

A CHINESE GARDEN IN WINNIPEG'S CHINATOWN

BY

PO-CHU LEE

A practicum submitted to the Faculty of Graduate Studies
of the University of Manitoba in partial fulfillment of the
requirements of the degree of

MASTER OF LANDSCAPE ARCHITECTURE

Department of Landscape Architecture

University of Manitoba

September, 1984

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Department of Landscape Architecture
University of Manitoba
Winnipeg, Manitoba
1984

In memory of
my beloved Mother

ABSTRACT

Traditional Chinese architecture often echoes the themes of gardens and the contemplative life. Subjects in classical poetry and paintings are often used to further enrich the artistic tradition of Chinese design techniques, and bring alive the classical antiquity of Chinese landscape architecture. Chinese gardens, as well as their principal structures and vistas, are often named after the poetic themes with historical associations. This rich interplay of allusions helps to guide and stir the visitor's imagination and further enhance the historical qualities and intellectual stimulation.

The practicum identifies the four design principles employed in the development of the traditional Chinese garden, demonstrates the use of these principles through the examination of one classical garden environment, and tests the appropriateness of these principles in the development of a proposal for a contemporary Chinese garden in Winnipeg.

ACKNOWLEDGEMENT

Deep appreciation is extended to Professor Al Rattray, my former chairperson, for his relevant criticism and valuable contribution in the evaluation and the selection of the material. Sincere thanks to Mr. Chuck Brook whose professional expertise as an architect and planner provided a great deal of resource information regarding the redevelopment of Chinatown. My greatest debt is to Professor Garry Hilderman, my present practicum chairperson, for his insights and advice throughout compilation and presentation of the material.

Many thanks to Professor Charlie Thomsen and Professor Carl Nelson for their support and helpful suggestions. As well, sincere appreciation to Professor Zaichen Li from China, who offered both innovative techniques and creative ideas on Chinese Garden Landscapes during his 1983 visit to the University of Manitoba as Visiting Professor of Landscape Architecture.

Finally I am grateful to my husband and friends, especially to Anita, Poh, Stephen and Peter who have given me much encouragement and various means of assistance.

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INTRODUCTION - Four Design Principles

The design principles which govern a Chinese garden park are :

1. The application of the Yin-Yang philosophy.
2. The expression of a theme which represents the soul.
3. The development of a variety of visual imagery - finding a different vista at every turn.
4. The creation of space through illusion - making the small evoke the large.

PART I

THE FOUR DESIGN PRINCIPLES OF CHINESE GARDENS

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YIN-YANG PHILOSOPHY

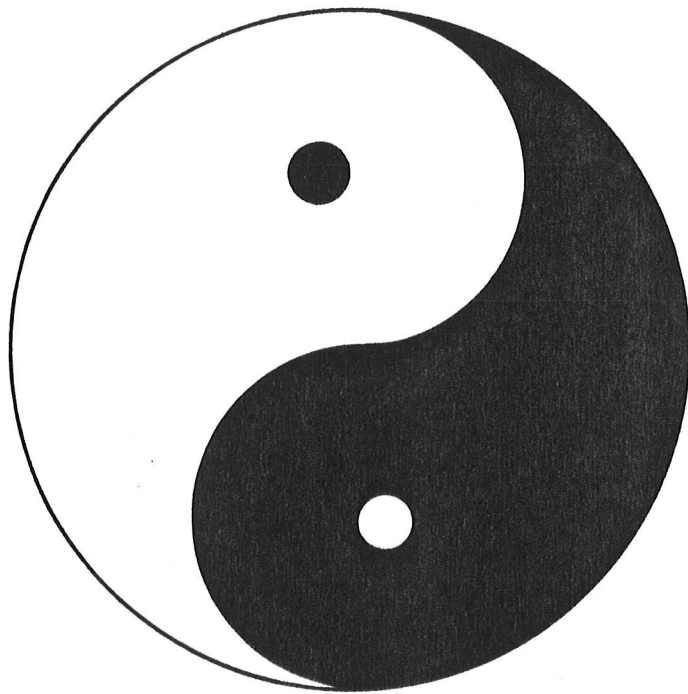
'In order to remain intact, be dented.
In order to keep straight, be bent.
In order to be filled, be hollowed. Less is more.'

The Yin-Yang principle is not contradictory at all as it is nature itself.

In terms of design, it can be simply interpreted as the rule of contrasts.

The harmony is achieved when Yin and Yang are in balance: as one increases, the other decreases.

When two forces act in opposite directions, there lies the secret of all creation.



The diagram of Supreme Ultimate
United into "ONE"



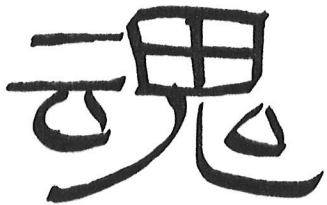
The secret of the yin-yang philosophy is engraved into the design of the Dragon Wall.

The blackness against the whiteness,
the solid wall against the extended leaves,
the hard rock against the soft plantings,
the vertical tree trunk (holding the sky and
the earth) against the horizontal
wall (linking the East and the West)...

Contrasting forces create a miraculous wholeness
of the universe !

~ YU Garden, Shanghai ~





THEME - SOUL OF THE GARDEN

The theme creates the garden,
the garden brings alive the theme.

The Chinese garden is a miniature universe,
one can become one with

time, space and seasons.

The soul of the garden is created
by a designer -

a world of its own is molded.

Lake of Mok cho -

designed in remembrance of a lady.

