

HOSTING WELLNESS : devices for healing the body

by
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B.Sc., Architecture
McGill University, 2004

Submitted to the Department of Architecture in Partial Fulfillment of the Requirements for the Degree of

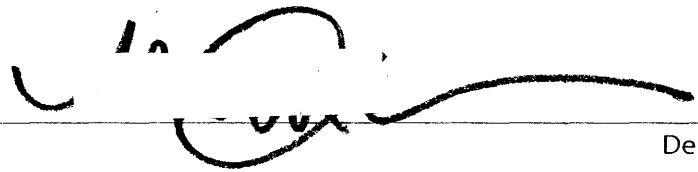
MASTER OF ARCHITECTURE
at the
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

FEBRUARY 2008

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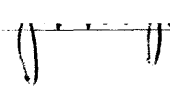
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Department of Architecture
January 17, 2008

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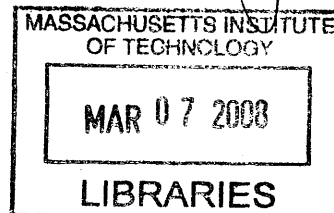


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Professor of Architecture
Chairman, Department Committee for Graduate Students



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HOSTING WELLNESS : devices for healing the body

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HOSTING WELLNESS : devices for healing the body

by
Matthew Jian Chua

Submitted to the Department of Architecture on January 17, 2008 in Partial Fulfillment of the Requirements for the Degree of Master of Architecture

ABSTRACT

In today's global economy, expenditure on the promotion of health is steadily rising across continents. With many nations spending over 10% of their GDP on public health, we are now seeing many medical practices achieving miraculous breakthroughs, making the impossible possible through healing. Modern health care has given individuals the ability to live longer and survive sicknesses, which were fatal not very long ago. Paradoxically, as our dependence on modern science increases, there is also a growing dissatisfaction with conventional medical techniques.

Western scientific medicine tends to alienate patients by prioritizing the illness above the individual, in search for the quickest remedy. In 2006, 250 billion dollars was spent on medicated drugs in the United States, exemplifying the social and medical trend to overmedicate patients, or quick curing. In contrast, Eastern medicine, with its holistic philosophies, tends to search for the source of illness, while providing a method of continuous maintenance on the body, or prolonged curing.

Rather than living longer, health care should aid us in living better. As all forms of medicine seek to ease human suffering, the hypothesis is that in bonding of the two most prominent and practiced forms of medicine, new medical techniques and practices will evolve, producing a more balanced and thorough method of living with illness and wellness.

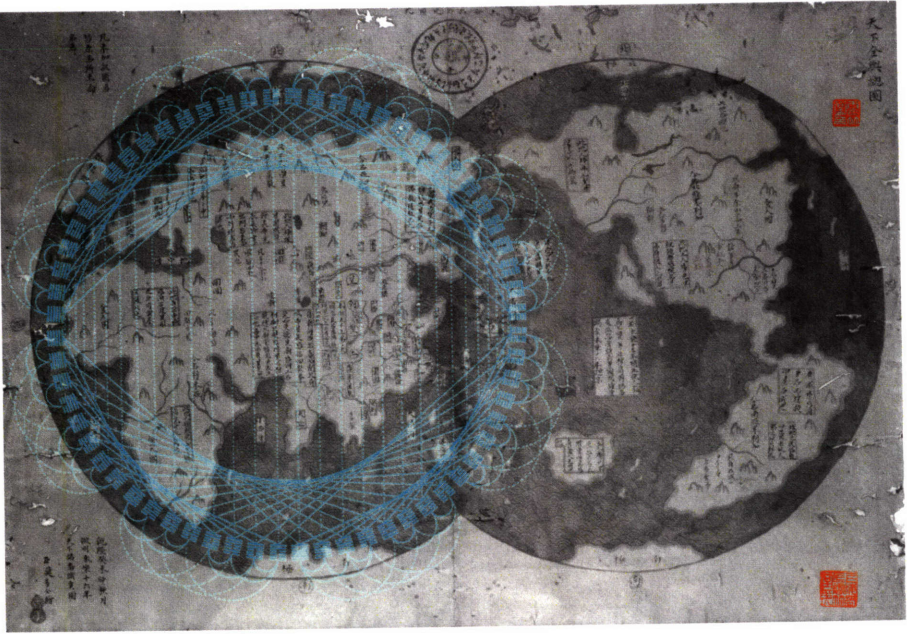
The future of health care lies in the productive dialogue between Eastern and Western medical technology, bonding together to produce a more satisfactory form of global medicine. Through the evolution of healing, Hospitals will no longer be perceived as a place for the ill, but rather as a place for the promotion of wellness – a host for wellness.

Thesis Supervisor // J. Meejin Yoon
Associate Professor of Architecture

6 *dedicated to my mother Anita, my father Patrick,
and my brother Gabriel. I am extremely grateful for
your unconditional support and encouragement.*

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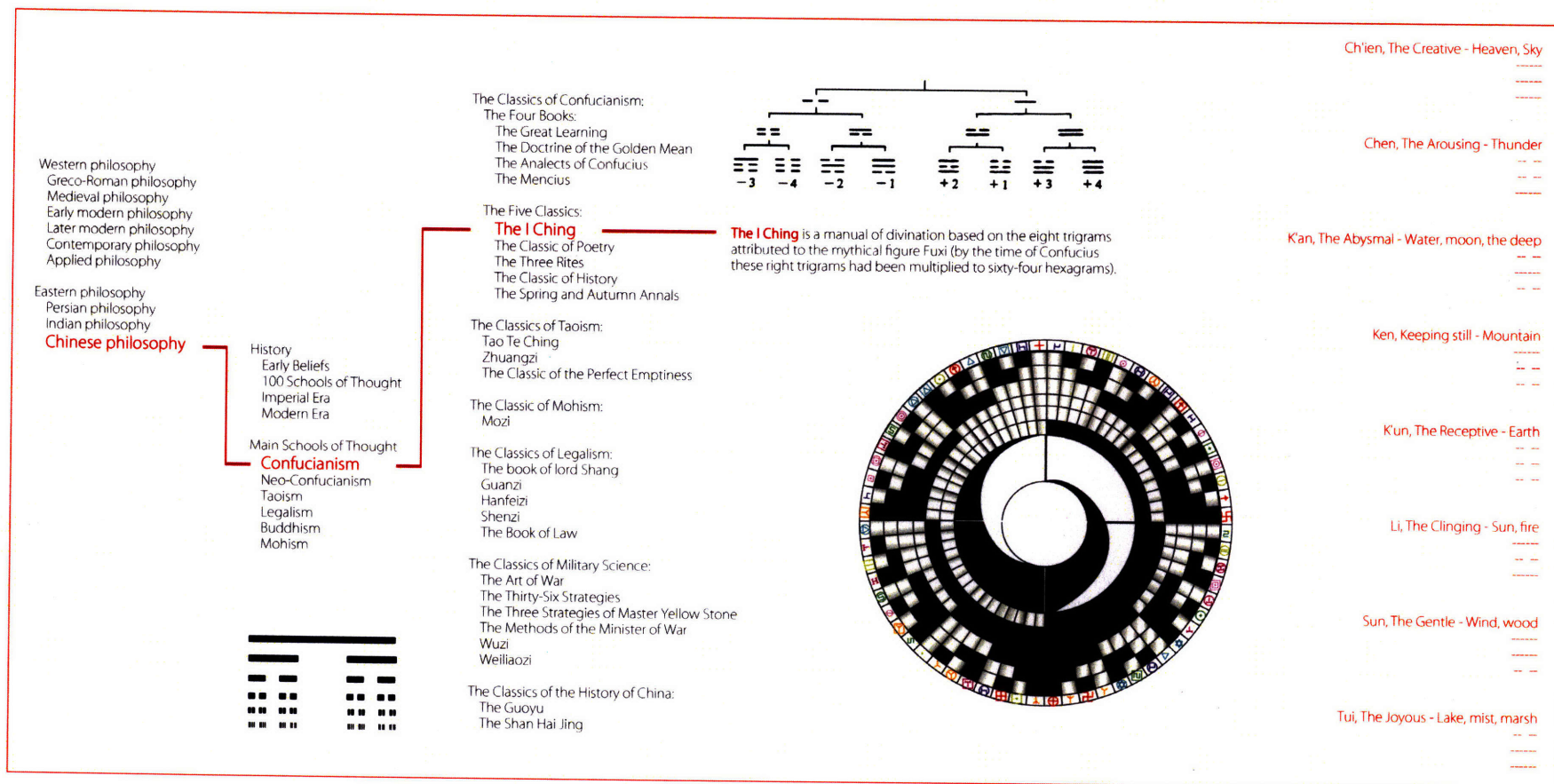


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The World's most populated nation has always been bounded by the artificial borders, which have shifted drastically over the past several millennia. The historical diversity and disjunction of the cultural heritage in China are far too varied to be confined to a single united identity. By observing three well known "Chinese" regions, Beijing, Hong Kong and Taipei, one can immediately see the impossibility as well as the insignificance of defining a Chinese architectural identity. To suggest a united Chinese identity is perhaps as absurd as would be analogous of proposing a single European identity. That being said, what does China have to offer as part of today's global exchange of information?

Since the recent political and economic re-opening of China, it has the opportunity to confront something that no other region in history has had to do – leaping forward in time. Today's market driven global economy gives individuals the ability to instantaneously provide and receive technology from and to anywhere on the globe. And because of China's massive population base, large and small corporations are realizing the potential opportunities available in China. Kentucky Fried Chicken makes more profits in China than in the United States, surpassing that of McDonalds.

Architects are also investing, as China is the new land of opportunity. The architectural effects can



chinese philosophy + architecture :: if our creativity is limited by the way we think, then by analyzing other thought processes, we might have the opportunity to generate new creative outlets. Therefore, the analysis of foreign techniques in ethos, namely "eastern philosophical traditions, will necessarily spawn new types of architecture, in form, space and organization.

the book of change :: this text was selected as the primary instrument of understanding Eastern thought. The text was analyzed to produce new perspectives on architecture. The text was an aid in producing a new kind of bi-polar understanding of global architecture in China

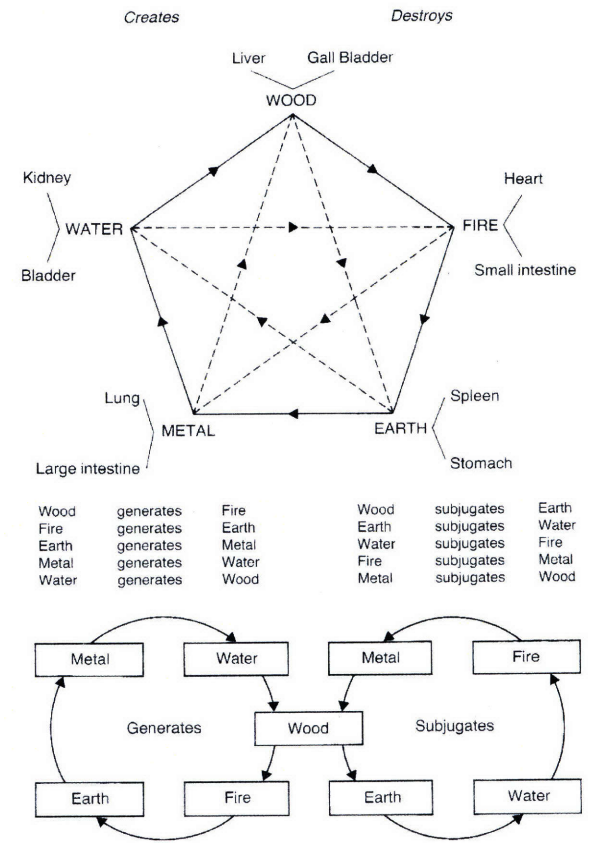
also be seen through the “openness” of China to import and build some of the World’s most innovative contemporary projects. Yet something worth noting is that very few promote something of the “other”. China, currently the World’s largest construction site, is building at phenomenal rates and learning rapidly from surrounding nations, but with such an extensive cultural history, it must also have a substantial amount to teach the rest of the World. The potentials of globalization will not be met if China does not find a way to broadcast its relevance architecturally. The future of China will be determined by how and what it choose to share in this era of rapid global exchange of information.

“The great history of Western art is still largely determines our own cultural consciousness.”[1]

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If Western architecture has largely been determined by its roots in Western thought (from Plato through the early ages of Christianity), then would also be correct to suggest that an Eastern perspective in art and architecture could be determined through their cultural history. In the current global exchange of culture, science, and technology and philosophical perspectives, China could initiate this cultural exchange, benefiting both parties.

Within the science of medicine, we can see the strength of having this type of productive conversion. Through debate, we could truly determine better alternatives to treat all kinds of illnesses, combining the best aspects of both beliefs and medical practices. Without a dialogue between medical cultures, medicine and healthcare in Chi-



[1] Gadamer, Hans-Georg. The Relevance of the Beautiful and other essays. New York, USA: Cambridge University Press, 1986., p.4



agriculture



paper and print making



compass



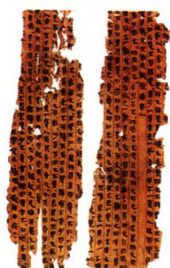
iron and steel smelting



gun powder



medicine



365 healing substances

206BC

The Divine Farmer's Materia Medica Classic

10 volumes
70 chapters on treatment
discussion and
400 + 90 formulae

452 AD

Revised Classics of Materia Medica

1746 substances

1061

Complete and Annotated
Classic of Herbal Medicine of
the Jiayou Era

1,892 medical material of
herbs, animals and mineral
11,096 formulae
100 illustrations
10,000 prescriptions

1267AD

Ji Sheng Fang

844 illustrated pages added

1596AD

Ben Cao Gang Mu

18 volumes
720 kinds of medicines
11 divisions
52 types

1757AD

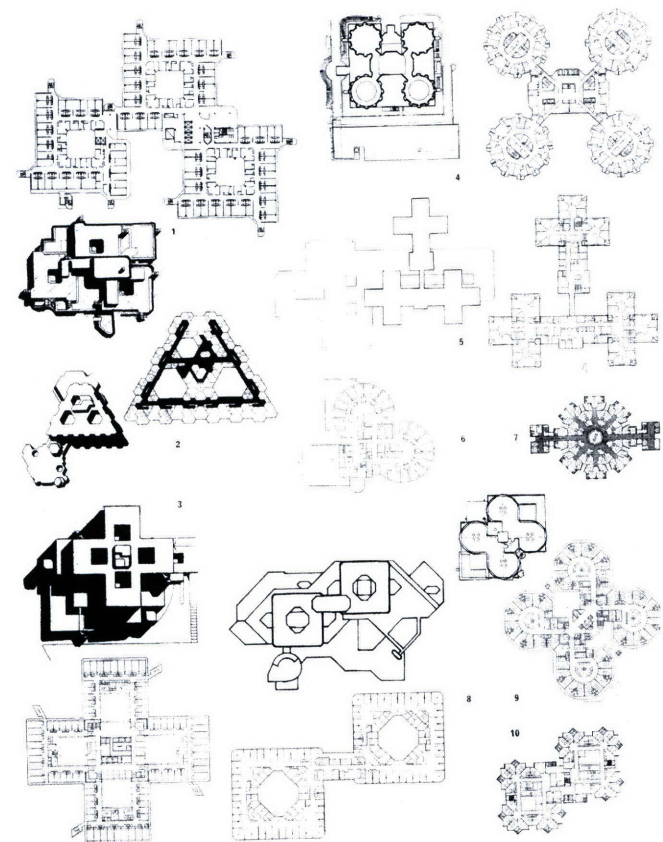
Ben Cao Cong Xin

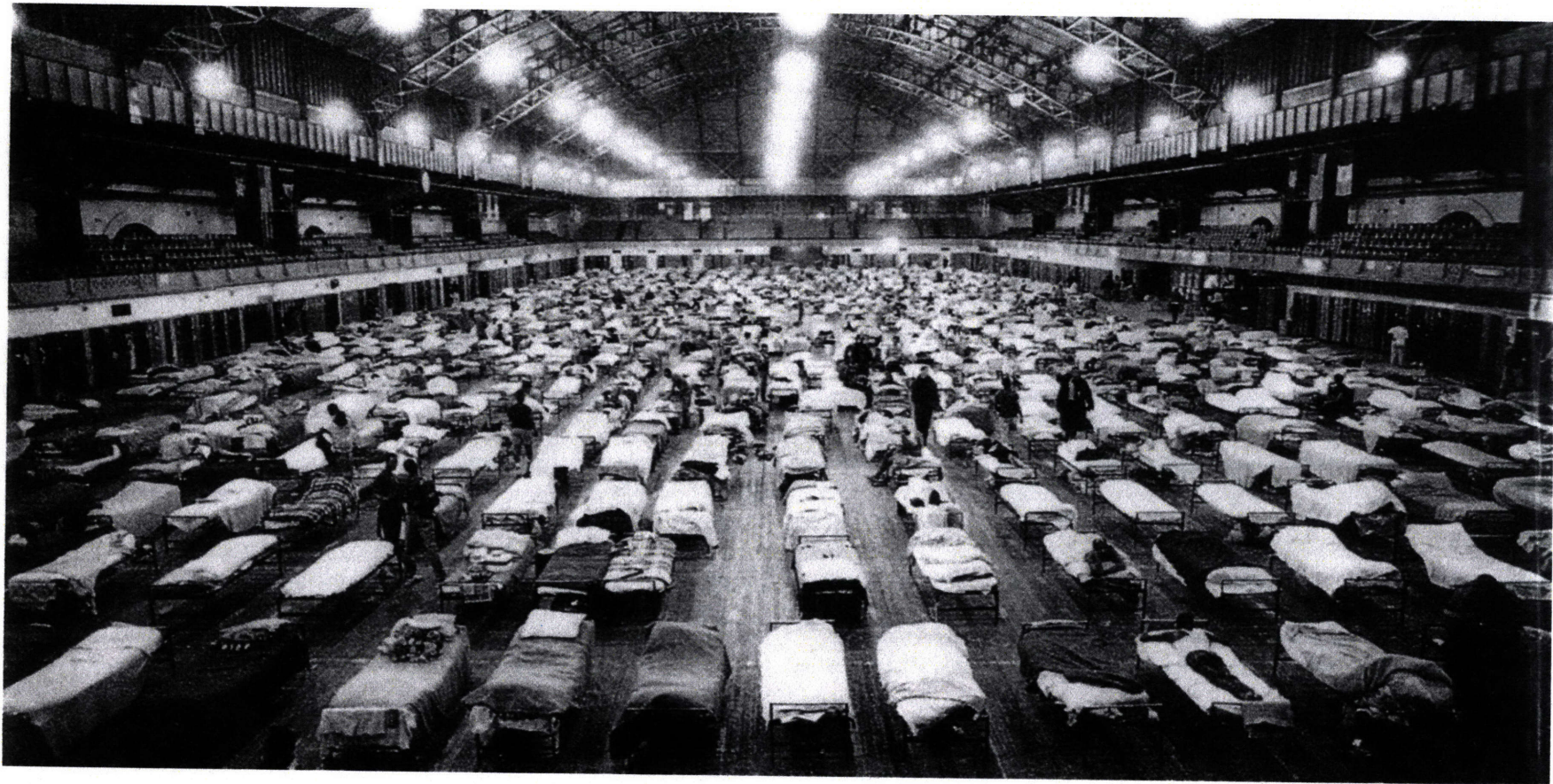
na will be nothing more than a collection of borrowed ideas, with no cultural or historical context relevant to its countrymen. More importantly, China will lose the opportunity defend the relevance of its own ideas and culture, in the advancement of medical science and technology.

But the binary relationships once used (i.e., socialism versus capitalism or high versus low culture) can no longer be used as an adequate method of evaluating "progress" in China. Old dichotomous paradigms, steeped in cold war ideology and packed with cultural aesthetics are inadequate conceptual tools for our task of capturing the "transitional" state of contemporary Chinese society.

The relationships are dissolving and more complex then ever. Communist China ideology, coupled with an individuals ability to "freely" make profits have blurred our traditional understanding of economics aswell as the definition of a democratic free market. Today, land values in such cities as Beijing are as competitive and other mega cities as New York and Tokyo, yet the ownership and control of pricing is still very ambiguous to most investors. What driving this spike in real estate if the government still claims control over it?

Though China is socialist nation, there is a conflicting divide between the rich and the poor, the city dweller and the peasant. China is a nation full of such subtle cultural ambiguities, both currently and historically. Building on the theme of ambiguity, the project will examine the cultural subtlety between wellness and illness in the context of a hospital.





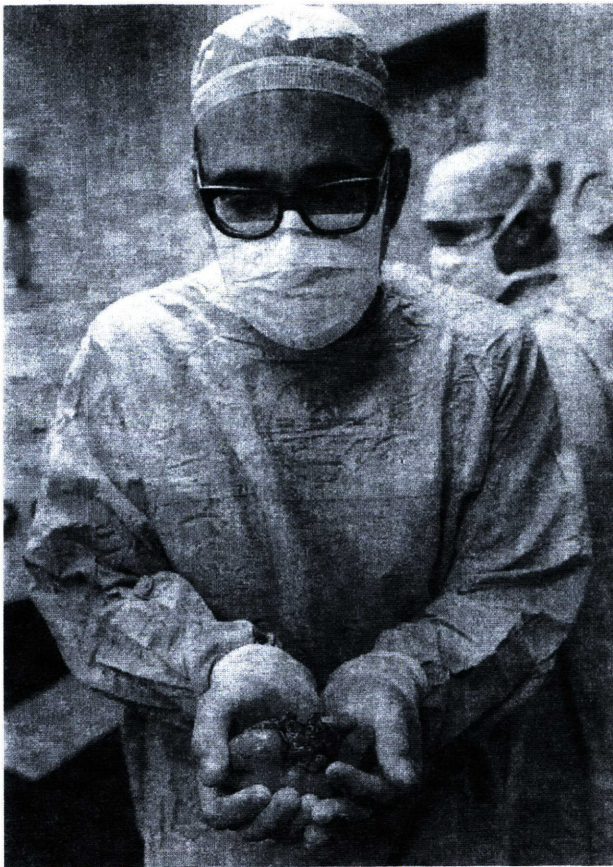
(Word) **Hospital:** (German) hospes (host), which is also the root for the English, words hotel, hostel, and hospitality. The modern word hotel derives from the French word hostel, which featured a silent s, which was eventually removed from the word; French for hospital is hôpital.

(Word) **Clinic:** (Greek) klinein (to slope, lean or recline). Hence kline a couch or bed, klinikos sloping or reclining and to Latin clinicus. An early use of the word clinic was, 'one who receives baptism on a sick bed'. Psychoanalytic clinics traditionally have the patient reclining on a couch to undergo analysis.

(Word) **Hospitality:** (Latin) hospes, which is formed from hostis, which originally meant a 'stranger' and came to take on the meaning of the enemy or 'hostile stranger' (hostilis) + petis (polis, poles, potentia) to have power. Furthermore, the word hostire means equilibrate/compensate.

(Word) **Hotel:** (French) hôtel, which referred to a French version of a townhouse or any other building seeing frequent visitors, not a place offering accommodation (in contemporary usage, hôtel has the meaning of "hotel", and hôtel particulier is used for the old meaning). The French spelling (with the circumflex) was once also used in English, but is now rare. The circumflex replaces the 's' once preceding the 't' in the earlier hostel spelling, which over time received a new, but closely related meaning.

(Word) **Hospice:** 1818, "rest house for travelers," from Fr. hospice, from L. hospitum "guest house, hospitality," from hospes (gen. hospitis) "guest, host". Sense of "home for the aged and terminally ill" is from 1893; hospice movement first attested 1979.



WESTERN MEDICINE

(hardware / micro healing)

hard-ware

-noun

1. metalware, as tools, locks, hinges, or cutlery.
2. the mechanical equipment necessary for conducting an activity, usually distinguished from the theory and design that make the activity possible.
3. military weapons and combat equipment.
4. Slang. a weapon carried on one's person: The rougher types were asked to check their hardware at the door.
5. Computers. the mechanical, magnetic, electronic, and electrical devices comprising a computer system, as the CPU, disk drives, keyboard, or screen.

mi-cro

-adjective

1. extremely small.
2. minute in scope or capability.
3. of or pertaining to microcomputers.
4. of or pertaining to microeconomics.

-noun

5. anything extremely small in capability.
6. a microcomputer.

The healer's purpose is not to cure a disease, **but to restore the natural balance**; cure will follow of its own accord. As Frederick K. Kao puts it: "the overall Western Ethos has led

soft·ware

–noun

1. Computers. the programs used to direct the operation of a computer, as well as documentation giving instructions on how to use them. Compare hardware (def. 5).
2. anything that is not hardware but is used with hardware, esp. audiovisual materials, as film, tapes, records, etc.: a studio fully equipped but lacking software.
3. Television Slang. prepackaged materials, as movies or reruns, used to fill out the major part of a station's program schedule.

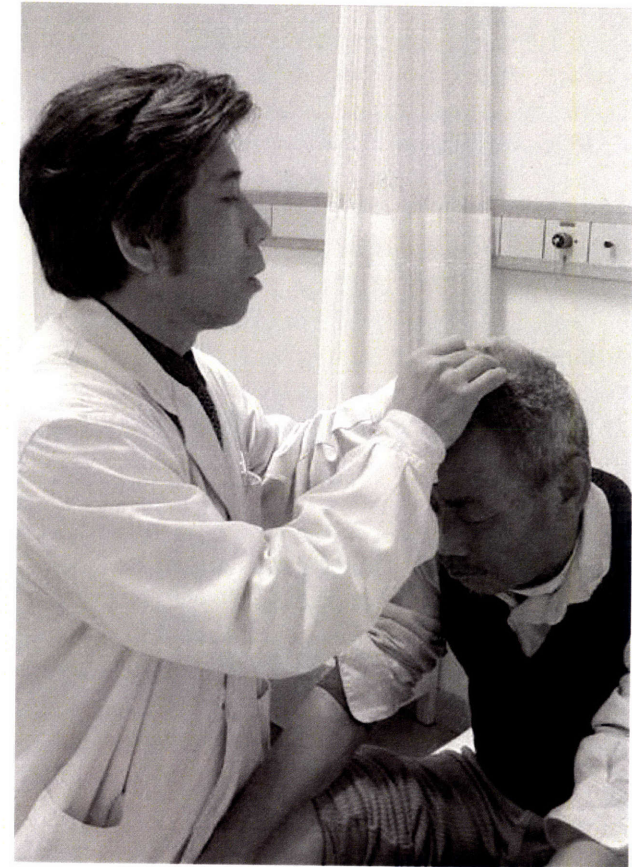
màc·ro

–adjective

1. very large in scale, scope, or capability.
2. of or pertaining to macroeconomics.

–noun

3. anything very large in scale, or capability.
4. Photography. a macro lens.
5. macroinstruction, an instruction that represents a sequence of instructions in abbreviated form.



EASTERN MEDICINE
(software / macro healing)

to the concept of **hardware**, whilst that of the East has led the concept of **software**. ”

Kao, 'China, Chinese Medicine, and the Chinese medical system'. p.55.

Expenditure on the promotion of health is steadily rising across continents. With many nations spending over 10% of their GDP on public health, we are now seeing many medical practices achieving miraculous breakthroughs, making the impossible possible through healing. Modern health care has given individuals the ability to live longer and survive sicknesses, which were fatal not very long ago. Paradoxically, as our dependence on modern science increases, there is also a growing dissatisfaction with conventional medical techniques.

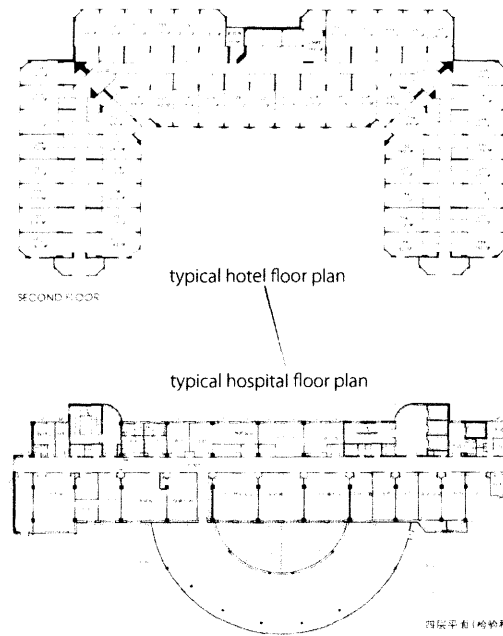
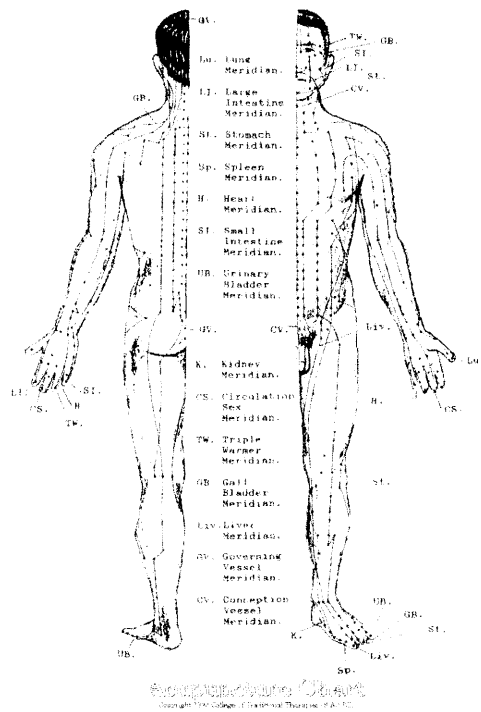
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Rather than perceiving illness as a burden ON ones lifestyle, the future of healing is health care AS lifestyle.

All forms of medicine aim to ease human suffering and improve quality of life; they differ only in



will you be checking into our hospital or hotel tonight?

Doctor

(Latin root) doctor meaning "teacher"
 (Chinese) 医师 (yī shī) (cure+teacher)

Patient

(Latin root) pator meaning "suffer"
 (Chinese) 病号 (bìng hào) (sick+personnel)

Hospital

(Latin root) hospes meaning "host"
 (Chinese) 医院 (yī yuàn) (cure+courtyard)

their approaches to the realization of this goal. The blending of the Eastern and Western approaches to health and healing can maximize the safety and effectiveness of care in an accessible and affordable manner. Traditional Chinese medicine focuses on macro healing (also known as holistic healing), while western medicine defined by its micro healing method.

