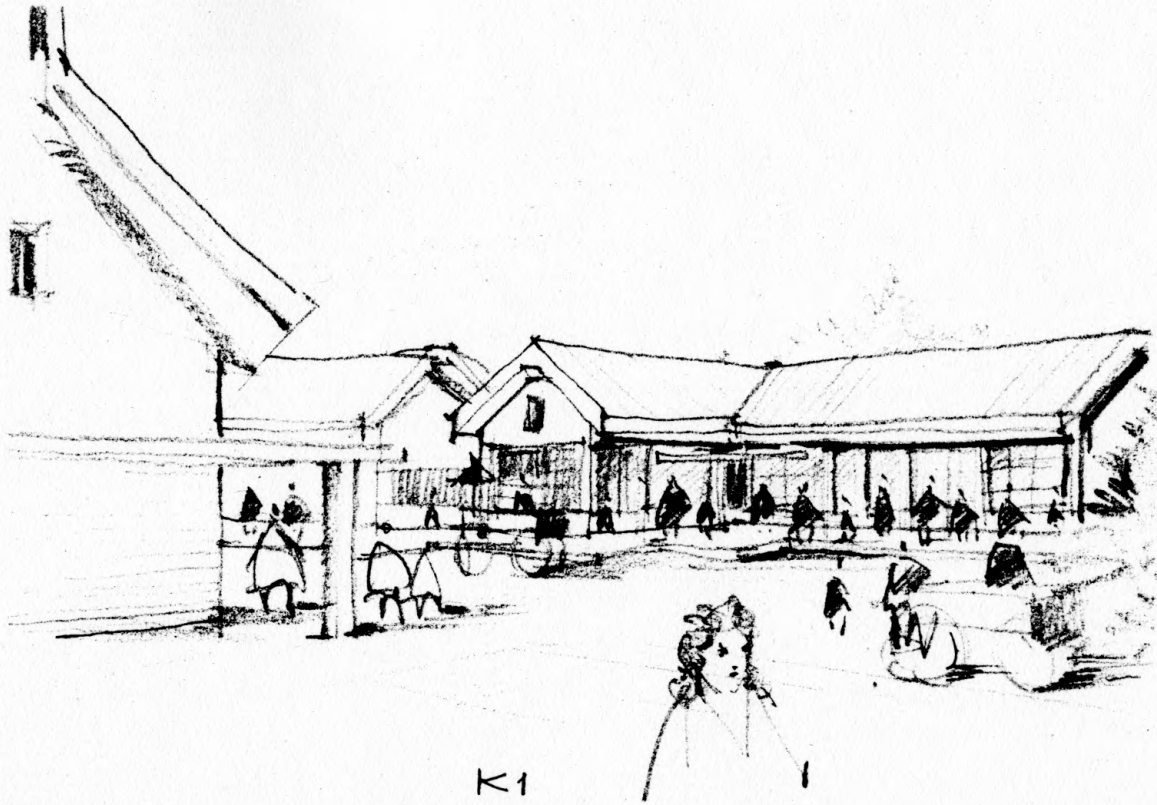


I1

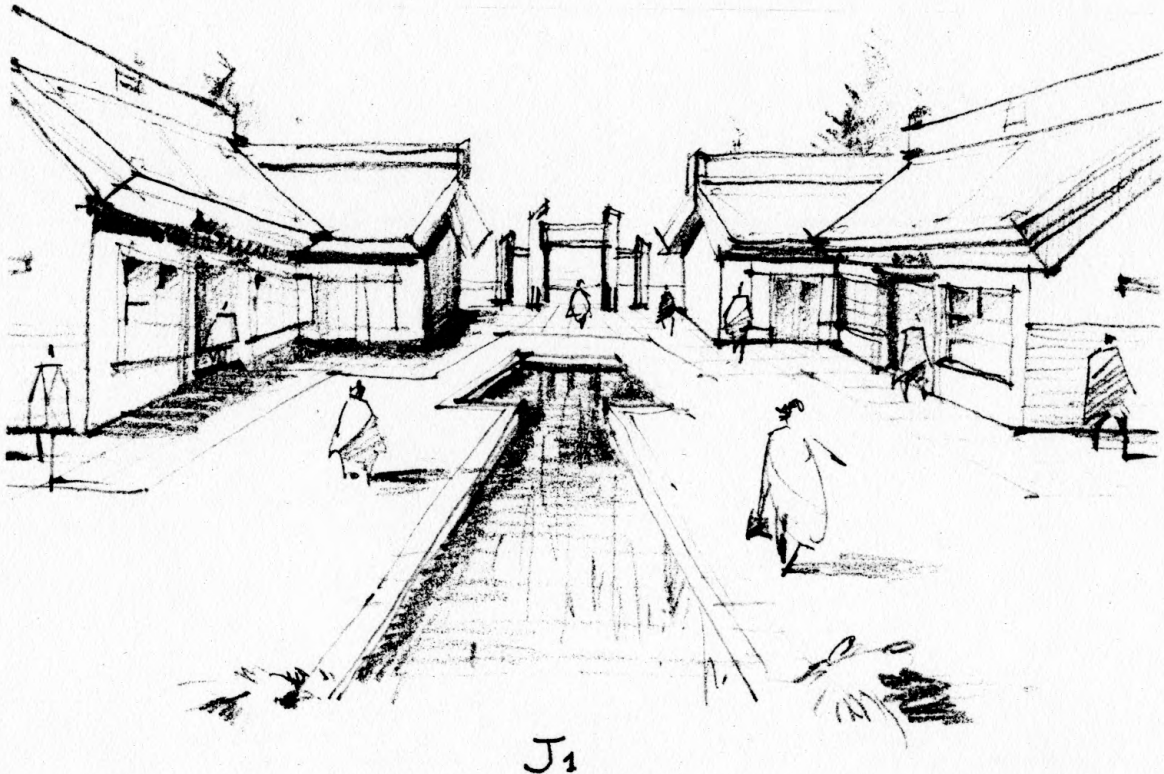


H1

Figure 5.18: Perspective View H1, I1



K1



J1

Figure 5.19: Perspective View J1, K1

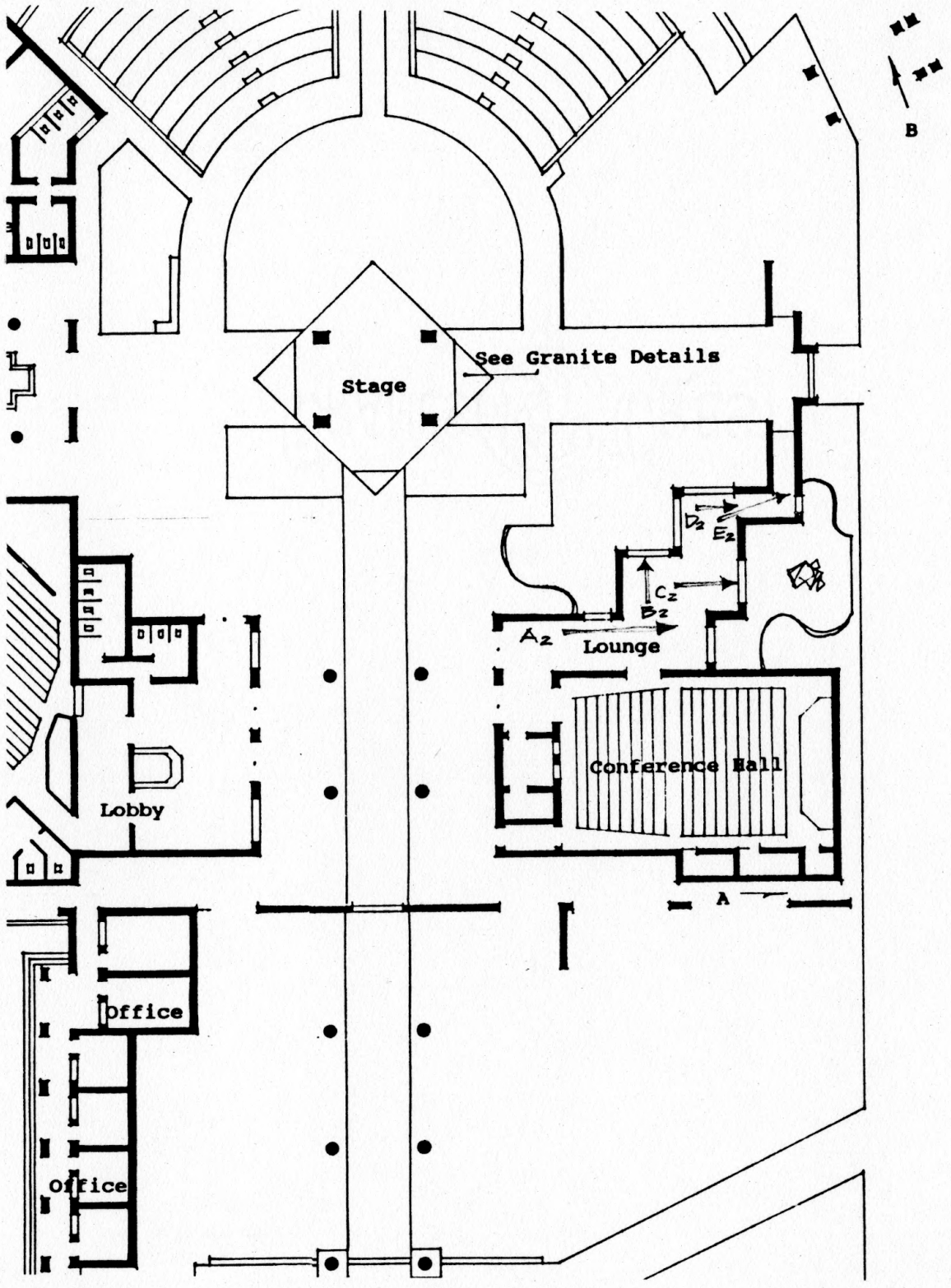