Mok cho -

Yin elements fill up most vacuity of
the site ornamenting it with smooth
pond and soft plantings!

~~~~~ Mok cho Wu, Nanking ~~~~~





## Garden of Lion Forest

A stone garden — forceful and vigorous!

Yang force reigns over the Land

loading it with rock of different  
sizes and varied shapes.

Yang elements dominant.

---

Shizi Lin, Suzhou







步  
移  
景  
異

FINDING A DIFFERENT VISTA AT  
EVERY TURN

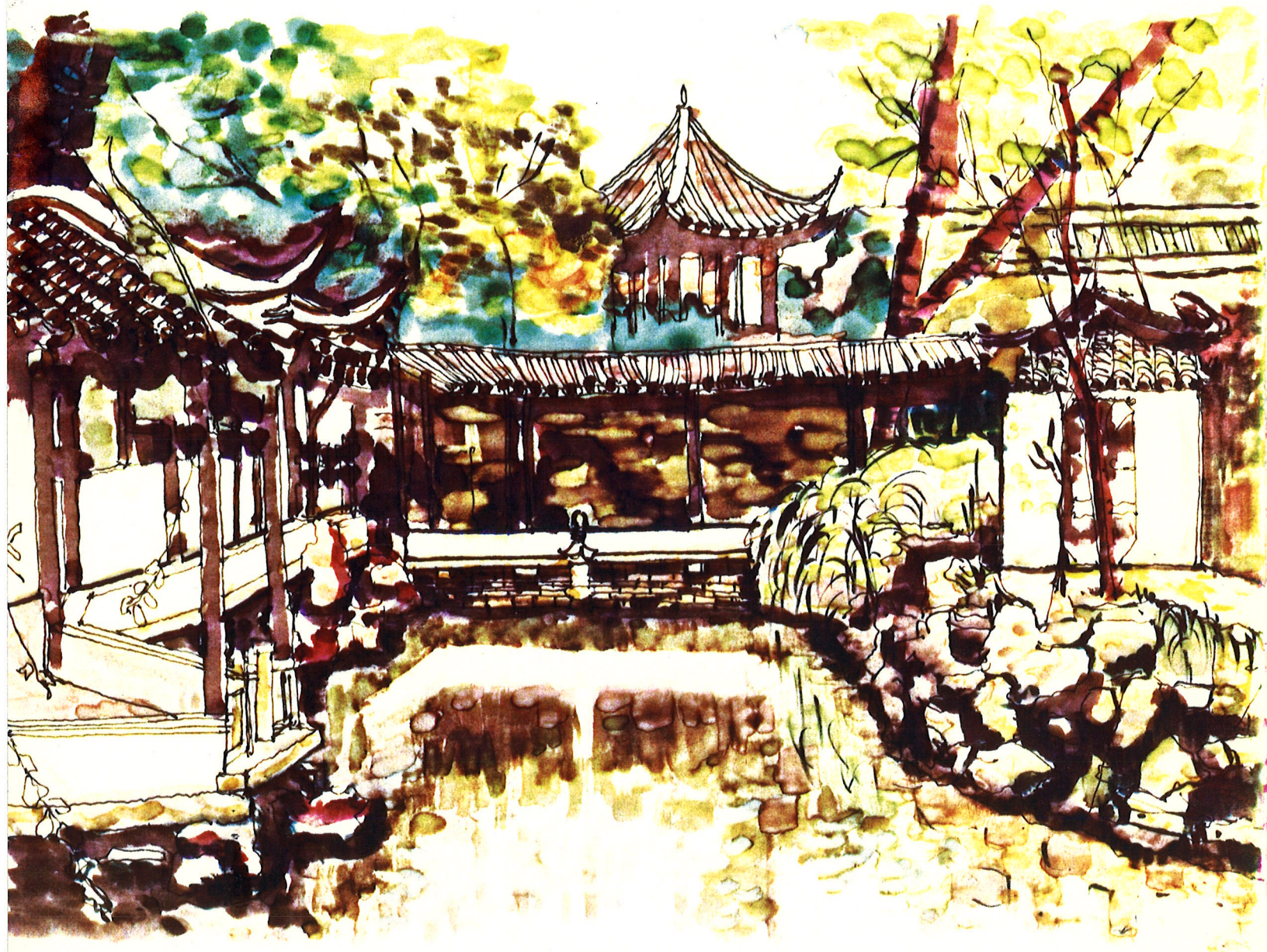
strolling along the waters edge,  
traversing across the zigzag bridge,  
the scenery changes at every turn,  
walking through the winding paths  
and corridors  
another world comes alive !

The Garden of the Unsuccessful Politician —  
moving along the narrow winding  
corridor, with its dramatically  
changing building materials,  
the viewer beholds continuously  
unfolding and moving scenery,  
with every single step.

It is everchanging! It is movement!

— Zhuo Zheng Yuan, Suzhou —

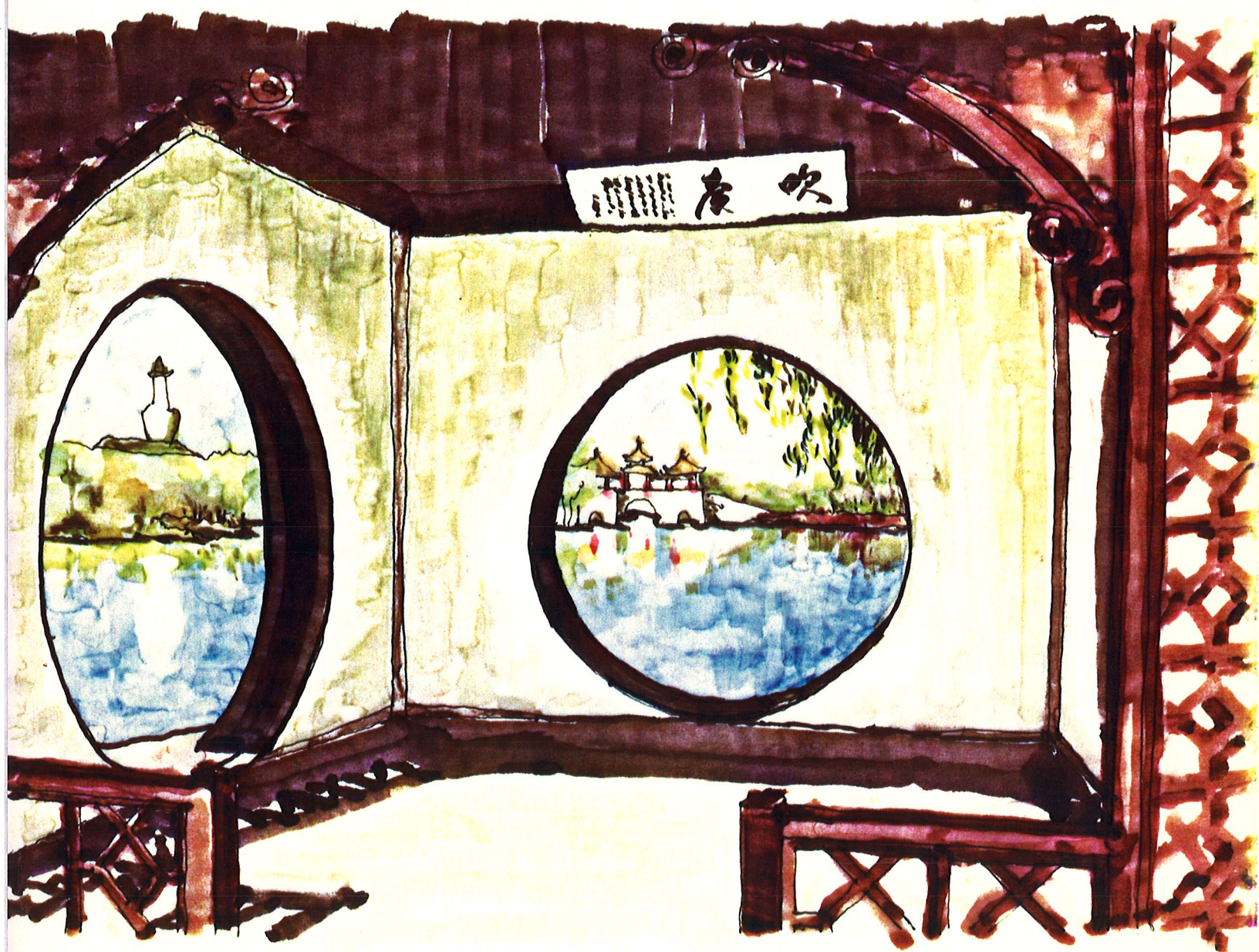




Posed in different directions, window frames,  
interestingly - divides the whole piece  
of scenery into varied sections -  
each from a unique perspective,  
each forms a small world of its own!

~ Jade Spring Garden ~  
Hangchow





小  
中  
見  
大

MAKING SMALL EVOKE THE LARGE

To gain, must yield.  
To win, must lose.

To create the depth of infinity -  
block the immediate view partly  
with walls or plantings.

To enlarge the surrounding areas,  
create the reflecting image  
with the mirroring effect of  
water.

This illusive technique,  
creates a tremendous  
contrasting force that brings  
alive the depth of fine arts.

The rock tunnel — both an entrance and exit —  
small, inconspicuous and unstimulating.  
Yet, humbly bending down and getting through,  
what an unexpected greatness and  
splendour ahead!

— Yu Garden, Shanghai —

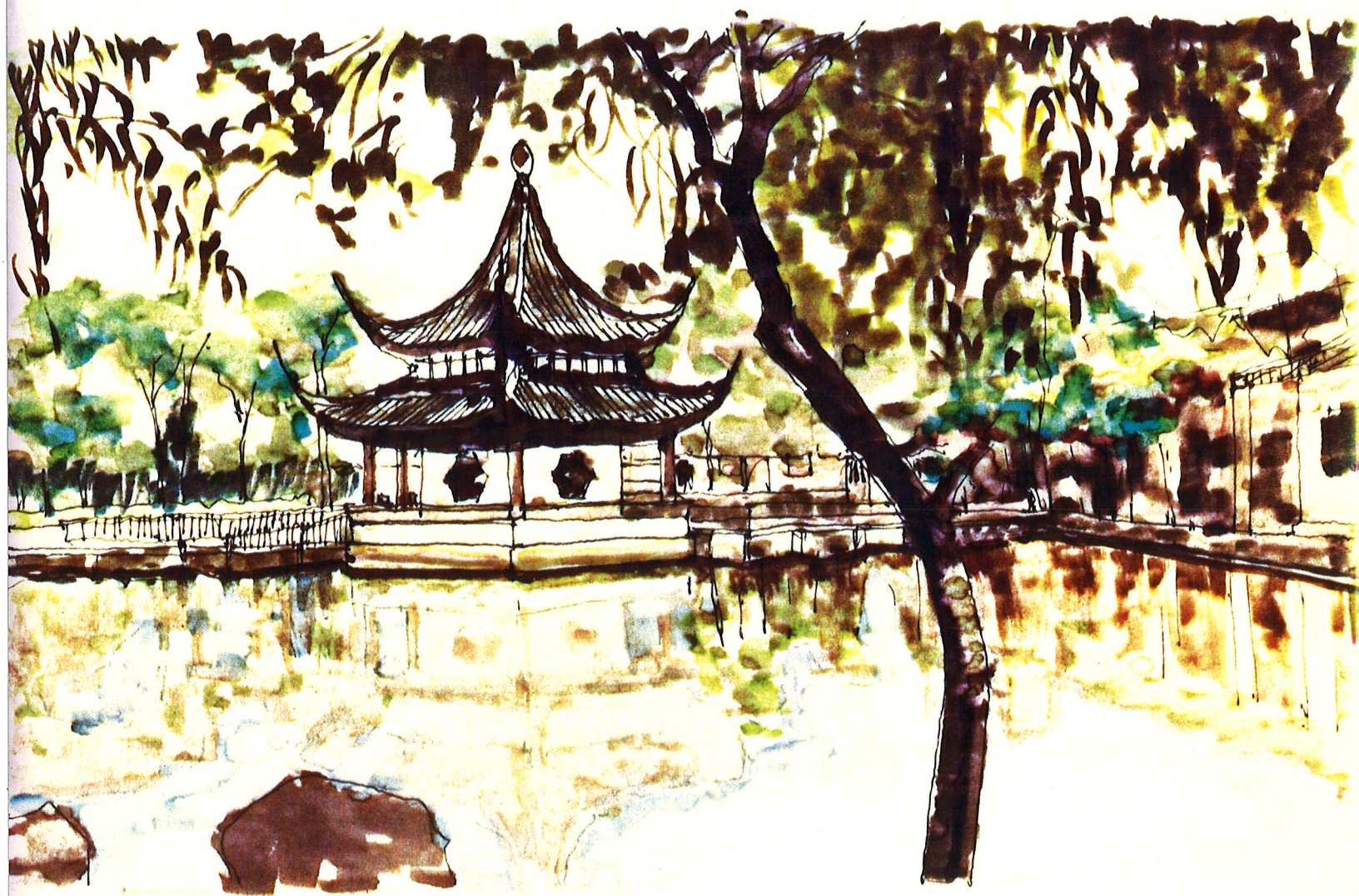






Acting like a mirror, the water reflects  
and duplicates,  
creating an enlarged world -  
composing the solid kingdom on earth  
and the dreamland in water.

~ West garden ~  
Suzhou



## PART II

THE FOUR DESIGN PRINCIPLES

AS ILLUSTRATED IN

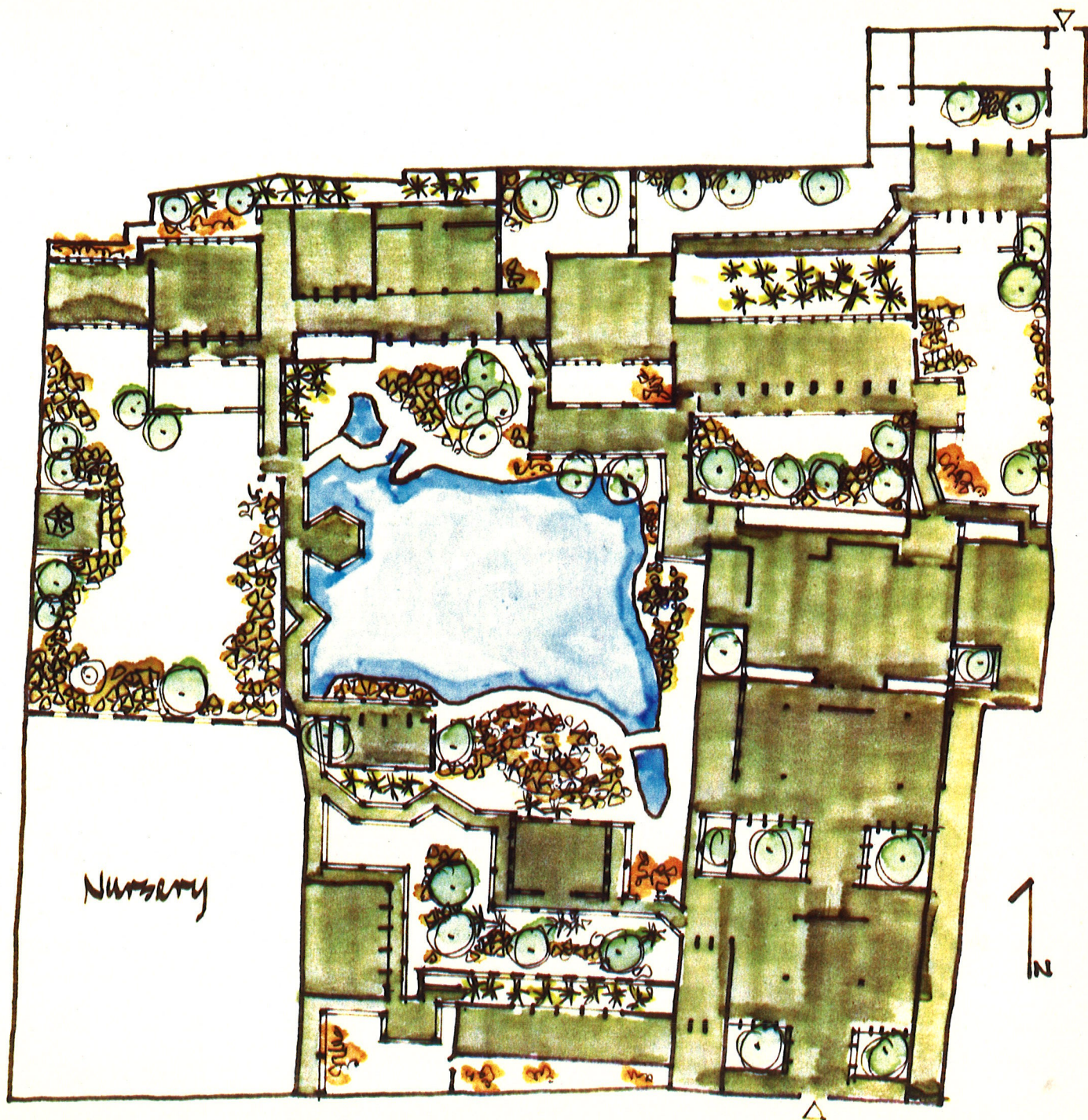
WANG SHIH YUAN 網師園

(The Garden of the Master  
of the Fishing Nets ) Suzhou



The Garden of the Master of the Fishing Nets is densely but harmoniously arranged on one and one-third acres. Besides the residence and some dozen smaller buildings, there is a spacious central pond. Handsomely proportioned courtyards flank the east and west sides of the main garden. Ten tiny gardens are tucked in among the buildings, and a generous area is set aside for cultivating trees and plants in pots.

The modern entrance to the Garden is set back from the street and is unobtrusive to the point of being easily missed.



WANG SHIH YUAN ROOF PLAN

## YIN - YANG PHILOSOPHY

Man-made buildings against natural plantings,  
irregular rough rocks against uniform

smooth pavings,

the hard solid earth against the soft

floating water -

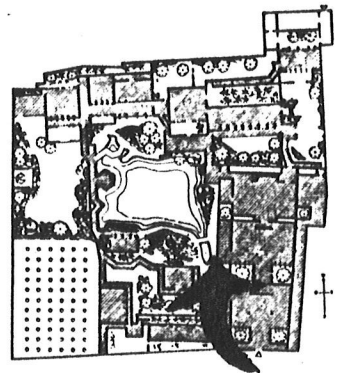
contrasts and conflicts ?

NO ... but messengers of a creative mystery -

the fusion of yin and yang -

in harmony while in

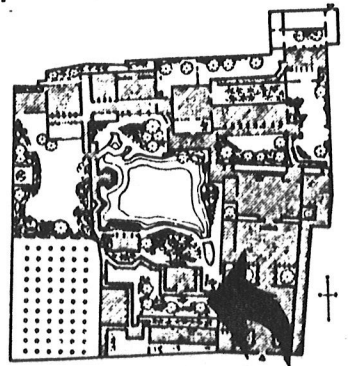
competition.







When rays of sunlight filter through the interstices  
of floating leaves, a void is created - interestingly,  
separating the regularly constructed buildings  
from the inorganically carved rocks,  
the forceful columns  
from the fragile plantings,  
poising the elements of yin and yang.







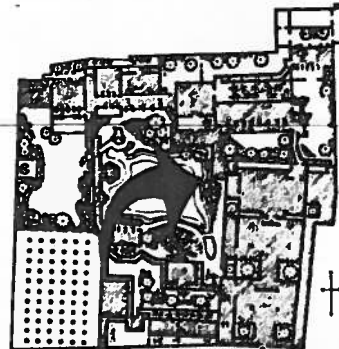


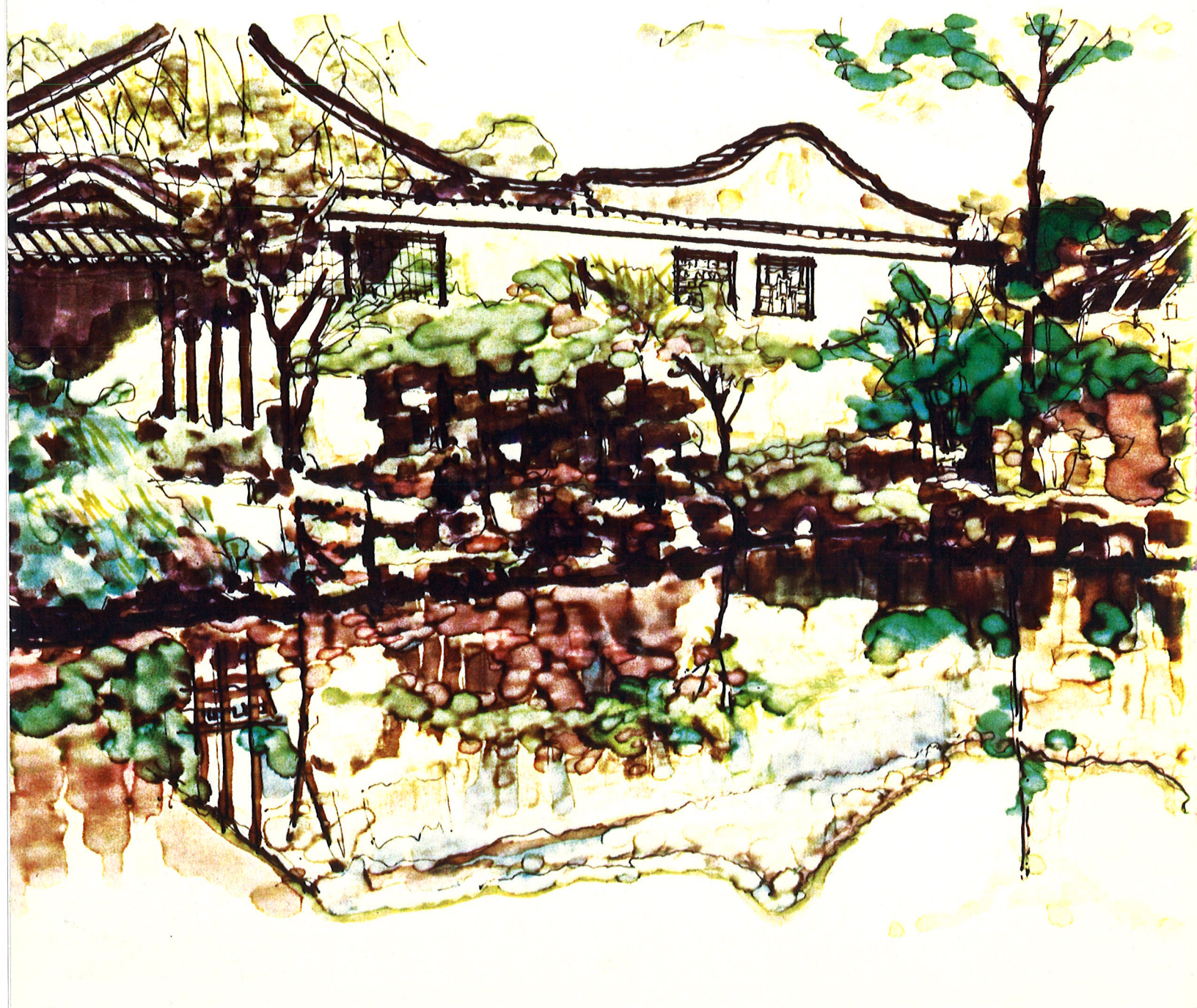
## THEME

The secret of the garden is hidden  
from those conceited heads which look only upward,  
from those striving legs which walk restlessly...

It unfolds itself only  
to those humble and serene souls  
which give their whole to the water -  
it is there.

There lies the reposeful Fishing Net -  
a net formed by the reflection  
of plantings interwoven with wall profile,  
a net forever embedded in the pond,  
simple and tranquil -  
lending the fisherman a retreating place.







## A DIFFERENT VISTA AT EVERY TURN

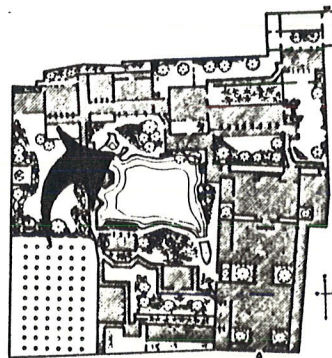
Bridge is like life journey -

never goes straight,  
never opens up only one view,

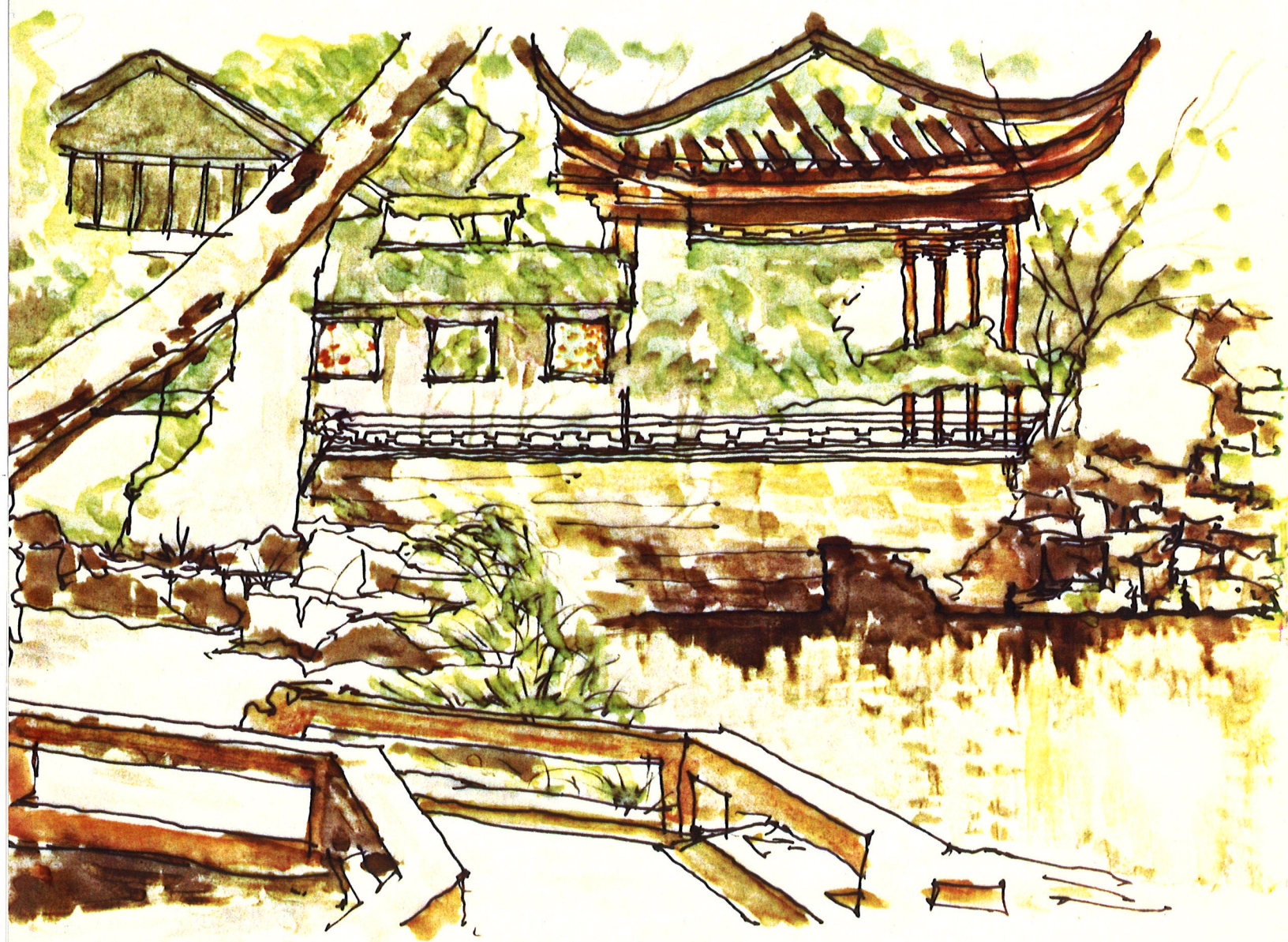
but crooked and twisted,

creating a multitude of sceneries,  
a variety of sentiments,  
a mountain of experience...

Making life adventurous, abundant and  
challenging.

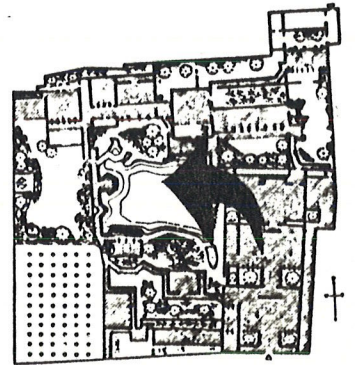








The curves of the pond edge  