HEALING AS A BELIEF

Healing is as much of a belief as it is a science. Medicine does not distinguish between the various extremes of essential and unessential forms of care. The necessities of cleft lip surgery and face lift surgery have an equal impact on the projected quality of life of the guest being served, yet some would deem one more necessary than the other. As mentioned, the science of health care is primarily based on scientific evidence, but the treatment for any given illness is subjective and with many alternatives.

The hospital is a host for healing varying degrees of wellness and illness. The host accom-

modates those in the need for better health, as well as those seeking to avoiding illness, as everyone lives in a varying states of imbalance. By recognizing illness as varying degrees of wellness the boundary between, the sick and the healthy is fused. Medication and medicine is an integral part of daily life. Daily medication, daily exercise, daily health checks. THE ARCHITECTURE accommodates a facilities for CONTINUOUS CARE AND SERVICE: the future goal of all hospital facilities.

The hospital is a hidden REVOLUTIONARY building type. Often forgotten in the discourse for architecture, it is the first building that was completely conceived by scientific and philosophical concepts. The concept of health and care of health has undergone major significant revolutions that many of use are unaware. From the ancient healing practices in Egypt and Greece, to the Medieval ages of the raise of the Catholic Church as the primary care giver. The Western hospital was conceived through the philosophies of Western medicine, yet there is

sadness		depressive disorder
self encouragement		schizophrenia
tempermental		bipolar disorder
organized		obsessive-compulsive disorder
personal fears		psychiatric disorder
over eating		eating and image disorder
emotional sensitivity		psychosomatic disorder
memory loss		dissociative disorder
excitement		anxiety and adjustment disorder
nutritional health		nutritional illness
postprandial anorexia		anorexia nervosa
alcohol use		alcohol abuse
controlable sickness		fatal disease
accidental injuries		self inflicted injury
drug use		drug abuse
joint pain		osteoarthritis
strength training		physical recovery
sustenance		suicide

Necessary:

1. being essential, indispensable, or requisite

(unnecessary):

2. not necessary or essential; needless; unessential.

Wellness:

1. the quality or state of being healthy in body and mind, esp. as the result of deliberate effort.
2. an approach to health care that emphasizes preventing illness and prolonging life, as opposed to emphasizing treating diseases.

(illness):

1. unhealthy condition, poor health; indisposition; sickness.
2. Obsolete. Wickedness

no counter part in the practice of Eastern medicine. What is the future of the Eastern hospital and what can one of the learn from Eastern medical philosophies?

Chinese medicine as a philosophy has no separation from the activities of daily life – healing is life. The new Chinese hospital is a place to express this type of relationship, re-creating the experience of life itself through healing.

The thesis proposes to eliminate the boundaries between the necessary and unnecessary, as everyone lives in varying degrees of normalcy, from dealing with the common cold, to suffering from a terminal disease, illness and wellness are terms which exist on a gradient of cures and methods of care. The moral judgment should be in the hands of the patient/guest.

The noted anarchist Ivan Illich heavily criticized modern medicine. In his 1976 work *Medical Nemesis*, Illich stated that modern medicine only medicalises disease and causes loss of health

and wellness, while generally failing to restore health by eliminating disease. This medicalisation of disease forces the human to become a lifelong patient.

While Western medicine is more scientific, it diagnoses based on illness specific healing, dividing the study of the body distinctive parts. In contrast, Eastern medicine focuses the healing the specific individual through a holistic examination of the patient's bodily imbalances. This reflects the classical Chinese belief that individual human experience express causative principles effective in the environment at all scales. There is no conflict between eastern and western medicine, as physicians should simply be prepared to take the best of both medical beliefs, forming a synthetic type of medical practice.

“No art is more widely misunderstood than architecture, and no building illustrates the misunderstanding more clearly than the hospital”

-- J. Hudnut



HOSPITAL
waiting program

- emergency waiting room
- treatment waiting room
- ward waiting room
- blood testing waiting room
- clinical waiting room
- general waiting room
- recovery waiting room

HOTEL
relaxing program

- socializing room
- lobby
- entertainment and relaxation
- family relaxation room
- outdoor reflexion area
- gourmet dining room
- casual snack area
- treatment relaxation room
- massage and spa area
- multimedia area
- natural landscape area
- live performance area
- internet browsing area
- virtual reality relaxation area
- scenery enjoyment area
- people watching area
- low activity room
- games room
- swimming pool
- bathing area
- sun tanning area
- meditation area
- conference rooms
- meeting rooms
- music relaxation area

HOSPITALITY

the obscure functional difference between hotel programs and hospital programs is exploited as a learning tool, to redefine the 21st century hospital. **never wait, just relax.**

Hospital (a place for repairing)

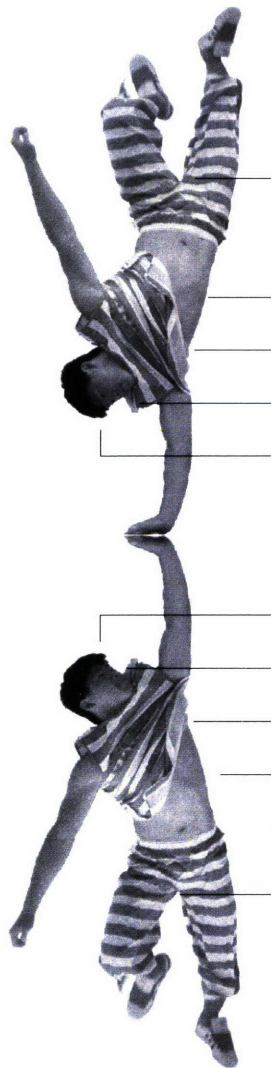
1. an institution in which sick or injured persons are given medical or surgical treatment.
2. a repair shop for specific portable objects: violin hospital; doll hospital.

Hospital: Recover, Sickness, Fundamental/basic, Medicine, care, illness, patient, Medical, recovery, institution, healthcare, insurance, patients, overnight, checking in, fear, illness, religion

Hotel (a place for warmth)

1. the friendly reception and treatment of guests or strangers.
2. the quality or disposition of receiving and treating guests and strangers in a warm, friendly, generous way.

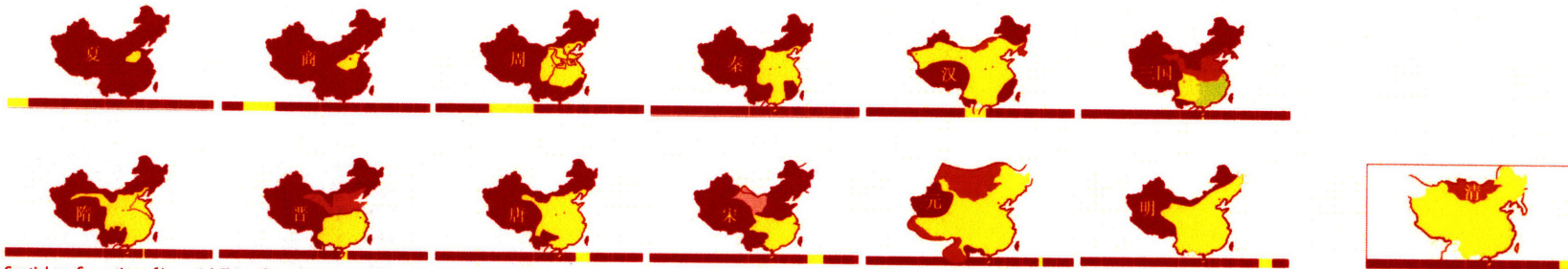
Hotel: Relax, Wellness, Optional/Profuse, Nutrition, Service, guest, Extravagant/Indulge, luxury, spa, resort, boutique, luxury, spa, golf, guest, overnight, romantic, travel, views, business meeting, checking in, reservation, pleasure, happiness



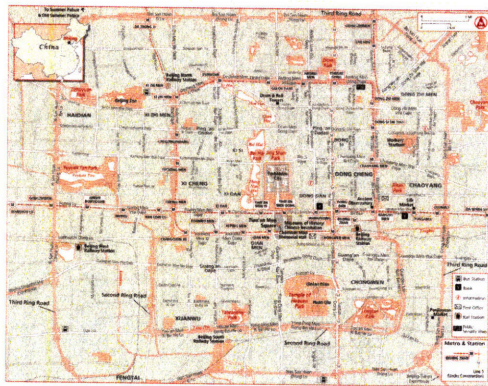
- Viagra medication
- Power Bar Energy food
- Estee Lauder skin care
- Starbucks caffeine
- Tylenol headache relief

- herbal headache relief
- herbal alertness
- herbal skin care
- herbal energy
- herbal virility

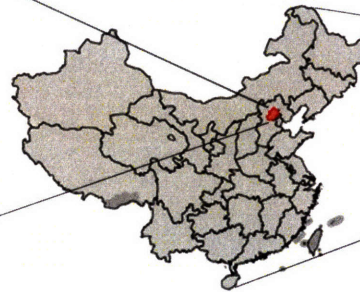




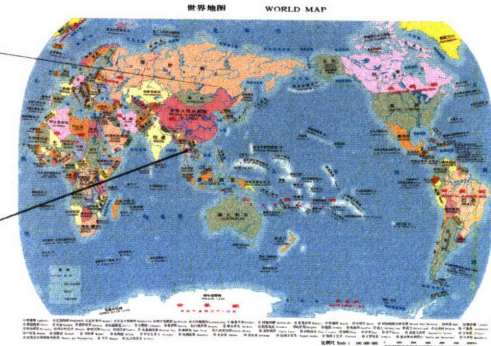
Spatial configuration of Imperial China: from Qin to Qing Dynasties (255BC-1911AD)



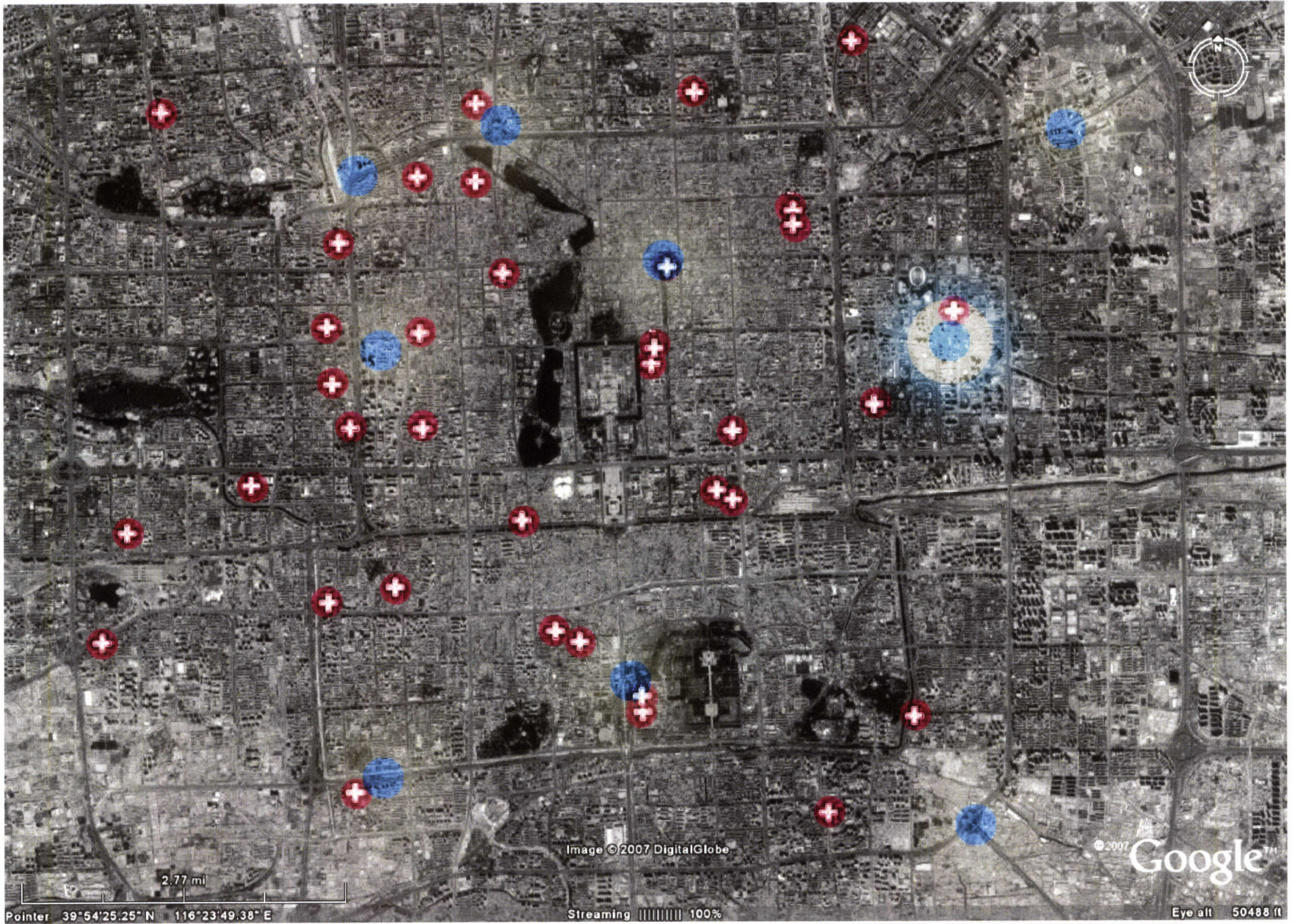
Beijing city

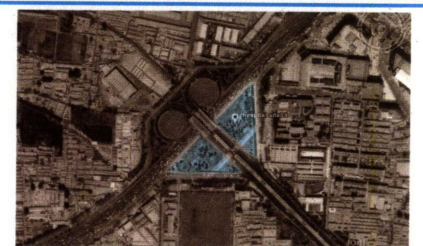
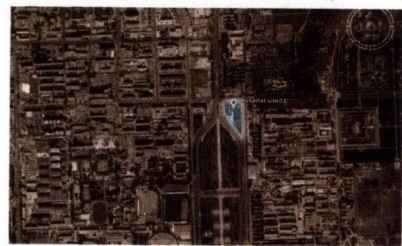
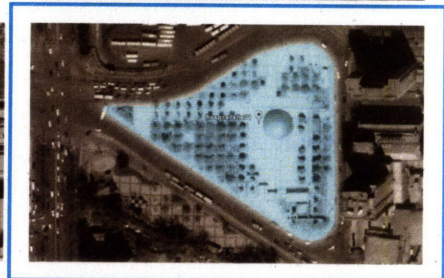
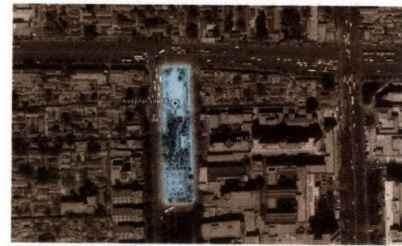
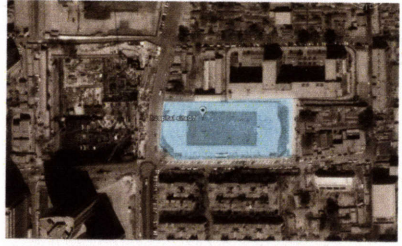
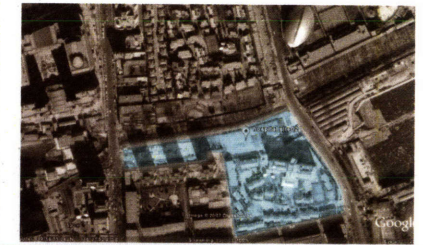
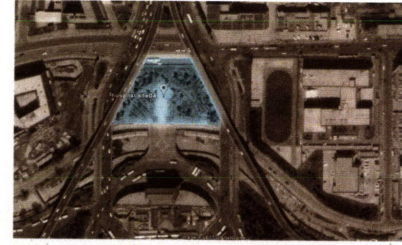
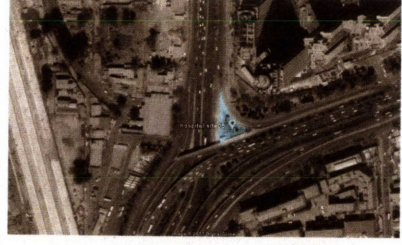
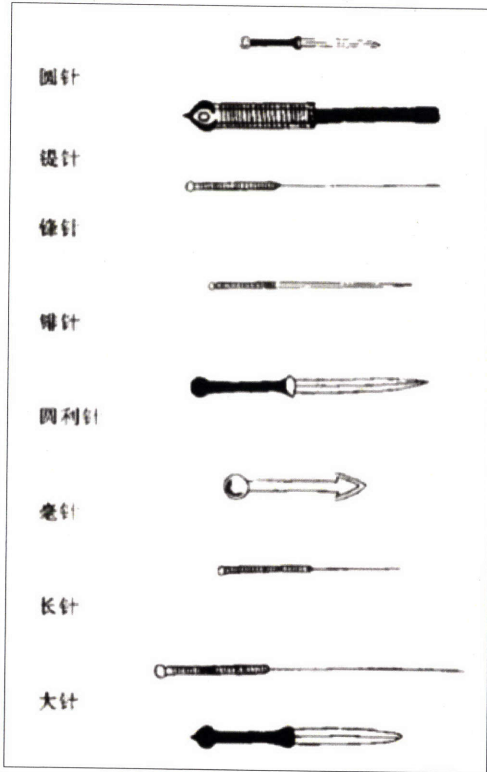


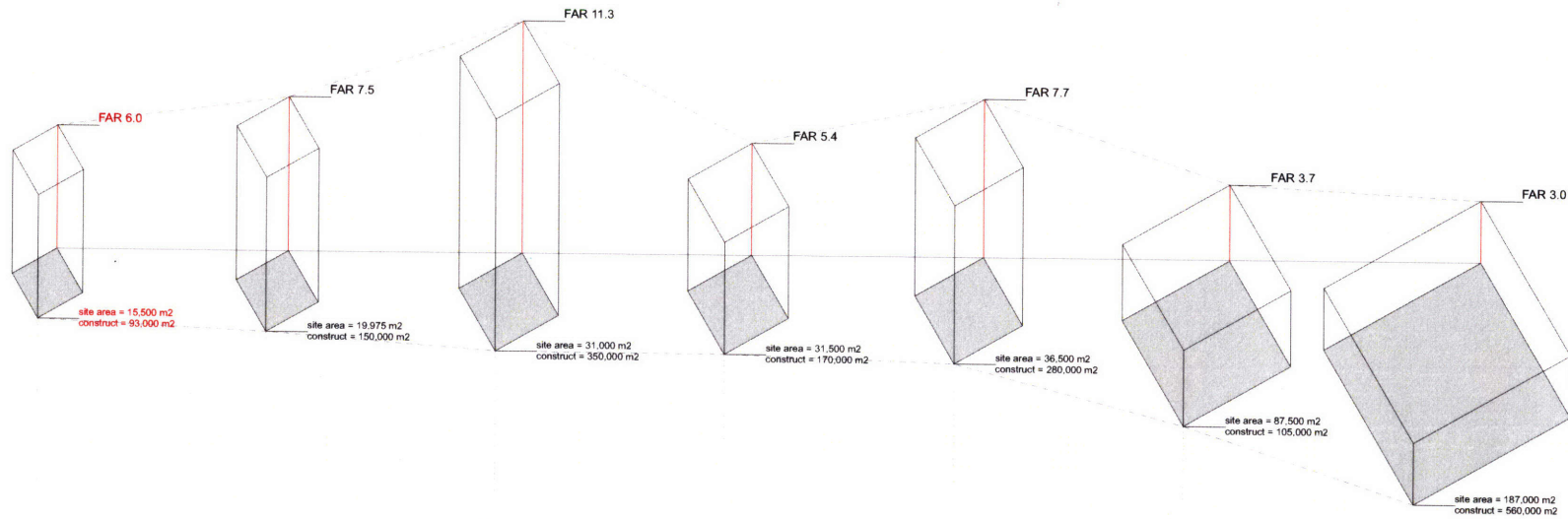
Beijing Municipality



people's republic of china







site 01 - CBD

Chaowai SOHO

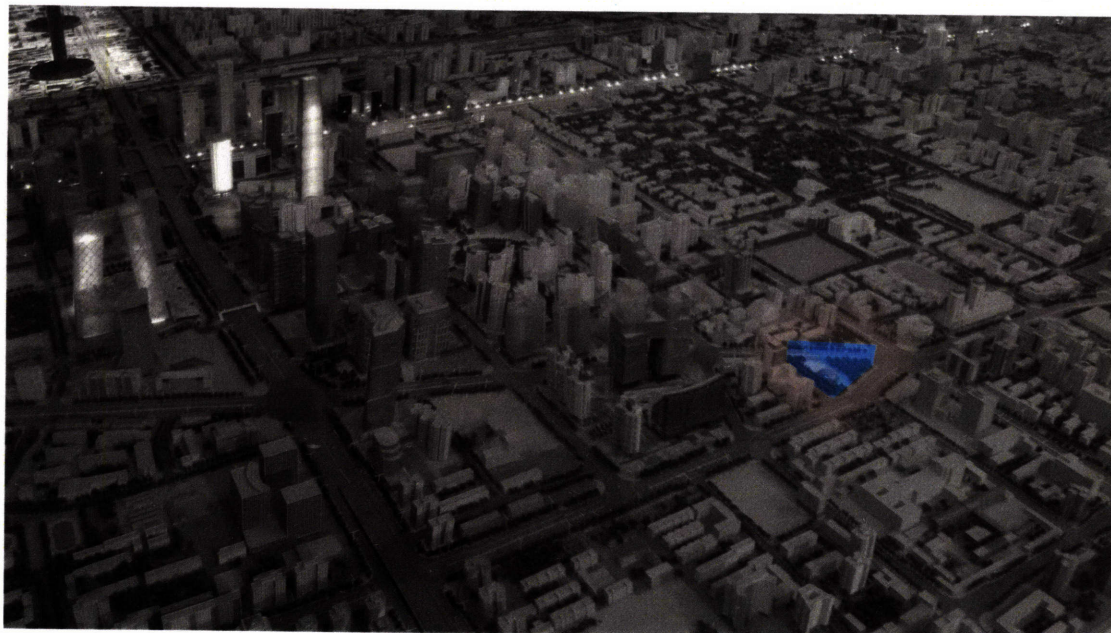
Beijing Yintai Center

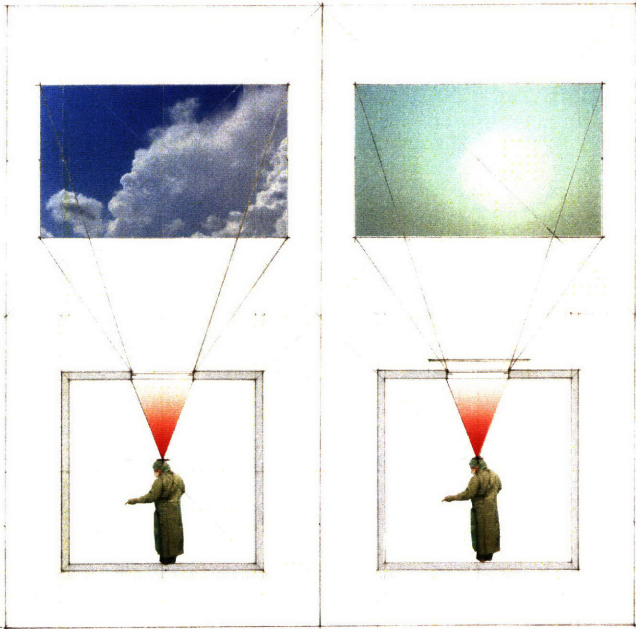
SOHO shang du

China World Trade III

Central Park

CCTV + TVCC





[B] RESEARCH // HEALING DEVICES

Imagine a place where sickness in the membership, and one is welcomed and greeted with the utmost care. Imagine a place where recovery is relaxing, surgery is stimulating, rehabilitation is recreational, and medicating is nutritional. The boutique hospital is neither hospital nor hotel but entirely new type of place where healing is the mission and hospitality is the reward.

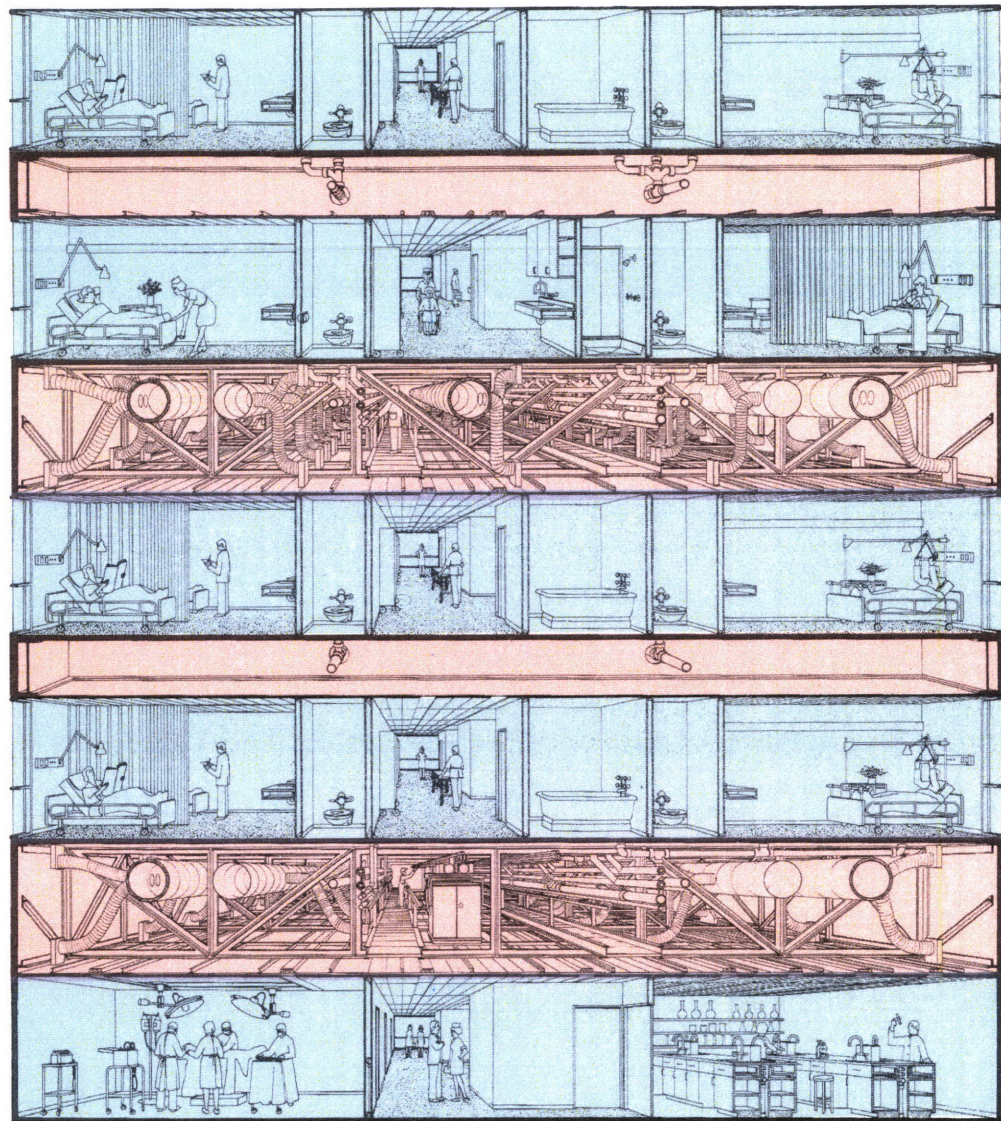
The evolution of the hospital will depend on the radical modernization of its function and perception in the eyes of the patient/guest. Four architectural devices are explored as methods of transforming the hospital as an institution for illness to the hospital as a place for wellness:

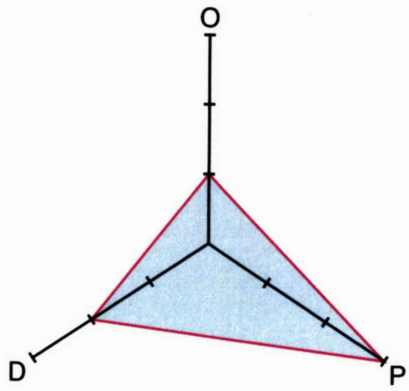
HOSPITAL AS PUBLIC SPACE
(destination waiting)

HOSPITAL AS HEALING COURT
(healing courtyards)

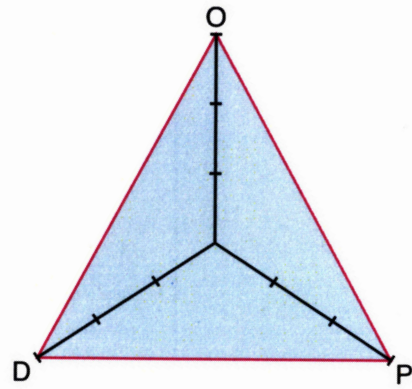
HOSPITAL AS RECOVERING VIEW
(vertical recovery view)

HOSPITAL AS GUEST HOUSE
(hospitality)

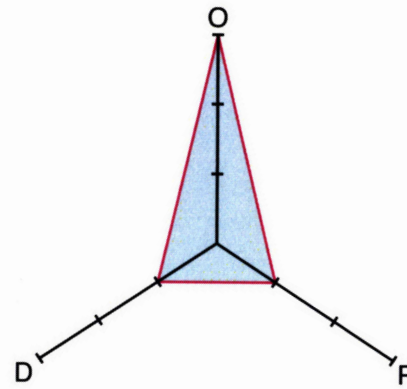




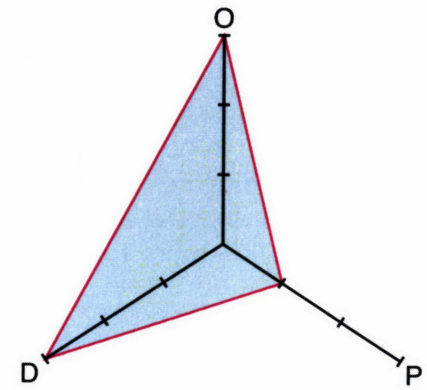
destination waiting



hospitality service



recovering view



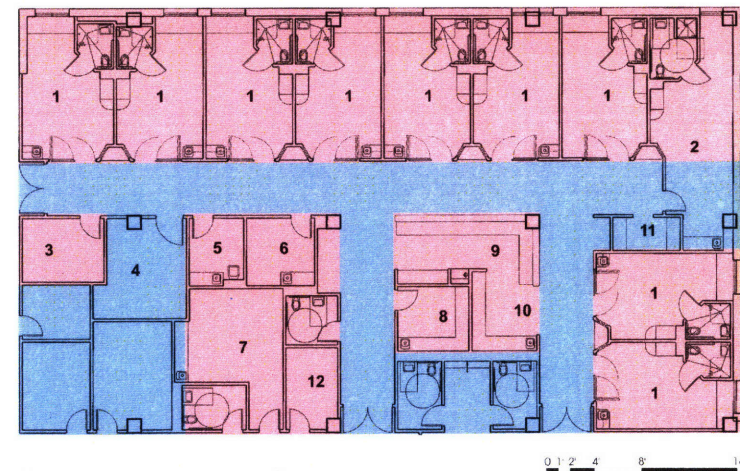
healing courtyard

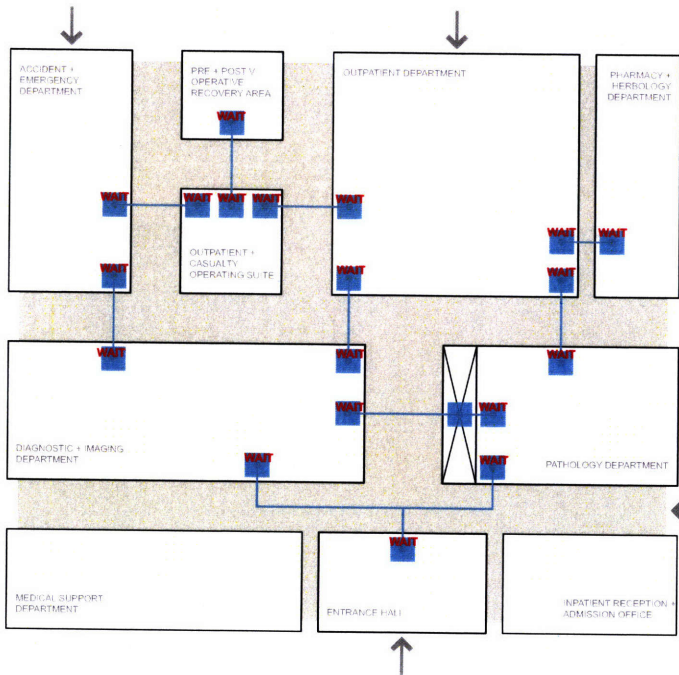
- D dimensional transformation
- O organizational transformation
- P programmatic transformation

HOSPITAL AS PUBLIC SPACE (destination waiting)

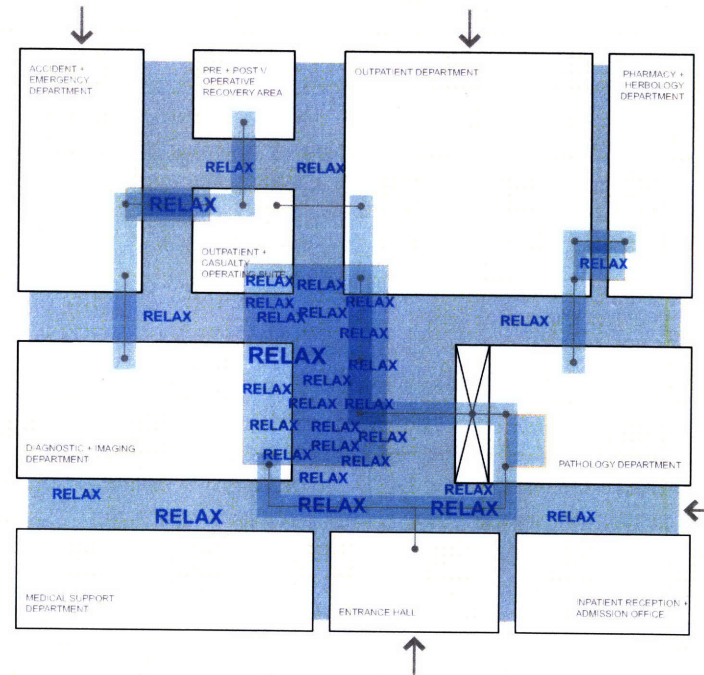
Current condition of waiting in hospitals and the amount of time spent waiting. Perhaps by observing other similar programmatic conditions similar to the processes experienced in hospital, one could adapt and transform the patients' perception of WAIT. In both hotels and cruise liners, two other host programs, they are perceived as places of relaxation, activity and amusement. Yet in these facilities, a large amount of time is spent in positions of low mobility, similar to the condition of the waiting rooms in hospitals. Perhaps, through the addition of certain existing hotel and cruise liners programs, one could alter the perception of the hospital waiting room to the hospital destination room.