Figure 5.20: View Map #2

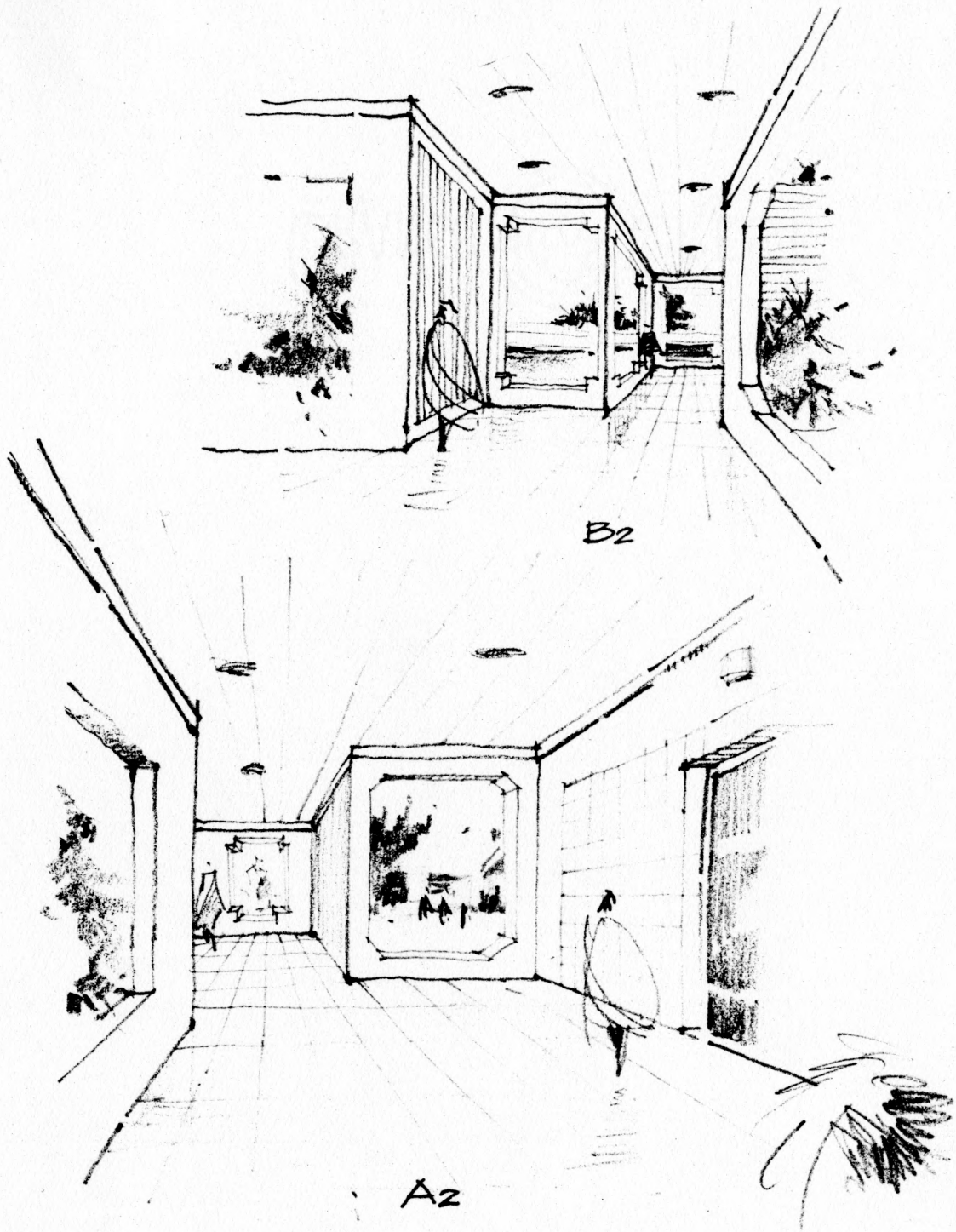


Figure 5.21: Perspective View A2, B2

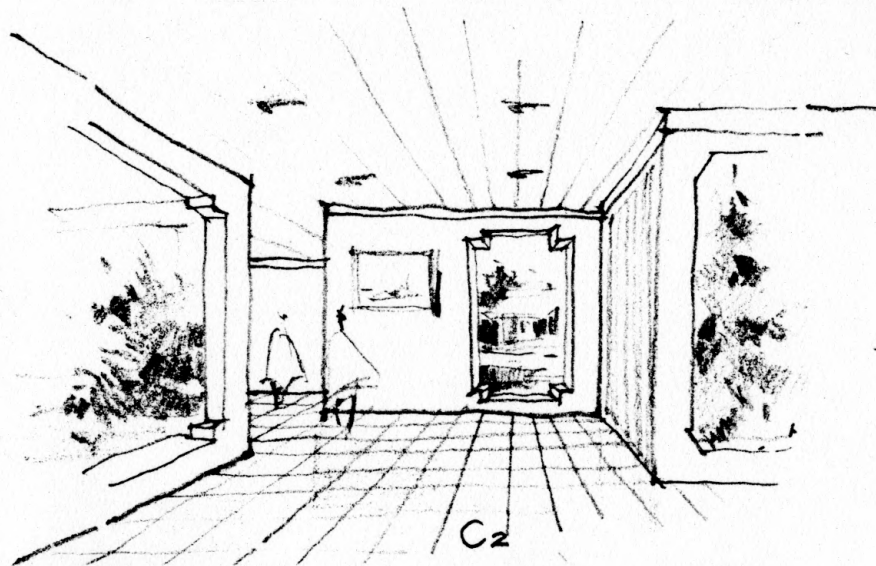
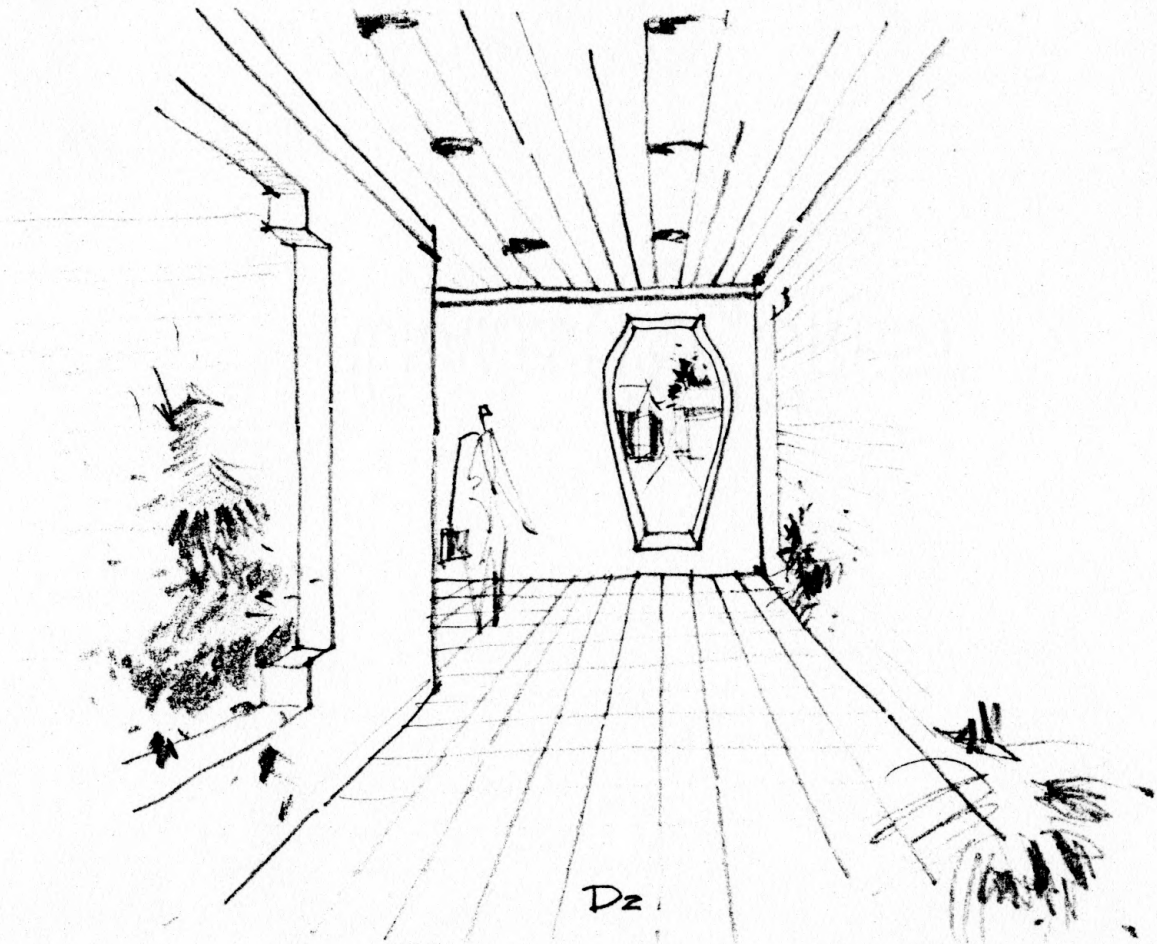