and the changes in paving materials  
work together to generate different  
sentiments and experiences  
to satisfy the travellers'  
varied appetites.









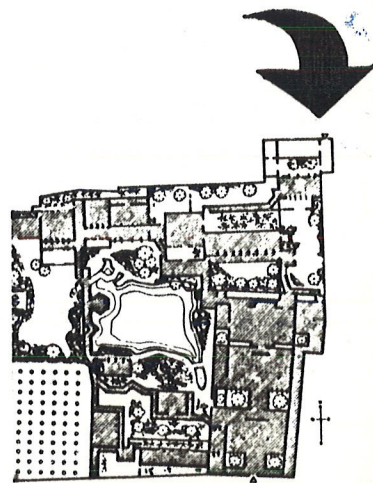
## MAKING SMALL EVOKE THE LARGE

Walls, path, entrance — plain, narrow, tiny!

Except for the name plate,

Who knows what lies inside?

An unexpected overwhelming greatness  
and wonder!

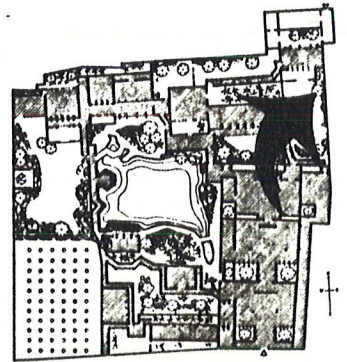




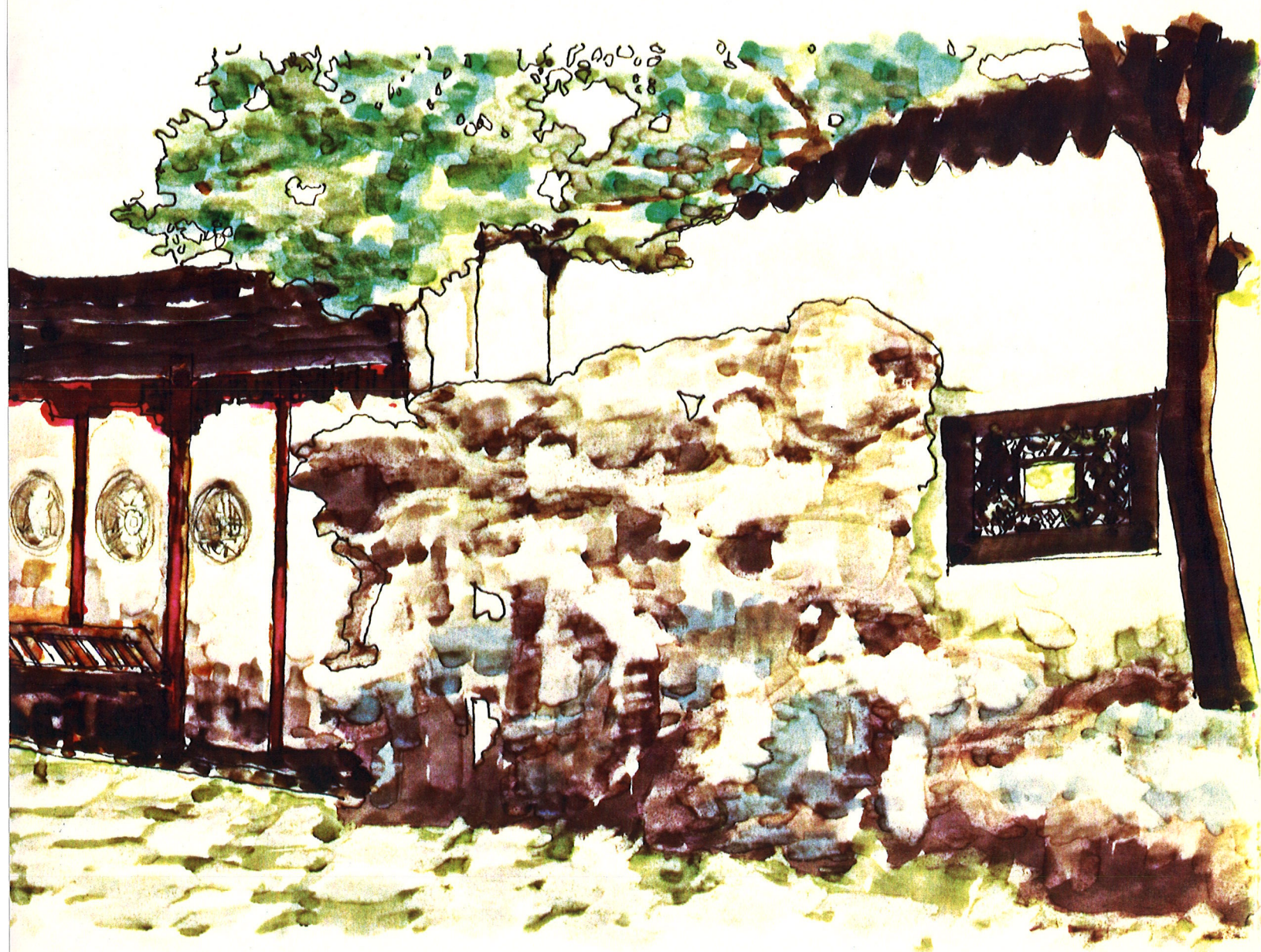




Passing through the plain walls, the narrow path  
and the tiny entrance,  
one is amazed -  
What a contrast !  
Artfully carved rocks,  
different shaped windows,  
overhanging leaves ...  
creating a court of dynamic richness !







## PART III

# THE FOUR DESIGN PRINCIPLES AS APPLIED TO THE PROPOSED CHINESE GARDEN IN WINNIPEG'S CHINATOWN



## THEME — THE SOUL

'Mountains multiply, streams double back —  
I doubt there's even a road;  
Willows cluster darkly, blossoms shine —  
another village ahead.'

Lu Yu's verses best picture the theme of the garden.

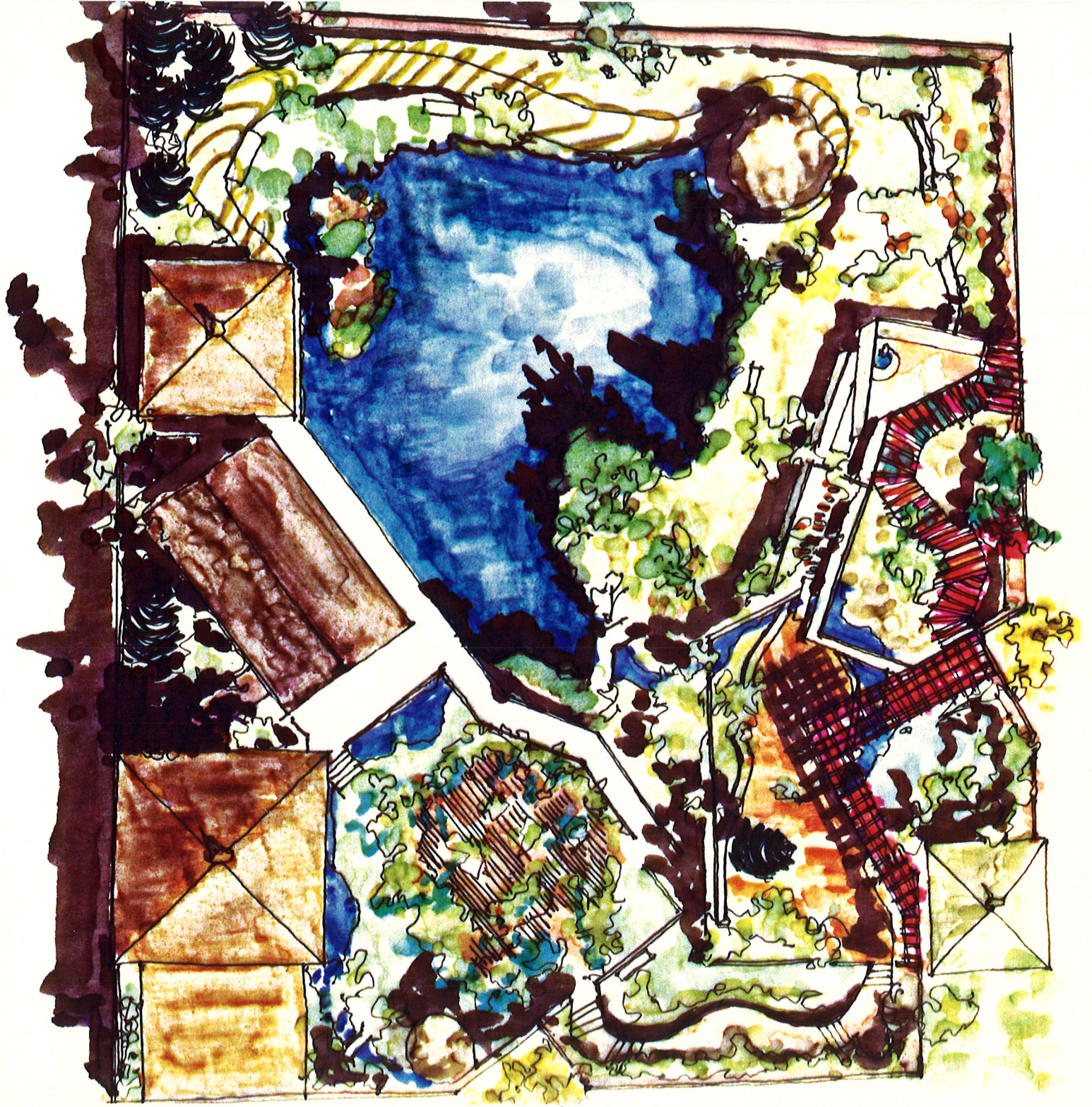
Walls are mountains —

severing the garden into a multitude of  
subspaces;

Water is stream —

linking the whole site from the entrance courtyard  
with two different-sized Chinese mushroom pavilions  
as two poles (North and South).



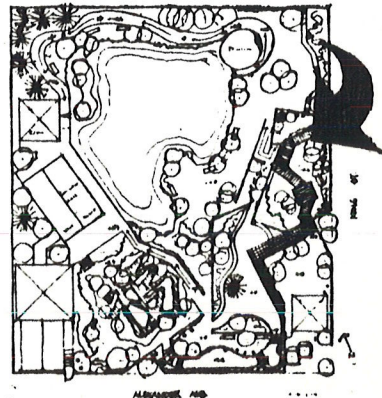




Lu Yu's poem — the theme of the garden —  
a heartery of the Chinese immigrants —  
who are bewildered by the blocking wall  
in the transition space,

the predicaments experienced in the alien  
land would devour all hopes —

if not for the viewing window that unfolds  
some signs of a promising future,  
urging the pilgrims to persevere,  
to seek and discover another village  
which is blessed with  
beauty and repose ...









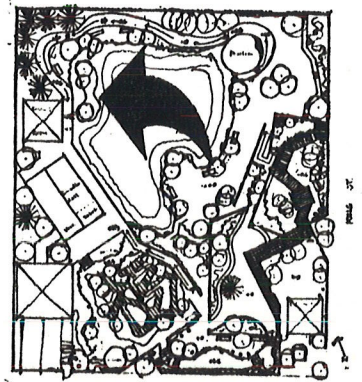
## YIN - YANG PHILOSOPHY

Contrasting though in perfect harmony.

The union of Yin and Yang —

the man-made buildings and  
the natural plantings,

the solid earth and the undulating water,  
impresses every beholder.









The curved edge of the pond and the straight  
side of the terrace,  
the inorganic mushroom-shaped pavilion and  
the regular buildings ...  
are messengers of yin and yang -  
the two contrasting forces of the universe.









## FINDING A DIFFERENT VISTA AT EVERY TURN

Landing at the foot of the curved terrace,

the traveller is received by a

half-revealed and half-hidden vista.

Gradually, nature unfolds and expands its

splendour with each step

forward and upward.

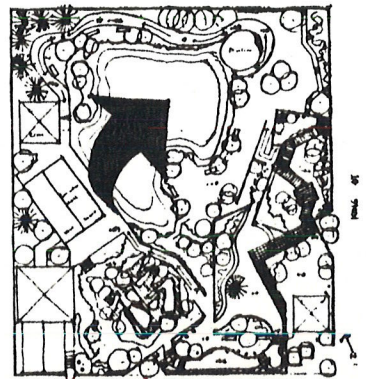




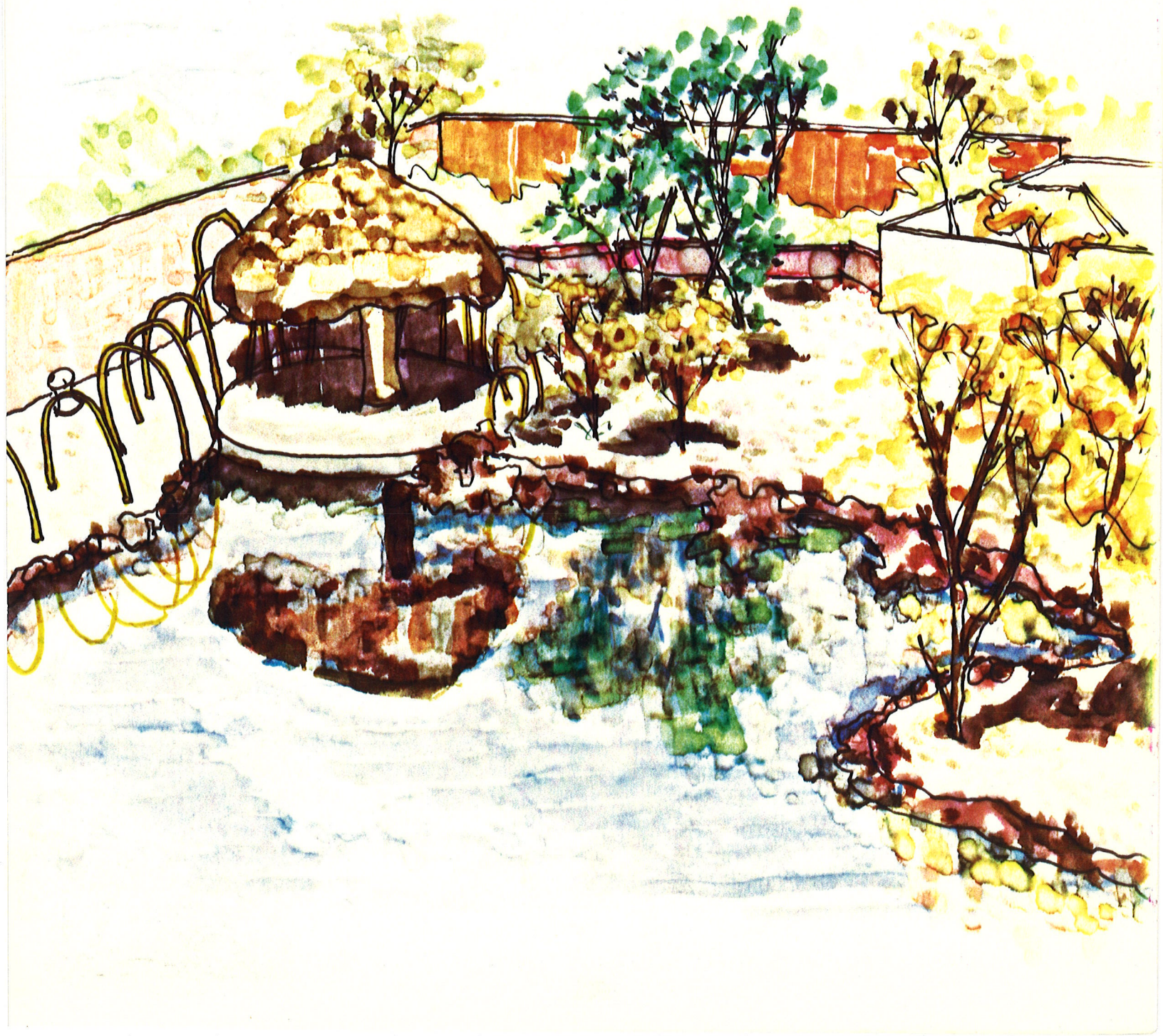




Along the curved edge of the pond,  
as the traveller moves,  
the garden moves.  
Here, the garden is something.  
One pace backward,  
it becomes something else.





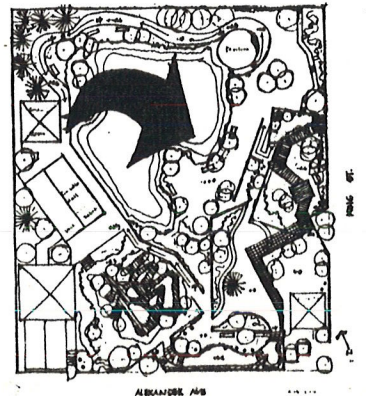




## MAKING THE SMALL EVOKE THE LARGE

The walls create different courtyards,  
small subspaces, which contrast  
with the main space –  
focusing on the pond.

The pond itself is a magnifier –  
mirroring scenery along the brink,  
creating symmetries and ...  
adding to the magnitude of the garden.



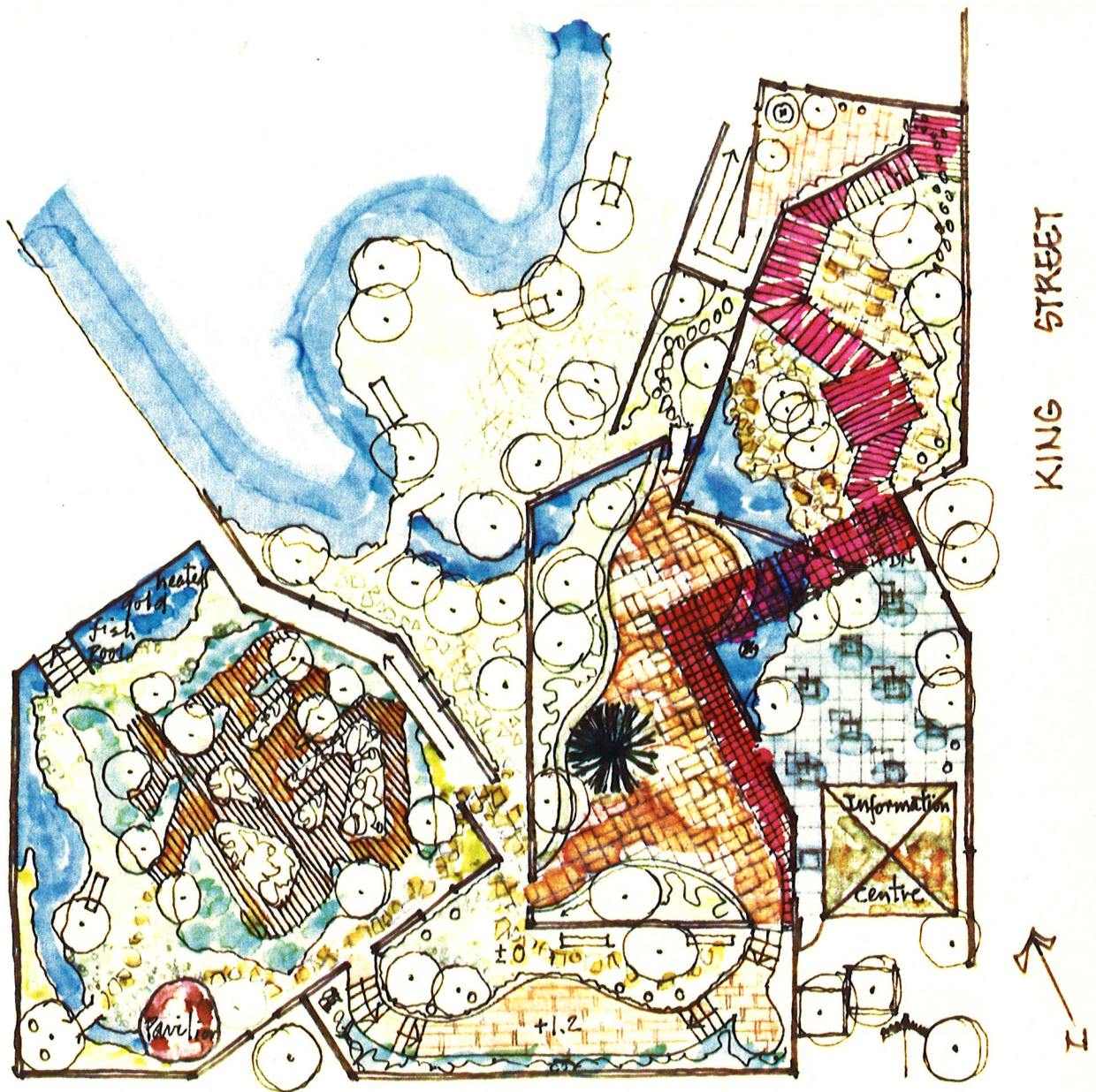




Series of walls divide the garden into different subspaces, creating four major courtyards :  
The entrance court is the Prosperity Garden (祿園 lù yuán).  
Here, the ancient Chinese coin paving  
and the roof of the Information Centre  
are all in green

– the colour for money and prosperity !  
Moving toward the west is the Longevity Garden  
(壽園 shòu yuán).

There grows the evergreen pine tree symbolizing longevity, while the red brick paving and the red trellis are signs of luckiness.



ALEXANDER AVE.



Keep going toward west is the Blessing Garden  
(福園) Fu Yuan).

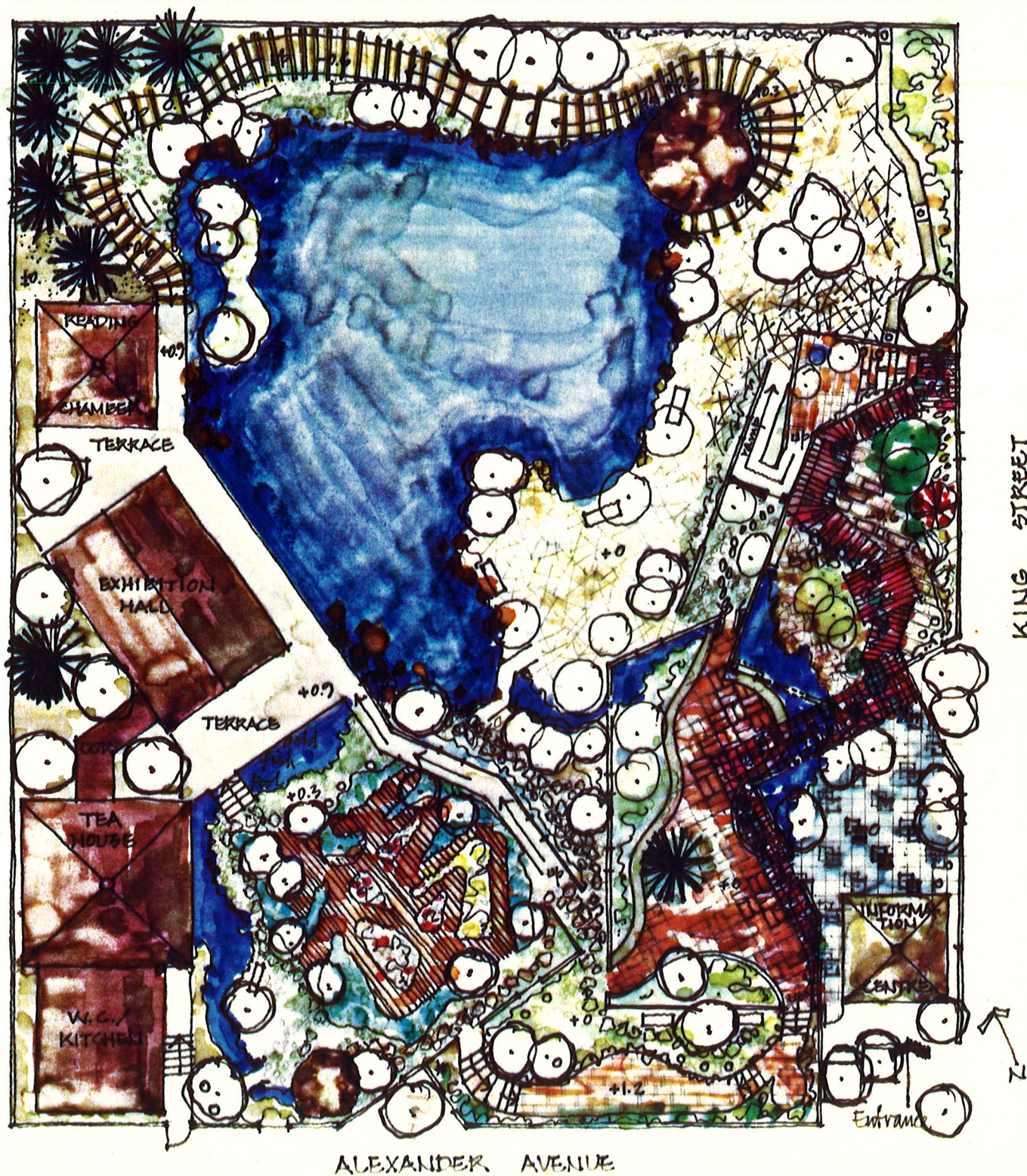
The red brick paving pattern is the Chinese word,  
'Blessings' — blessing for all weary pilgrims!  
Embroidering the courtyard are various fragrant flowers  
whose blossoming period extends from early  
spring to fall —

It is abundance! It is vividity!  
Among the woods, near the steps,  
hides a goldfish pond —  
It is movement! It is vibrancy! It is Life!

North of the Information Centre is the Garden of  
Life and Experience (歷程園) Li Ching Yuan).  
While the young Aspen, the running water and  
the rough stone paving are symbolic of  
the glorious and adventurous youth period,  
the full-grown oak trees and  
smooth paving announce the arrival  
of old age.

These courtyards evoke the main space larger —  
it is the principle of contrast.