34





communal **WAITING** + seating areas are grouped together to form larger, more usable public **GUEST ENTITIES** for entertainmen and servicing of the body. Waiting will become obsolete through its reinvention as the new space for **RELAXATION**.



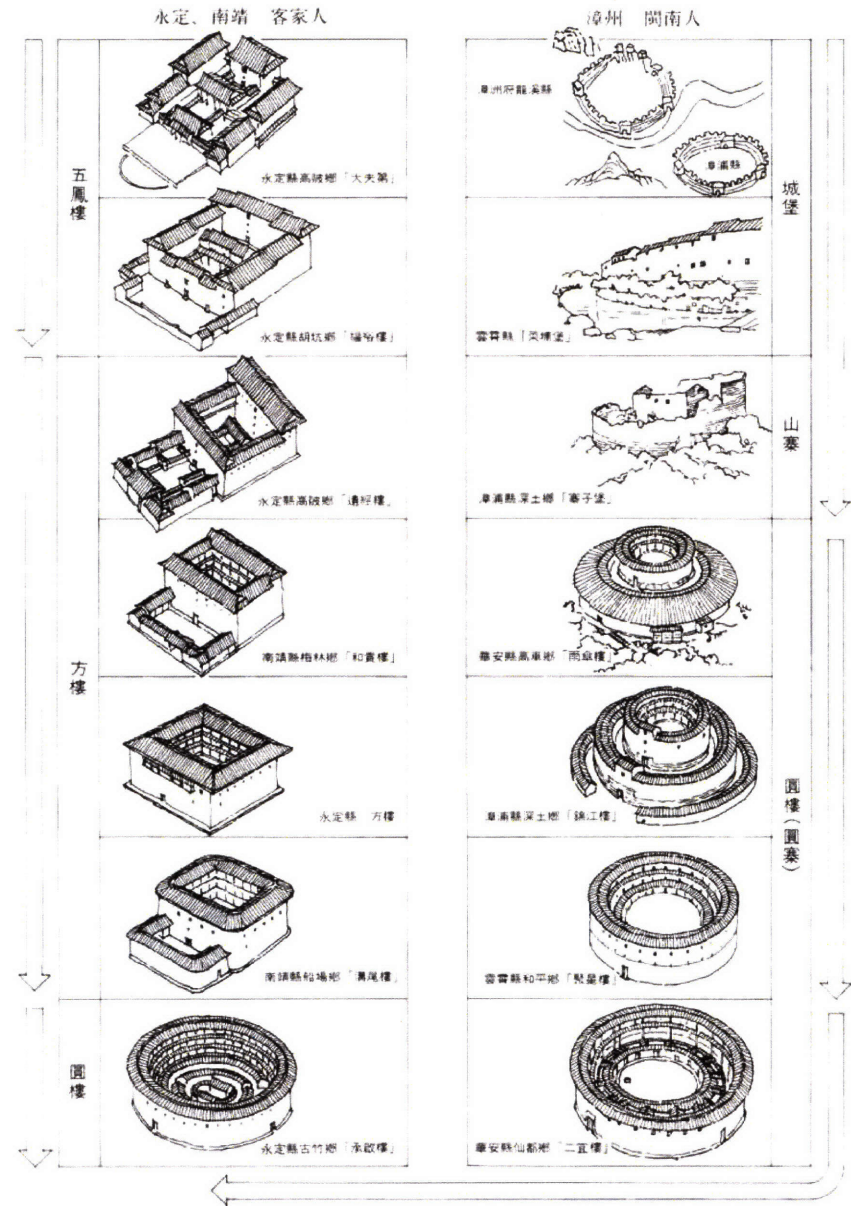
HOSPITAL AS HEALING COURT
(healing courtyards)

While the Latin root of the word hospital is “hospes” meaning host, the etymology of the Chinese characters of hospital is 医院 (yī yuàn), which is the combination of the character for “cure” and “courtyard”.

Similar to Europe in the early 19th century, the ambitions of creating healing environment that emulate nature, so to were the principals of the tradition Chinese courtyard house. The tensile relationship between the necessity of creating a flowing public ground plane access without hospital entry and an equally critical elevated public activity plane with maximum horizontal continuity, while providing maximum light penetration to the exterior ground plane and primary hospital entry.

36

While the ground plane allows for numerous large scale informal public activities, such as tradition breathing exercising, recreational stretching, public relaxation and recovery beds, and shallow reflective pools, the upper active healing plane provides a more formal organization. Contained on the raised active plane is the hospital lobby, and gathering area, a large restaurant, the primary rehabilitation facilities, and the primary hospital destination waiting area. The two public planes are directly related in their arrangements. Through the use of this simple relationship, the traditional courtyard house is transformed in scale and geometry, producing an architecture of suggestiveness within the context of a hospital building type.



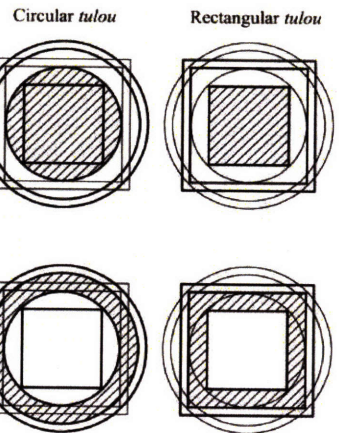


- | | | |
|--------------------------|----------------------------------|---------------------------|
| 1 WAITING | 9 PARASITOLOGY | 16 STAFF LOCKERS/ TOILETS |
| 2 SPECIMEN COLLECTION | 10 VIROLOGY | 17 SUPPLY STORAGE |
| 3 SPECIMEN RECEPTION | 11 GROSS TISSUE | 18 PHOTOGRAPHY STUDIO |
| 4 CHEMISTRY/ URINALYSIS | 12 HISTOLOGY | 19 PATHOLOGIST OFFICES |
| 5 HEMATOLOGY/COAGULATION | 13 CYTOLOGY | 20 RESIDENTS' OFFICES |
| 6 BLOOD BANK | 14 PARAFFIN BLOCK/ SLIDE STORAGE | 21 LAB OFFICES |
| 7 MICROBIOLOGY | 15 STUDENT LAB | 22 REPORT CENTER |
| 8 TB/MYCOLOGY | | |

CIRCULAR VERSUS RECTANGULAR

A given amount of material gives a 41% larger courtyard

.....and approximately a 13% larger building area in the circular than in the rectangular *tulou*.



Size of courtyard

Size of building

1900s: Double Loaded
1940s: Race Track
1950s: Compact Circle
1930s to 1950s: Cross Shape
1950s: Compact Square
1970s: Compact Triangle

Generic plans of common nursing unit forms.

discussion shows key points in the evolution of the compact inpatient care unit. The typical double-loaded corridor was the standard design for many years because of the high floor-to-ceiling height and the fact that the nurses' station and the end rooms of the unit were far from the nurses' station and the end rooms of the unit.

Double Corridor (Race Track) Plan
The Race Track Plan, which reflects the Holy Cross Hospital in Los Angeles, is a far more efficient design than the single corridor plan. It provides for a more efficient use of space and a more efficient use of the nursing support area. The unit design of the Race Track Plan still placed the nursing support area between two corridors, but the building was a "double" building. The core still contains space unrelated to nursing care, and this is a major disadvantage of the Race Track Plan. This unit also shows a combination of "nurse-server" adjacent to the unit. This unit shows a combination of one central work area with dispersed work areas. This unit shows a combination of one central work area with dispersed work areas. This unit shows a combination of one central work area with dispersed work areas.

Compact Rectangular Plan
The compact rectangular unit of Providence Hospital in Anchorage, Alaska (1950s), is much more flexible than the

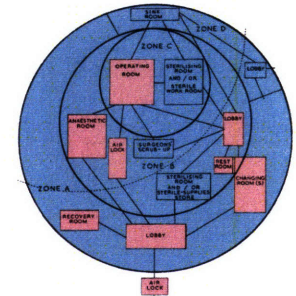
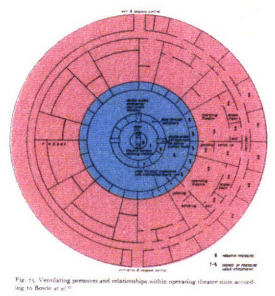
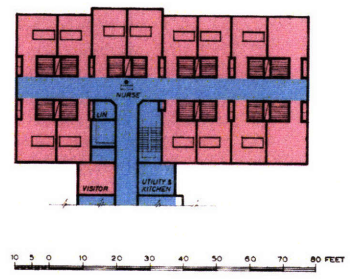
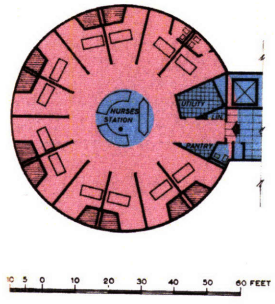


Fig. 75. Circulating patterns and relationships within operating design case according to Bechtel et al.

HOSPITAL AS RECOVERING VIEW
(vertical recovery view)

Ones surrounding environment can ameliorate the healing process by providing an adequate form of visual stimulation. At minimum, hospital recovery rooms have windows that provide an adequate amount of natural light, but many patients, who might be immobile during recovering, cannot enjoy views located beyond their cone of vision when in the lying position. This requirement was intensely analyzed resulting in organizational and formal implications on the final design.

The notion of view as a healing device is exemplified in the organization and geometry of the recovery rooms, which maximizing vertical views while also providing views of the city, and internal courtyard views. The notion of vision as a method of healing was is used in many existing hospital, but by prioritizing the condition of the vertical, the project in forced to contort around the needs of the recovering guests.

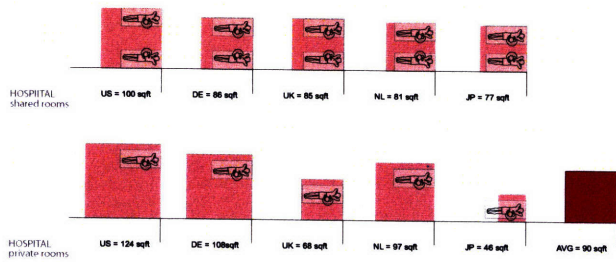
The transformative recovery views determine the complex layout of both the passive (surgery and recovery) healing facilities and the active (rehabilaion and medication), while also transforming the conventional of the vertical circulation (elevators and stair-cases) to a diagonal circulation, optimizing patient/guest and physician/host distributions patterns.

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list no.	room designation	host or guest	act	unit no.	unit area	area total	dept total	% area activity
1	administration control center	host	-					
2	doctors' charting area	host	-					
3	stretcher patient holding alcove	guest	lie	1	216	216		
4	operating rooms type 1 (major)	guest	lie	6	400	2400		
5	operating rooms type 2 (major)	guest	lie	2	480	960		
6	x-ray control booth	host	-					
7	monitoring room	host	-					
8	scrub alcove	host	-					
9	soiled holding rooms	host	-					
10	clean staff work corridor	host	-					
11	film processing area	host	-					
12	doctors' lounge	host	-					
13	doctors' lockers	host	-					
14	clean change room, male	host	-					
15	soiled change room, male	host	-					
16	toilet and shower area	host	-					
17	locker room, assistants	host	-					
18	toilet and shower, assistants	host	-					
19	clean change room (type 2)	host	-					
20	nurses' lounge	host	-					
21	lockers, female	host	-					
22	clean change room, female	host	-					
23	soiled change room, female	host	-					
24	toilet and shower, female	host	-					
25	OR supervisor's office	host	-					
26	mobile X-ray storage alcove	host	-					
27	large equipment storage	host	-					
28	stretcher storage alcove	host	-					
29	family waiting	guest	sit	1	480	480		
30	doctors' consultation room (family after surgery)	guest	sit	1	120	120		
31	clean supply receiving room	host	-					
32	conference - classroom	host	-					
33	dressing and preparation cubicles - outpatient surgery	guest	sit	3	80	240		
34	locker alcove, outpatient surgery	guest	na	1	20	20		
35	office, Chief anesthesiologist	host	-					
36	office - workroom, anesthesiologists	host	-					
37	anesthesia workroom	host	-					
38	clinical laboratory	host	-					
39	gas storage room	host	-					
40	recovery suite - open bay inpatient area	guest	lie	1	1280	1280		
41	recovery suite - nurses' charting and work area	host	-					
42	recovery suite - medication preparation alcove	host	-					
43	recovery suite - clean supply room	host	-					
44	recovery suite - soiled supply room	host	-					
45	recovery suite - isolation recovery room	guest	lie	2	140	280		
46	recovery suite - utility room, soiled	host	-					
47	recovery suite - nurses' lounge and toilet	host	-					
48	recovery suite - open bay outpatient recovery area	guest	lie	1	336	336		

12448

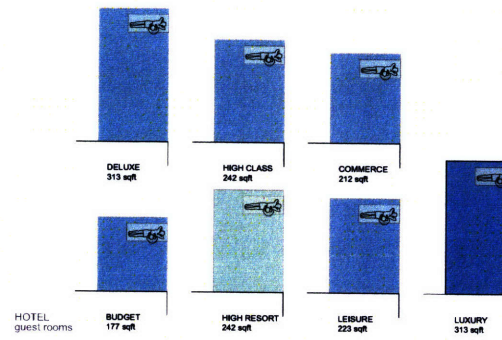
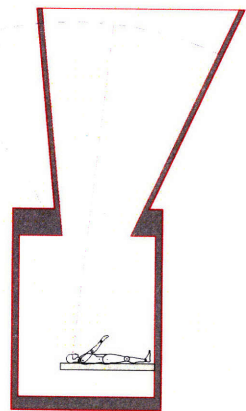
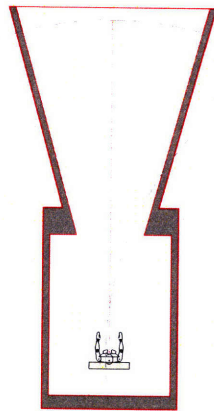
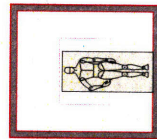
% of area designated for guests	51%
% of area designated for guests to LIE	44%
% of area designated for guests to SIT	7%



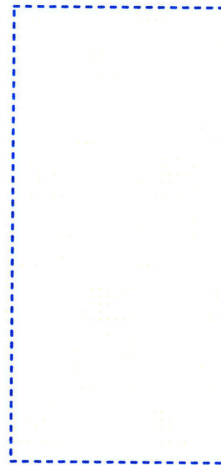
GUEST ROOM LYING condition
unobstructed sky view



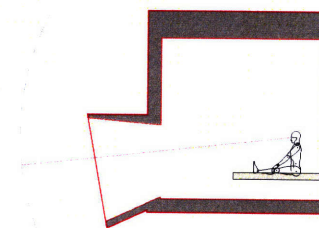
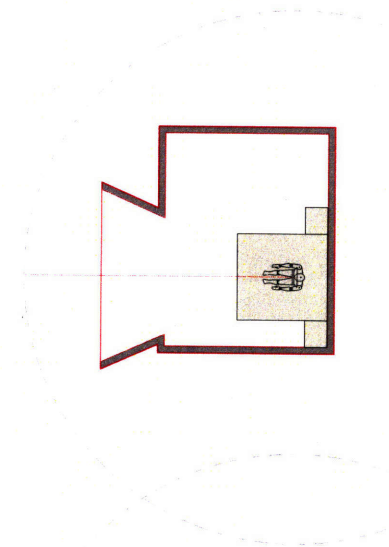
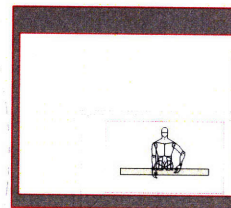
average hospital room
10' x 9' for one bed

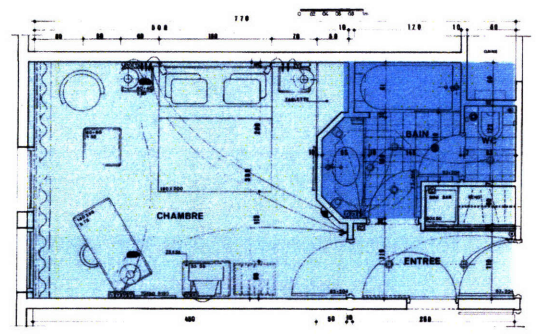
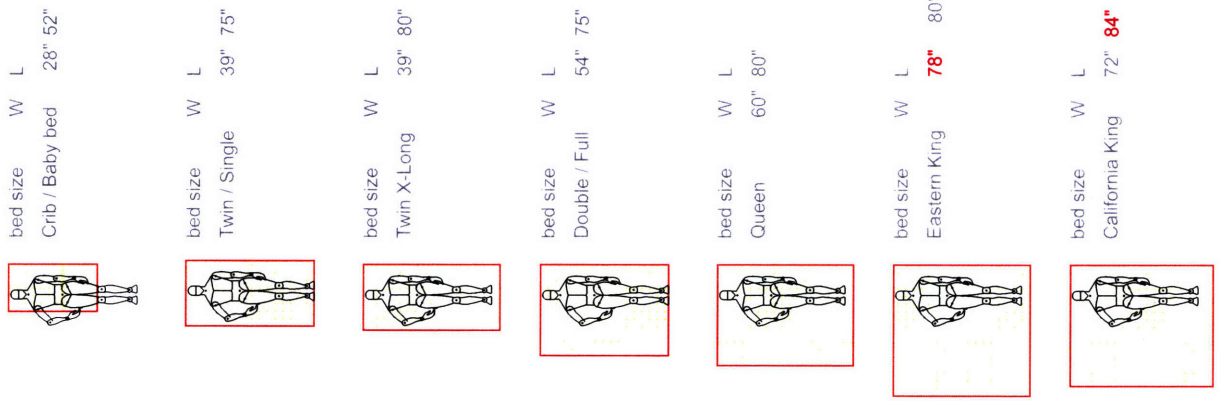


GUEST ROOM SITTING condition
unobstructed sitting view



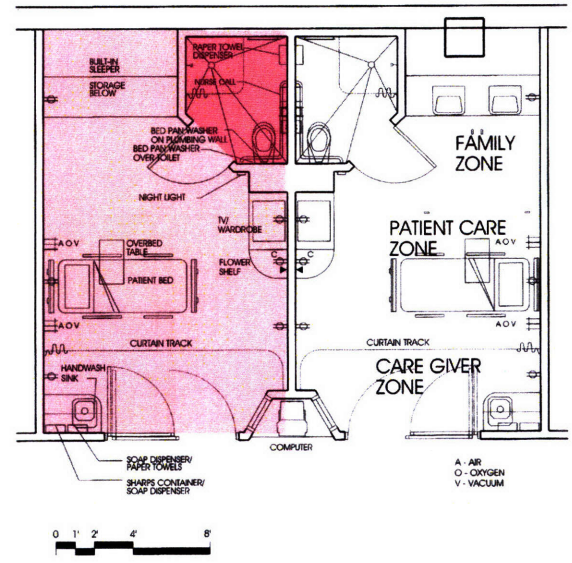
minimum luxury hotel room
15' x 32' for king size bed





- Key
- ⊙ Outlet: standard voltage
 - ⊙ Telephone point
 - ⊙ Outlet: universal voltage
 - ⊙ Outlet: razor
 - Switch: simple
 - Switch: local
 - ⊙ Switch: general
 - ⊙ Sound adjuster
 - ⊙ Television aerial
 - ⊙ Loud speaker
 - 1 Hanging closet
 - 2 Mini bar
 - 3 Luggage rack
 - 4 Mirror
 - 5 Shelf
 - 6 Bedside cabinet
 - 7 Chair and coffee table
 - 8 Desk
 - 9 Duct

Figure 7.4 Hotel Sofitel
Space requirements for guestroom furniture



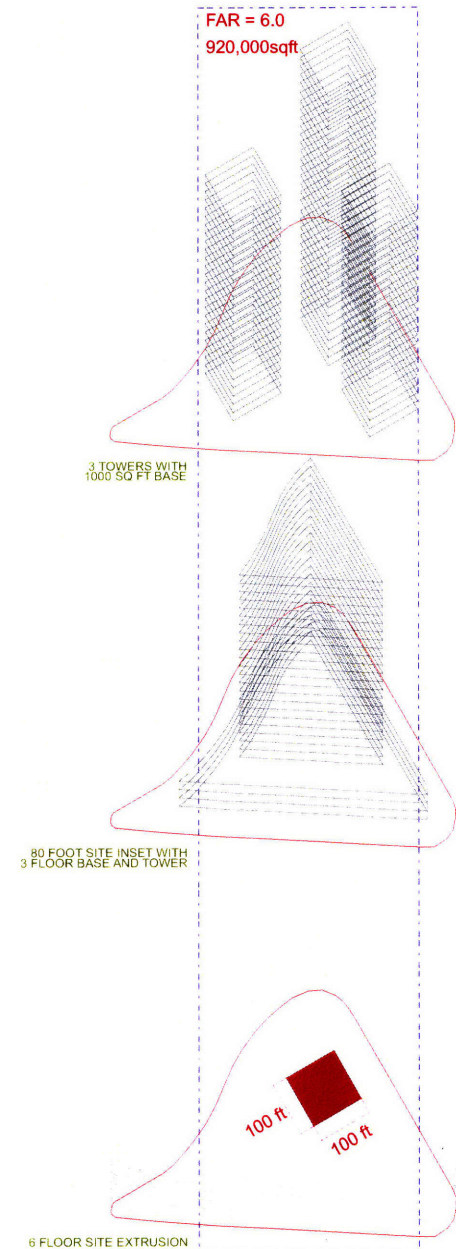
HOSPITAL AS GUEST HOUSE (hospitality)

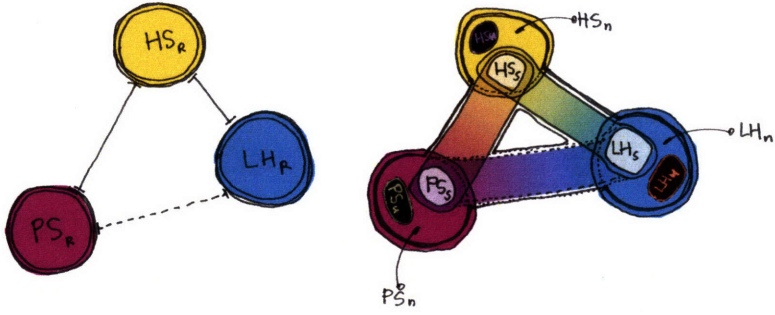
Before the 18th century hospitals were simply guesthouses and over night facilities in existing Christian churches. Primarily after the discovery of the x-ray, Western culture began institutionalizing the practice of healing to achieve a maximum effectiveness of healing and research. As we move through the 21st century, the modernization of hospitals must recognize that they are a service to society, rather than simply a place of research and science. The fusion of Eastern and Western healing practices will produce a better way to host guests within a hospital, prioritizing quality of living, over quantity of patients cured. Hospitals have the potential to become the new public space of the 21st century. The program accommodates for a 24 hours lifestyle, as a miniature city functioning within the context of a global mega city. The site, at an FAR of 6, provides approximately 900,000 square feet of program, which is divided between 4 types of continuities, ranging from macro to micro ideologies:

1. Rejuvenation / Restoration
2. Nutrition / Medication
3. Recreation / Rehabilitation
4. Stimulation / Operation

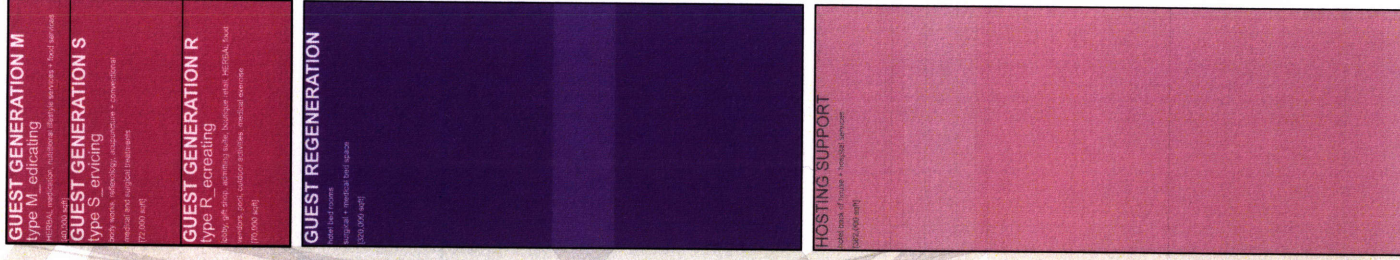
Each continuity provides a certain type of healing and activity level. As a guesthouse, it tries to bridge the gap between the medical establishment and everyday life, creating a new prototype for extending life in the city.