Figure 5.22: Perspective View C2, D2

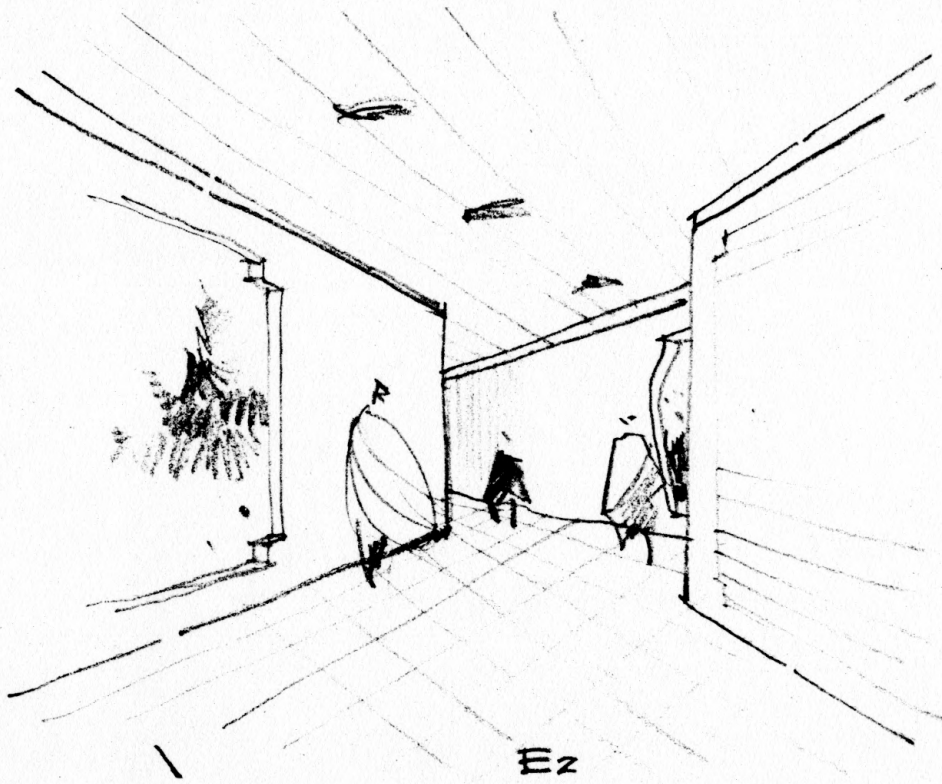


Figure 5.23: Perspective View E2

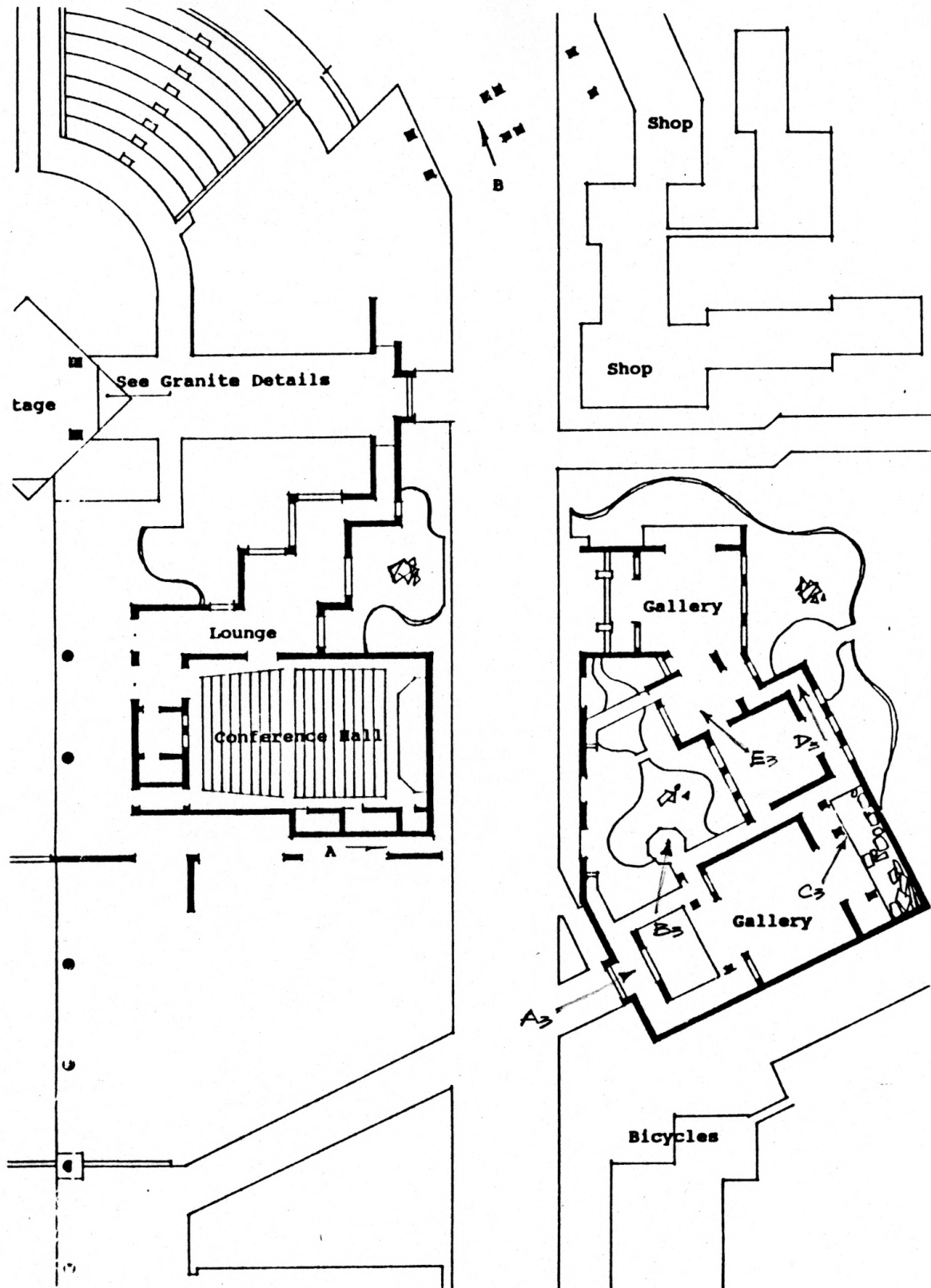


Figure 5.24: View Map #3

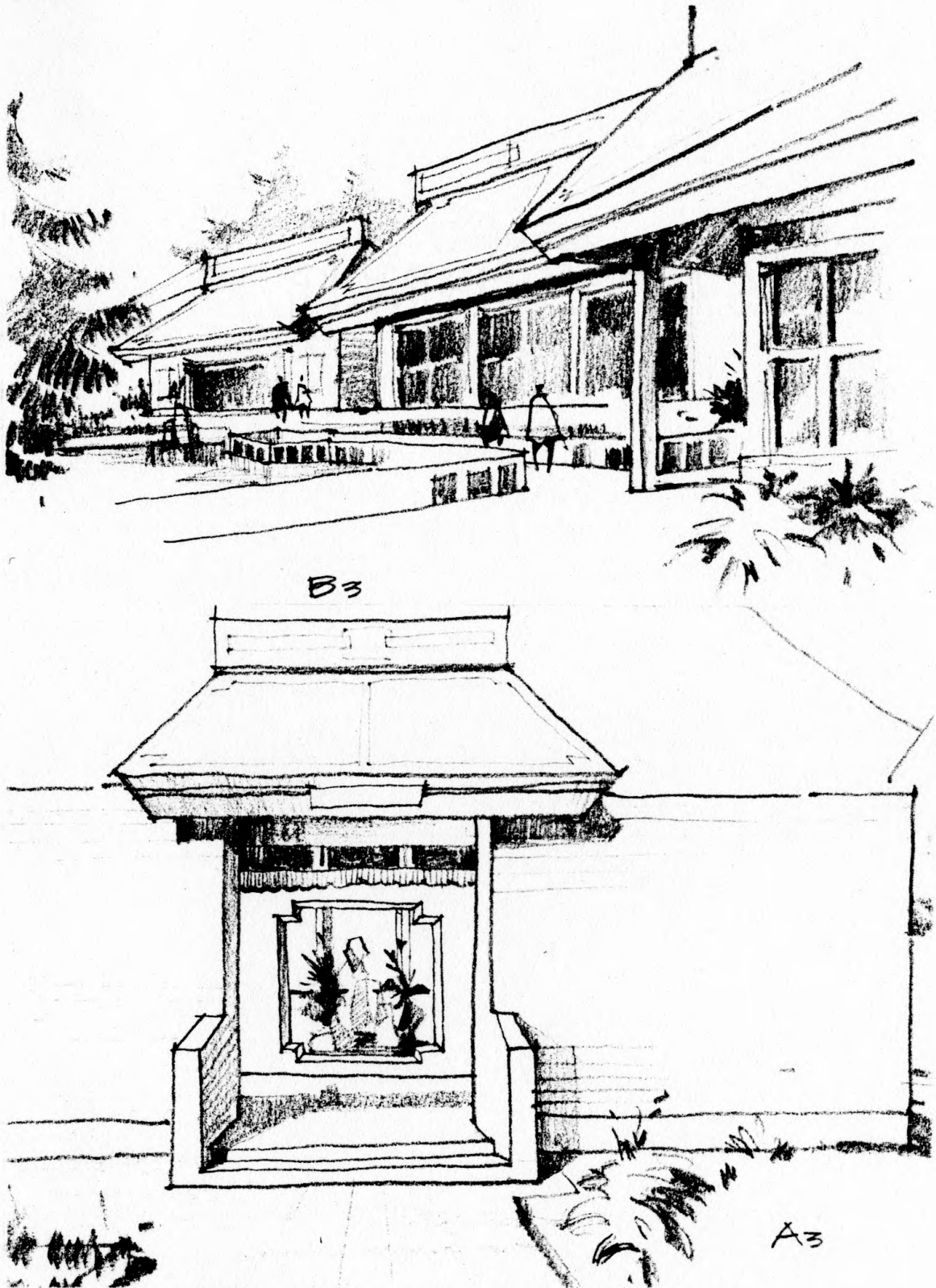
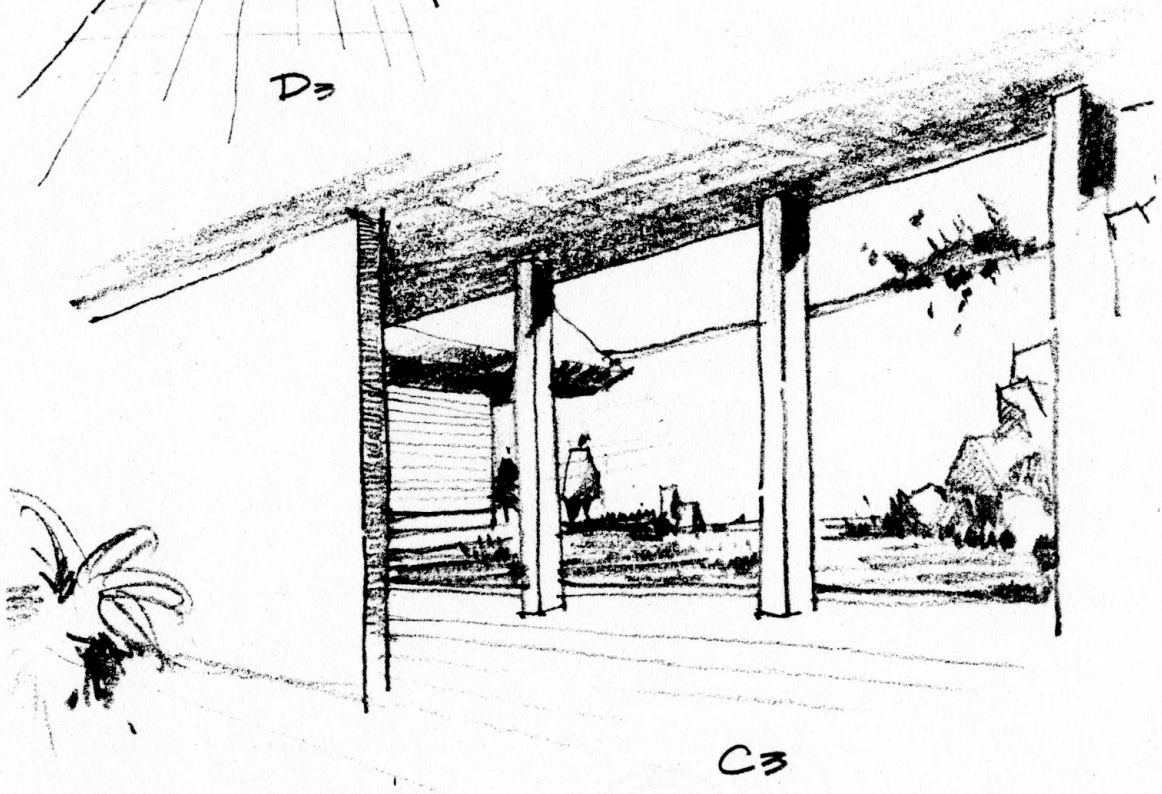