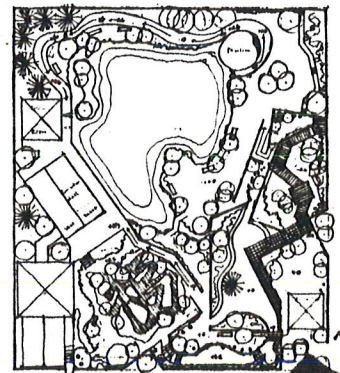


Look - the entrance (also the Information Centre) -  
simple and homely,  
almost indistinguishable from the door  
of a residence ... yet,

Behold, what is inside ?

A space - filled with abundance  
and magnificence.

At Least for some months of a year,  
this simple entrance prefaces the  
splendour of the inside -  
with its blossoming flowers,  
colourful - the lucky red,  
the noble purple,  
the promising yellow...







Passing through the entrance is the glamorous court.  
Here - visually is the lofty plum tree,  
aurally is the oriental music,  
in pentatonic scale,  
coming from a sculpture ...  
in every two minutes,  
this music programmer receives every entering quest  
with an oriental melody ...  
more interestingly,  
the quest can have a part in this music-playing.  
Penny, nickel, dime, and quarter thrown to  
the pool initiate melodies,  
each with its own spirit,  
each welcoming its quests.









The Golden Dragon - the symbol for Chinese emperor -  
represents grandeur, royalty and magnificence.

The undulating golden rods - the dragon's body -  
have holes to produce gorgeous and  
glamorous lighting

ornamenting the night garden.

The Mushroom Pavilion - a feature of Chinese garden -  
provides a shelter for the pilgrim -  
homely and soothingly ...









When freezing snow whitens every vivid colour,  
When coldness devours every melodious sound,  
When winter conquers all over the garden,  
there is still LIFE !

Vicacious bubbles dancing on the pond surface,  
fervent steam rising up and up  
- When the pond is heated -  
bringing to the winter garden  
flooding warmth  
and  
undying vibrancy.







## CONCLUSIONS

In designing the environmental space of the Winnipeg Chinese Garden, the Yin-Yang principle plays the predominant role. Once the balance point of Yin-Yang is attained, the other three principles will join in the contrasting force to compose a beautiful picture with 'pulsating' spirit.

The Winnipeg Chinese Garden is especially designed to create both a unique and extraordinary, as well as a common, down-to-earth impression. The extraordinary image imprinted in the visitors' minds will urge them to come back for another visit, to further explore new dimensions and to renew their acquaintances. Examples of unique building elements are the Blessing Garden, Entrance Court, Dragon Path and Heated Pond.

The simplicity of the common, down-to-earth views instills a sense of habitual and relaxing atmosphere. The visitor can immerse himself into this intimate familiarity. He can relax and enjoy the scenery or sit back and meditate in peace. Examples of the common simplicity are Lu Yuan and Fu Yuan.

Another important feature of the Winnipeg Chinese Garden is the symbolic meaning of each building element. The Chinese Mushroom Pavilion is symbolic of the beginning of our life adventures and it also symbolizes the Chinese immigrant's origin. The ever changing light effects of the Dragon Path portray the richness and variety of life's experiences. As one strolls along the Dragon Path, one experiences the changing width as well as elevation. They speak of the ups and downs in life. Following the turns and twists of the Dragon path, one is led to the Reading Chamber and Exhibition Hall, symbolizing a permanent destination full of experiences and resources, knowledge and wisdom. Since these buildings are constructed of local materials, they represent the residency of the Chinese immigrants in Canada.

In summary, the design features create new dimensions and exploration opportunities for visitors. Symbolically the Winnipeg Chinese Garden unfolds the story of the Chinese immigrant. The life experience, feelings and emotions, and the struggle for survival are vividly portrayed with every step one takes in visiting this unique Chinese Garden.





# APPENDIX



## PRACTICUM PROPOSAL

### A. INTRODUCTION

The Chinese landscape constitutes the symbol of life created by the union of two elements: Yin and Yang. Yang is represented by heaven, rocks, mountains, light, man and goodness; while Yin is represented by earth, water, darkness, woman and trouble.

There are various types of Chinese gardens: ranging from northern to southern, large to small, royal to common, natural to man-made, and extravagant to simple. Regardless of type, however, the function of the Chinese garden is primarily for relaxation and pleasure:

"The Chinese enjoy their gardens sitting down  
and have pavilions conveniently placed."<sup>1</sup>