42

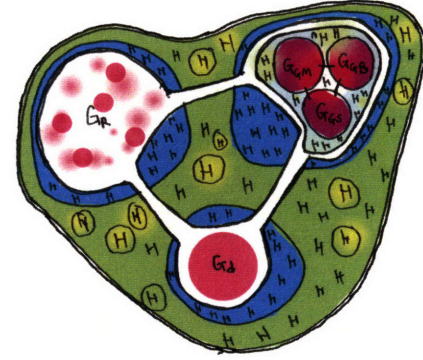
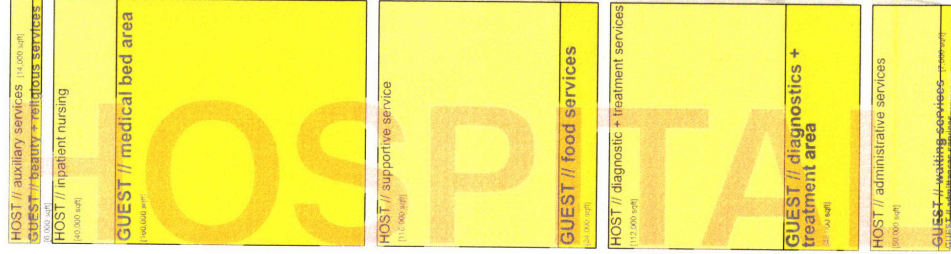




Typical luxury hotel program // 400,000 sqft



Typical general hospital program // 570,000 sqft



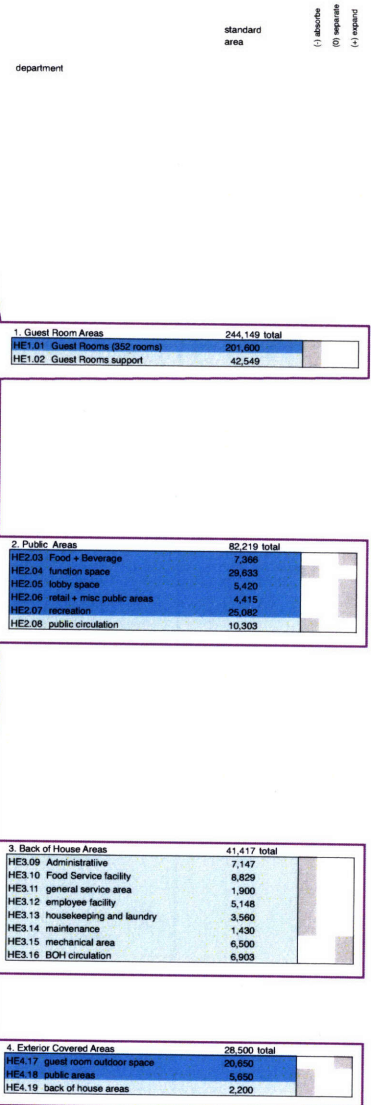
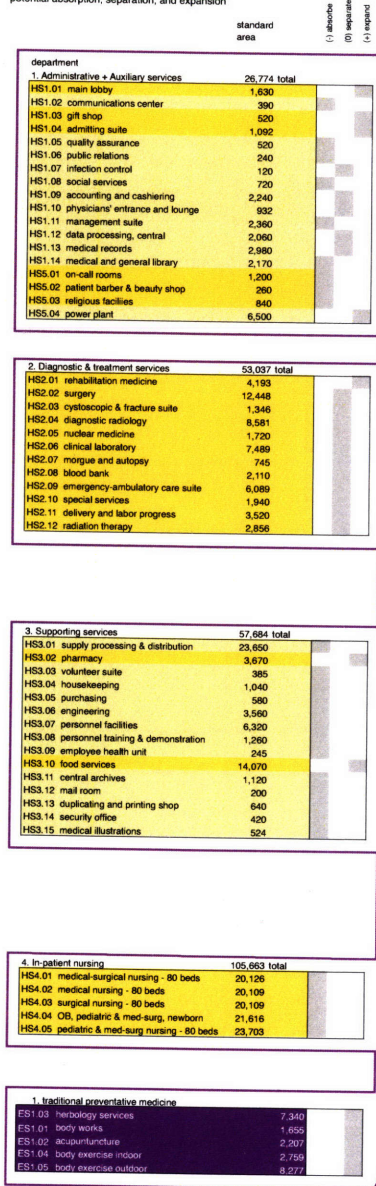
Program ORGANIZATING
separation of hospital(s) and hotel(s)

standard
area

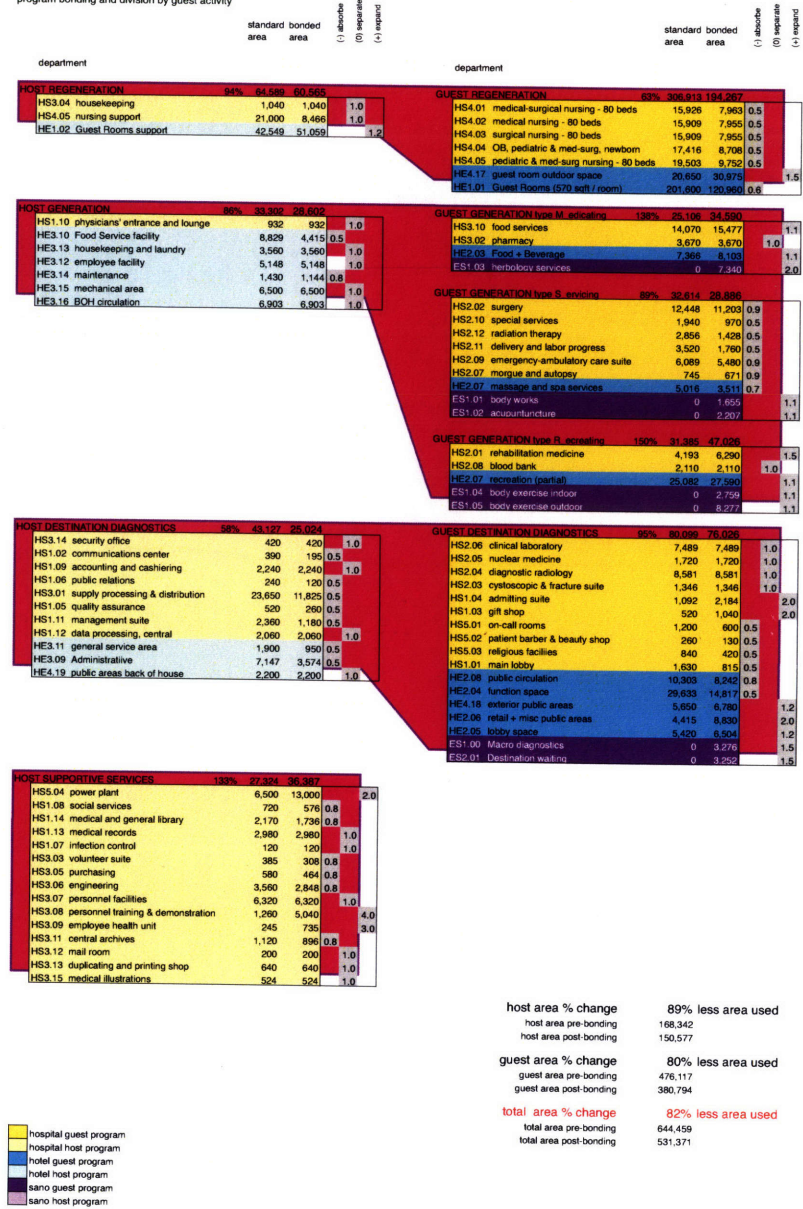
standard
area

typical hospital program		typical luxury hotel program	
1. Administrative + Auxiliary services 26,774 total		1. Guest Room Areas 244,149 total	
HS1.01 main lobby	1,630	HE1.01 Guest Rooms (352 rooms)	201,800
HS1.02 communications center	390	HE1.02 Guest Rooms support	42,549
HS1.03 gift shop	520	2. Public Areas 82,219 total	
HS1.04 admiring suite	1,092	HE2.03 Food + Beverage	7,366
HS1.05 quality assurance	520	HE2.04 function space	29,633
HS1.06 public relations	240	HE2.05 lobby space	5,420
HS1.07 infection control	120	HE2.06 retail + misc public areas	4,415
HS1.08 social services	720	HE2.07 recreation	25,082
HS1.09 accounting and cashiering	2,240	HE2.08 public circulation	10,303
HS1.10 physician's entrance and lounge	932	3. Back of House Areas 41,417 total	
HS1.11 management suite	2,360	HE3.09 Administrative	7,147
HS1.12 data processing, central	2,060	HE3.10 Food Service facility	6,829
HS1.13 medical records	2,980	HE3.11 general service area	1,900
HS1.14 medical and general library	2,170	HE3.12 employee facility	5,148
HS5.01 on-call rooms	1,200	HE3.13 housekeeping and laundry	3,560
HS5.02 patient barber & beauty shop	290	HE3.14 maintenance	1,430
HS5.03 religious facilities	840	HE3.15 mechanical area	6,500
HS5.04 power plant	6,500	HE3.16 BOH circulation	6,903
2. Diagnostic & treatment services 53,037 total		4. Exterior Covered Areas 28,500 total	
HS2.01 rehabilitation medicine	4,193	HE4.17 guest room outdoor space	20,650
HS2.02 surgery	12,448	HE4.18 public areas	5,650
HS2.03 cystoscopic & fracture suite	1,346	HE4.19 back of house areas	2,200
HS2.04 diagnostic radiology	8,581	1. Preventative Medicine Areas	
HS2.05 nuclear medicine	1,720	ES1.03 herbiology services	7,340
HS2.06 clinical laboratory	7,489	ES1.01 body works	1,655
HS2.07 morgue and autopsy	745	ES1.02 acupuncture	2,207
HS2.08 blood bank	2,110	ES1.04 body exercise indoor	2,799
HS2.09 emergency-ambulatory care suite	6,089	ES1.05 body exercise outdoor	8,271
HS2.10 special services	1,940		
HS2.11 delivery and labor progress	3,520		
HS2.12 radiation therapy	2,856		
3. Supporting services 57,684 total			
HS3.01 supply processing & distribution	23,650		
HS3.02 pharmacy	3,670		
HS3.03 volunteer suite	385		
HS3.04 housekeeping	1,040		
HS3.05 purchasing	580		
HS3.06 engineering	3,560		
HS3.07 personnel facilities	6,320		
HS3.08 personnel training & demonstration	1,260		
HS3.09 employee health unit	245		
HS3.10 food services	14,070		
HS3.11 central archives	1,180		
HS3.12 mail room	200		
HS3.13 duplicating and printing shop	640		
HS3.14 security office	420		
HS3.15 medical illustrations	524		
4. In-patient nursing 105,663 total			
HS4.01 medical-surgical nursing - 80 beds	20,126		
HS4.02 medical nursing - 80 beds	20,109		
HS4.03 surgical nursing - 80 beds	20,109		
HS4.04 OB, pediatric & med-surg, newborn	21,616		
HS4.05 pediatric & med-surg nursing - 80 beds	23,703		

program DISTRIBUTING
potential absorption, separation, and expansion



program BONDING
program bonding and division by guest activity



host area % change **89% less area used**
 host area pre-bonding 168,342
 host area post-bonding 150,577

guest area % change **80% less area used**
 guest area pre-bonding 476,117
 guest area post-bonding 380,794

total area % change **82% less area used**
 total area pre-bonding 644,459
 total area post-bonding 531,371

hospital guest program
 hospital host program
 hotel guest program
 hotel host program
 sano guest program
 sano host program

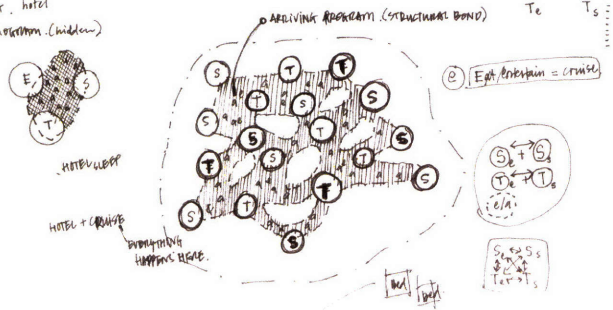
SHUJIN = WAITING (DISAPPOINT + INTERCONNECTIVE FUNCTION) - THE GENE THAT HONDS ABL PROGRAM TRADITION IS THE ARCHIVE, WAITING AREAS.

ANTHROPOMORPHIC (CRUISE) HOTEL - low mobility: AIRPLANE, CRUISE, HOTEL.

HOTEL types + airline types: different privacy.

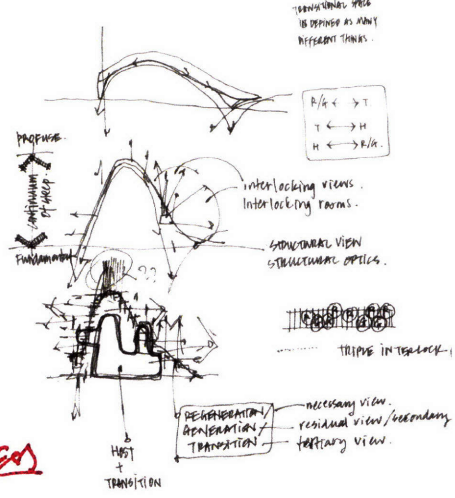
is chinese medicine fundamental or profuse? S_e S_s T_e T_s ...

r. hotel system (middle)



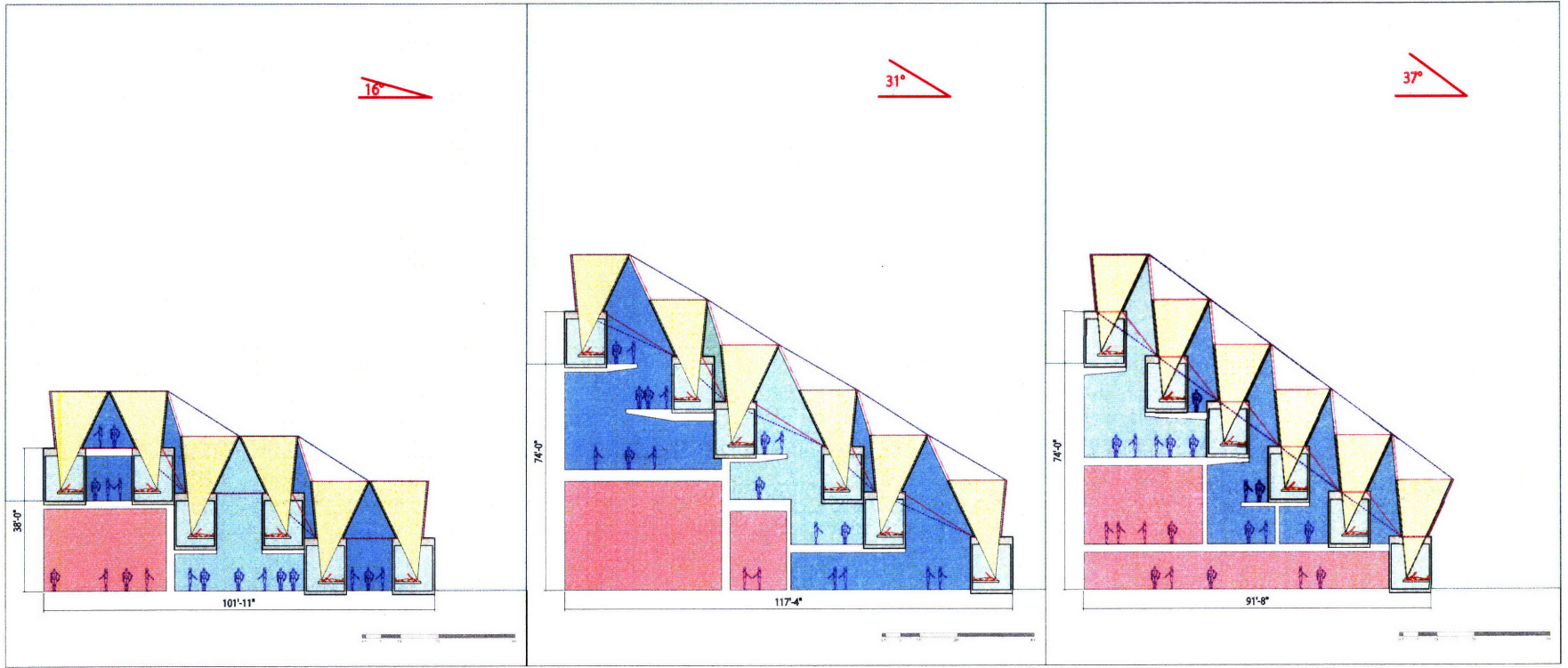
HOTEL - speed service
 AIRPLANE - sit & service
 CRUISE SHIP - low mobility service - eat play
 request (sum was cruise)

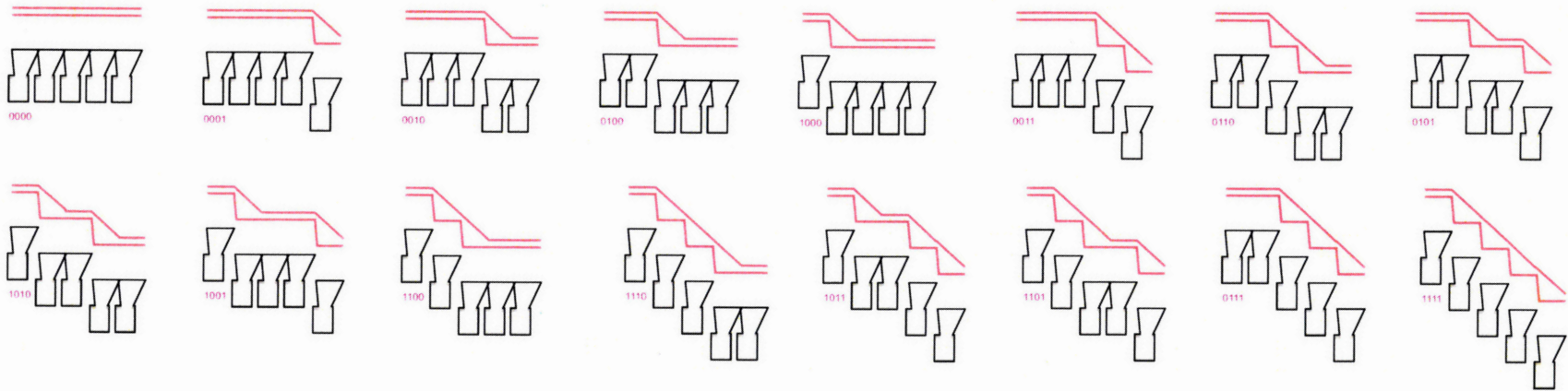
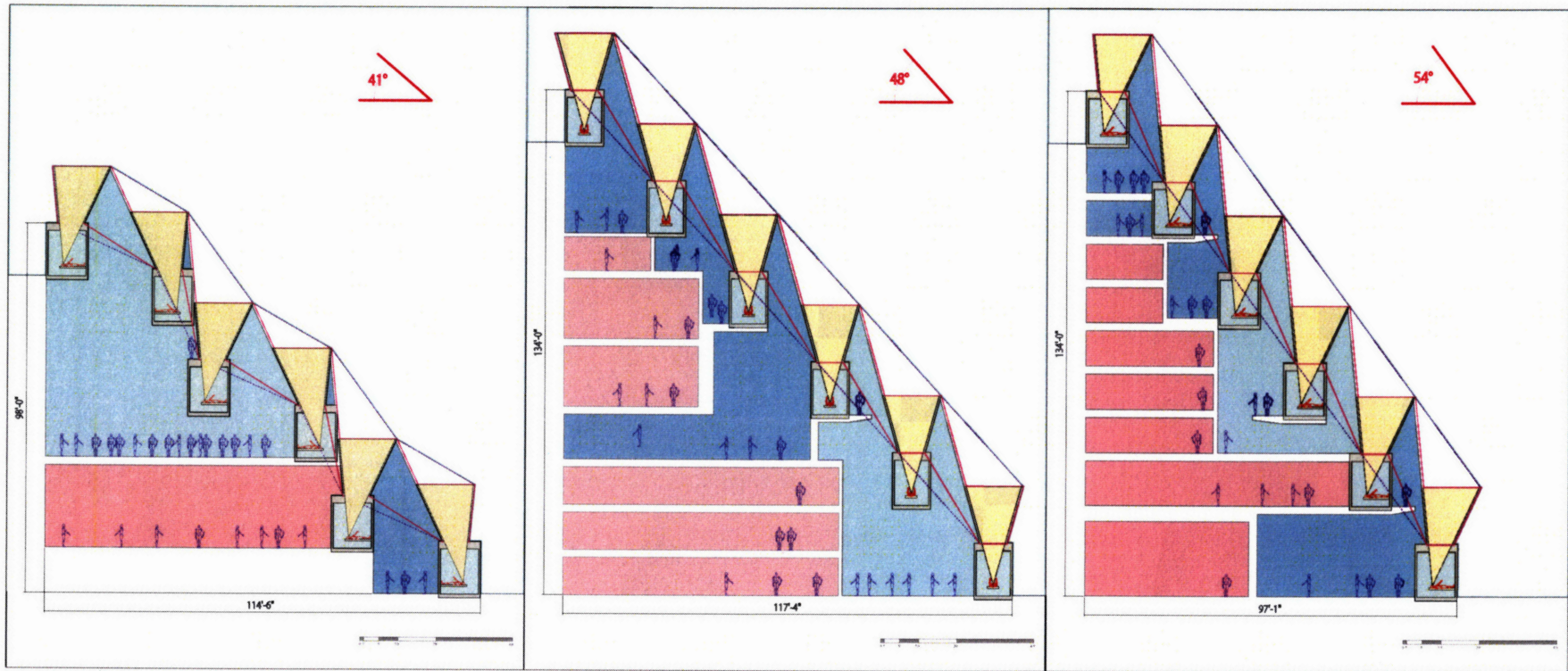
LIGHT AND P/A. T H. GREAT DIFFERENCES IN MOMENTS TO BE OPEN.

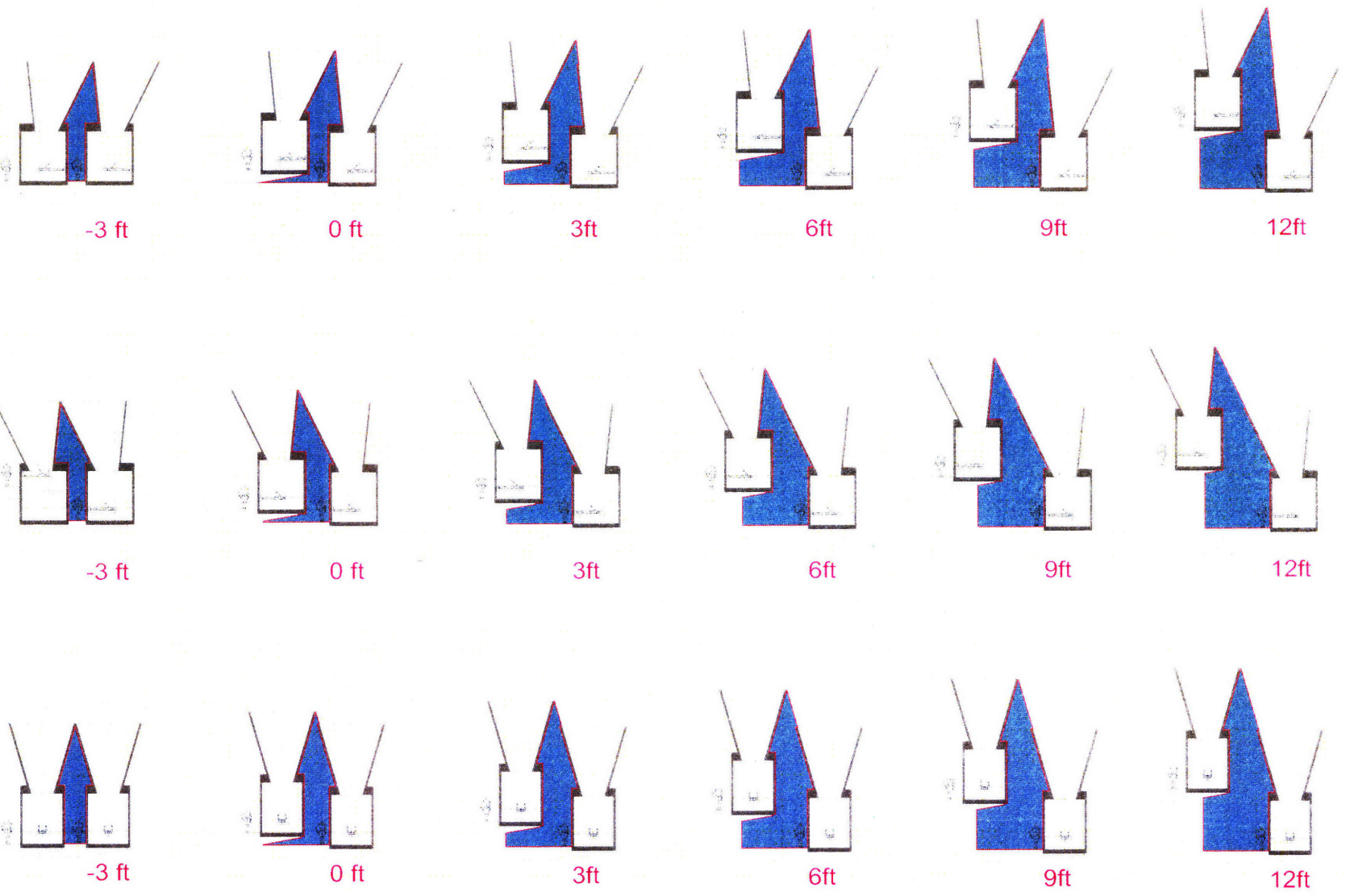


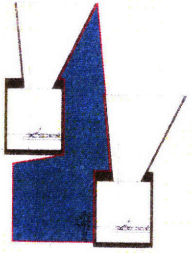
EVERYONE LIVES IN VARYING DEGREES OF WELLNESS

[C] EXPERIMENTS // DESIGN TRIALS

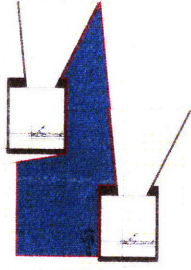




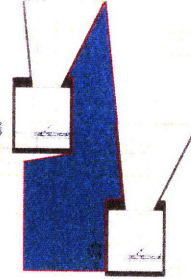




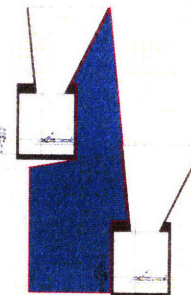
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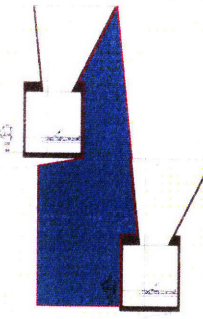
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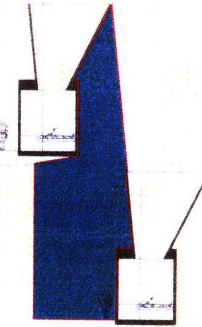
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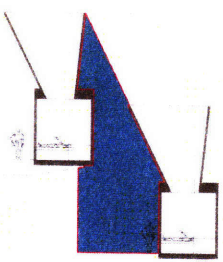
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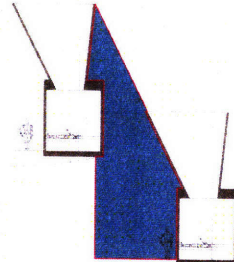
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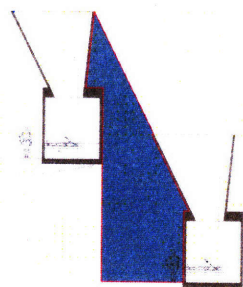
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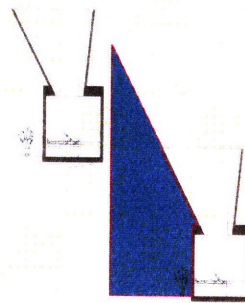
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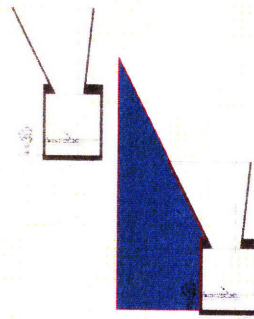
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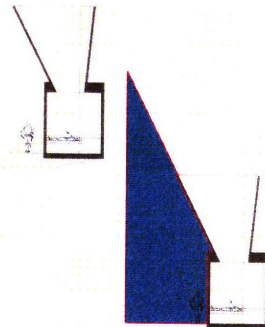
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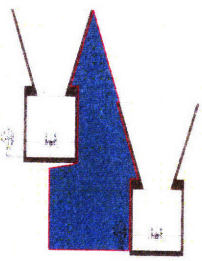
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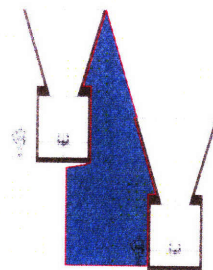
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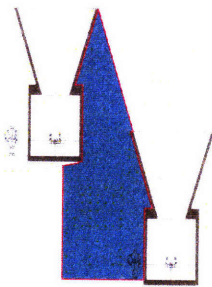
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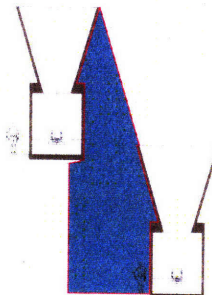
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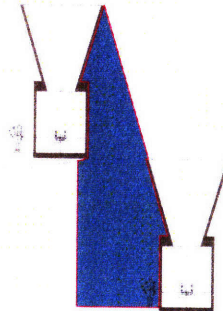
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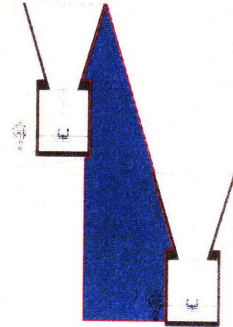
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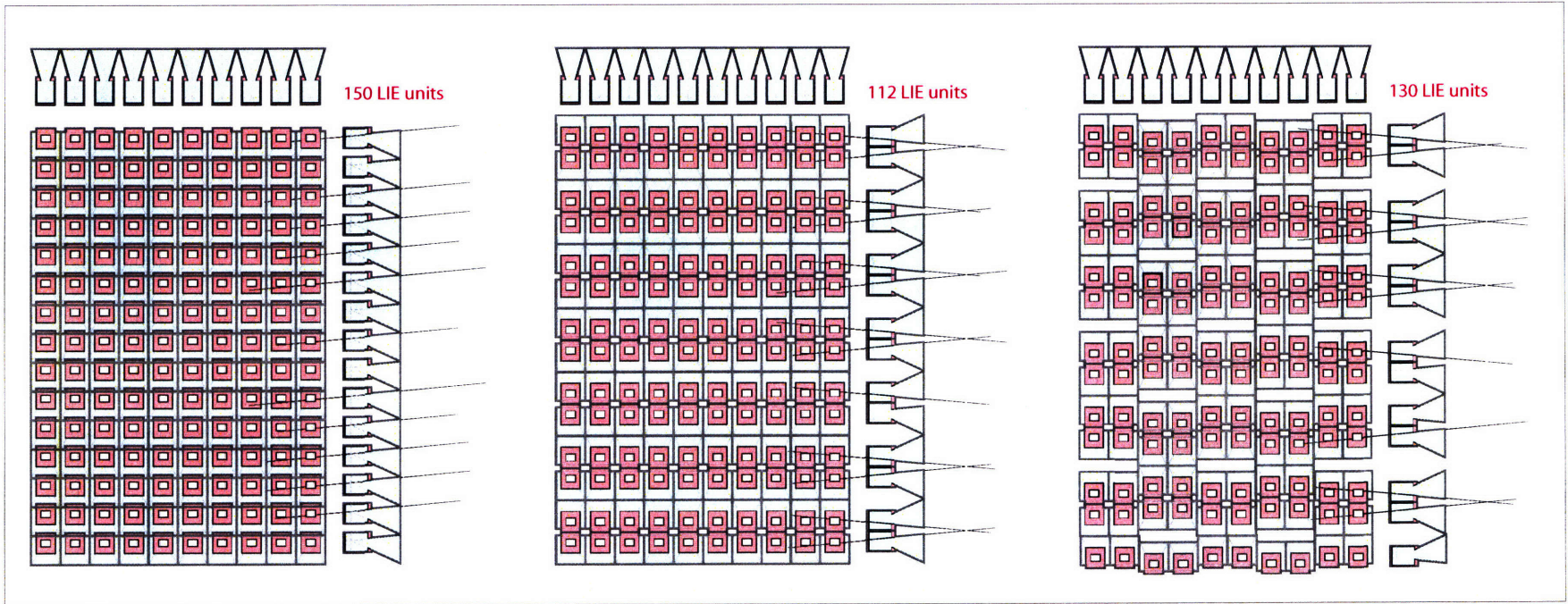
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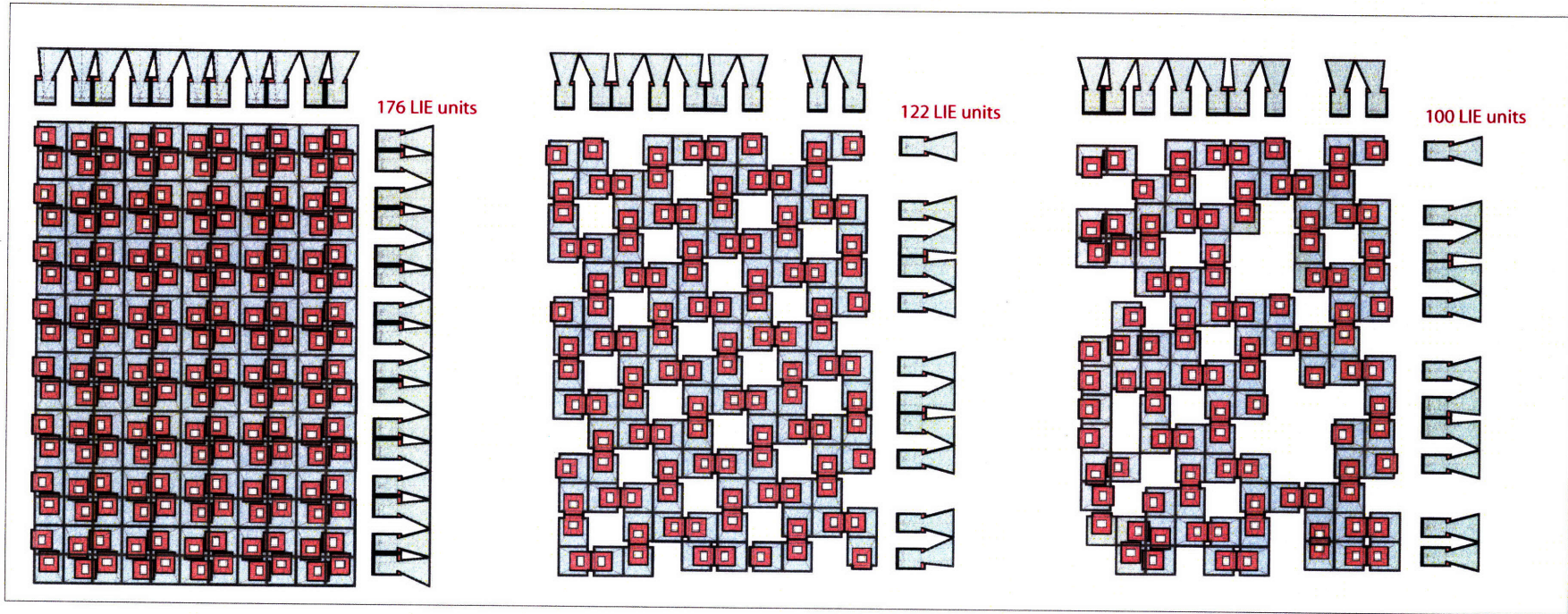