Figure 5.25: Perspective View A3, B3

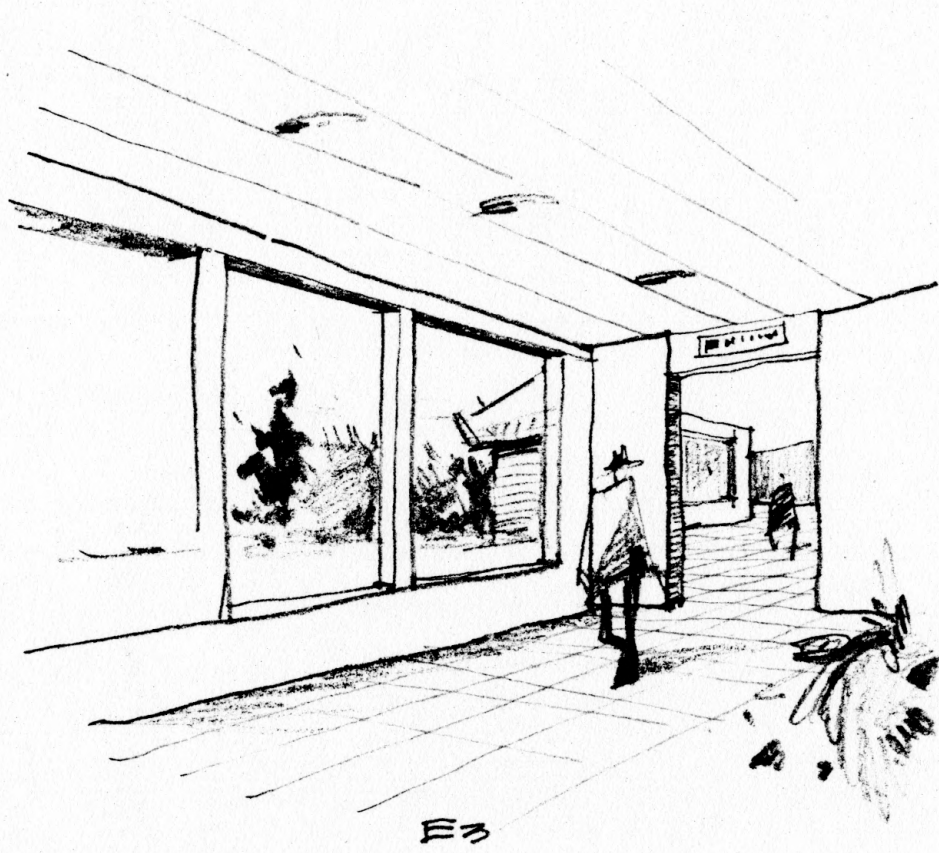


D3



C3

Figure 5.26: Perspective View C3, D3



E3

Figure 5,27: Perspective View E3