"...where one may want to stop and drink tea."<sup>2</sup>

For occidentals the function of the Chinese garden may be more appropriately seen as a representation of Chinese culture and heritage, and for some as a tourist attraction.

Undoubtedly, a Chinese garden built in the Western world will face numerous difficulties: such as differing climatic conditions, building and plant material availability, and the understanding and appreciation of Chinese cultural concepts by occidentals.

---

<sup>1</sup> Florence, Lee Powell, In the Chinese Garden, p.30.

<sup>2</sup> Ibid., p.31.

## B. STUDY PROPOSAL

The study proposal consists of two components:

1. The identification and documentation of those principles and concepts associating with the traditional Chinese garden park.
2. The demonstration of the application of those principles and concepts to a specific site in Winnipeg.

Winnipeg's Chinatown, in part as a result of the lack of appropriate site development works, has not served the Chinese community well and has failed to attract Winnipeggers and tourists; at present it is a bleak environment indeed! In an effort to contribute to the resolution of this environmental problem it is proposed that a Chinese garden park study be undertaken.

The 19,500 S.F. (approximately 1/2 acre) site for this proposed garden park is at the corner of King Street and Alexander Avenue. The user groups associated with this proposal include the local Chinese community, citizens of Winnipeg and visitors to the City.



## C. GOAL AND OBJECTIVES

### 1. Goal:

To document the principles and concepts associated with the traditional Chinese garden park and through the application of these principles and concepts, to develop a garden park proposal for Winnipeg's Chinatown which captures the essence -- or spirit -- of the traditional Chinese garden park, without simply replicating an existing traditional garden in China.

### 2. Objectives:

- a) To incorporate those concepts and principles associated with the traditional Chinese garden park, including:
  - i) Yin-Yang concept,
  - ii) meaning (spirit, or soul) of the garden park,
  - iii) variety of visual imagery, and
  - iv) making the small evoke the large.
- b) To employ elements, materials and technology appropriate to the Winnipeg situation, while expressing the symbolic meaning associated with the traditional Chinese garden park.
- c) To address the following local conditions:
  - i) Climate: sun, wind and snow, especially the implications for winter use of the garden park.
  - ii) Cultural differences: the Oriental culture in the Western world.
  - iii) The existing urban context, and recognizing the "Chinatown Development Corporation" redevelopment proposals.

## CHINESE GARDEN PARK

Site Size:  $45.72\text{m} \times 39.62\text{m} = 1811.43\text{m}^2$   
( $150' \times 130' = 19,500 \text{ s.f.}$ , approximately  $1/2$  acre).

### 1. Theme:

"Mountains multiply, streams double back - I doubt there's even a road; willows cluster darkly, blossoms shine - another village ahead!"  
(Lu Yu)

### 2. Programme Components:

- a) Information centre and a reading room .....  $60\text{m}^2$
- b) Washrooms (one/sex) /Service .....  $25\text{m}^2$
- c) Exhibition Hall and Tea Room .....  $100\text{m}^2$
- d) Pavilions
- e) Bridge(s)
- f) Man-made pond

### 3. Other Considerations:

- a) Control entrance and site security
- b) Use day and night and all seasons
- c) Use local plants and materials
- d) Low maintenance: no capital cost constraints, but low maintenance of high priority.



PRINCESS STREET

PACIFIC AVENUE

ALEXANDER AVENUE

LOGAN AVENUE

KING STREET

SITE

CHINATOWN SITE PLAN

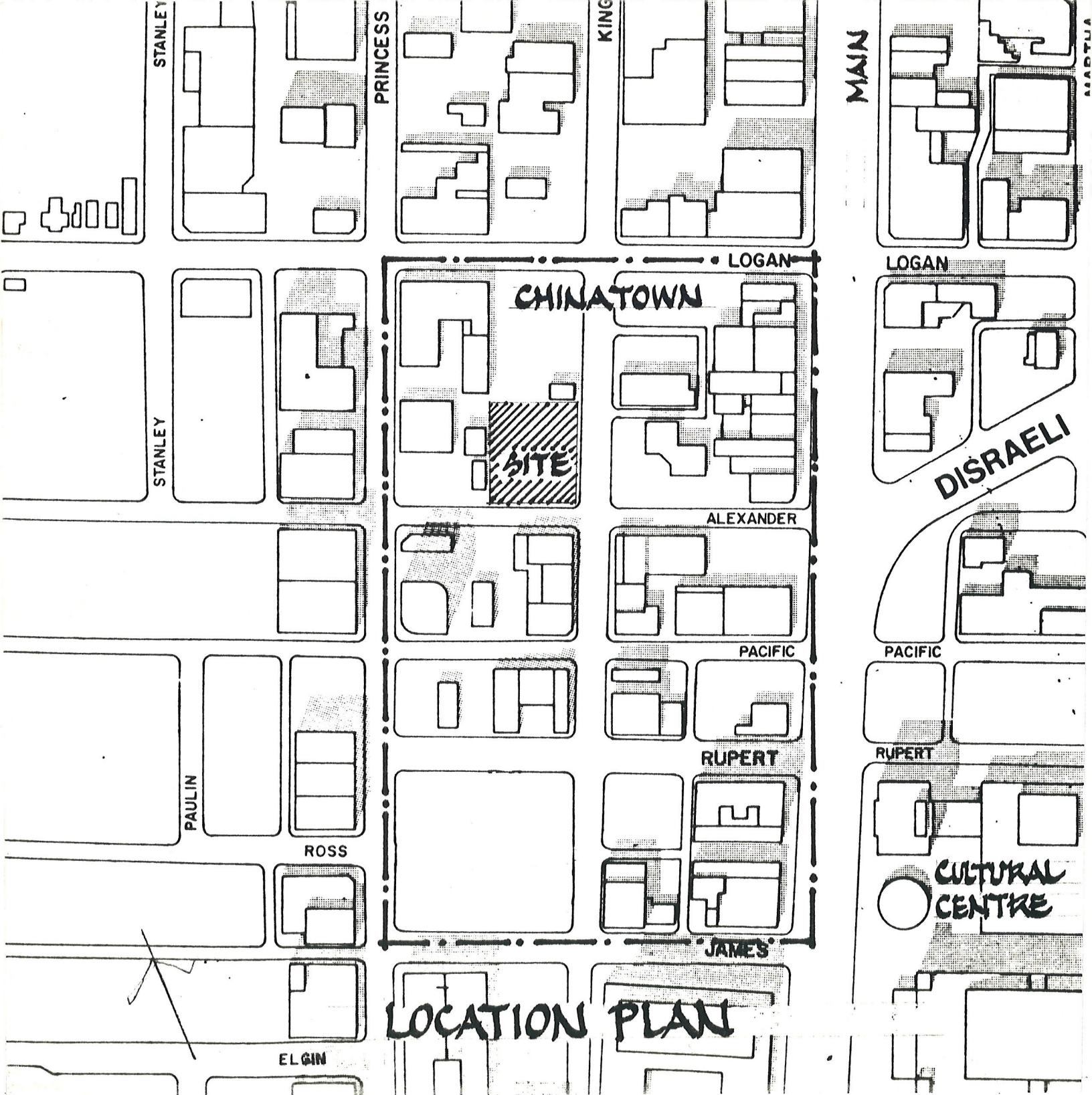








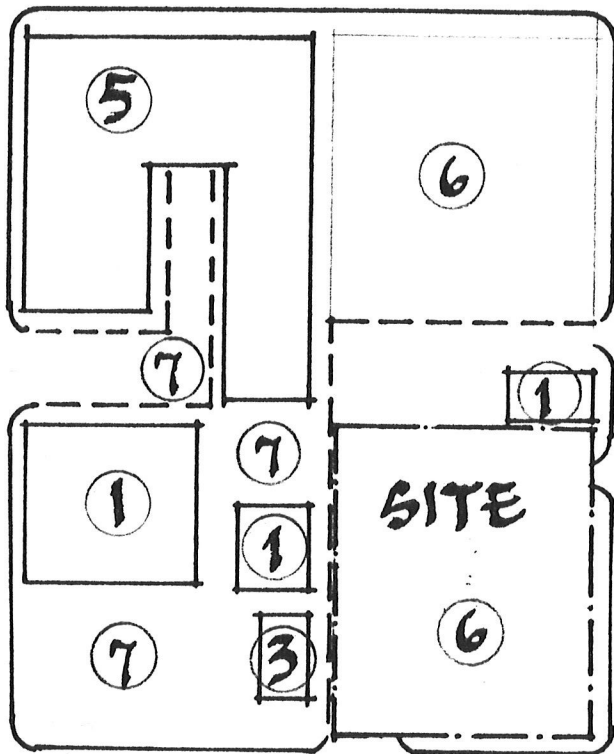






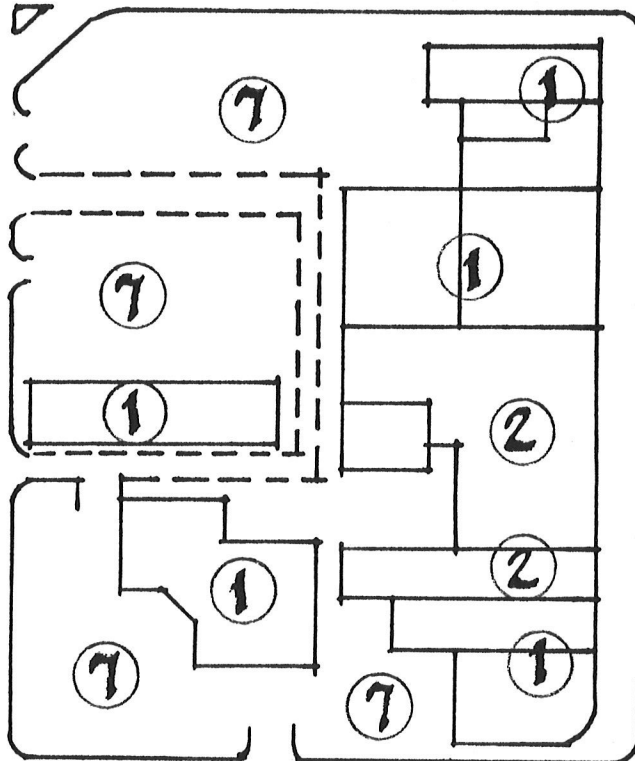
LOGAN

AVENUE



ALEXANDER

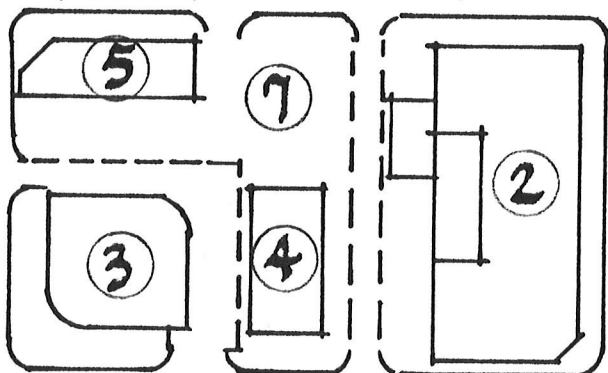
AVENUE



Legend:

- ① Commercial
- ② Residential/Commercial
- ③ Residential
- ④ Public/Institutional
- ⑤ Industrial
- ⑥ Vacant
- ⑦ Surface Parking

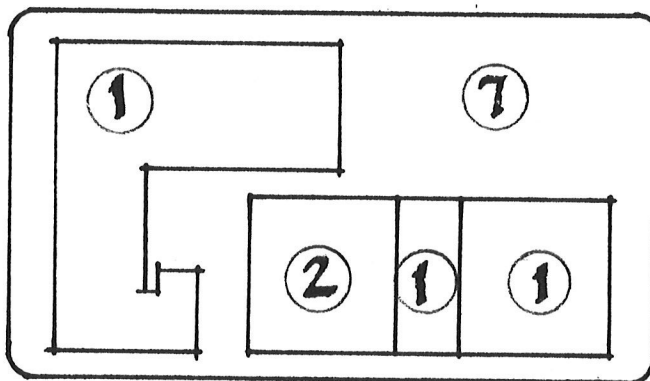
STREET



PACIFIC

AVENUE

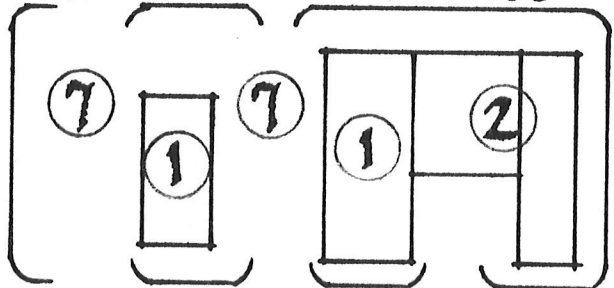
STREET



STREET

EXISTING  
LAND  
USE

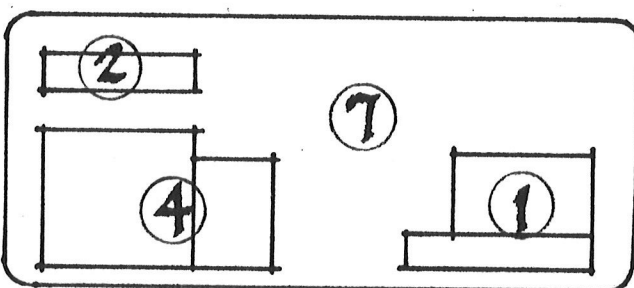
PRINCESS



RUPERT

AVENUE

KING



MAIN



5c. 0' 25' 50' 100'

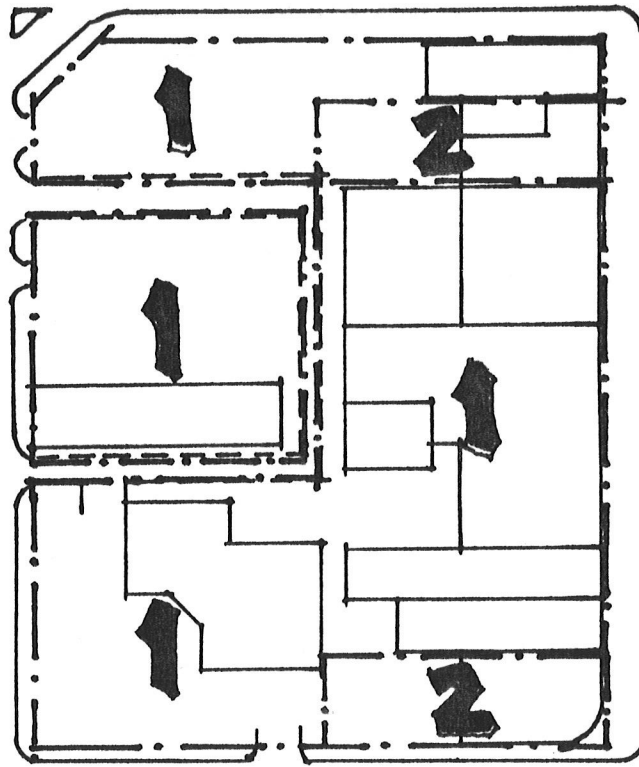
LOGAN

AVENUE



ALEXANDER

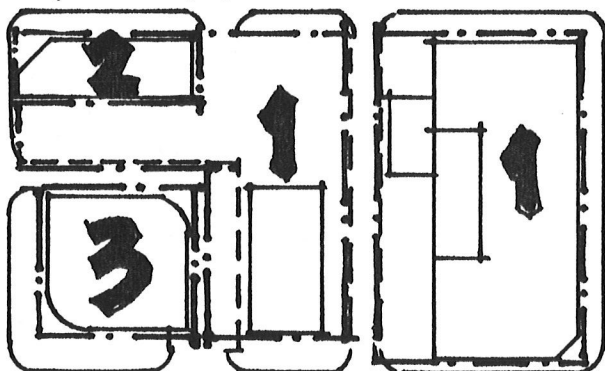
AVENUE



Legend:

- ① Chinese Owned
- ② Non Chinese Owned
- ③ Government Owned

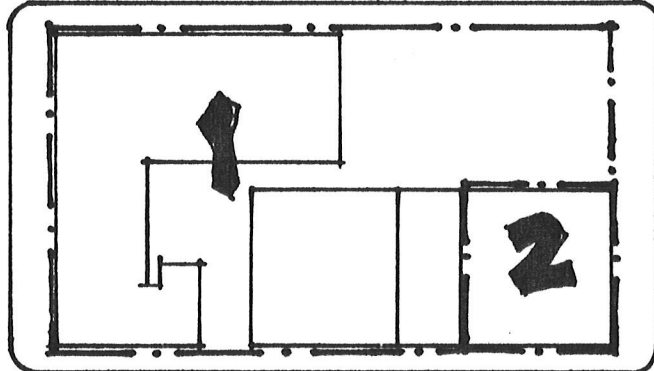
STREET



PACIFIC

AVENUE

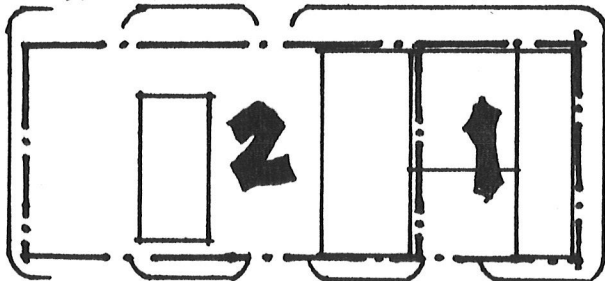
STREET