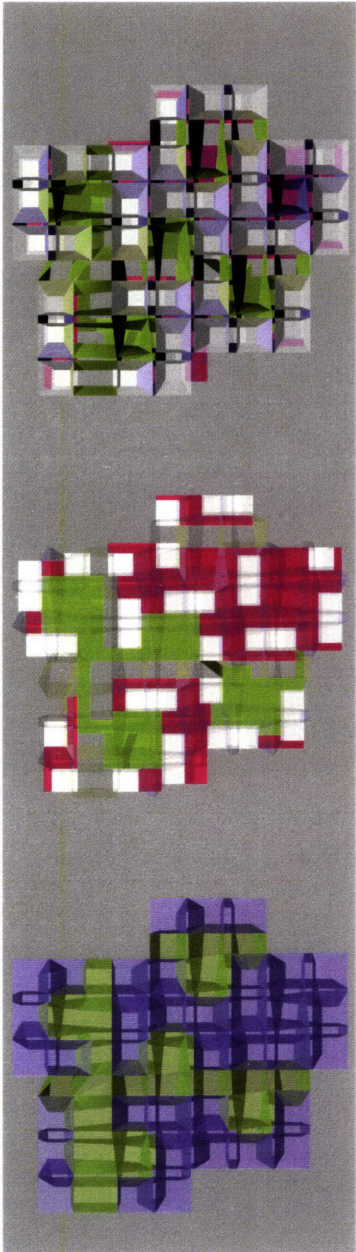
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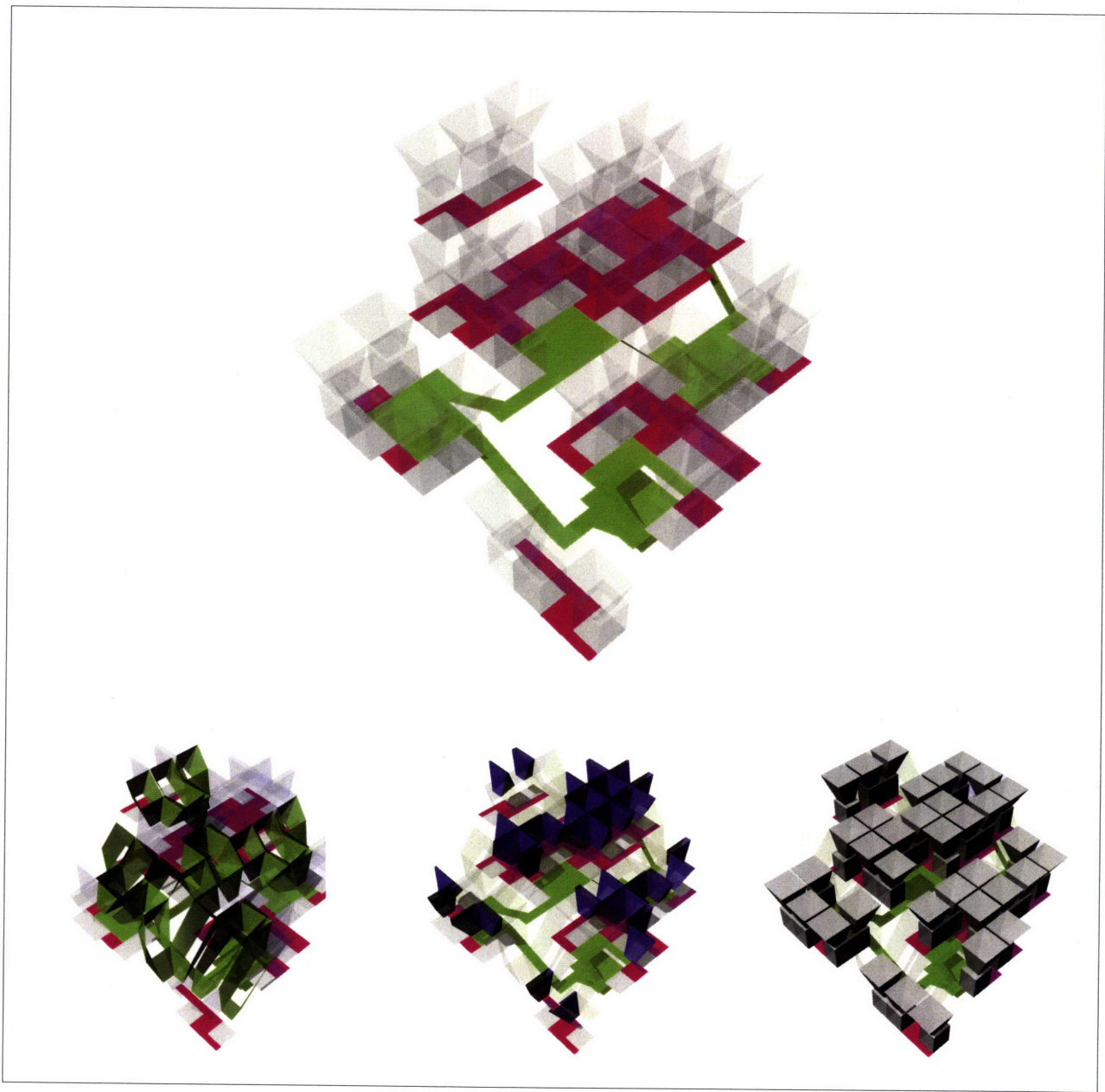


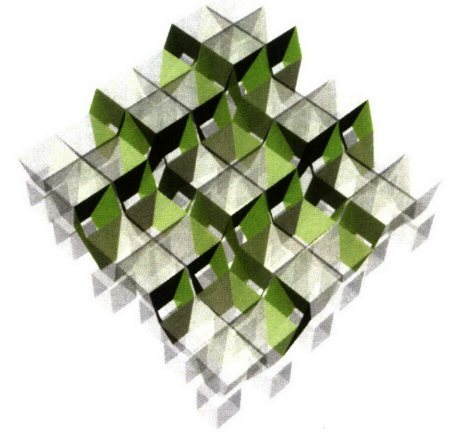
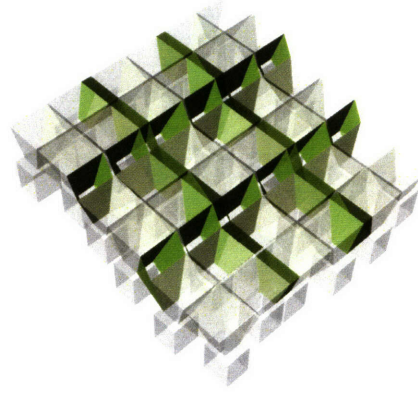
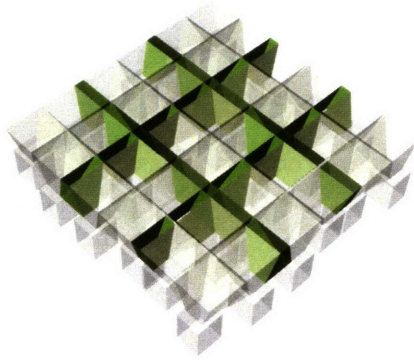
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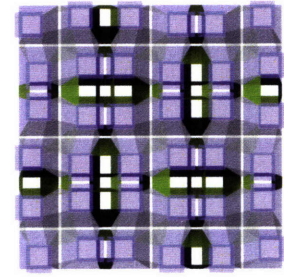
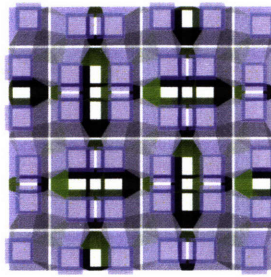
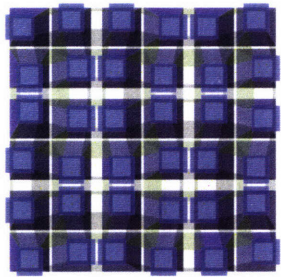


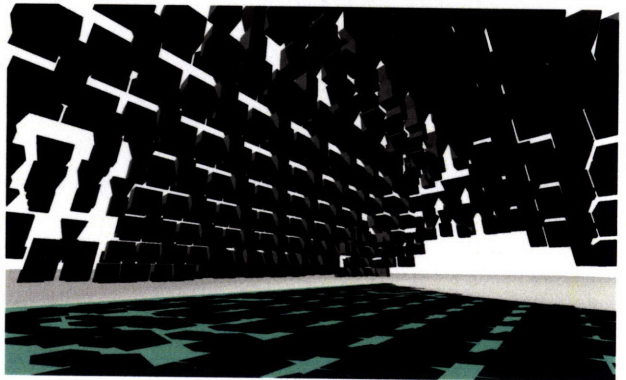
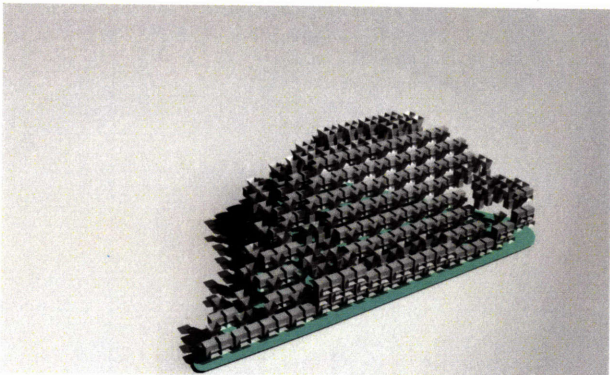
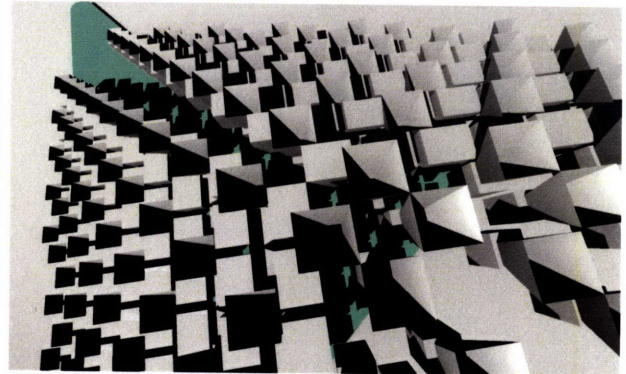
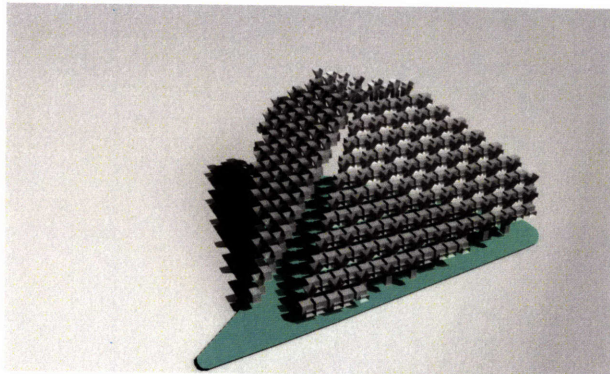
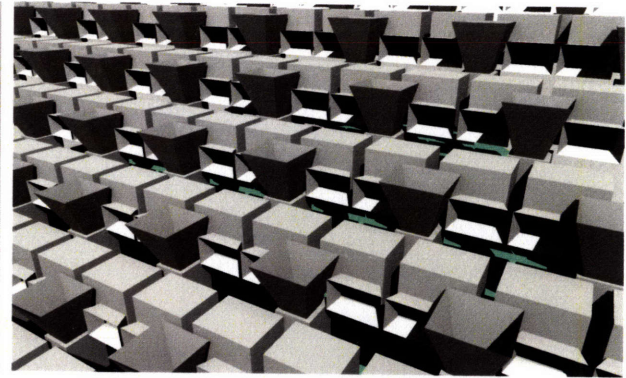
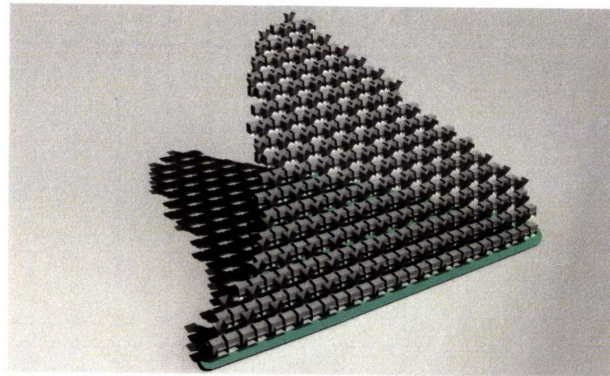


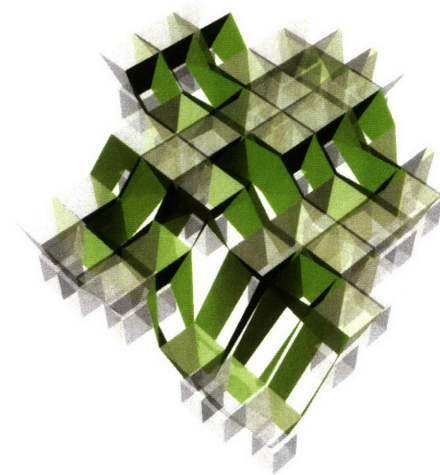
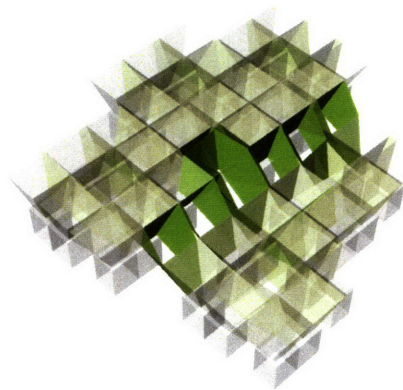
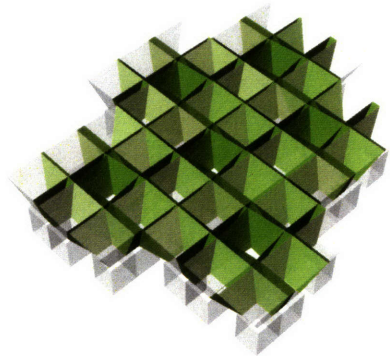




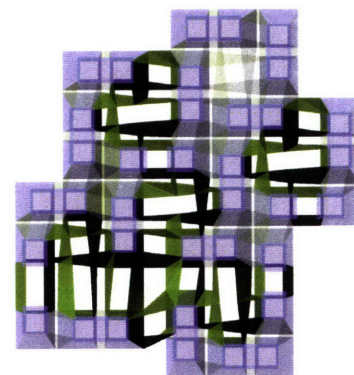
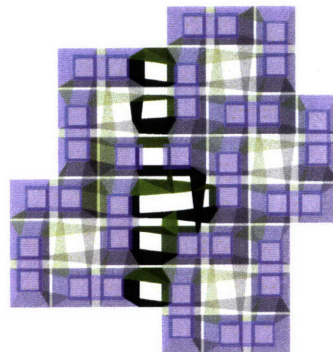
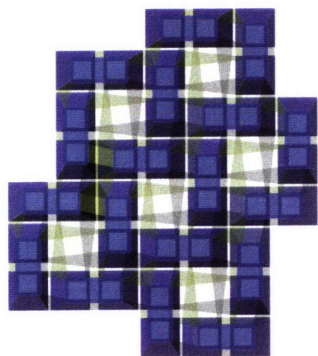
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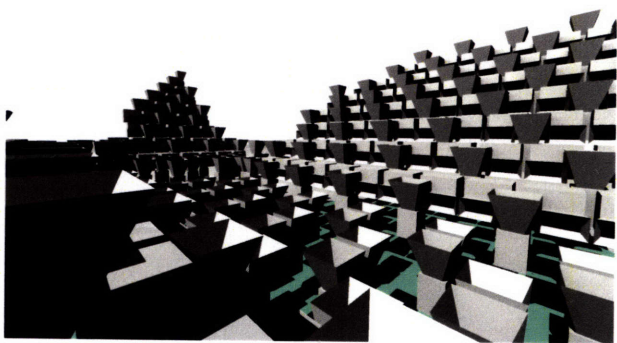
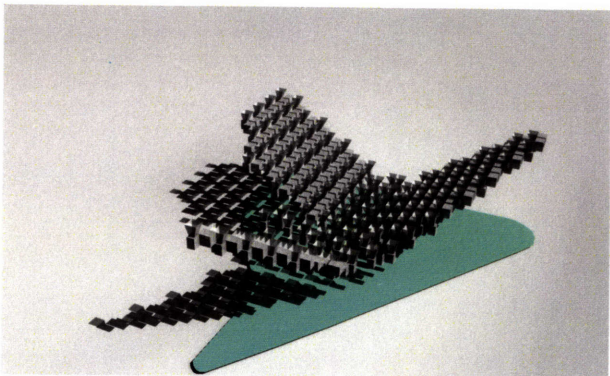
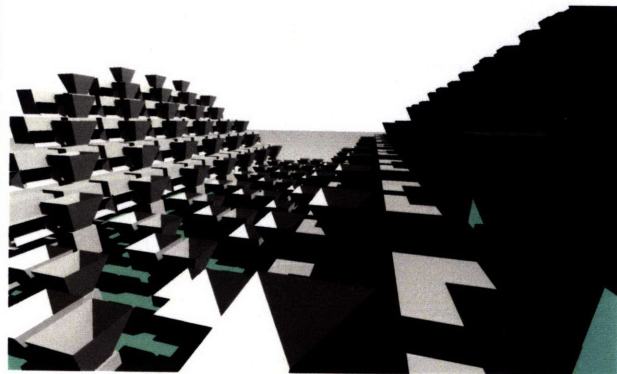
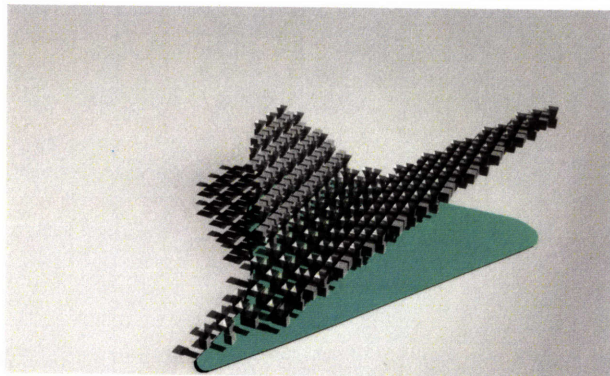
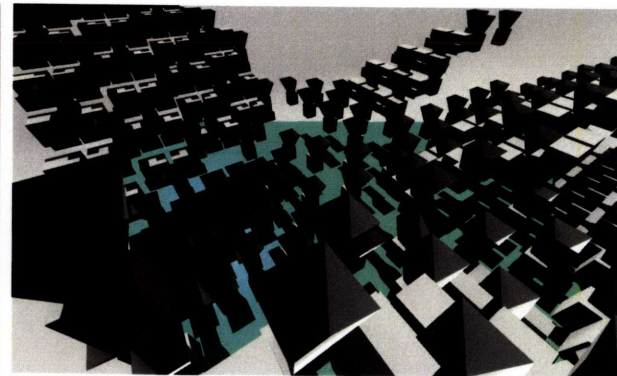
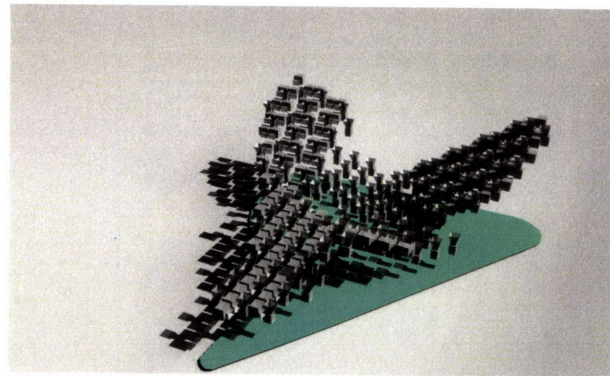


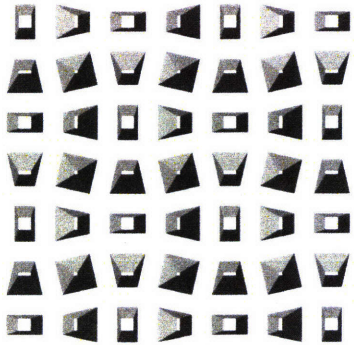




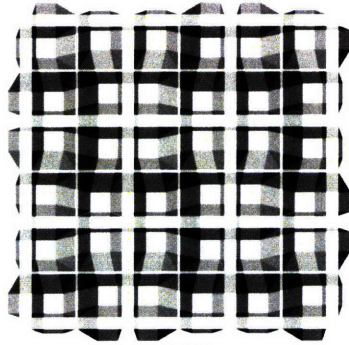
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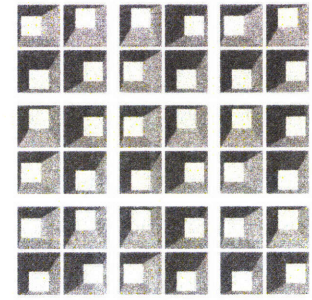




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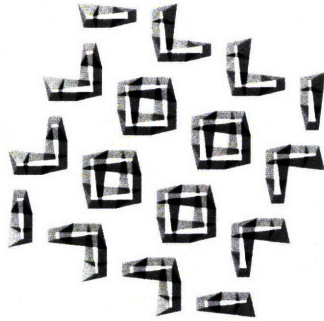
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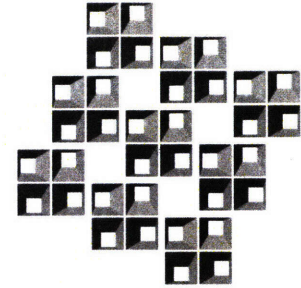
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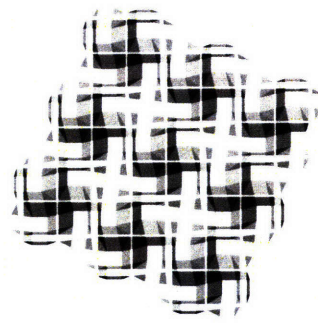
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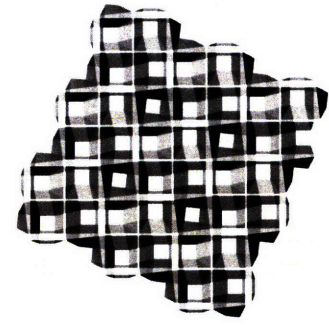
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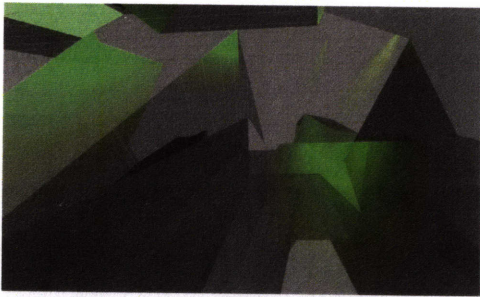
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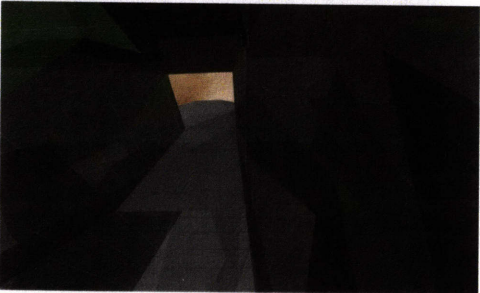
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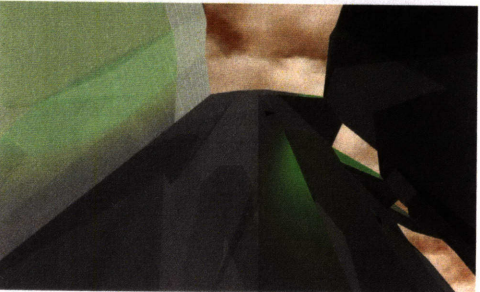
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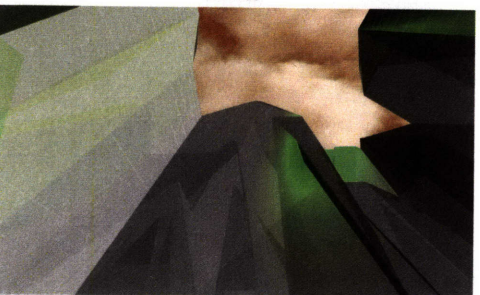
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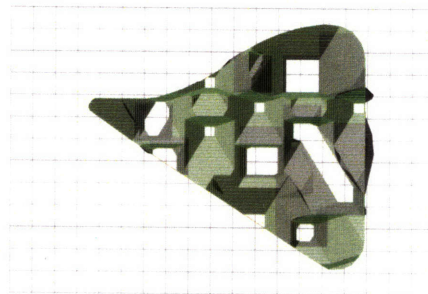
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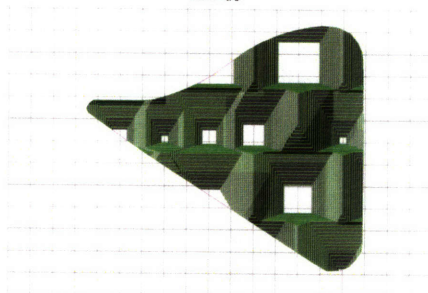
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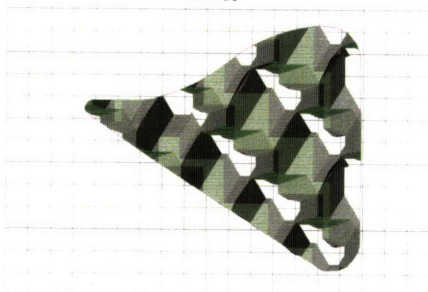
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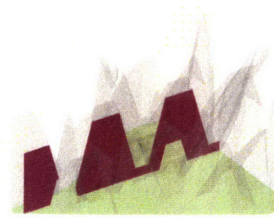
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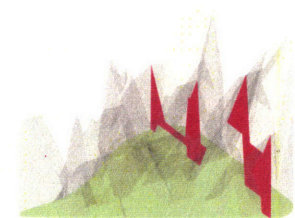
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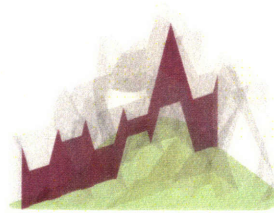
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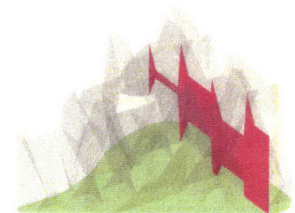
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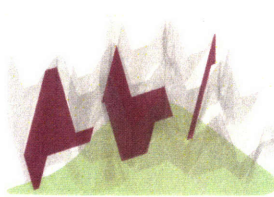
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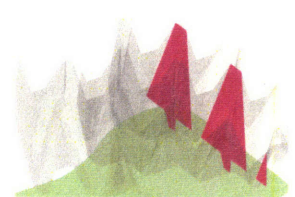
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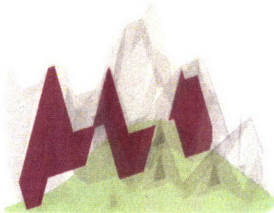
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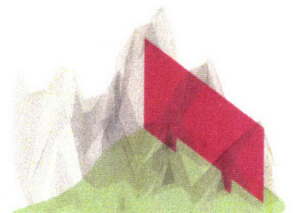
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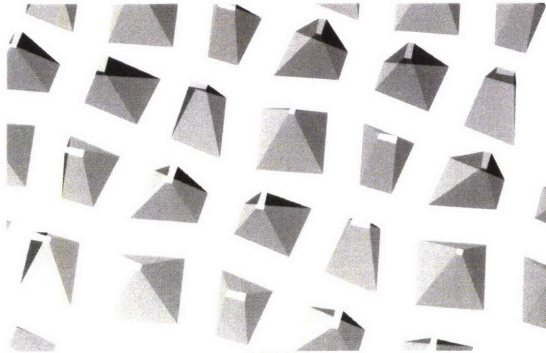
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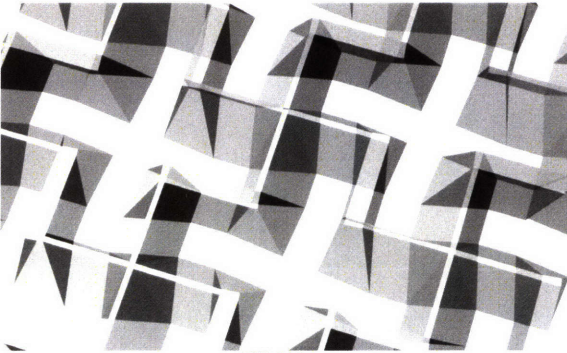
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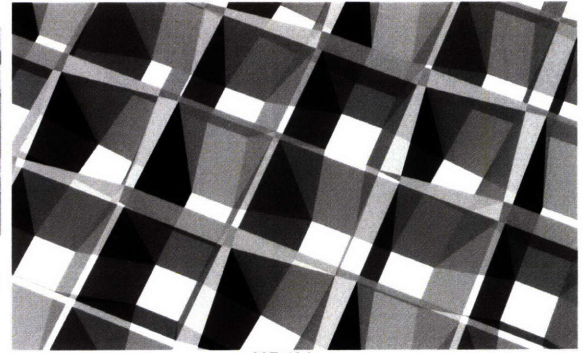
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007-13.bmp