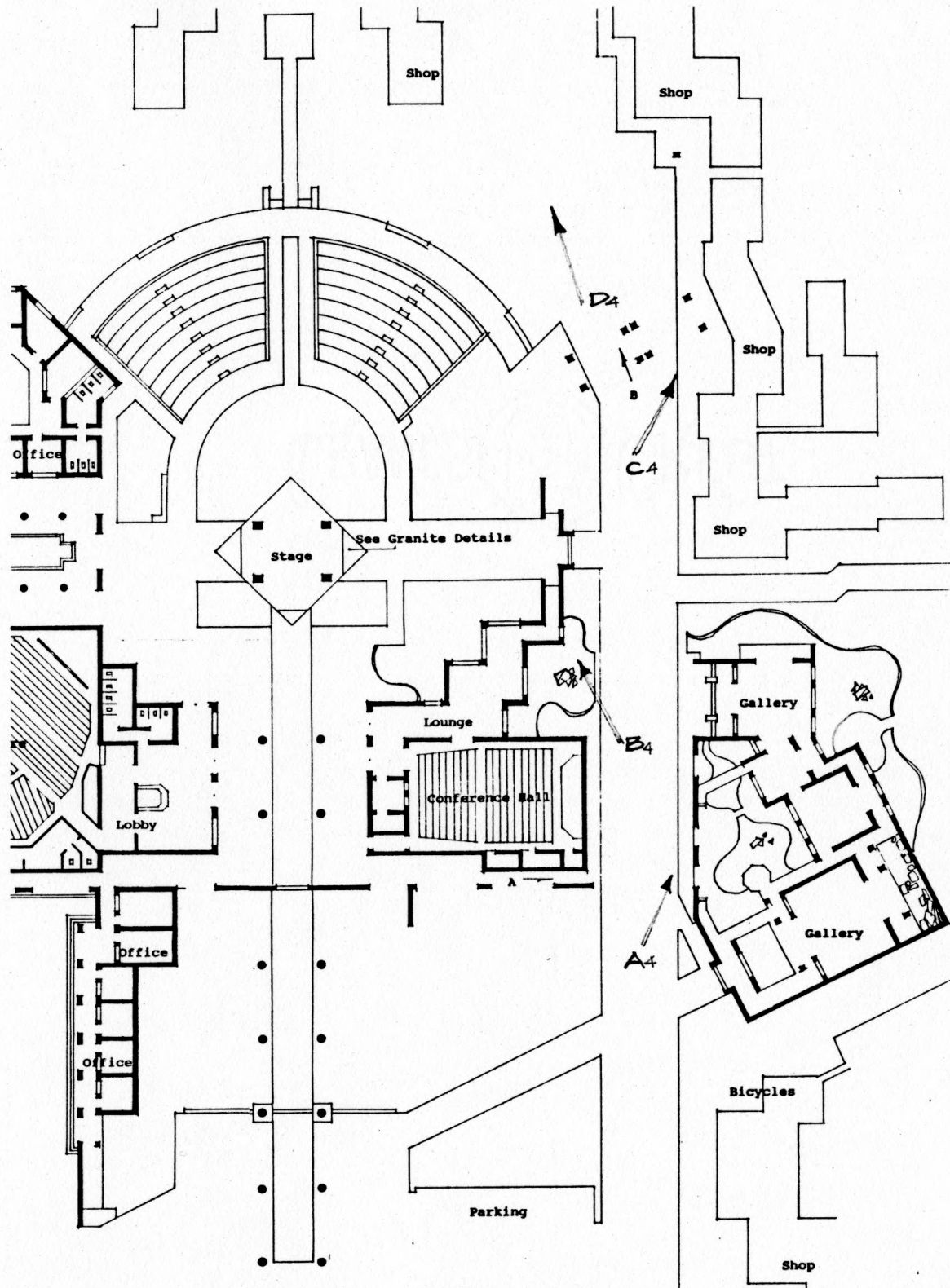
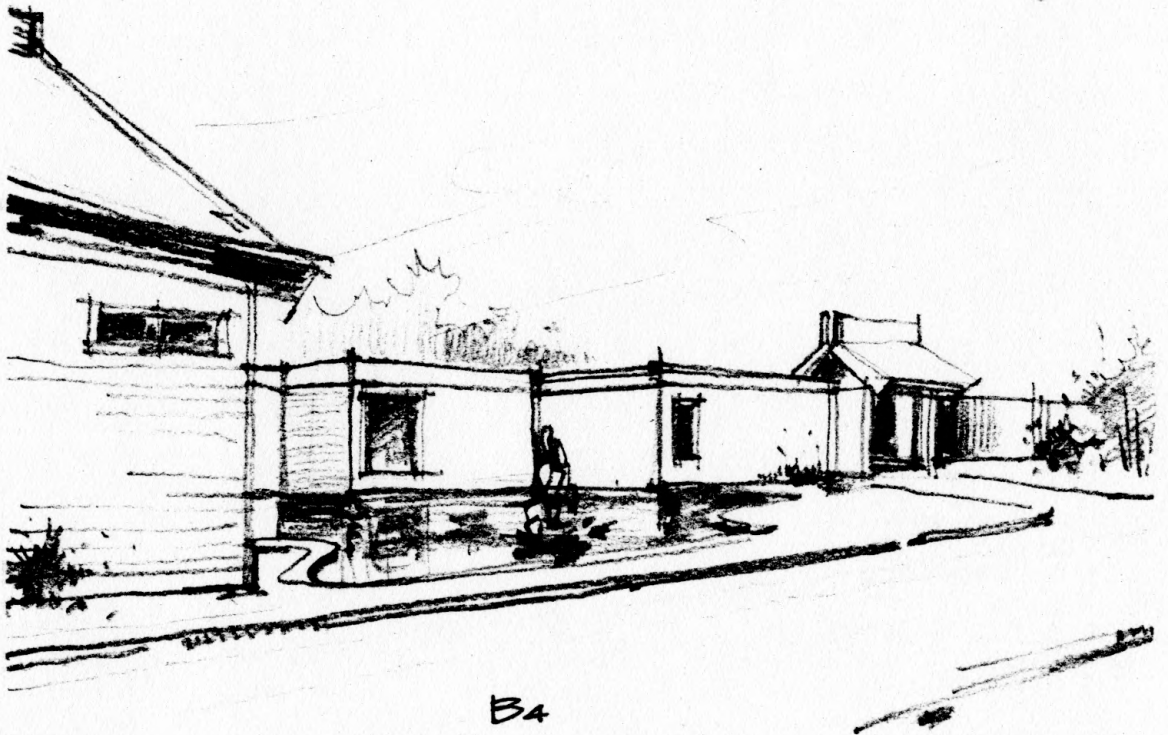
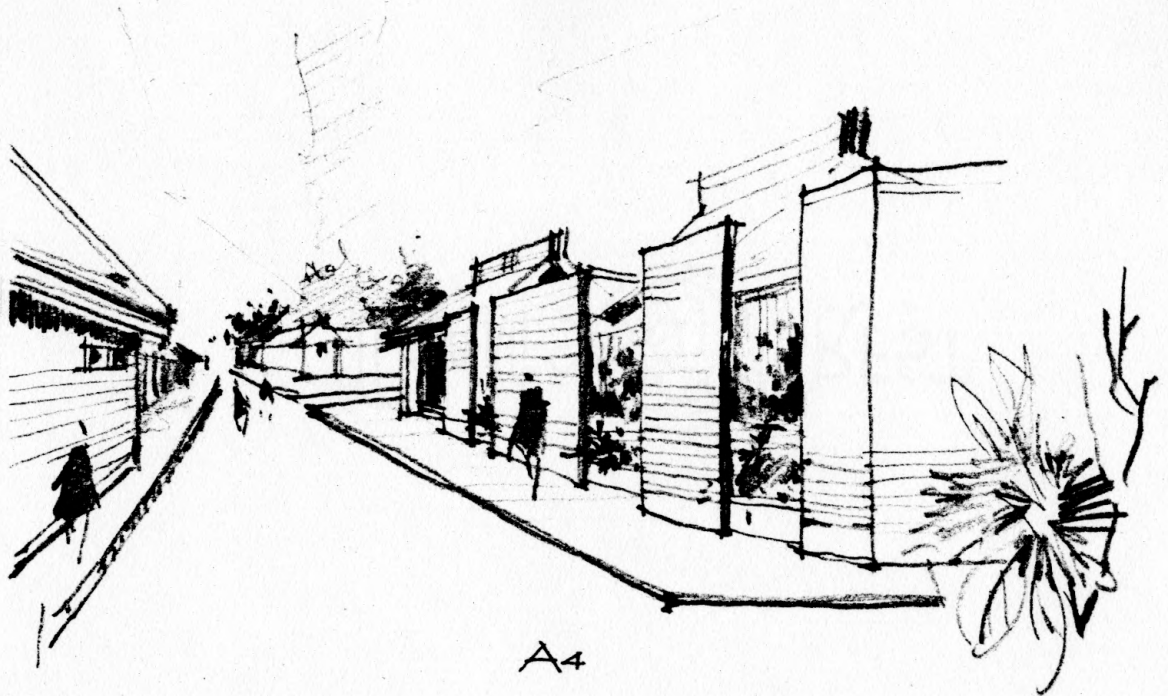
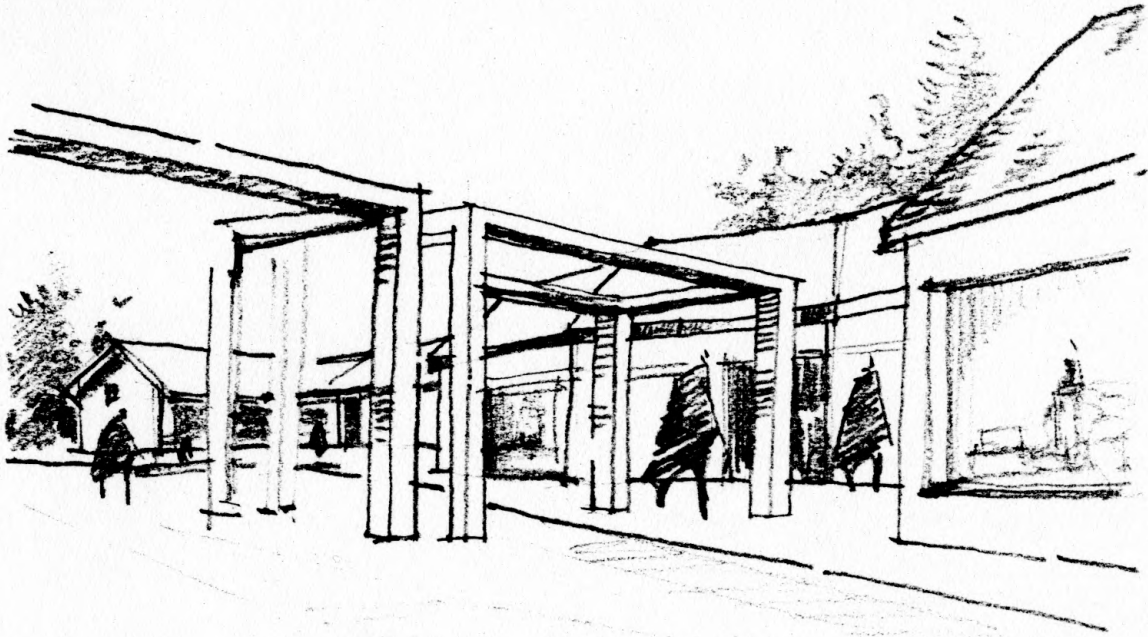