LAND OWNERSHIP

STREET

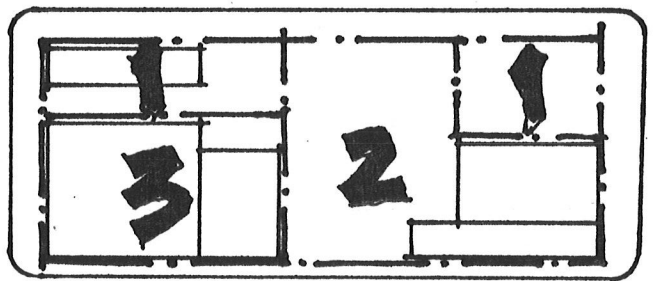
PRINCESS



RUPERT

AVENUE

KING



MAIN

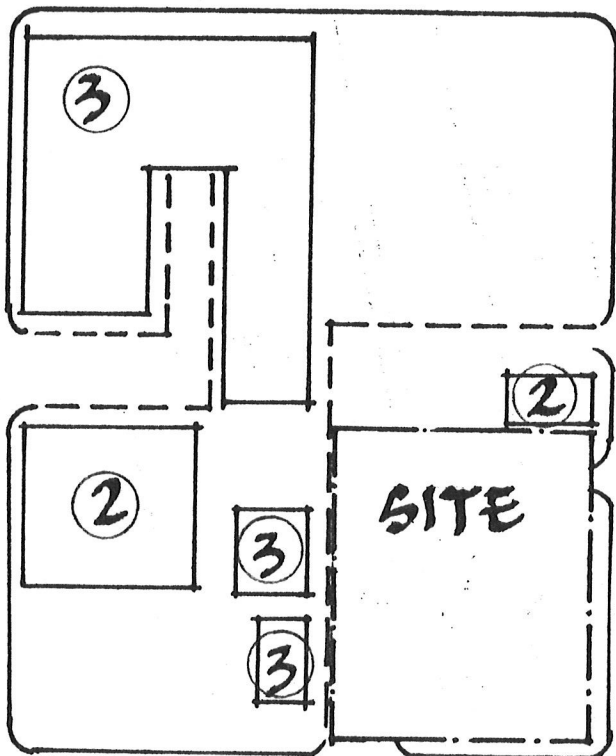


0' 25' 50' 1



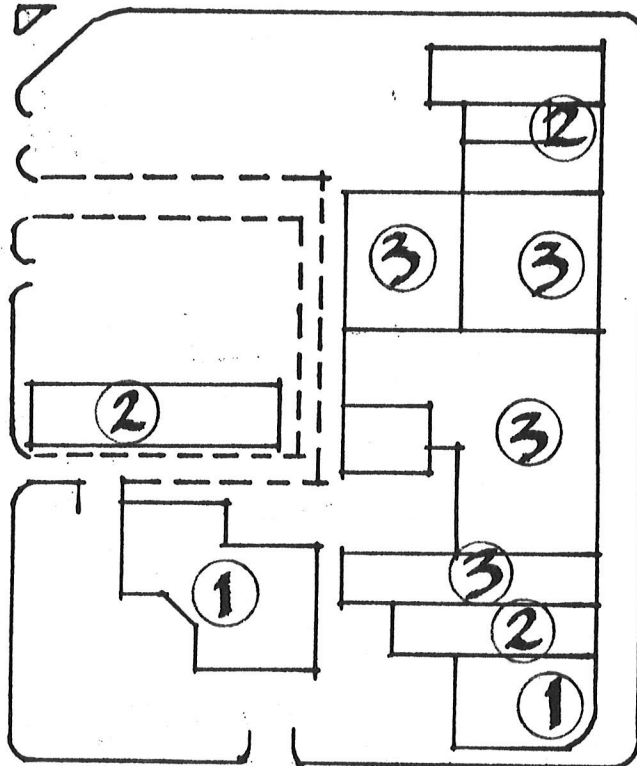
LOGAN

AVENUE



ALEXANDER

AVENUE



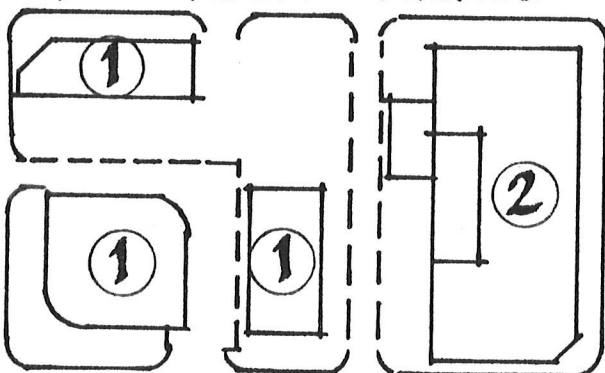
Legend:

- ① Good
- ② Fair
- ③ Poor

STREET

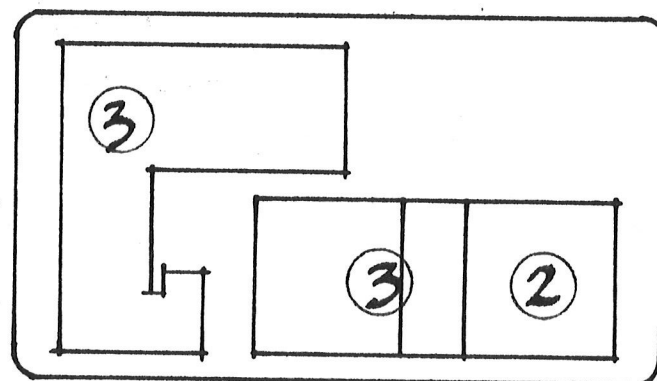
STREET

STREET



PACIFIC

AVENUE

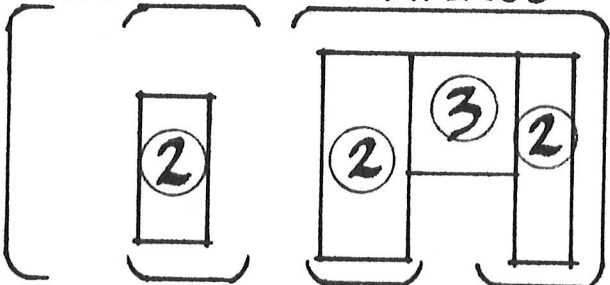


BUILDING  
CONDITION

PRINCESS

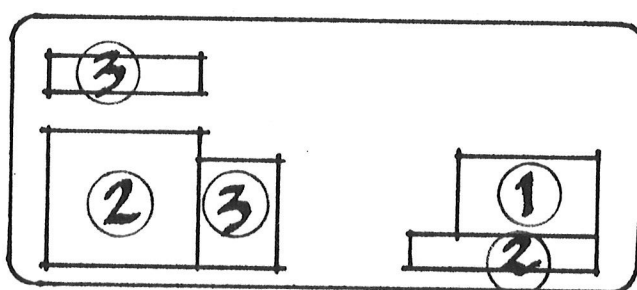
KING

MAIN



RUPERT

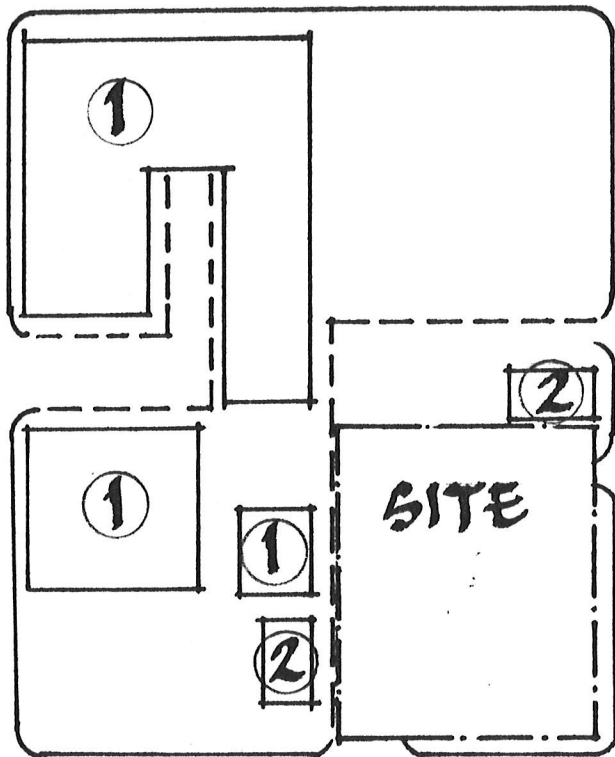
AVENUE



5c. 0' 25' 50' 100'

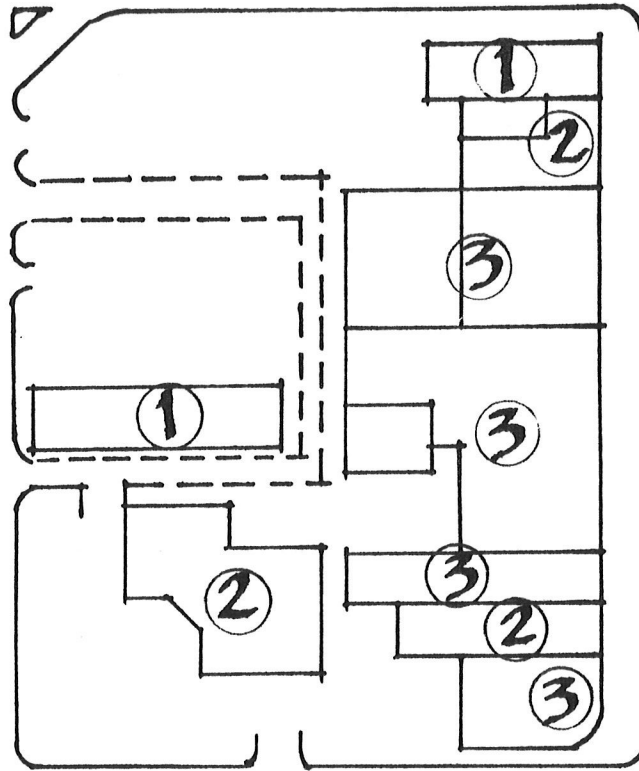
LOGAN

AVENUE



ALEXANDER

AVENUE



Legend:

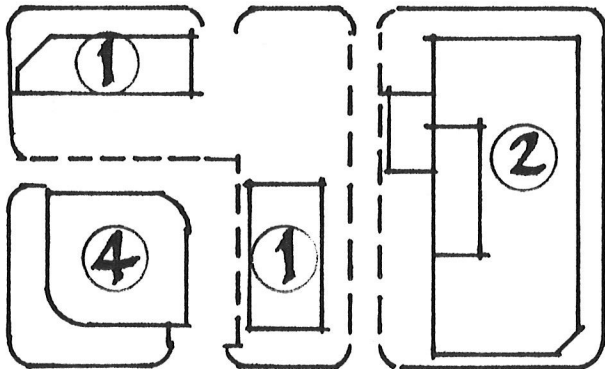
- ① One storey
- ② Two storey
- ③ Three storey
- ④ Six storey and over

BUILDING HEIGHT

STREET

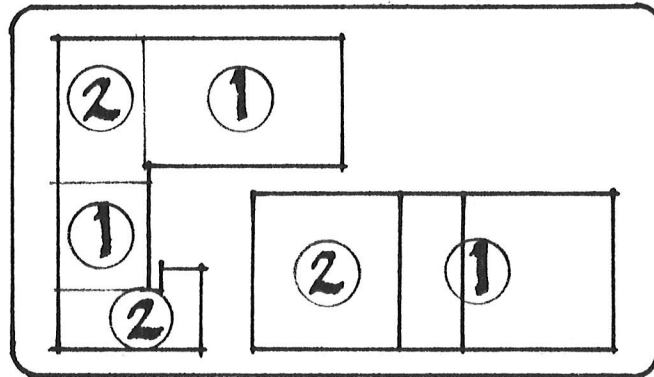
STREET

STREET



PACIFIC

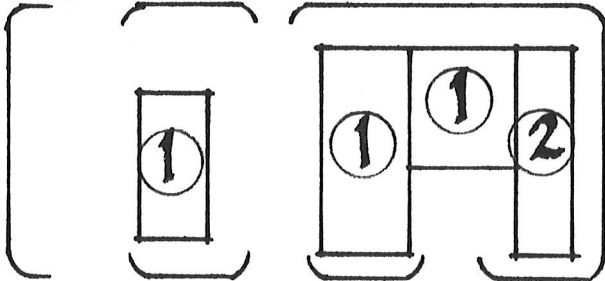
AVENUE



PRINCESS

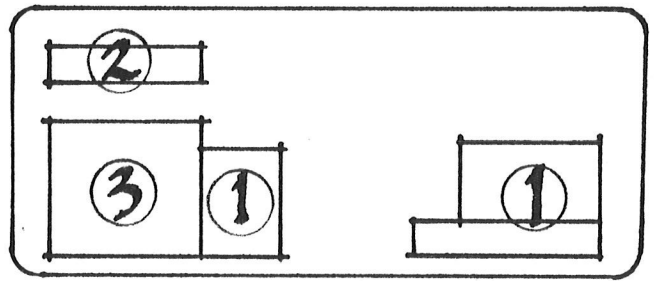
KING

MAIN



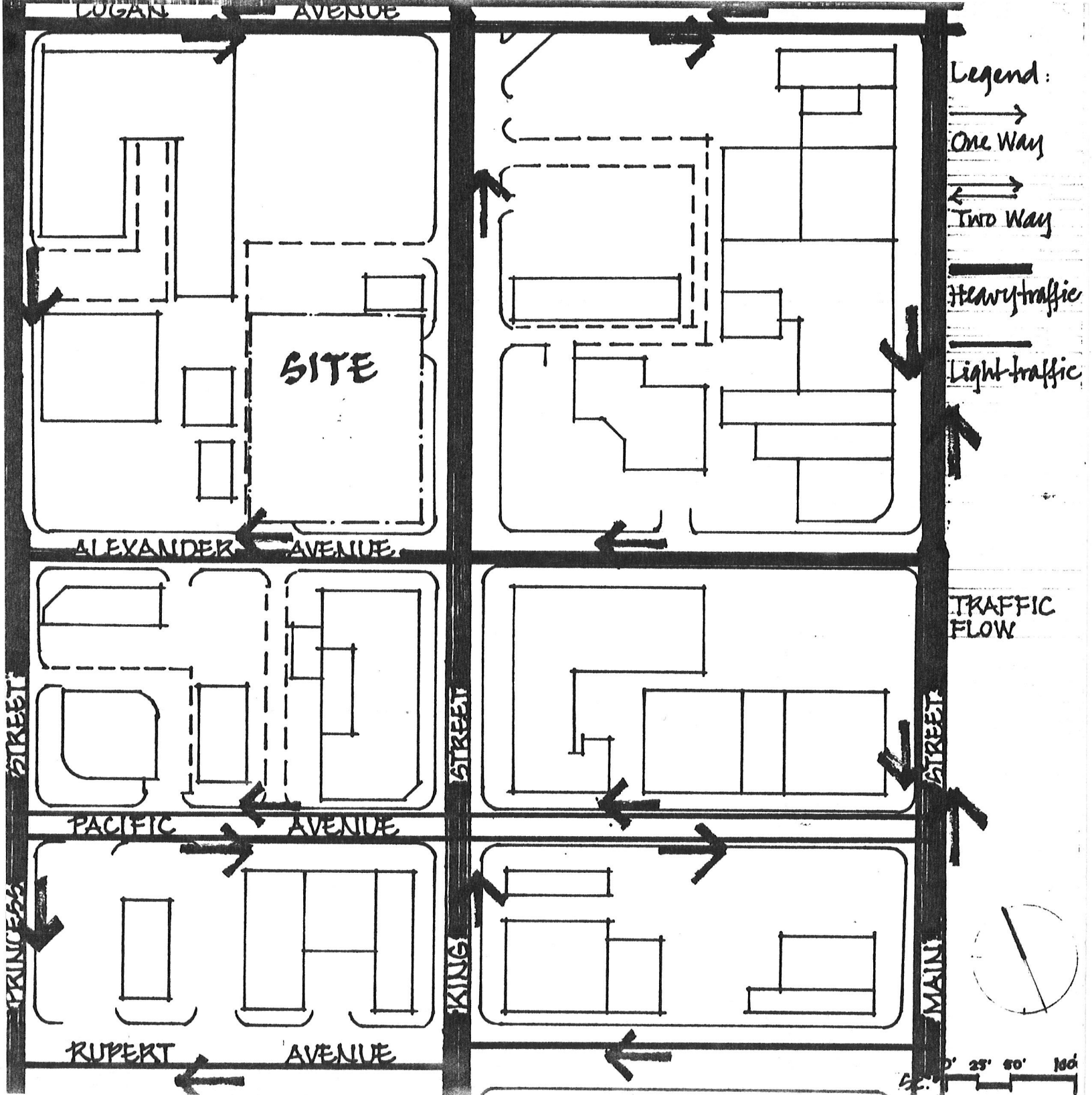
RUPERT

AVENUE



0' 25' 50' 75'





LOGAN AVENUE

Legend:

Hydro

Water

Sewers

SITE

ALEXANDER AVENUE

UTILITY SERVICES

PRINCE'S STREET

KING STREET

MAIN STREET

PACIFIC AVENUE

PRINCE'S STREET

KING STREET

MAIN STREET

RUPERT AVENUE



0' 25' 50' 10'



## SITE ANALYSIS

1. **LOCATION:** The proposed Chinese garden will be located at the corner of King Street and Alexander Avenue in Chinatown. This location is very close to the existing cultural centers such as Museum of Man and Nature and City Hall. As a cultural reflection, a Chinese garden will further attract more tourists and thereby increase the possibility of developing this inner city core area into a tourism site. The Winnipeggers too will be able to enjoy their leisure time by visiting the Chinese garden after they have a good bargain at the Old Market Square. In short, this location can serve two functions, both as a tourist attraction as well as a leisure center.
2. **EXISTING LAND USE:** Mostly for commercial purposes (Chinese restaurants and grocery stores) and parking. Hence this is a potential commercial center, especially for Chinese, following redevelopment of this area.
3. **LAND OWNERSHIP:** There are eight blocks in Chinatown, which is encompassed by Logan Avenue on the north, James Avenue on the south, Main Street on the east and Princess Street on the west. About 3/4 of these blocks are Chinese owned land. Therefore this is the activity center for the Chinese especially on weekends. The existing site for building the Chinese garden is a piece of vacant Chinese owned land which is readily available for construction.
4. **BUILDING CONDITIONS:** In general, the conditions are from fair to poor, only few are good. Examples of the good ones are Marigold Restaurant and Sek On Toi Senior Citizens Home.
5. **BUILDING HEIGHT:** The surrounding buildings are of low profile in general. Adjacent to the site are one or two-storey buildings. The notable exception is the high-rise apartment for Chinese senior citizens (Sek On Toi). So the building components will also be of one-storey. However, plantation can be tall to provide verticality effect and to enhance visibility.
6. **TRAFFIC FLOW:** Traffic flow on King Street is heavy. Both King Street and Alexander Avenue are one-way streets. This creates a critical corner which is the most noticeable and that catches the passerby's attention. Hence, the Chinese garden will be situated with the entrance facing the intersection of King Street and Alexander Avenue.
7. **UTILITY SERVICES:** Full underground services such as sewage, hydro and water services are available.
8. **SECURITY SYSTEM:** As Chinatown is situated in the inner city core area, controlled entrance and site security will be used day and night all year round. It is suggested that walls be used to surround the site area.

## I. CLIMATIC ANALYSIS

### 1. Southern Manitoba:

- a) TEMPERATURE: The mean annual maximum temperature is 95°F in summer and the mean annual minimum is -38°F in winter.
- b) PRECIPITATION: The mean annual total precipitation is about 21 inches and the mean total of rainfall is about 15 inches. June is the wettest month, followed by August. There is plentiful of snow but not much rain.
- c) SUNLIGHT: Sunshine for about 47% as an annual average. July has the highest monthly average of 300 hours or about 10 hours per day; December has a monthly average of 75 hours or about 2.5 hours per day.
- d) WIND: Strongest wind is from the northwest and the north in winter; south wind in summer.