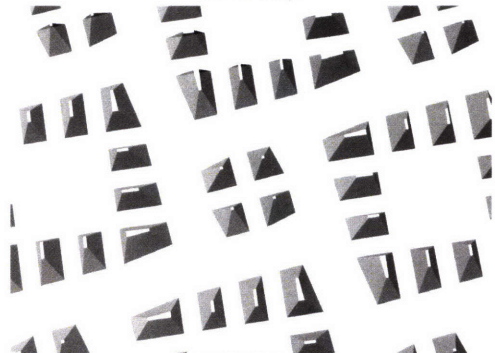
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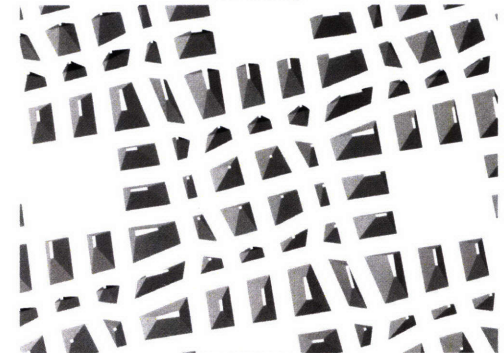
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011-P1-03.bmp



011-P1-06.bmp



011-P1-12.bmp



011-P2-04.bmp



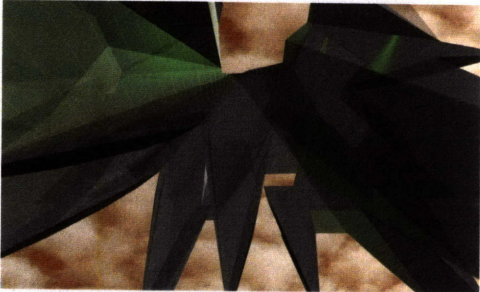
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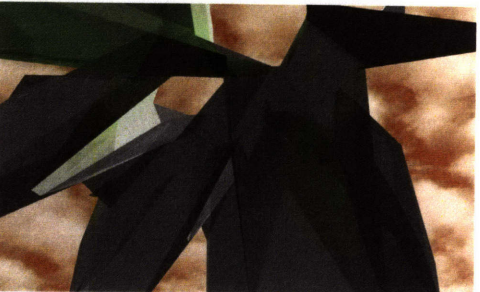
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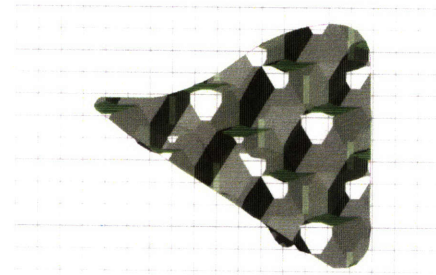
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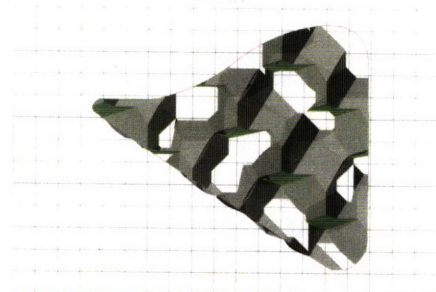
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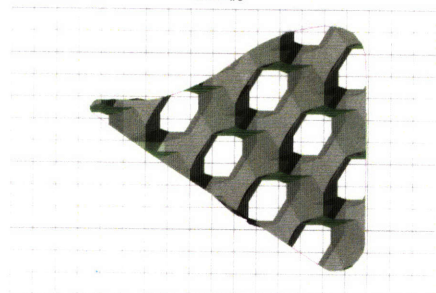
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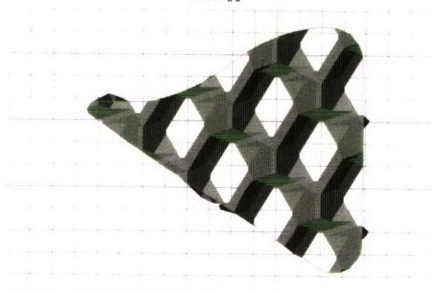
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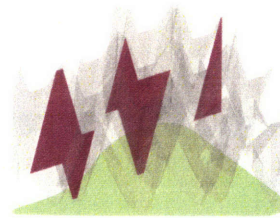
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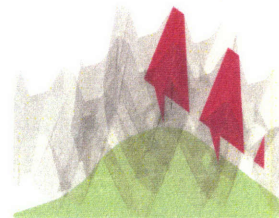
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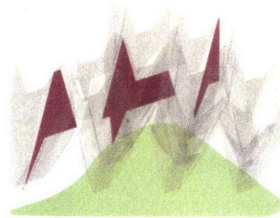
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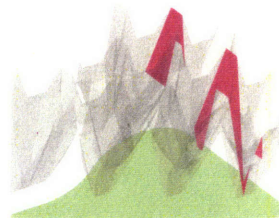
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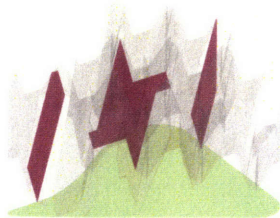
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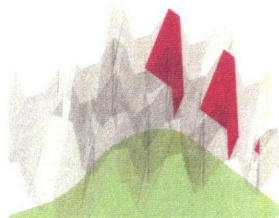
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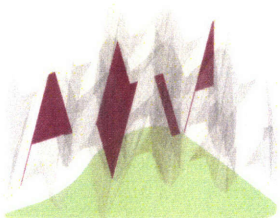
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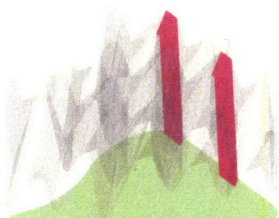
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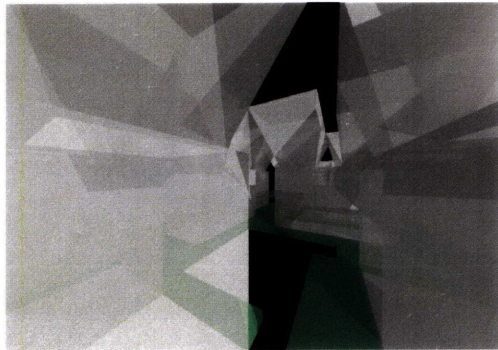
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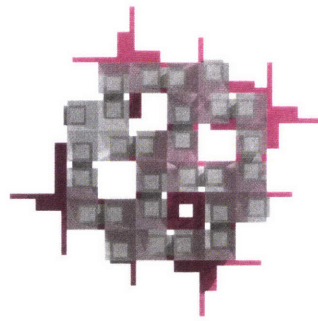
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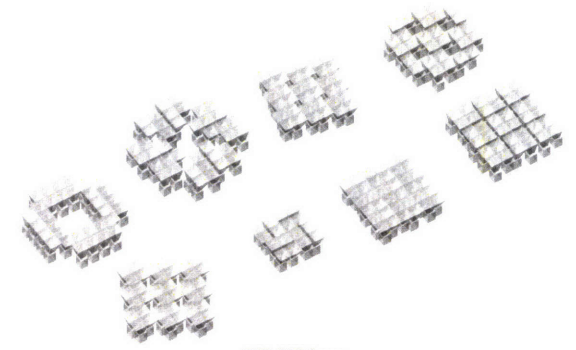
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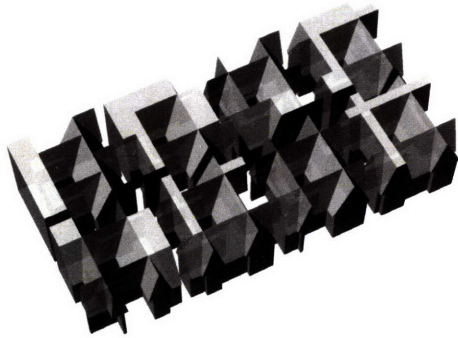
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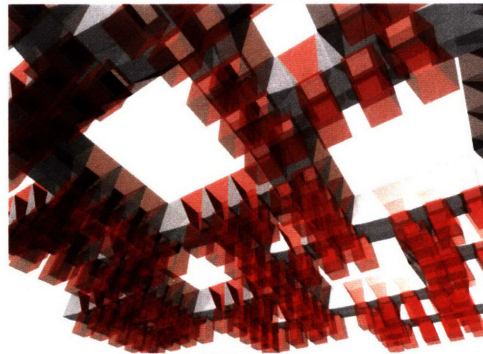
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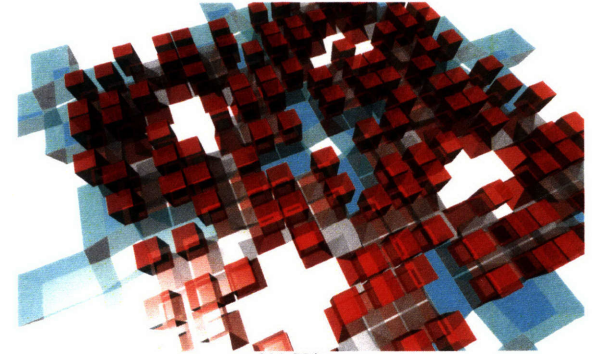
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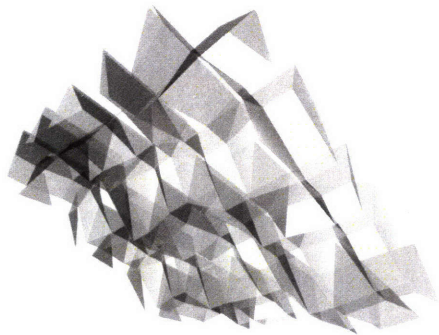
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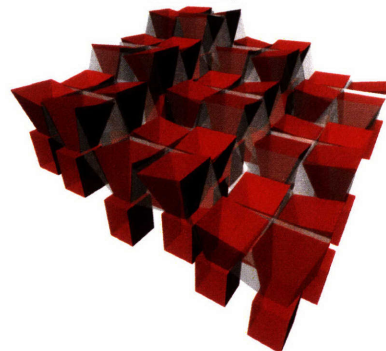
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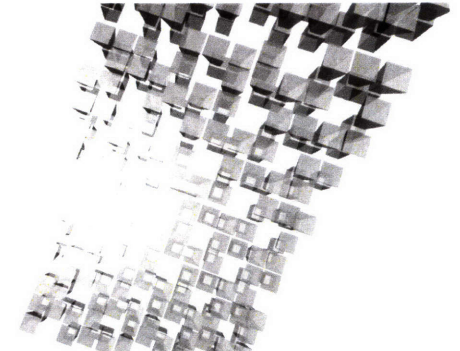
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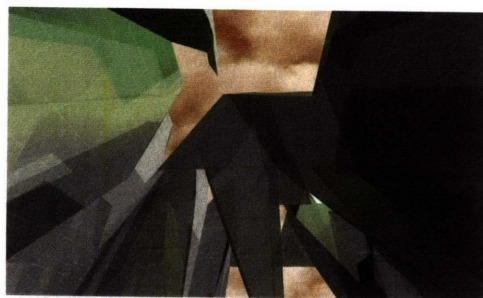
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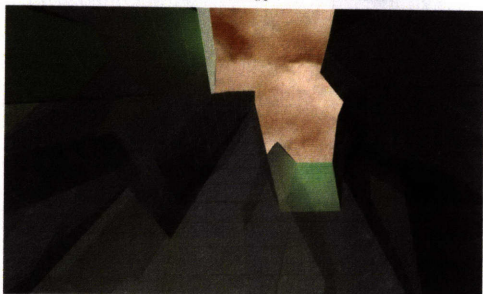
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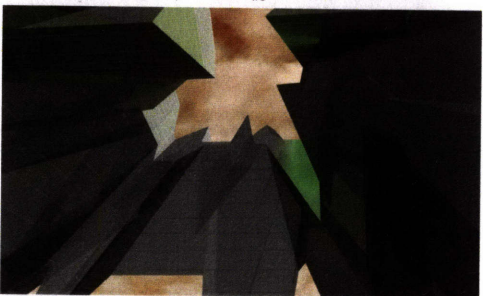
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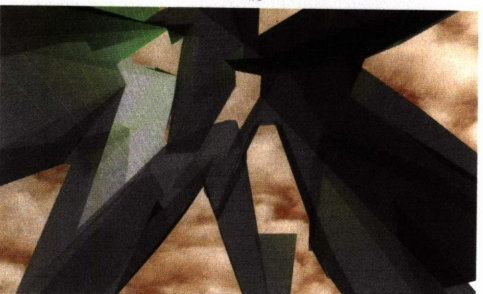
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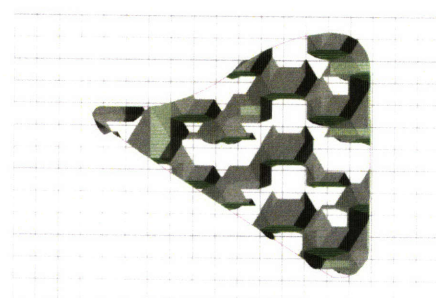
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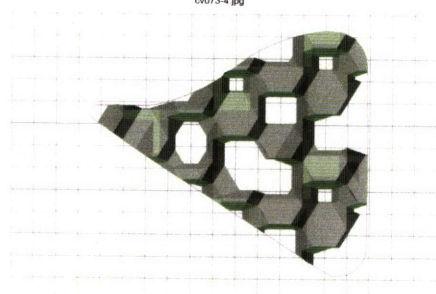
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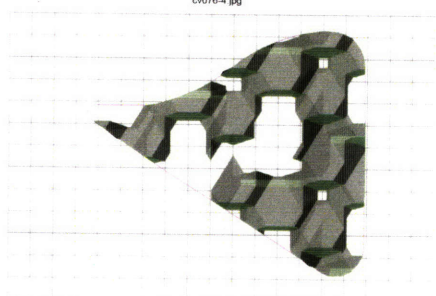
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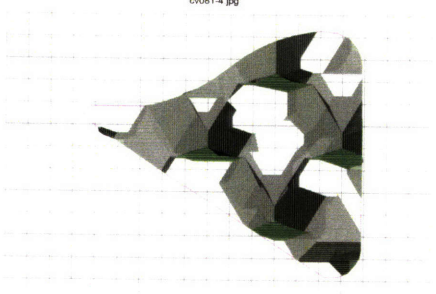
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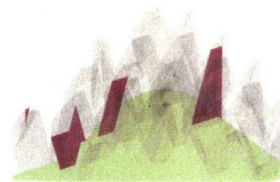
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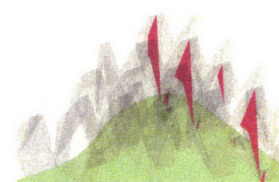
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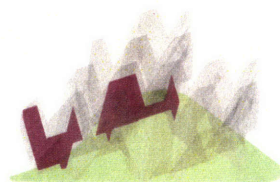
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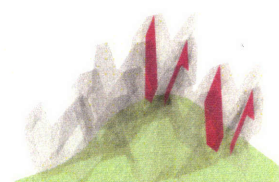
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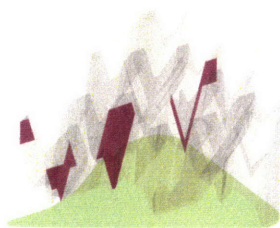
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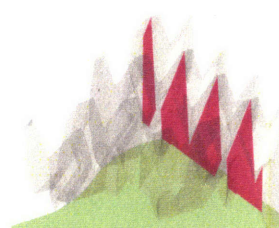
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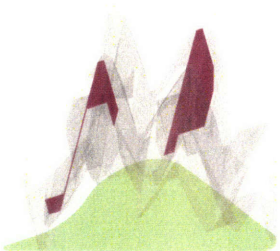
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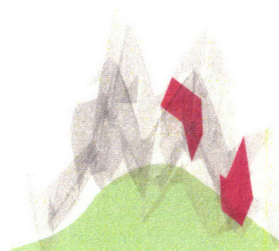
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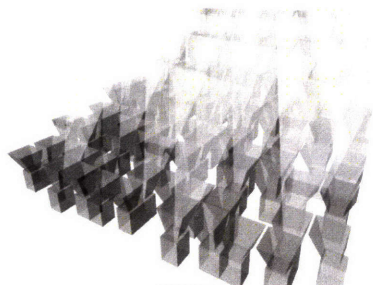
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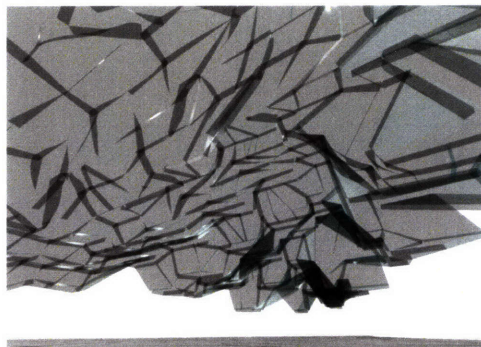
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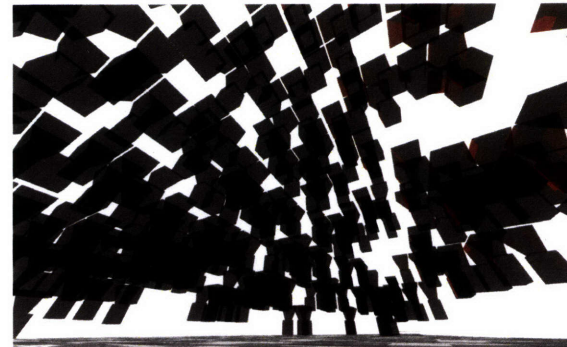
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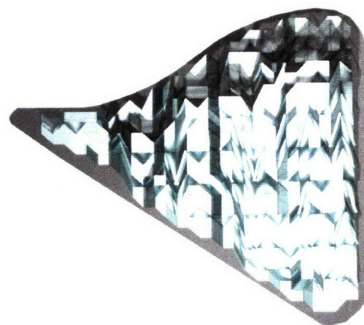
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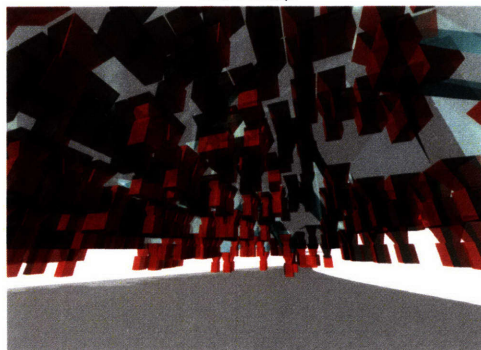
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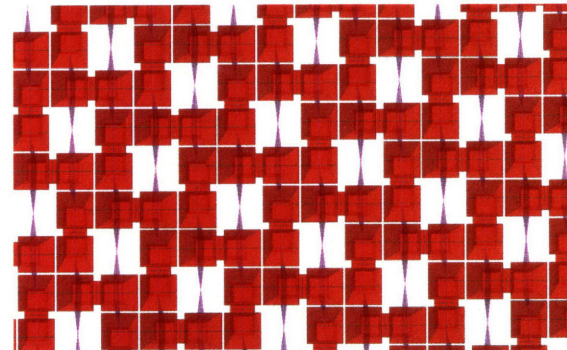
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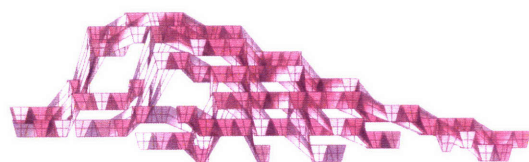
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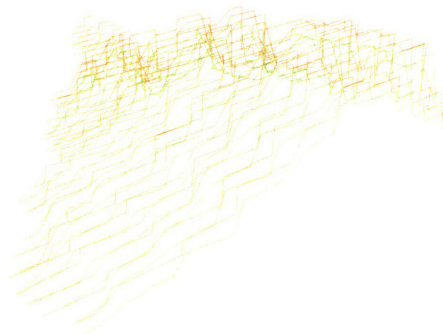
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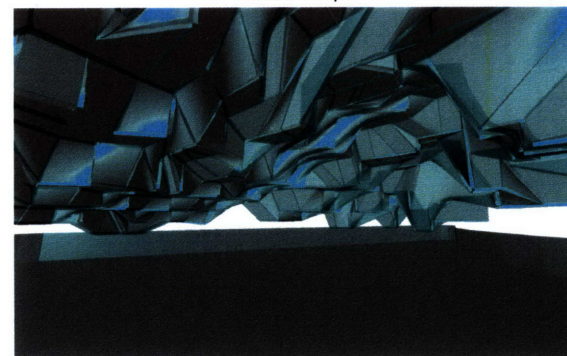
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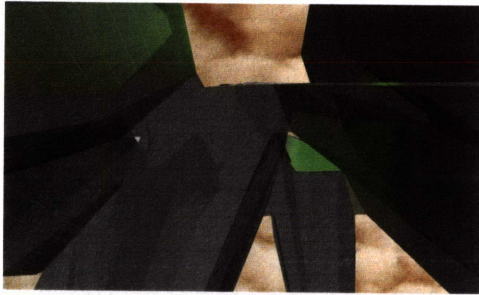
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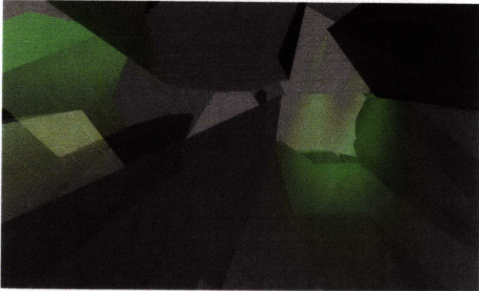
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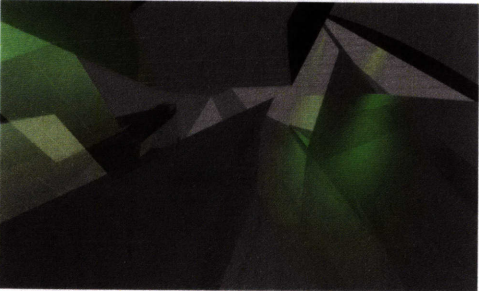
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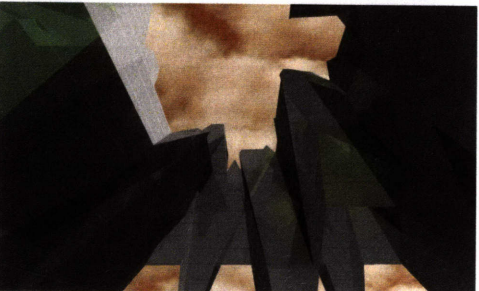
cv104-3.jpg



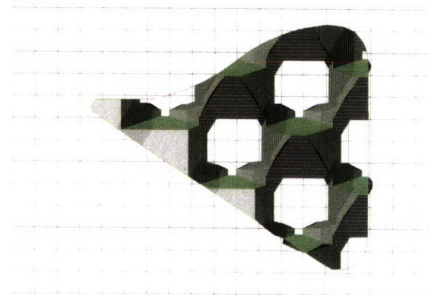
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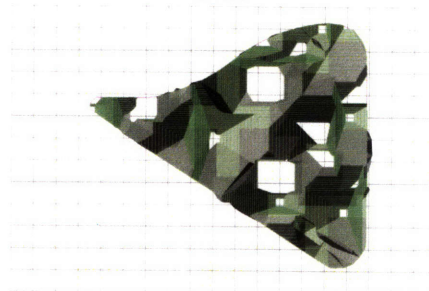
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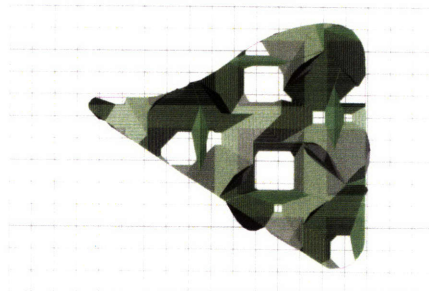
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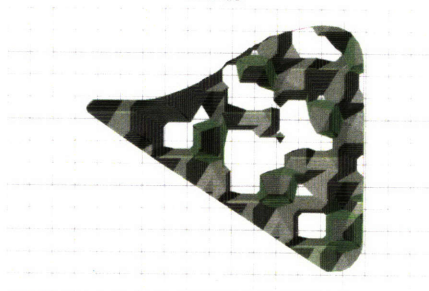
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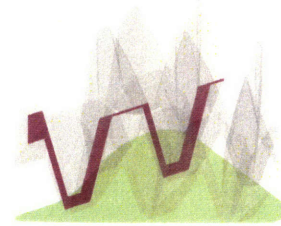
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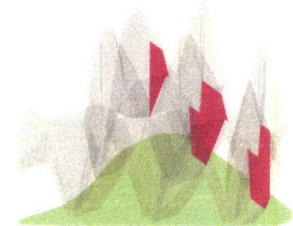
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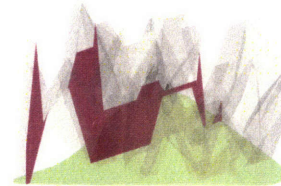
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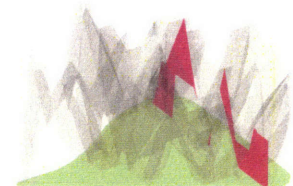
104L.bmp



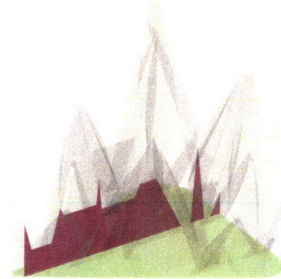
104S.bmp



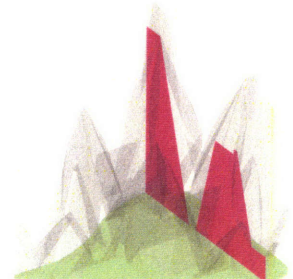
108L.bmp



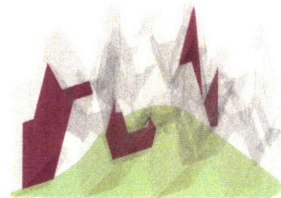
108S.bmp



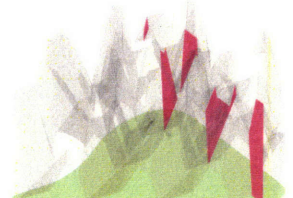
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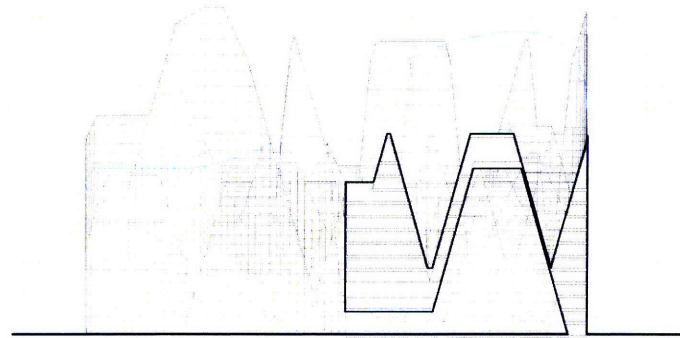
118S.bmp



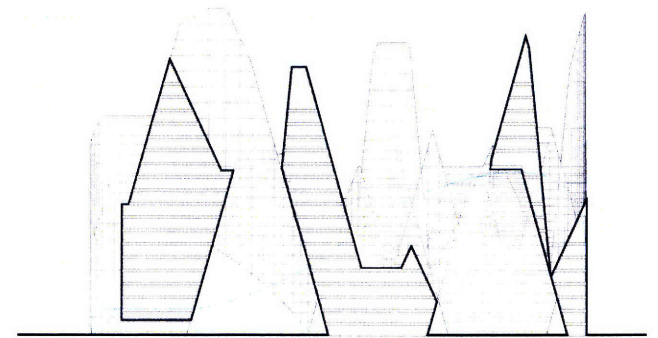
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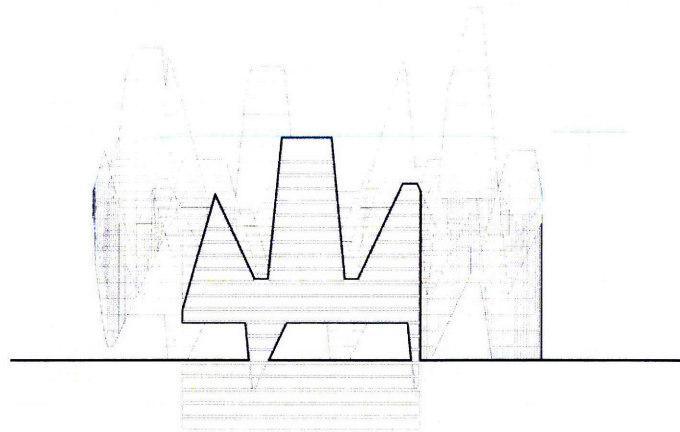
121S.bmp