Figure 5.28: View Map #4



Figuer 5.29: Perspective View A4, B4



C4



D4

Figure 5.30: Perspective View C4, D4

of the spatial design in traditional Chinese architecture, as displayed both in Chinese Gardens and Imperial Palaces. The Forbidden City in Beijing is a very good illustration: the main theme is the strict axis and rectangular spatial arrangement; The circuitous circulation of water penetrates the whole plan, connecting the different spaces and softening the long, strict axis. In the design of the Cultural Exchange Center, the circulation of water serves not only as a spatial element but also as a link between the other spatial elements. Water penetrates the whole layout and is centralized in the main open space. Beyond its fostering of the climactic sequence, water manifests the Chinese concept of space which has no beginning and no end, (see Figure 5.31).

vi. Open Space As A Connecting Element

As discussed under the heading, Building and Mass in Chapter Three, traditional Chinese architecture often orders diverse forms by means of a neighboring common void. This common void or courtyard enables the surrounding enclosed-spaces to relate to each other. On the Cultural Exchange Center site, there are many elements: the existing residential buildings, the existing commercial street, the new commercial square, the Cultural Exchange Center itself and Ritan Park. Each of these elements have characteristics of their own. Furthermore, a contradiction exists between

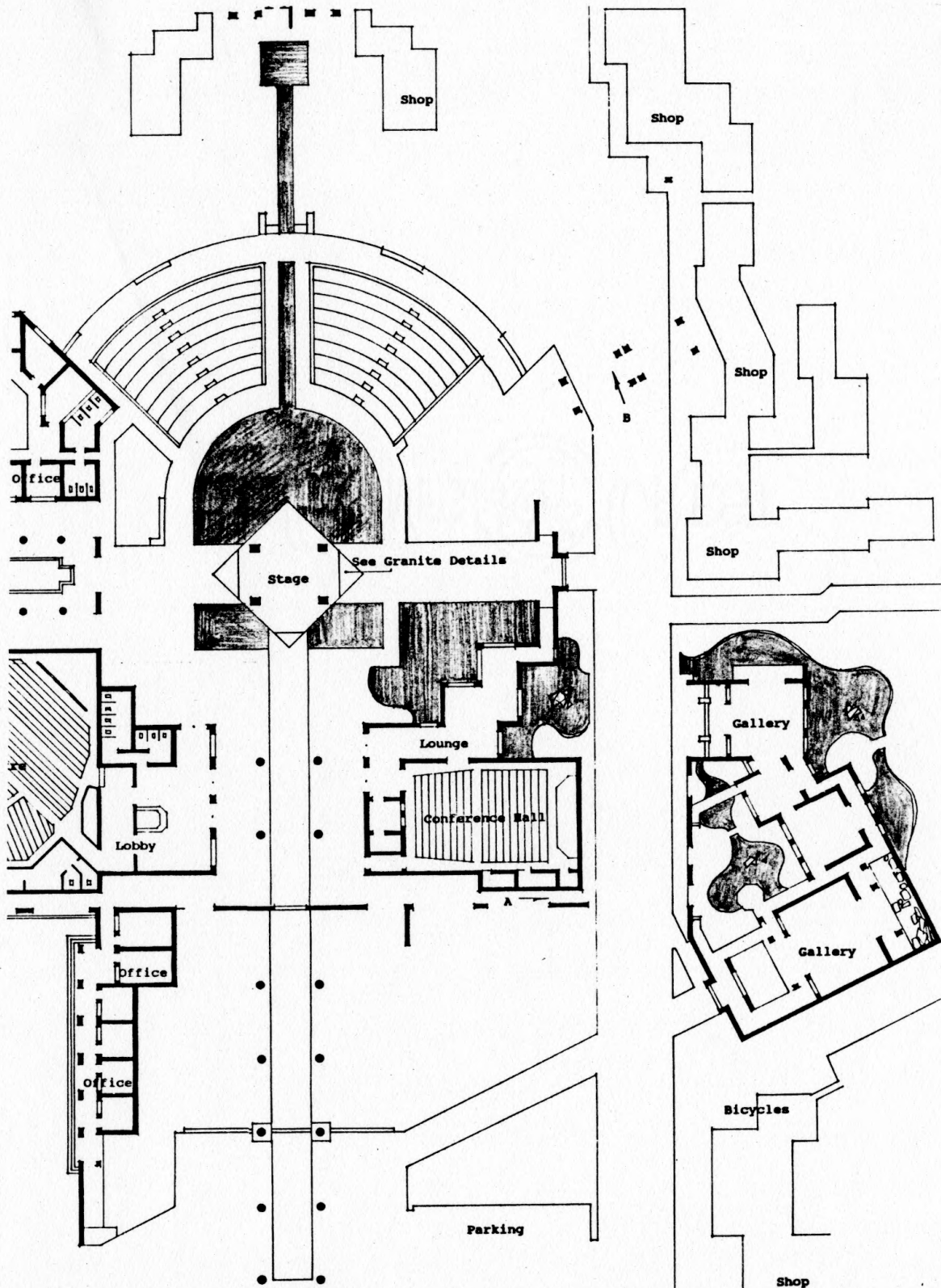


Figure 5.31: Natural Circulation as an Unifying Element

the axis extended from Ritan Park and the existing commercial street, Shenlu Street. This is a contradiction between the axial spatial order and the existing circulation, and is resolved by an open space as a common void which integrates the axis and the circulation. The open space allows the diverse elements that surround it to coexist in harmony. This then make possible a rich variety of color, texture, shape, etc without a sense of chaos (see page 57 - 58). In effect, the parallel axes are superimposed on a larger open space that includes most of the site. This design concept facilitates the "living museum" discussed earlier in this chapter.

Quotation As An Architectural Characteristics:

As discussed in Chapter Four, contemporary Chinese architecture should reflect our times, while preserving Chinese cultural identity, including decorative elements. Proud of the unique Chinese architectural heritage, links with it should be maintained, the most notable characteristics should be recalled through "quotation" of the traditional Chinese architectural vocabulary. The goal is to assimilate and adapt traditional elements. In this design, the main "quotation" utilized are the entrance, gate, and roof form. The slope and curved roof of traditional Chinese architecture is simplified in this design to be suitable to modern technique. In addition, the

shape of the pool in the center of the site is semicircular at the Northern end and square at the Southern end. This echoes the form of Tiantan Park, "Temple of Heaven", in Beijing. In traditional Chinese culture, the "curve" means the dome of sky and "square" means the earth or ground, (see Figure 5.32, 5.33).

In conclusion, the whole design concept is based on the study of Chinese architecture. As mentioned before, the site analysis, the improvement of the local economy and living environment and cultural exchange concept represent the understanding of the situation-centered architecture. "Axiality and Centrality" represents the theme in the Chinese Concept of Space and Building and Mass. The design principles which are discussed in the Chinese Concept of Space, Building and Mass and Garden such as spatial sequences, spatial contrasts and juxtaposition, views-in-motion and views-in-position, as well as setting scenes, leading views, etc are directly utilized in the "Climactic Sequences". "Natural Circulation as a Unifying Element" is another example which directly utilizes the design means in Chinese palaces and gardens and manifest the characteristics of Chinese spatial order. In the same way, "Open Space as a Connecting Element" represents the main theme of the "Building and Mass". Finally, utilizing decorative elements as the Chinese cultural identity emphasizes the characteristics of Chinese architecture.