- e) SUMMARY: Southern Manitoba is dominated by continental climate which has large seasonal temperature ranges and is moderately dry much of the year. It is characterized by low humidity and a great number of sunny days and strong wind.

### 2. Suzhou (Soo Chow), Southern China:

- a) TEMPERATURE: Between 0°C and 8°C (32°F and 46.4°F) in winter; 20°C (68°F) to 30°C (86°F) in summer.
- b) PRECIPITATION: Rain is plentiful. The average annual rainfall is about 80 inches. 80% of the rain falls between May and October.
- c) SUNLIGHT: Sunshine for about 60% as an annual average. Over one-fifth of the year is foggy.
- d) WIND: Strongest wind is from the north in the winter; southeast wind in the summer.
- e) SUMMARY: On the whole, the most significant characteristic of climate in Southern China is mainly dominated by monsoons.



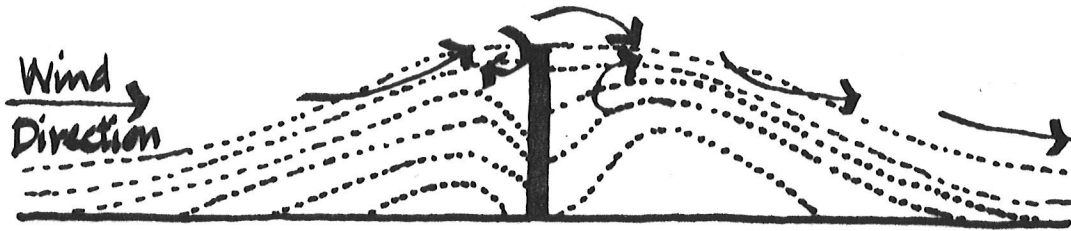
## II. CLIMATIC CONSIDERATIONS IN DESIGN SOLUTION.

In comparison to Wang Shih Yuan in Suzhou, Winnipeg has extreme winter and summer temperatures. Hence, most plantation in Suzhou cannot be grown in Winnipeg, and local planting materials have to be used instead. Since the Chinese flowers and green plants have symbolic meanings, the local planting materials would not be able to fulfill this purpose. However, the planting techniques can still be applied to bring alive the Yin-Yang concept.

Another consideration is the snow drifting problem. In Suzhou, there is more rain than snow, so the design focuses on solving the rain problems. In contrast, this Chinese garden will be affected more by the snow drift. The advantage of snow drifting is that natural, irregular 'sculpture' like snow pile is created, which adds beauty to the winter serenity. To prevent snow drifting problems, plantation is used as a shield to decrease snow accumulation in the winding pathways on the south side of the garden. The pine trees on the north boundary of the garden shield the heated pond from the drifting snow. When the snow sweeps across the pond from the north, it is again blocked by the first barrier, the bushes, and the second barrier, the taller plantation. In this case, the winding pathways would have less snow accumulation and therefore can easily be plowed away.

The interplay of both plantation and snow drifting patterns needs special attention in designing the garden due to the severe winter in Winnipeg. (See attached diagrams on snow drifting patterns).

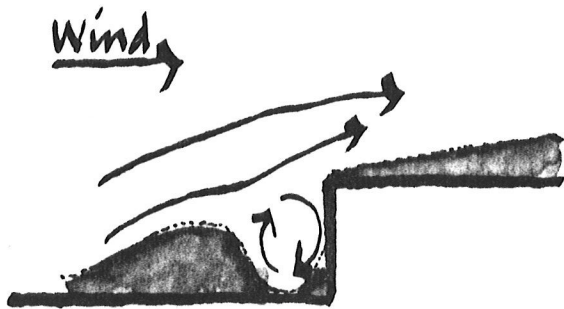
## Barriers : Snow - Drift



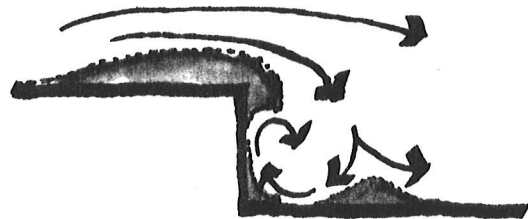
Solid Fence

Barriers - determining factors

- Height of fence ; Structure type (Vertical slotted or horizontal)
- Density ; Height above ground.



upright wall facing wind



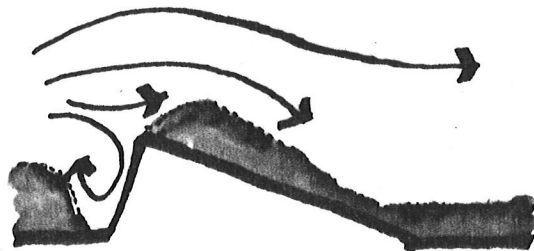
upright wall away from wind



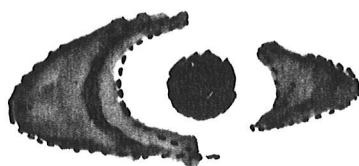
# Obstacles: Snow-Drift



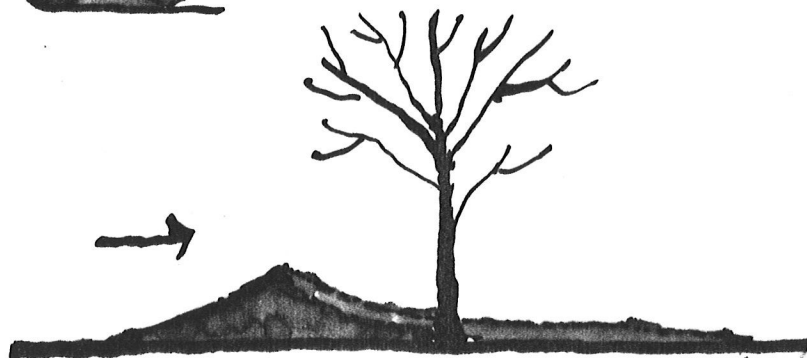
Steps



Slope

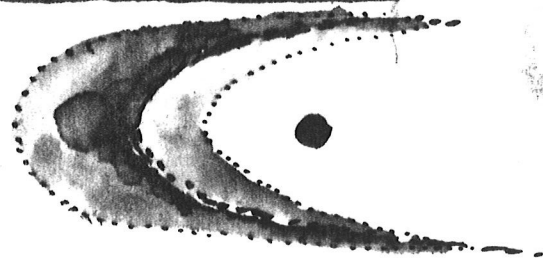


Plan



Elevation

Tree & Snow-drift Pattern



Loose snow



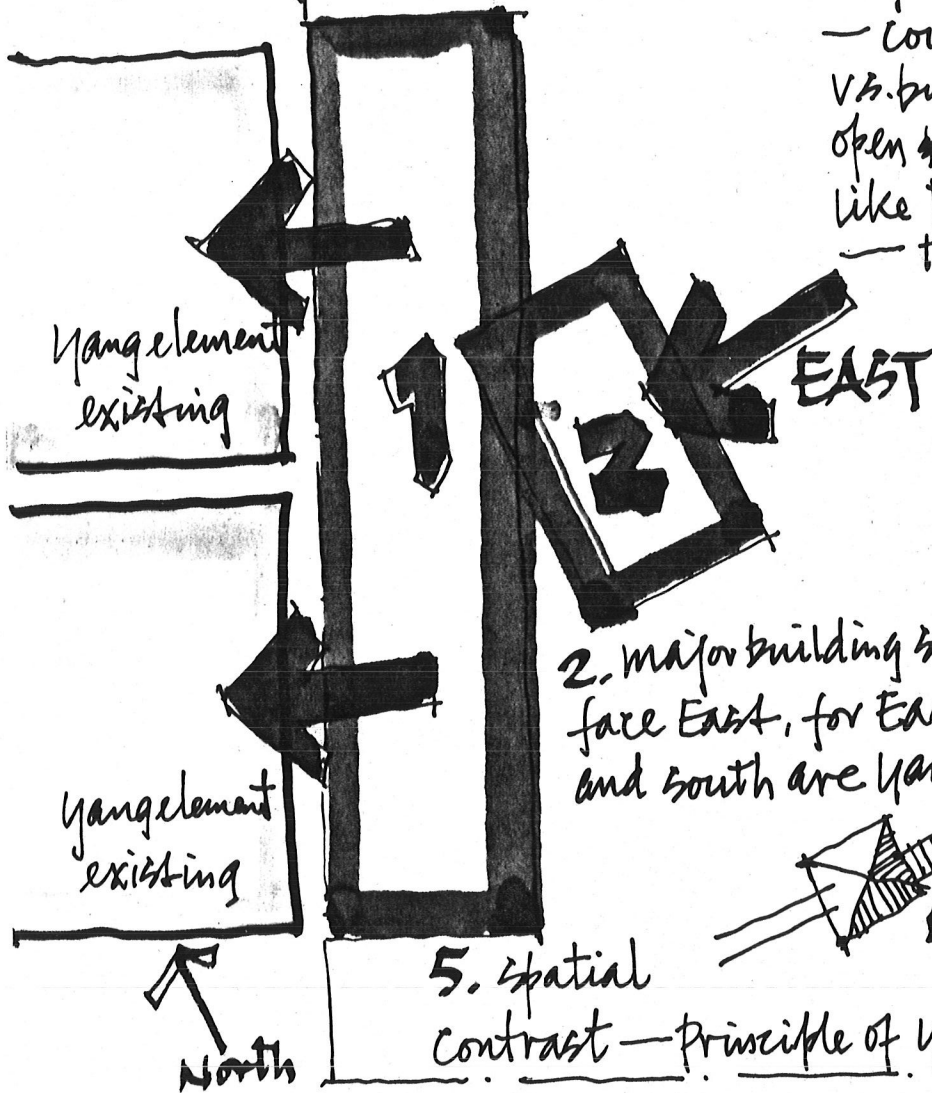
Compact snow

THE FOUR DESIGN PRINCIPLES  
AS APPLIED TO THE  
PROPOSED CHINESE GARDEN  
IN WINNIPEG'S CHINATOWN



# Yin-Yang Philosophy

1. in order to reduce the force of yang element (existing), the new yang element should be built against it.

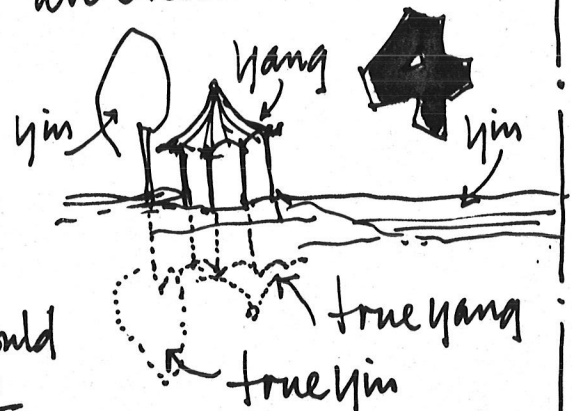


2. major building should face East, for East and South are Yang

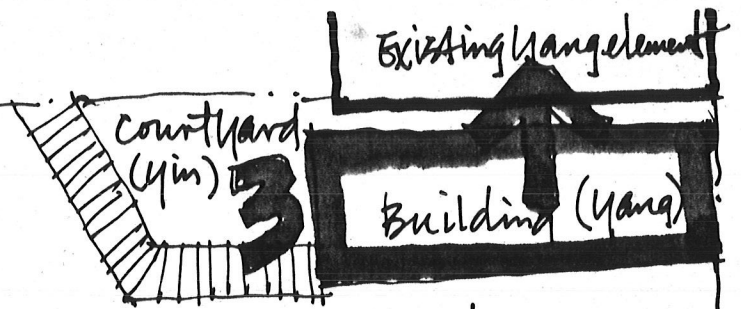
5. spatial contrast — Principle of Yin-Yang.

3. the rule of contrasts

- Yin & Yang
- courtyard (open space) vs. building (enclosed space); open & enclosed spaces acting like two opposite directions
- there lies the secret of all creation.

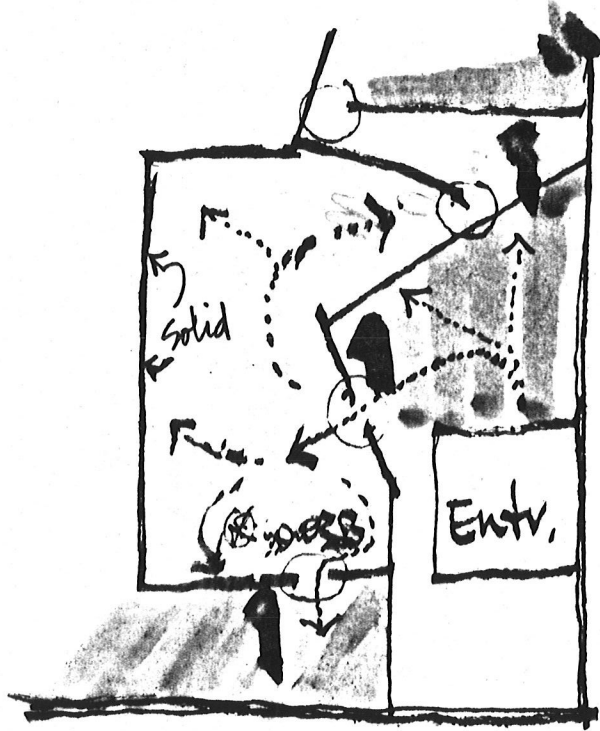


4. the balance of Yin-Yang will be even more successful if the true Yin & Yang are created.



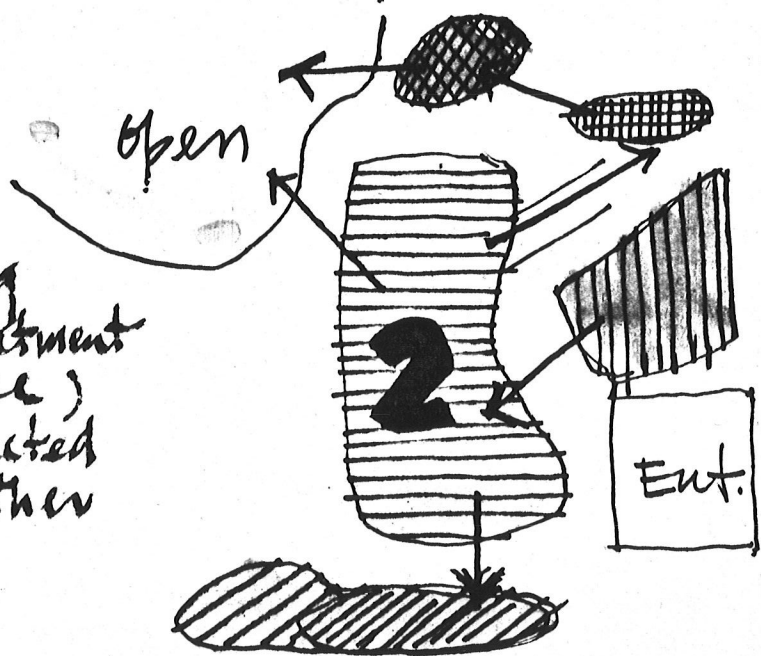
# THEME of the Chinese garden park:

"Mountains multiply, streams double back — I doubt there's even a road; Willows cluster darkly, blossoms shine — another village ahead!"



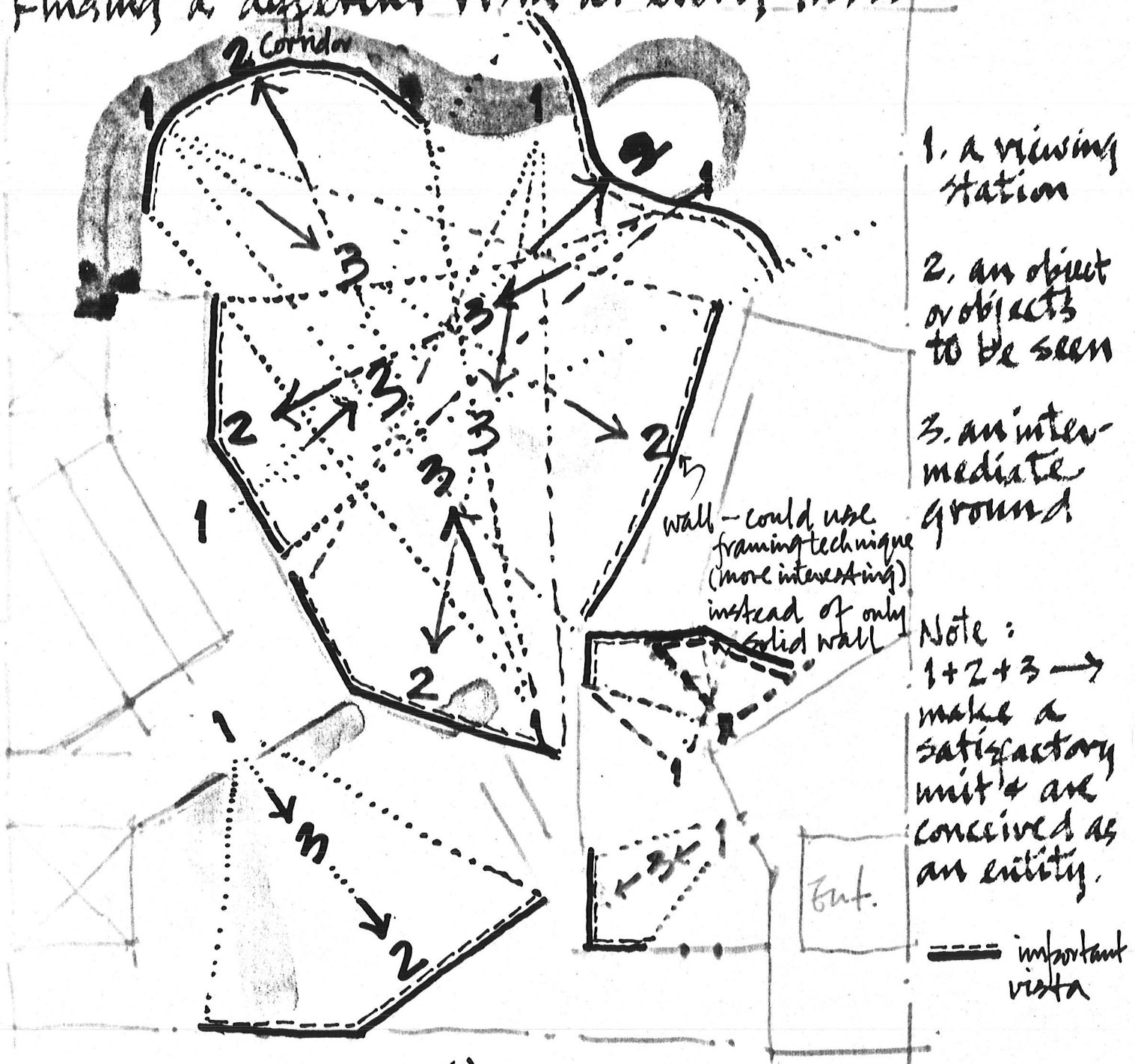
1. the hidden entrance (or exit) will create a feeling of "lost" and "found" — "I doubt there's even a road"

2. spatial changing (as well as diff. treatment for each garden space) will give an unexpected surprise — "another village ahead!"





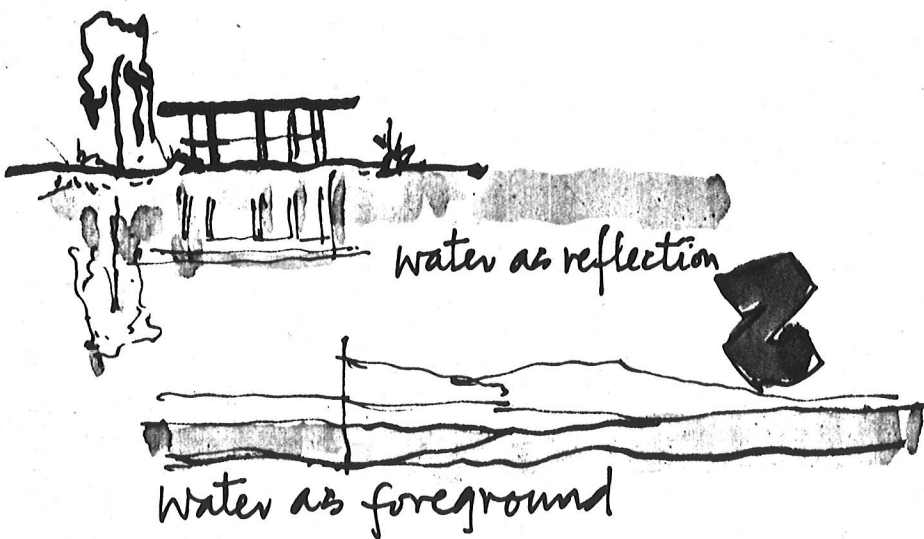
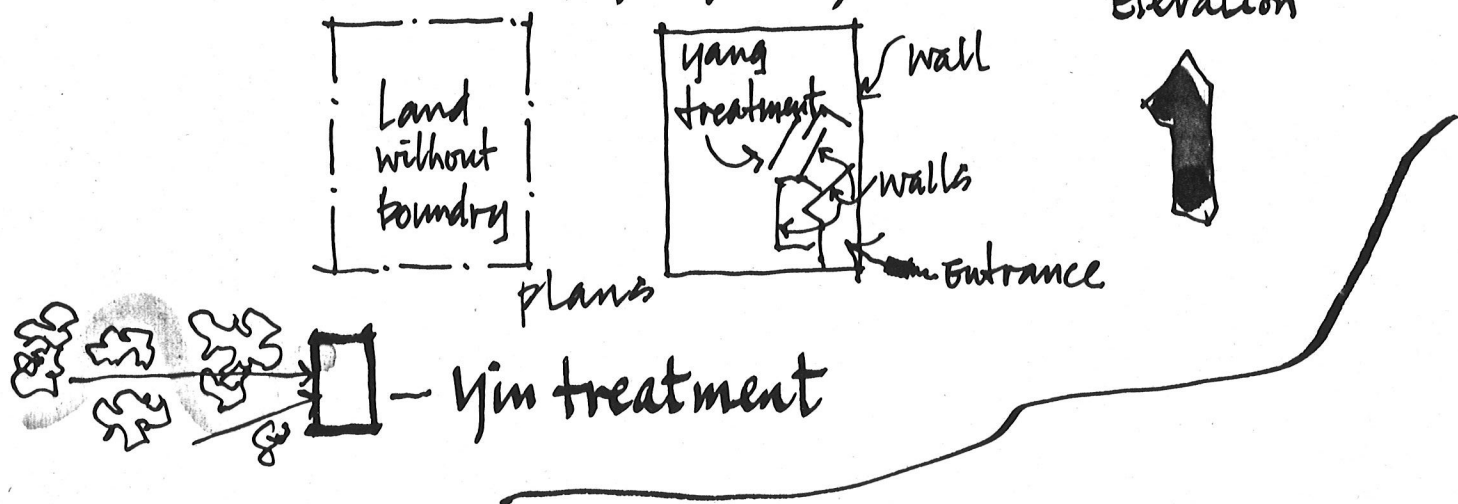
# Finding a different vista at every turn



- A fine vista — the end<sup>(2)</sup> justifies the beginning (1), and the beginning (1) justifies the end (2).