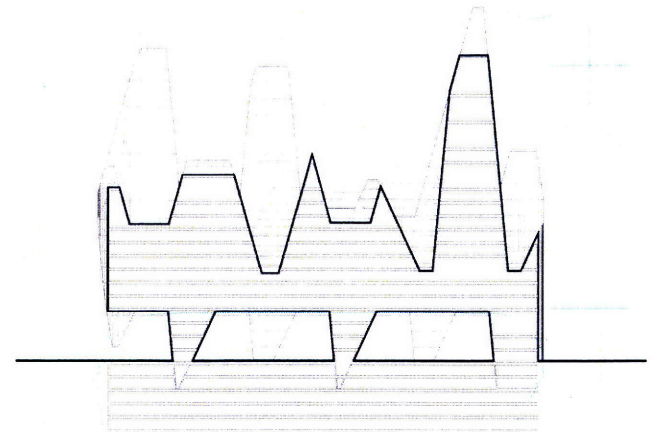
REGENERATING + GENERATING
[longitudinal section]
* shared viewing courtyard



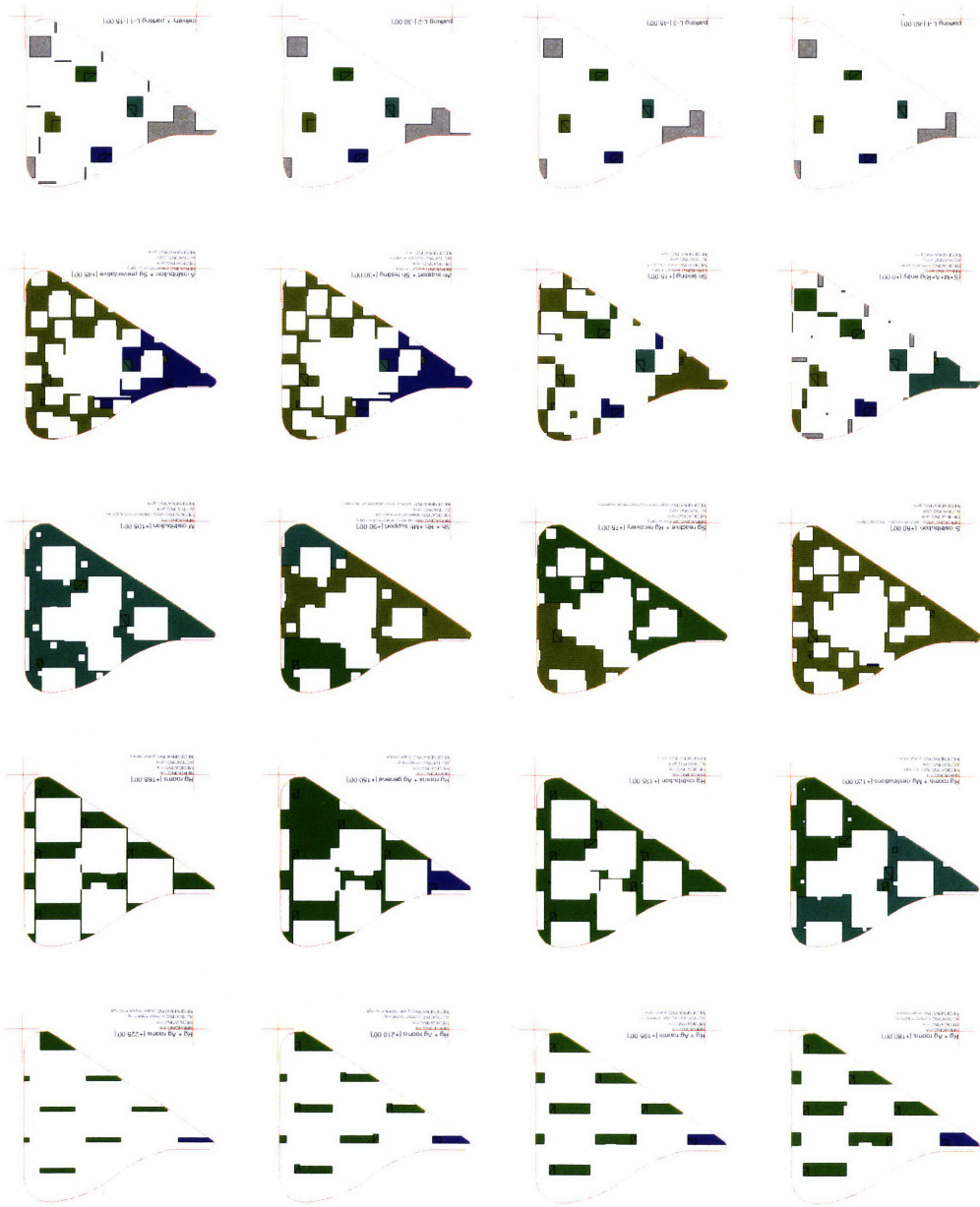
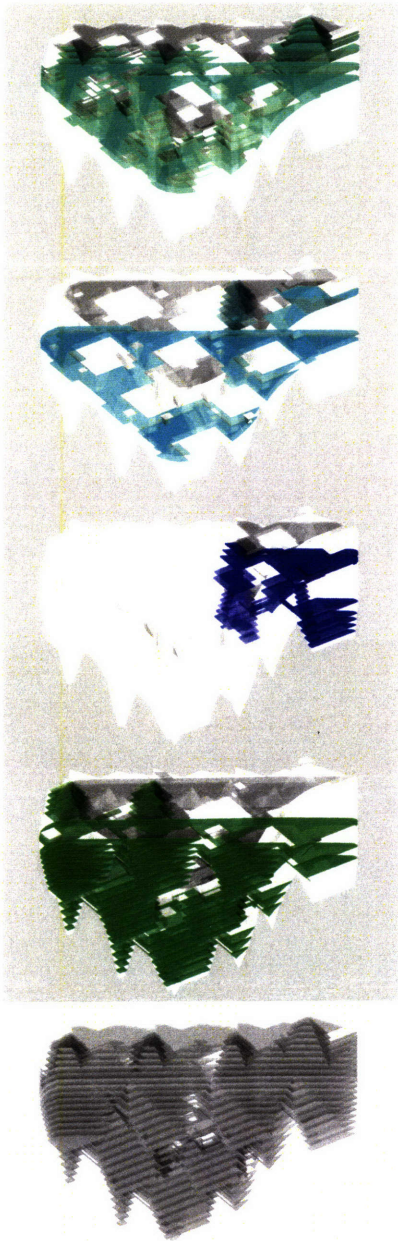
ELEVATED RECEPTION
[longitudinal section]
* central entry and observation
* guest medication and activating

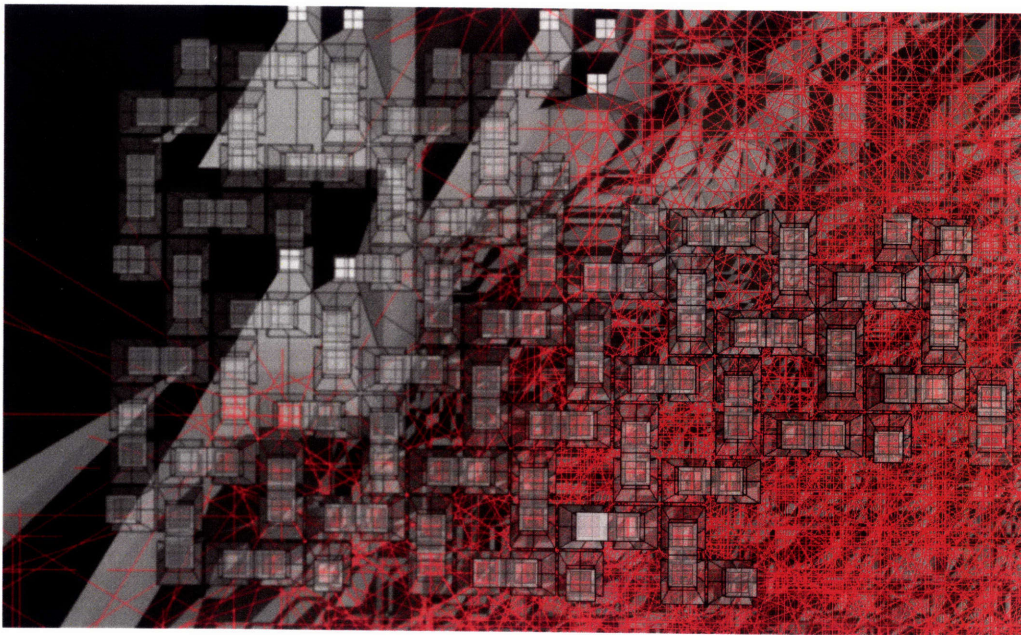


ELEVATED RECEPTION
[transverse section]
* horizontal distribution

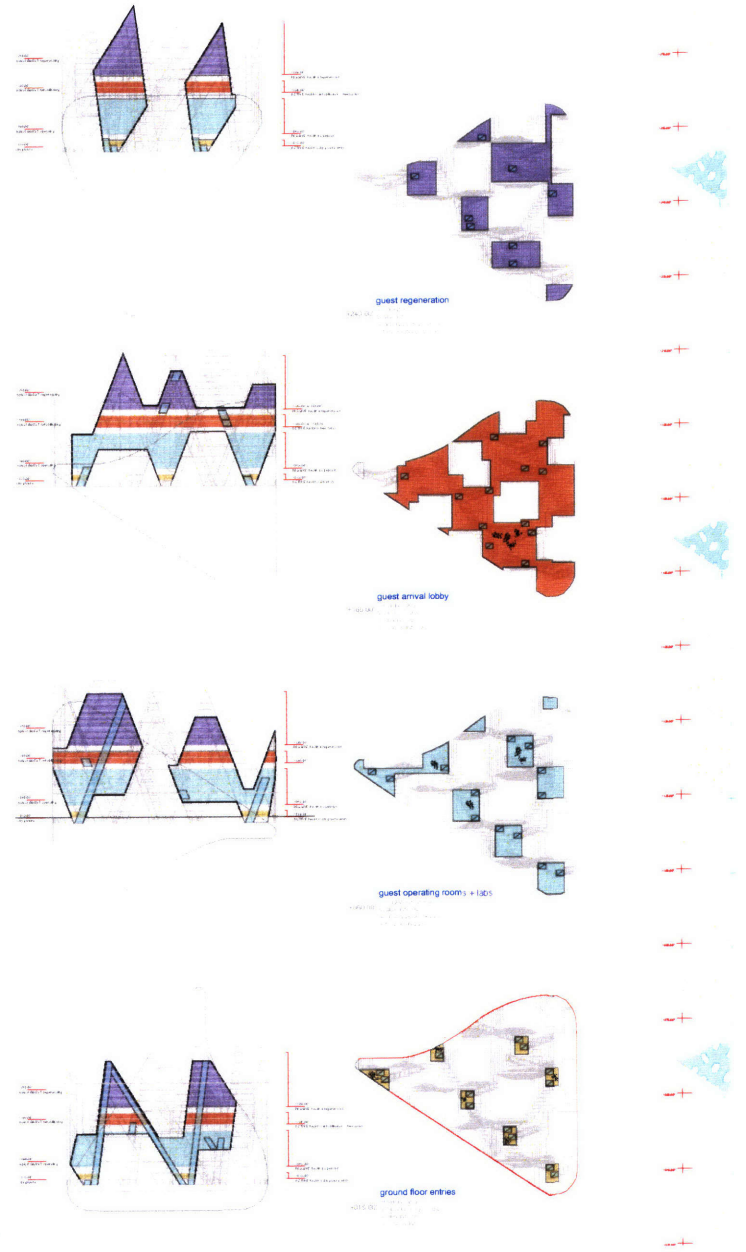
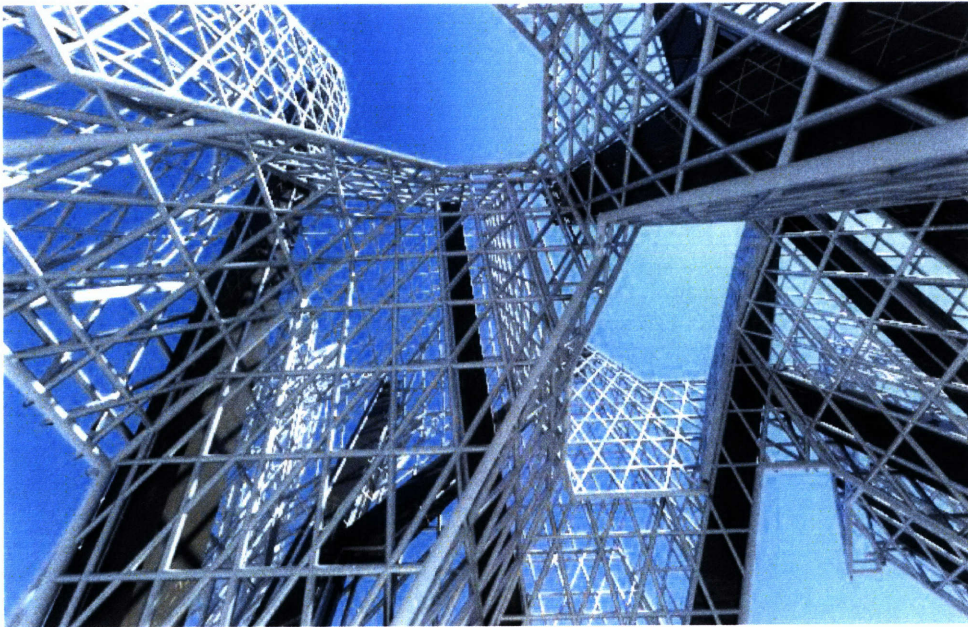


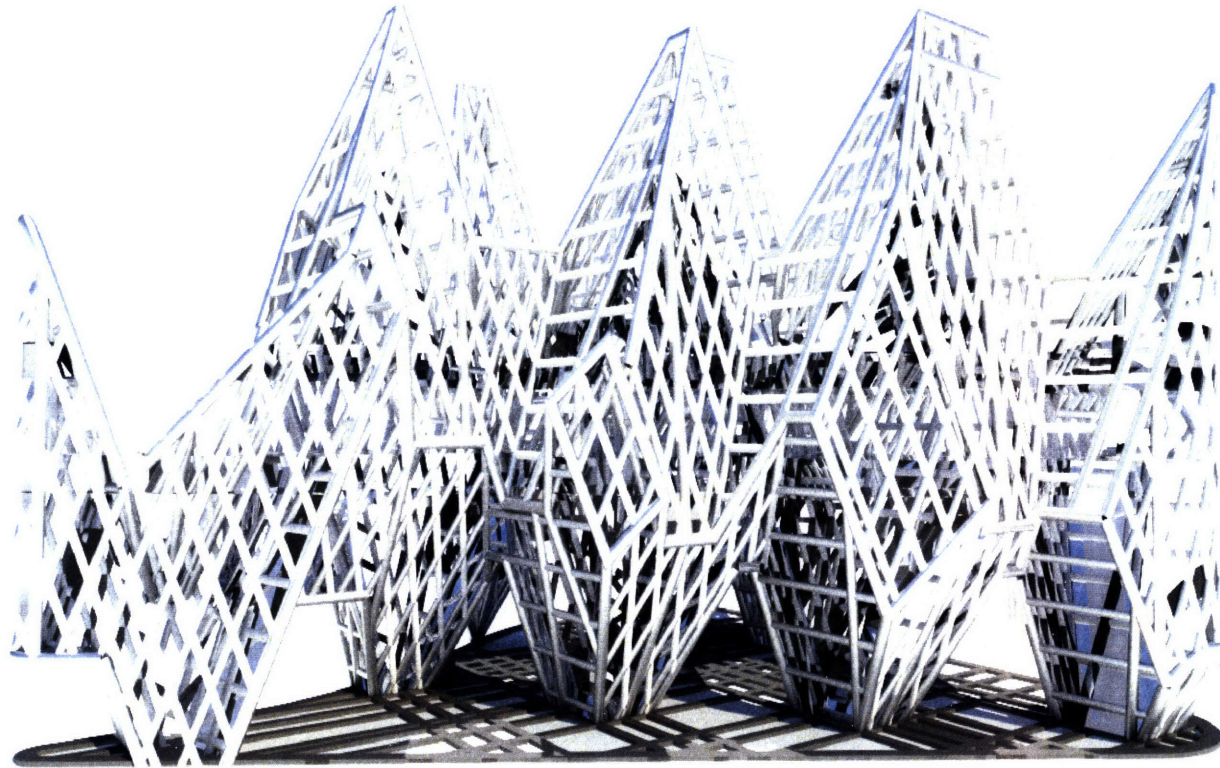
GUEST SERVICING
[transverse section]
* emergency servicing
* distribution diagrams

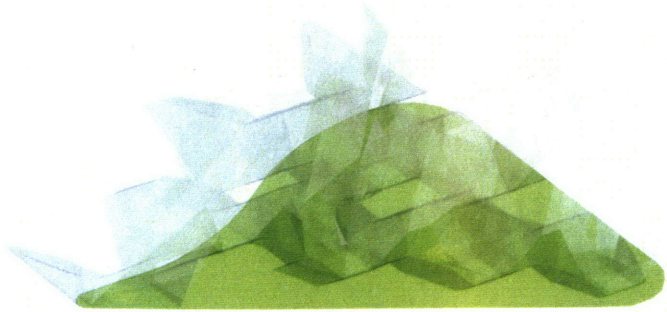




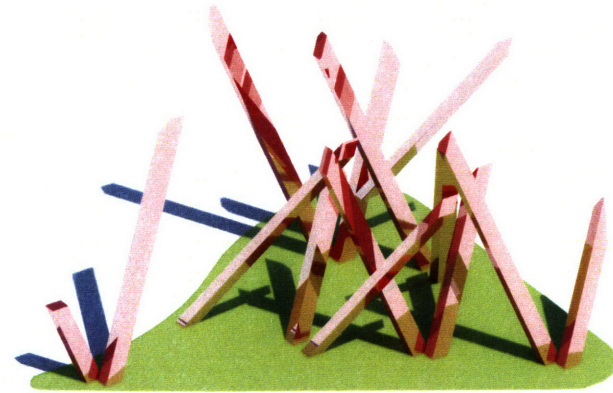
[D] PROPOSAL // CONCLUDING RESULTS



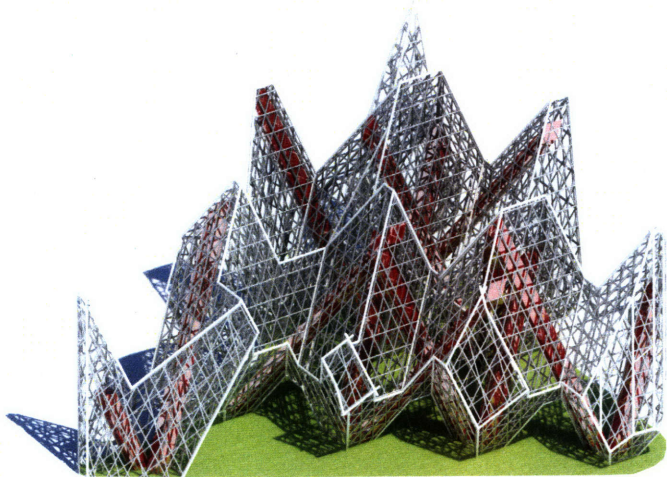




healing geometry



diagonal circulation

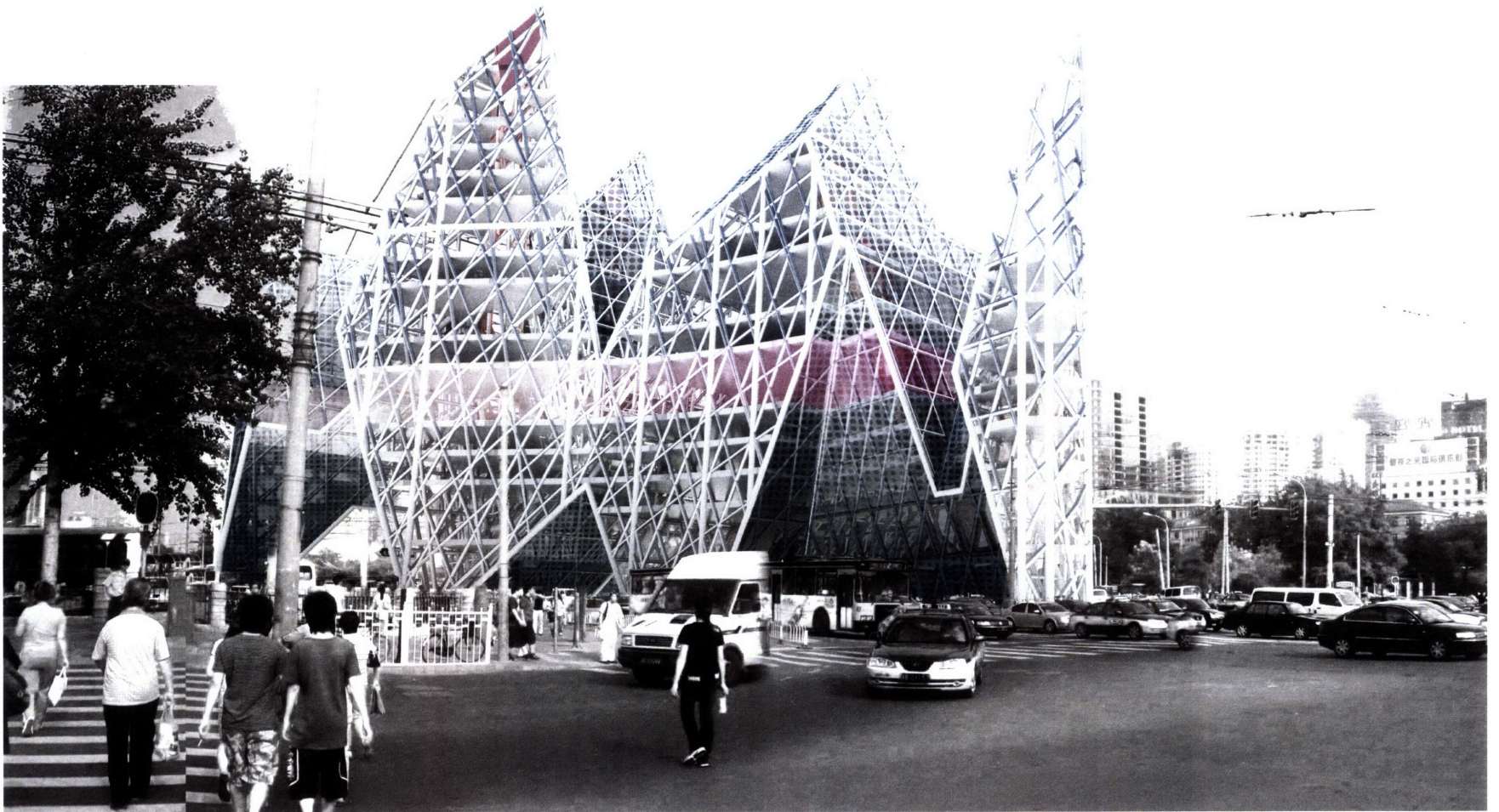


exoskeletal structure

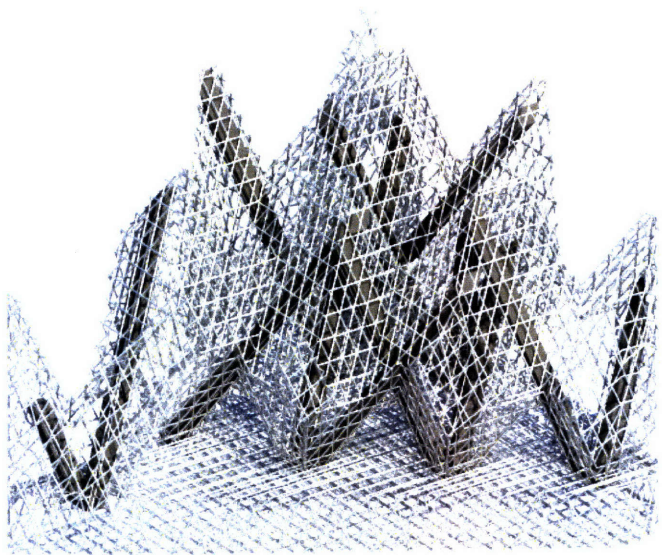


horizontal distribution



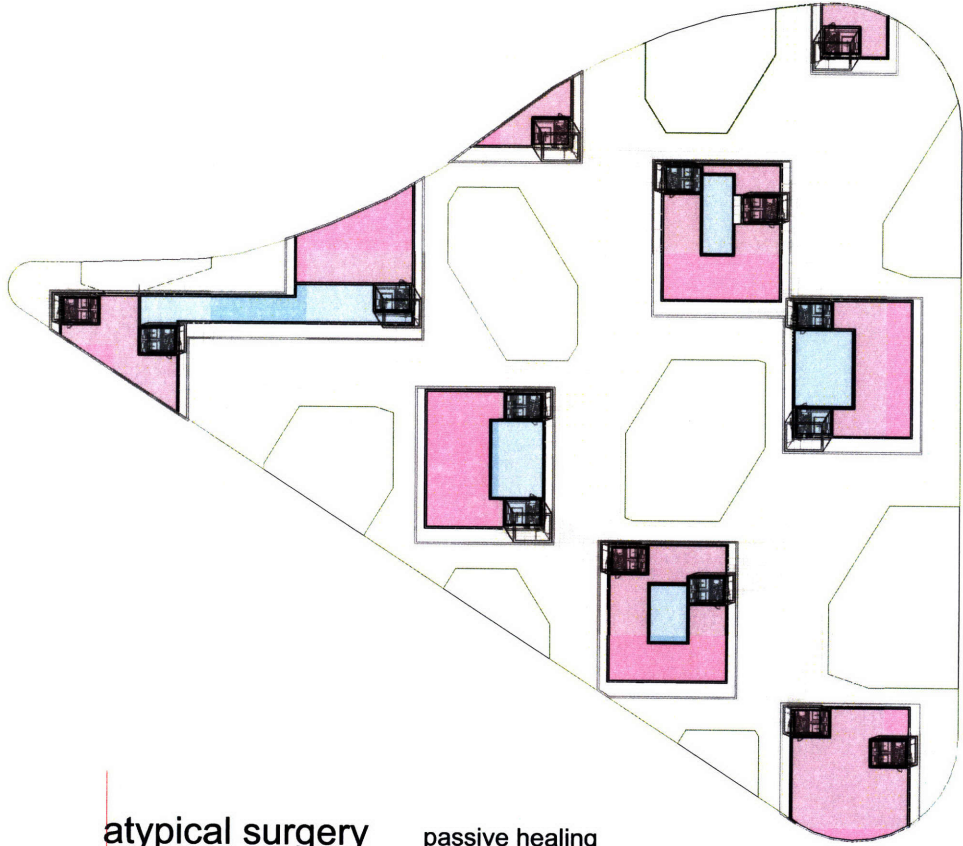




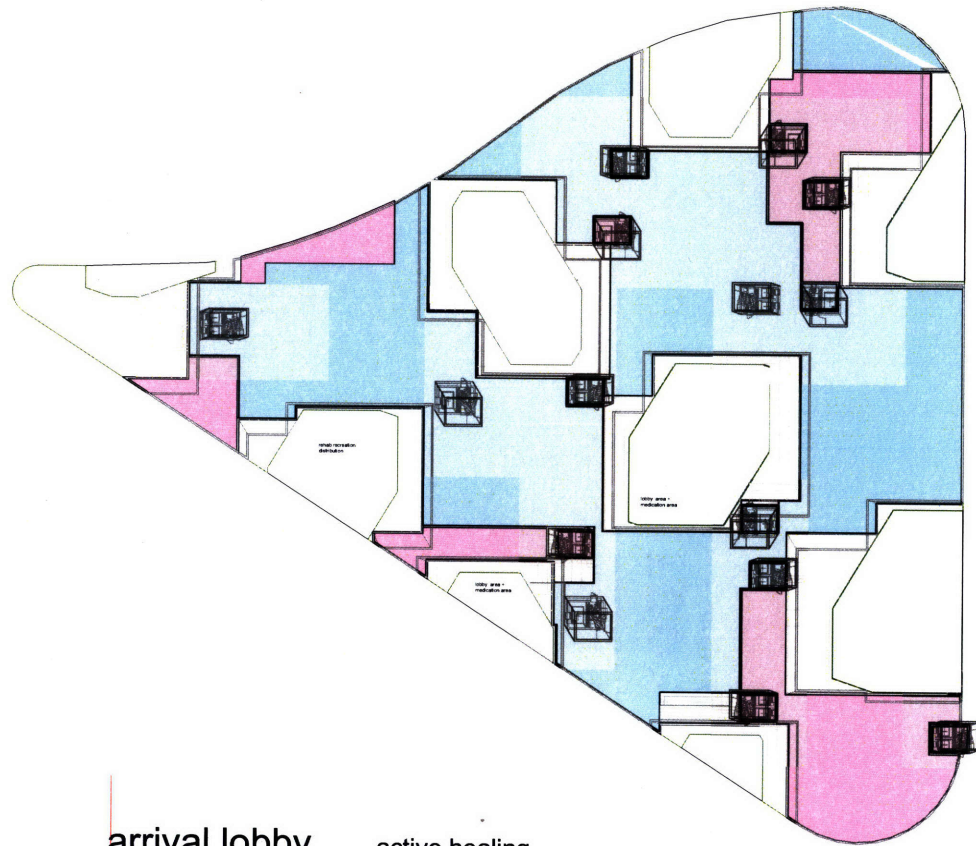




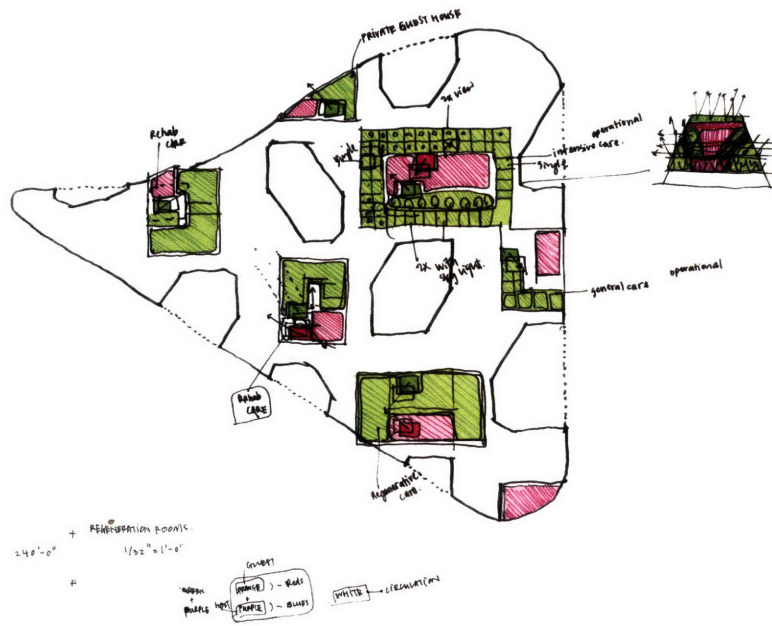




+060.00' **atypical surgery** passive healing
 SERVICING support + labs
 MEDICATING support
 operating / stimulation facilities