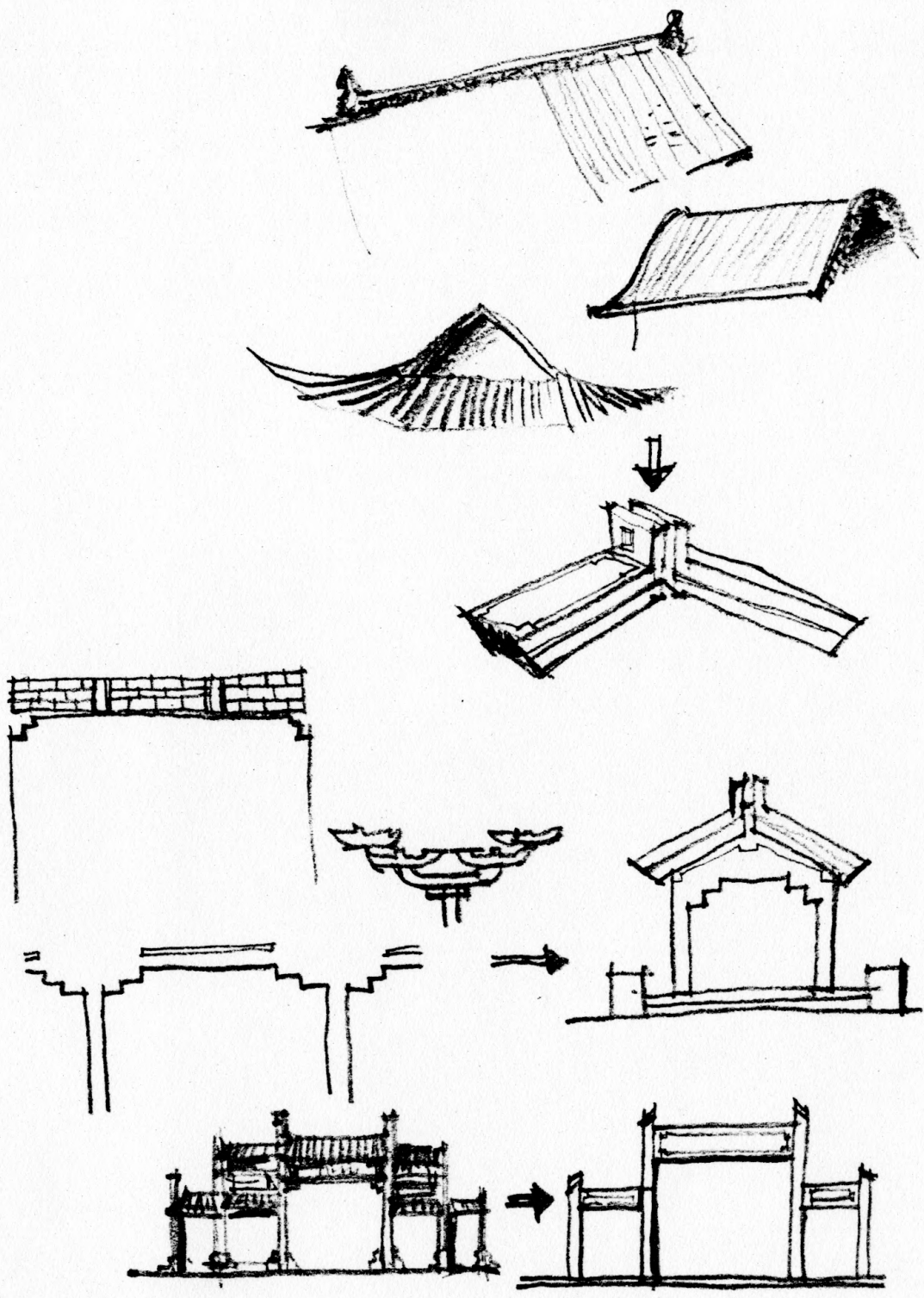


Figure 5.32: Quotation: an Architectural Characteristics

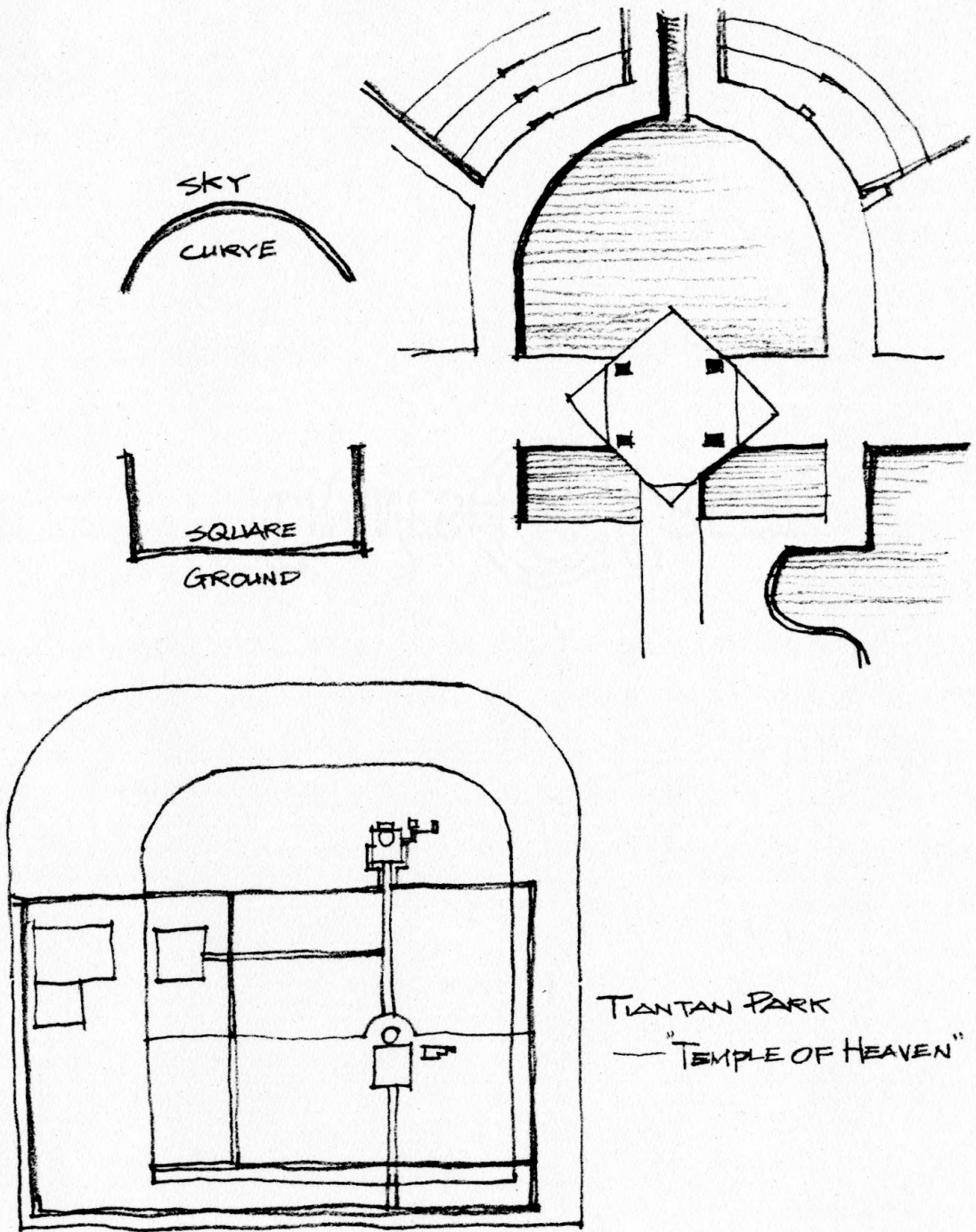


Figure 5.33: Quotation: an Architectural Characteristics

In the author's opinion, this design realizes the purpose of this study which is to create a new Chinese architecture that reflects the old not in form, but in spirit. This new architecture is not preoccupied with facades and overt references to the past. While addressing the functional requirements of spaces, this spirit or Chinese concept of space produces a brand-new living environment for Chinese people.

Specific Programmatic Requirements

Based on the functional requirements, the classrooms, scholars' offices and library are located away from the stadium and the commercial street in a comparatively quiet area to the West. The staff offices, gallery, conference room and theater which are used more frequently are close to or within the open space. The gallery is connected with the existing commercial street as an entry symbol for the street and as a means to bringing the street into the life of the Cultural Exchange Center. The corridor along the back of theater and library is intended as a transition zone and the sound barrier between the Cultural Exchange Center and the existing elementary school.

5. Design Presentation

The original basic drawings were presented on three boards reproduced in Figures 5.34, 5.35, 5.36.