# Making the small evoke the large

1. By placing walls (or plants) of differing height at different locations (within a limited space) will create a sense of infinity.



2. The water acts like a mirror, hence, the reflection of the immediate elements will help to enlarge the surrounding areas.



### TREATMENT OF PLANTING MATERIALS

Plants are a prerequisite in the formation of a garden environment. The shape, color, fragrance and acoustic properties of plants can enhance the artistic effects of a desired scenic environment. Applying the principle of "borrowing from the weather and the climate", plants are used to express the seasonal characteristics of landscapes. Plants can produce different effects, reflecting the cycle of life and seasonal change, as a result of differing weather and day/evening light conditions.

In classical Chinese garden construction, the commonly used species are those often depicted in Chinese poetry and paintings. These include lotus, chrysanthemums, peonies, and bamboos. They are used differently, depending on the scenic theme, topography and architectural surroundings. However, plants selected for the proposed Winnipeg Garden would have to survive the city's severe climate.

In designing the proposed Chinese Garden, special consideration has been given to the plant species and location to accentuate the spirit of the Garden. The pine is symbolic of longevity, strength and forcefulness. It is used in moderation to punctuate specific areas designed to express the Yin elements of the Garden. A group of pine trees are located next to the Reading Chamber at the northwest corner of the Garden, facing the direction of the strongest winds. They are planted for the sound of the wind brushing through branches, enhancing the poetic atmosphere of the Garden. Another pine tree is placed in the small courtyard beside the Exhibition Hall to express the Chinese strength of character. The pine tree located in Sho Yuan is designed to heighten the symbolic meaning of longevity.

Surrounding the Heated Pond are birch and willow trees which grow best on moist soils around waters. Reflections of the branches and leaves in the Pond convey a scenic image of stillness. The weeping branches of willows produce a lyrical rhythm as they sway gracefully in the wind. Most importantly, the birches and willows, with their appearance of softness and gentleness, create a striking contrast to the pines. This enhances the beauty of the Yin-Yang principle.

Flowers symbolize prosperity and wealth. Hence in Fu Yuan, various kinds of flowers are planted, providing a continuous blooming period from early spring to late autumn. Selected flowers include roses, peonies, chrysanthemums, physalis (Chinese Lantern), Grootendorst and Persian Yellow.

Deciduous trees and ornamental plants are proposed for other parts of the Garden. They serve to enhance the liveliness and the colorful seasonal characteristics of the Garden.

### TREATMENT OF LIGHTING

Lighting is necessary to encourage night time use of the Garden. It provides an atmosphere of safety for the users and, as well, enhances the space by creating silhouetted patterns, reflections, and focus illuminations which reinforce the character of the garden. It can accentuate areas or features, and be employed to give direction and information.

In designing the Winnipeg Chinese Garden, incandescent lightings are selected for their warm reddish-yellowish color. This accentuates objects and helps to distinguish texture. Furthermore, the lightings merge with the surroundings harmoniously and become an integral part of the design.

In order to create a more stimulating environment, it is proposed certain areas be highly illuminated, and others bathed in shadows. The Dragon Path, situated at the north of the proposed Garden, is designed to include built-in lightings in curved golden rods. In each rod there are eight holes with eight different colored light bulbs. The bulbs are installed facing inwards. They are programmed to light alternatively, resulting in 64 lighting combinations. Following every 64th variation, the lights will come into unison, illuminating one of the eight pure colors. This lighting arrangement is symbolic of life, which is ever-changing. Yet there will come moments of stillness.

In shadow areas, lightings are mounted on walls or hidden within the winding path and the planted areas, so as to provide a more human scale and an intimate feeling.



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