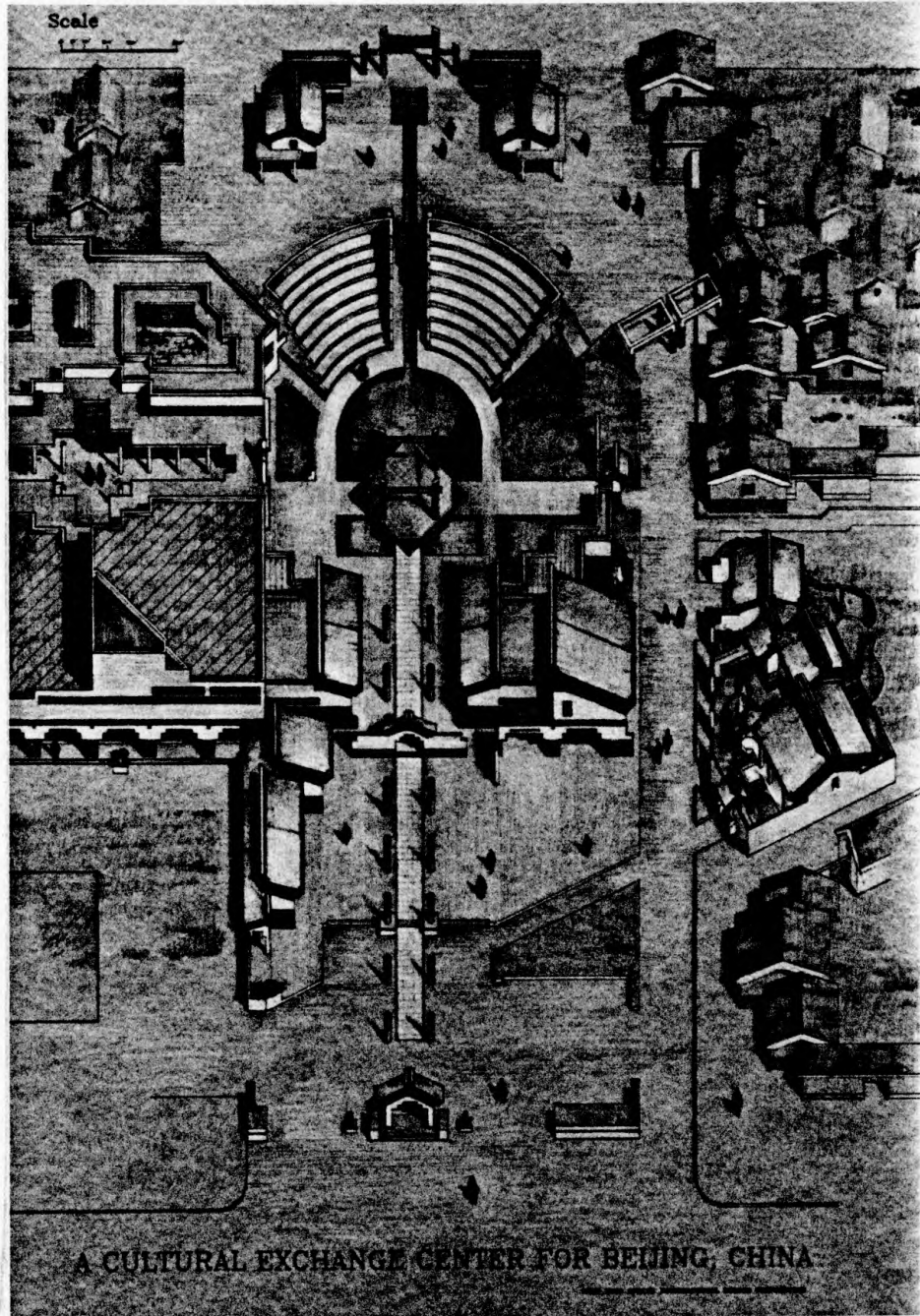


Figure 5.34: Drawing Board #1

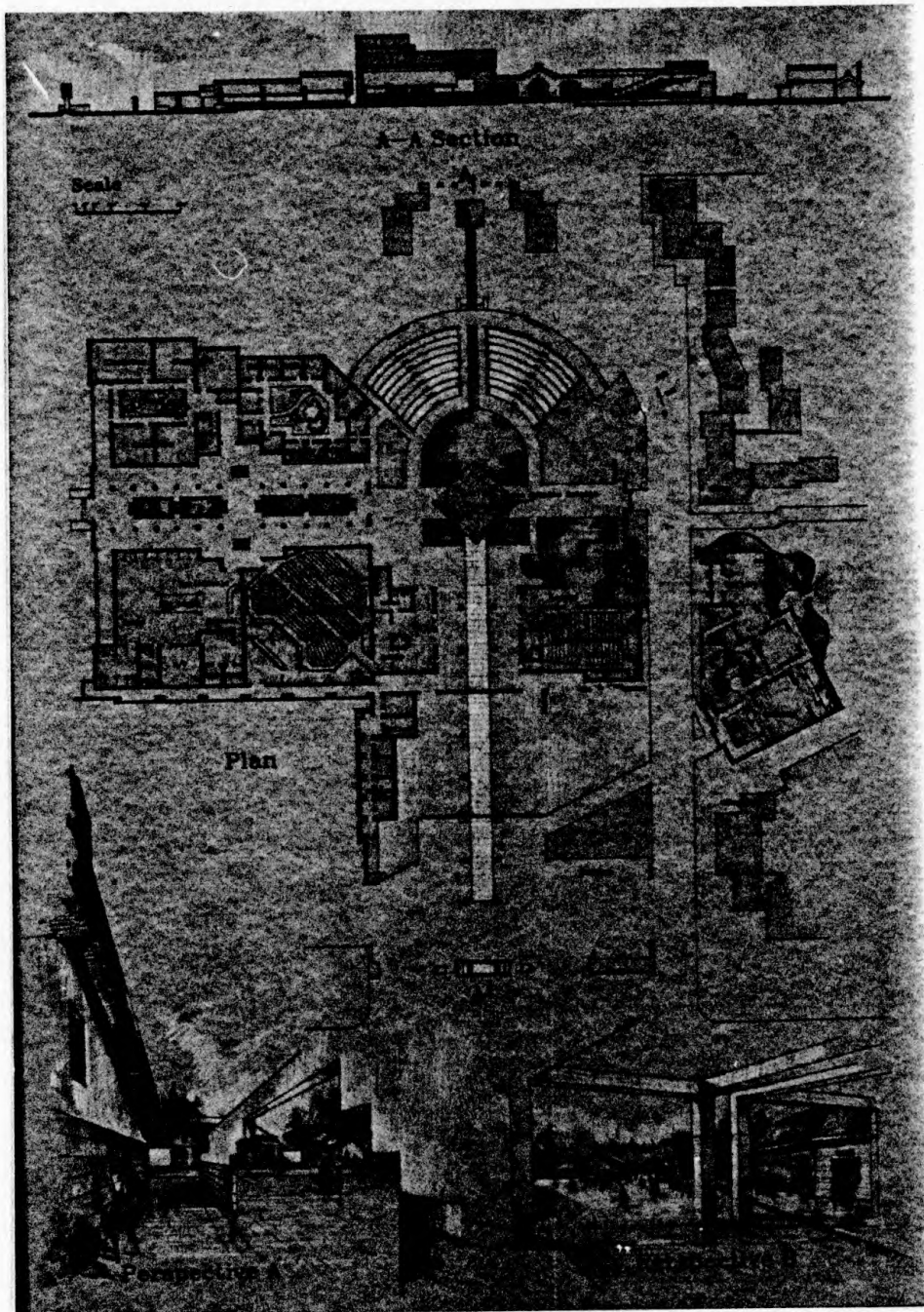


Figure 3.35: Drawing Board #2

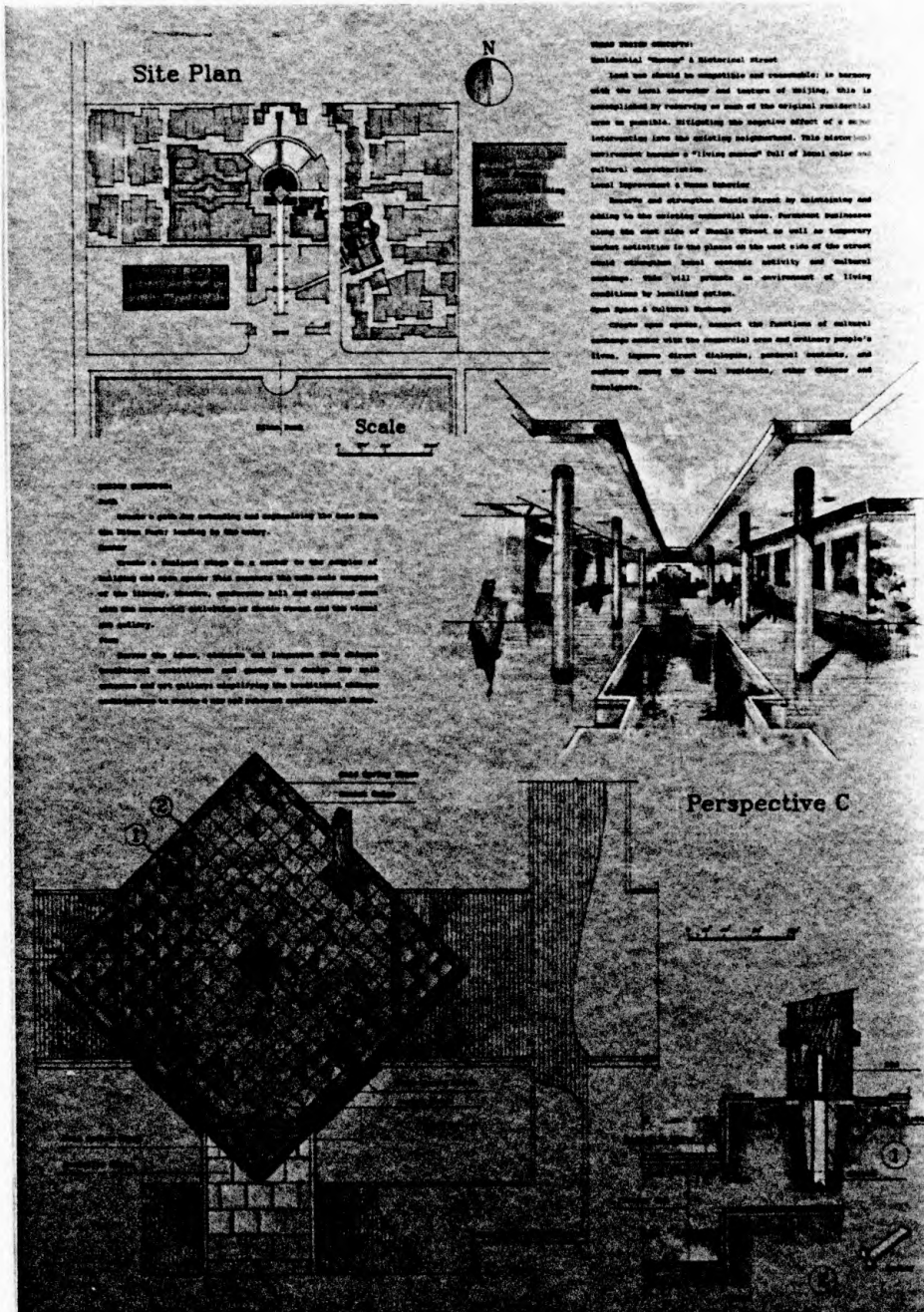


Figure 5.36: Drawing Board #3

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THE DESIGN OF A CULTURAL EXCHANGE CENTER
FOR BEIJING CHINA

By

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Bachelor of Architecture

Xian Institute of Metallurgy and Construction Engineering
Xian, People's Republic of China, 1984

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE

MASTER OF ARCHITECTURE

Department of Architecture
College of Architecture and Design

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1990

ABT-0241
04-43

ABSTRACT

This thesis is an attempt to explore two diverse cultures, American and Chinese. The comparative analysis of the basic characteristics of Chinese and American cultures concentrates on home, family and religion, and extends into architecture, exploring the commonality and divergence of conceptions of space, mass and garden. The purpose of this study is to suggest ways to represent traditional Chinese architectural values in modern society with modern means. These approaches are then applied in the design of a Cultural Exchange Center in Beijing, China.