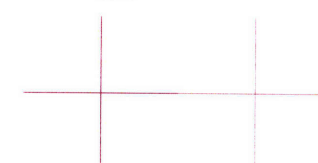
+150.00' arrival lobby active healing
mediating / nutrition room
rehabilitating / recreation room
destination / waiting room

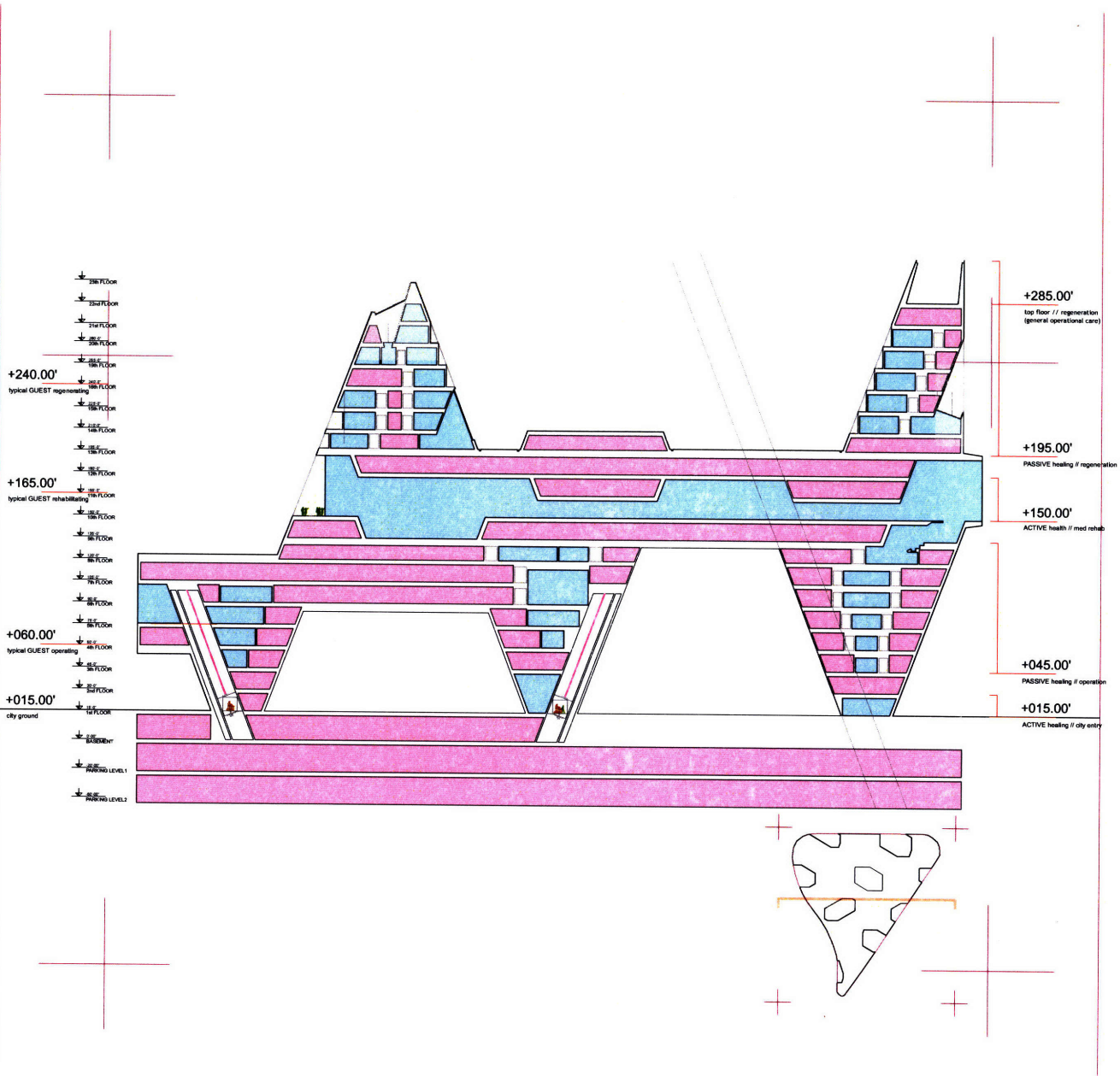


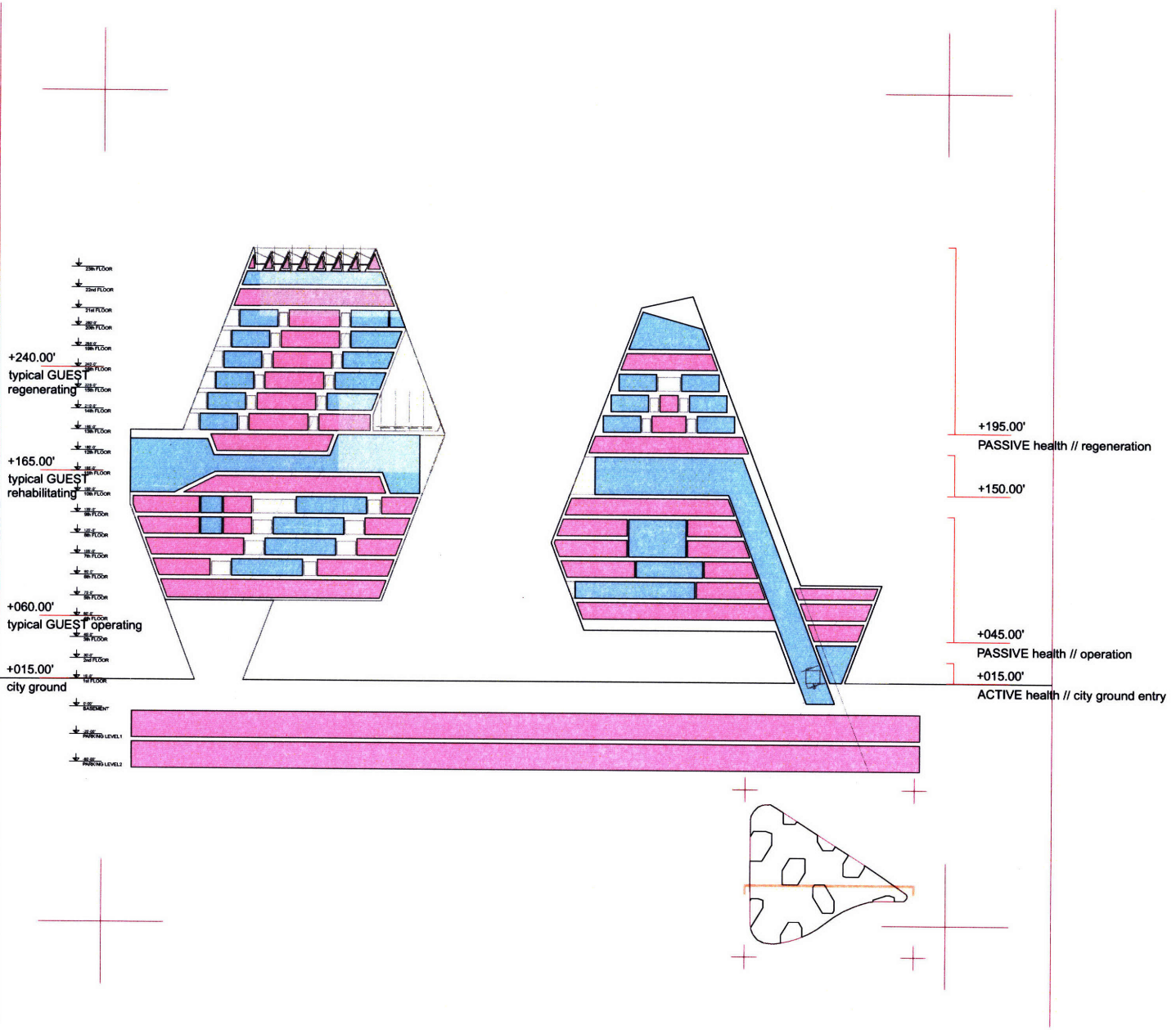


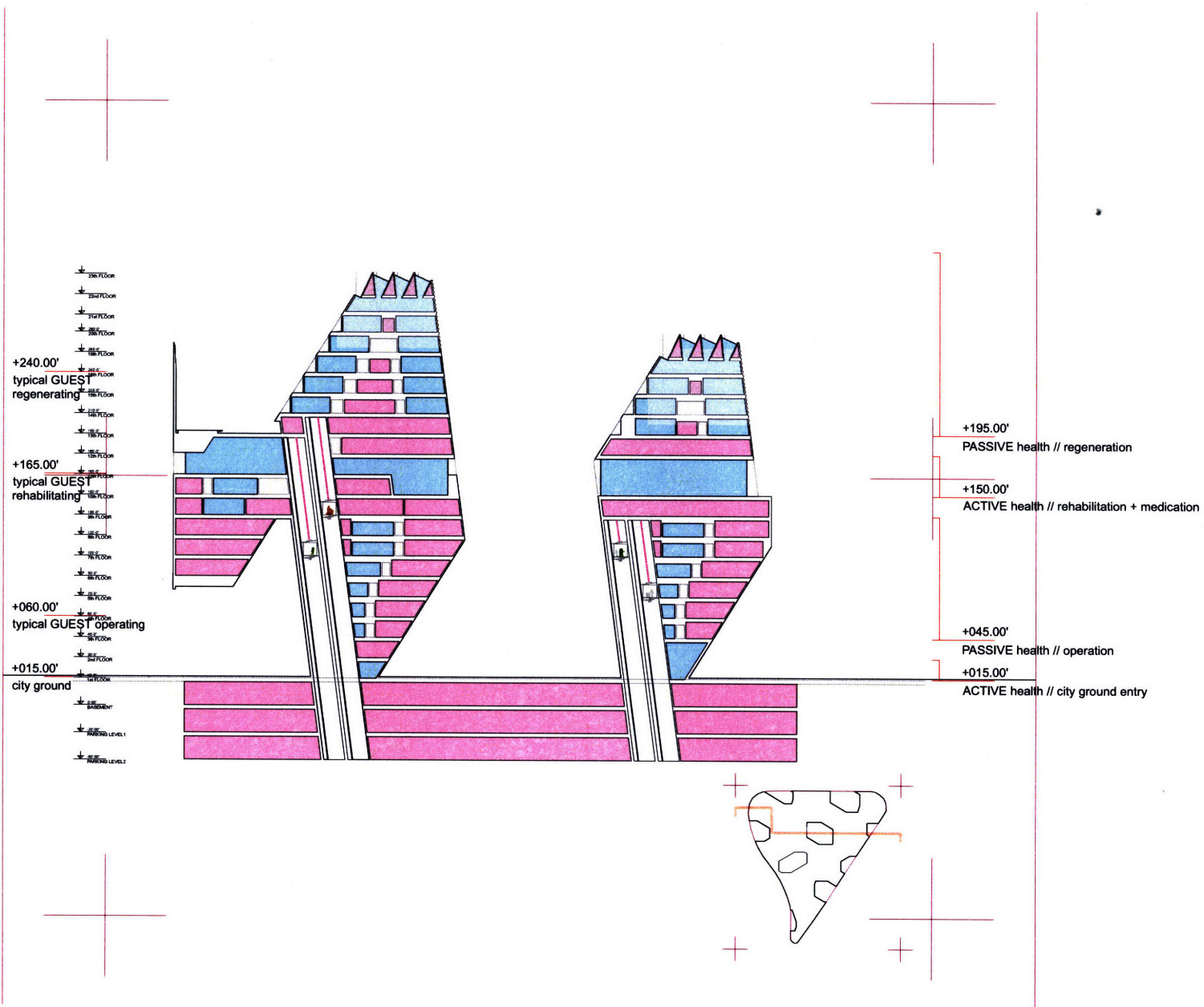
+240.00' **atypical recovery**
single occupant private care
multi occupant intensive care

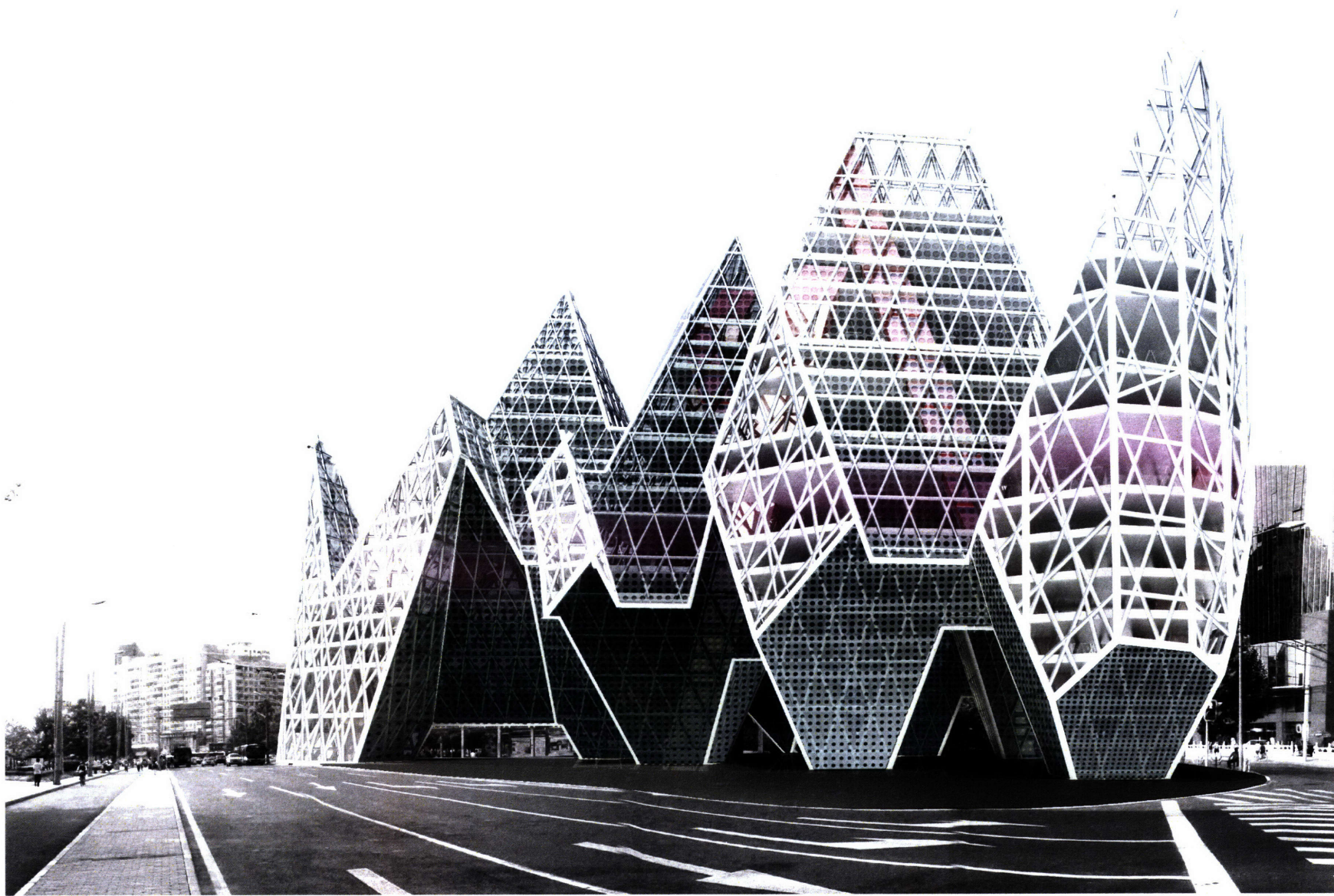
passive heating

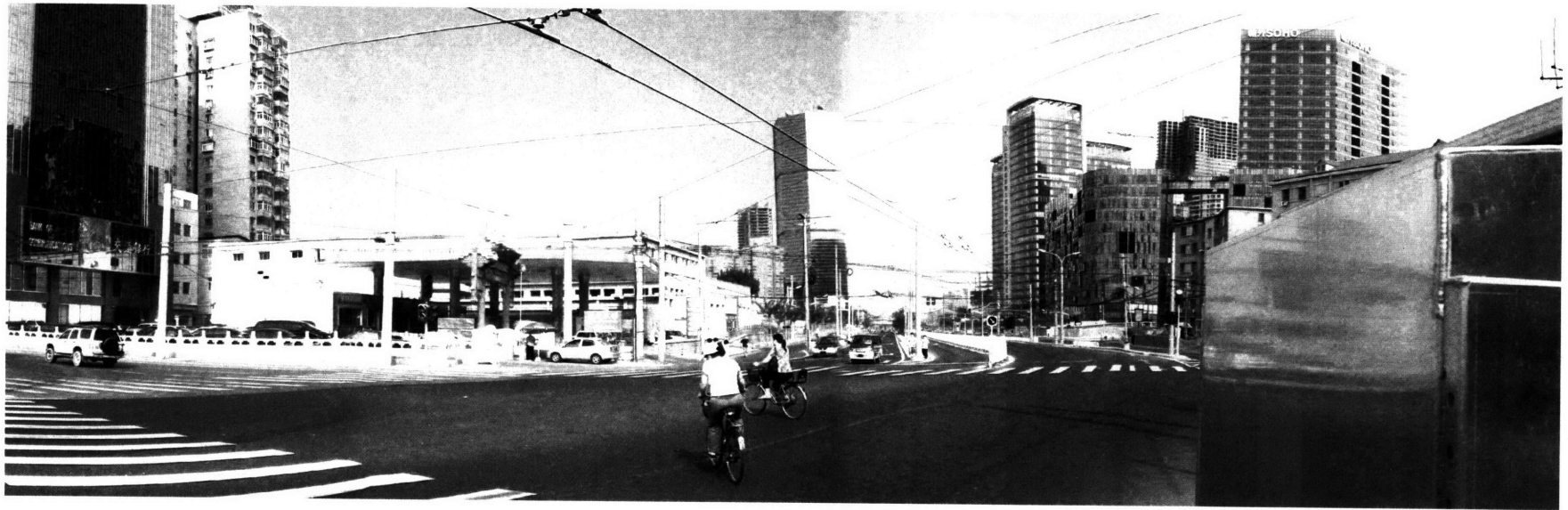




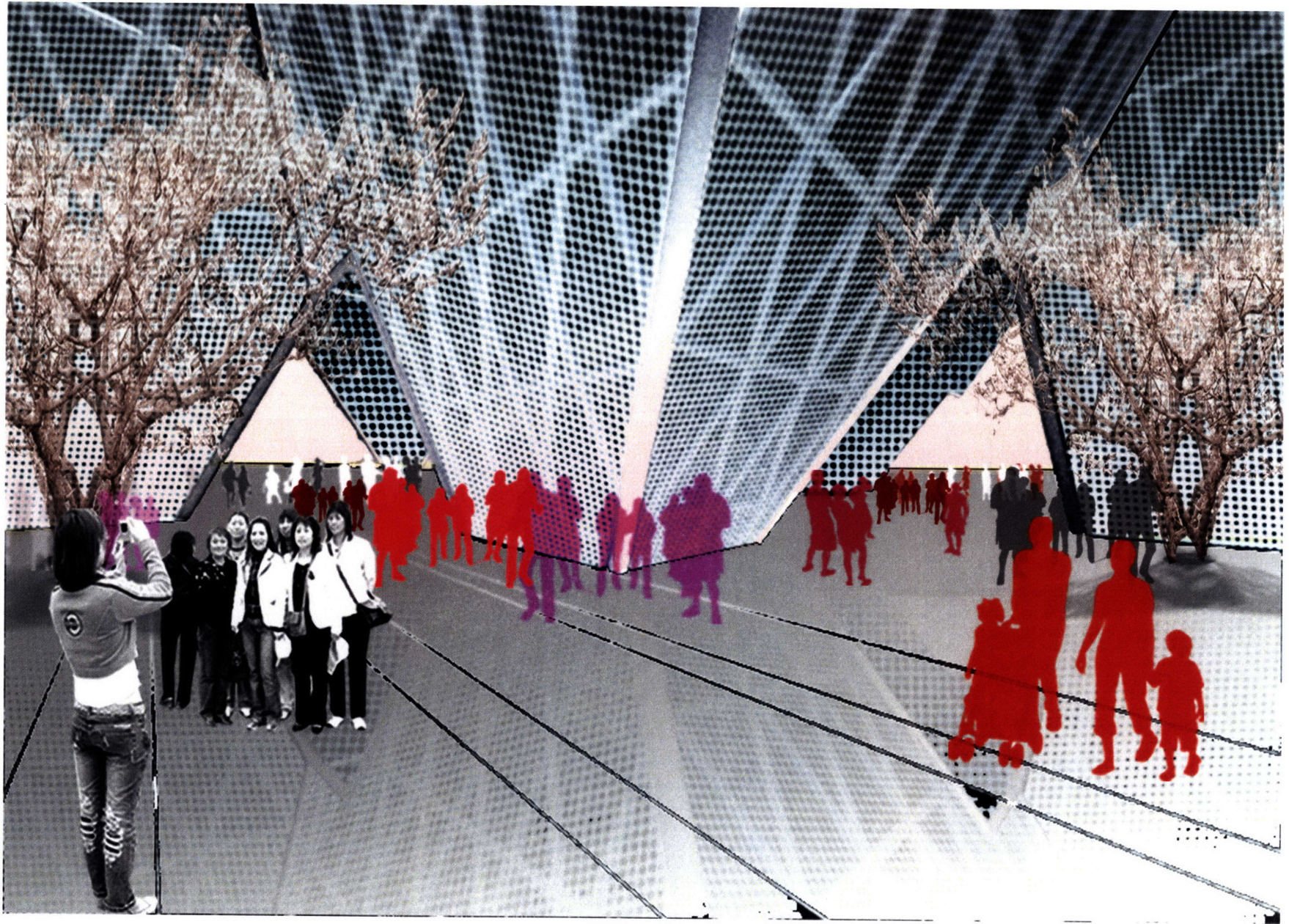


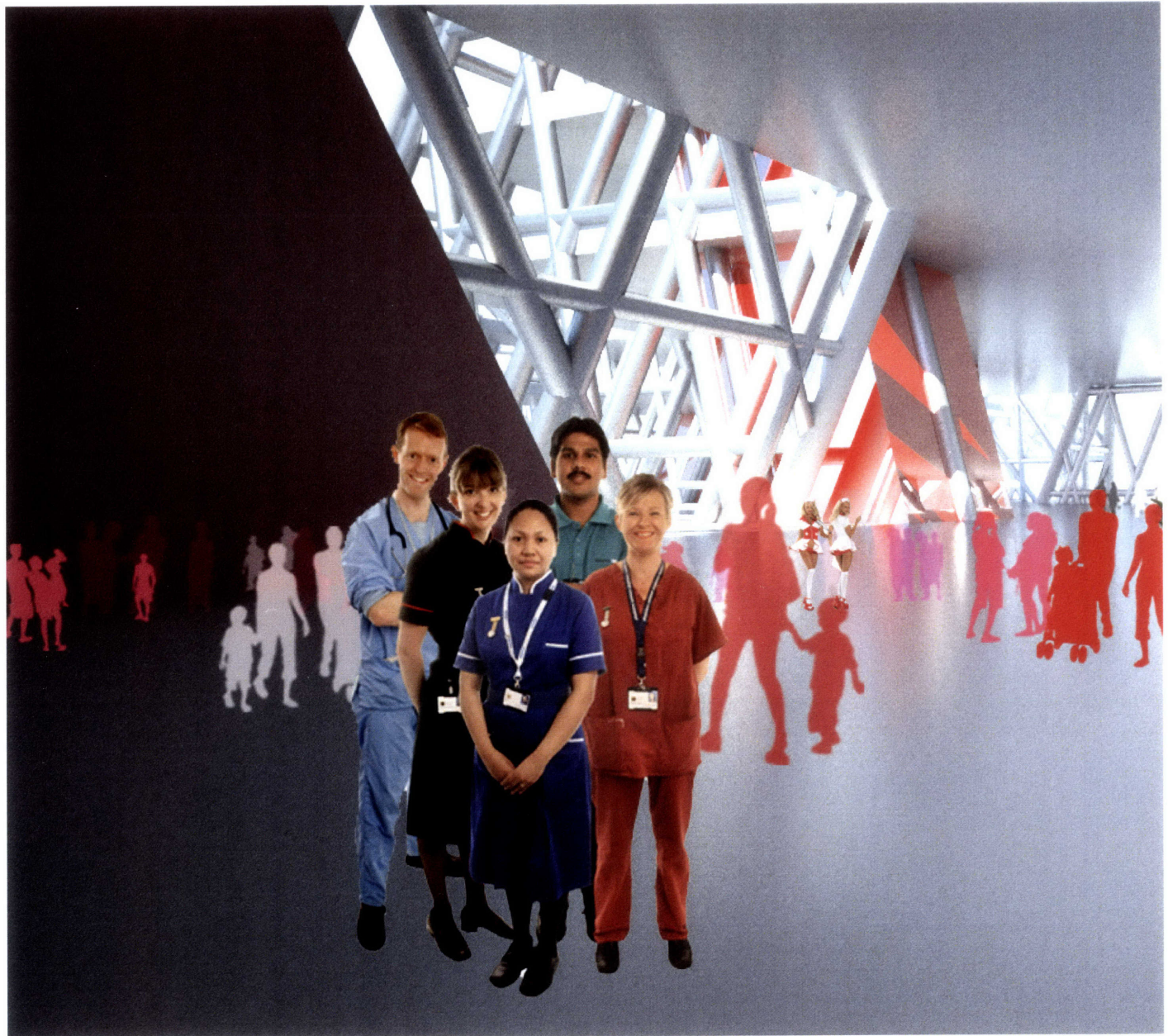






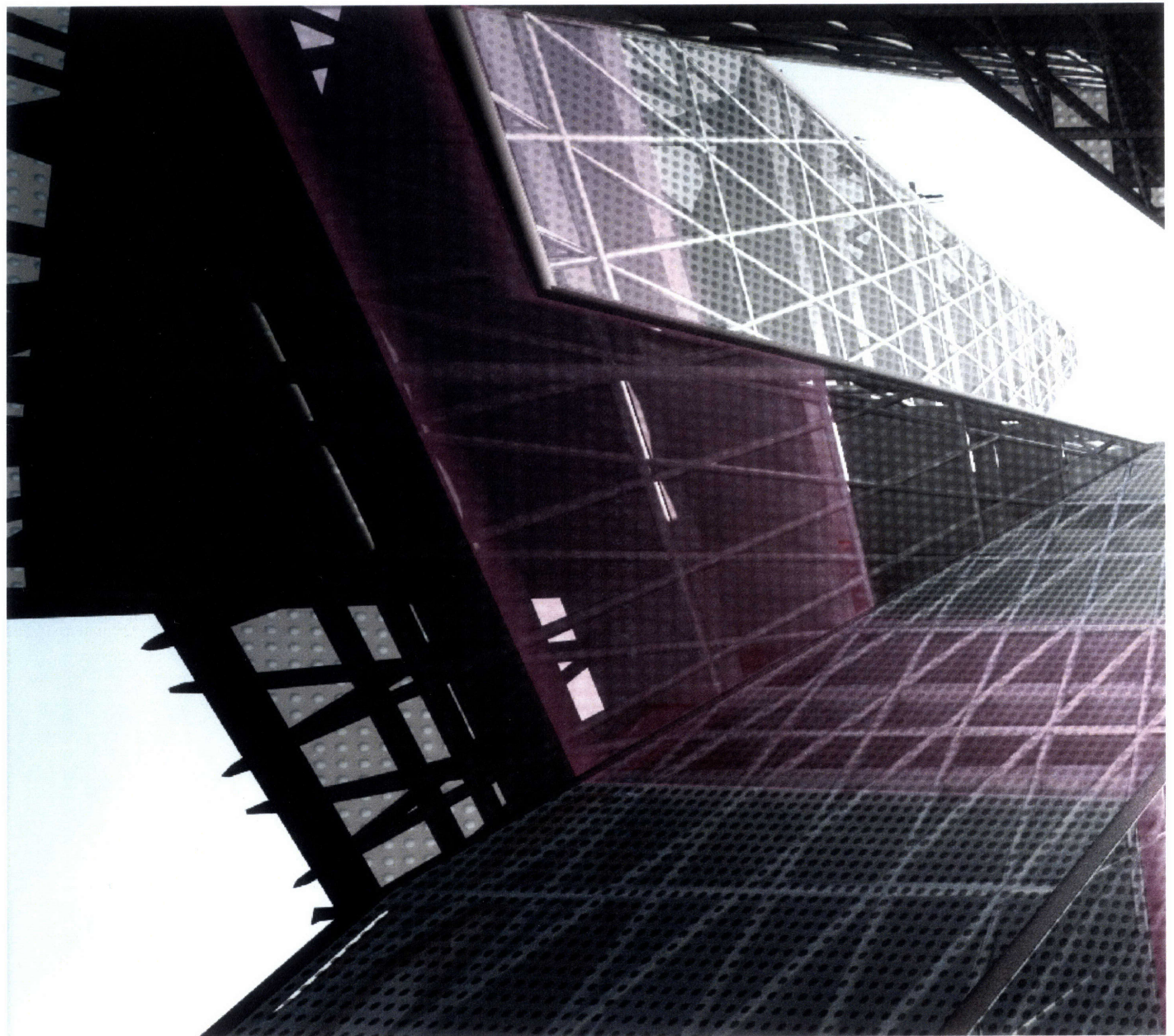
ground floor entry



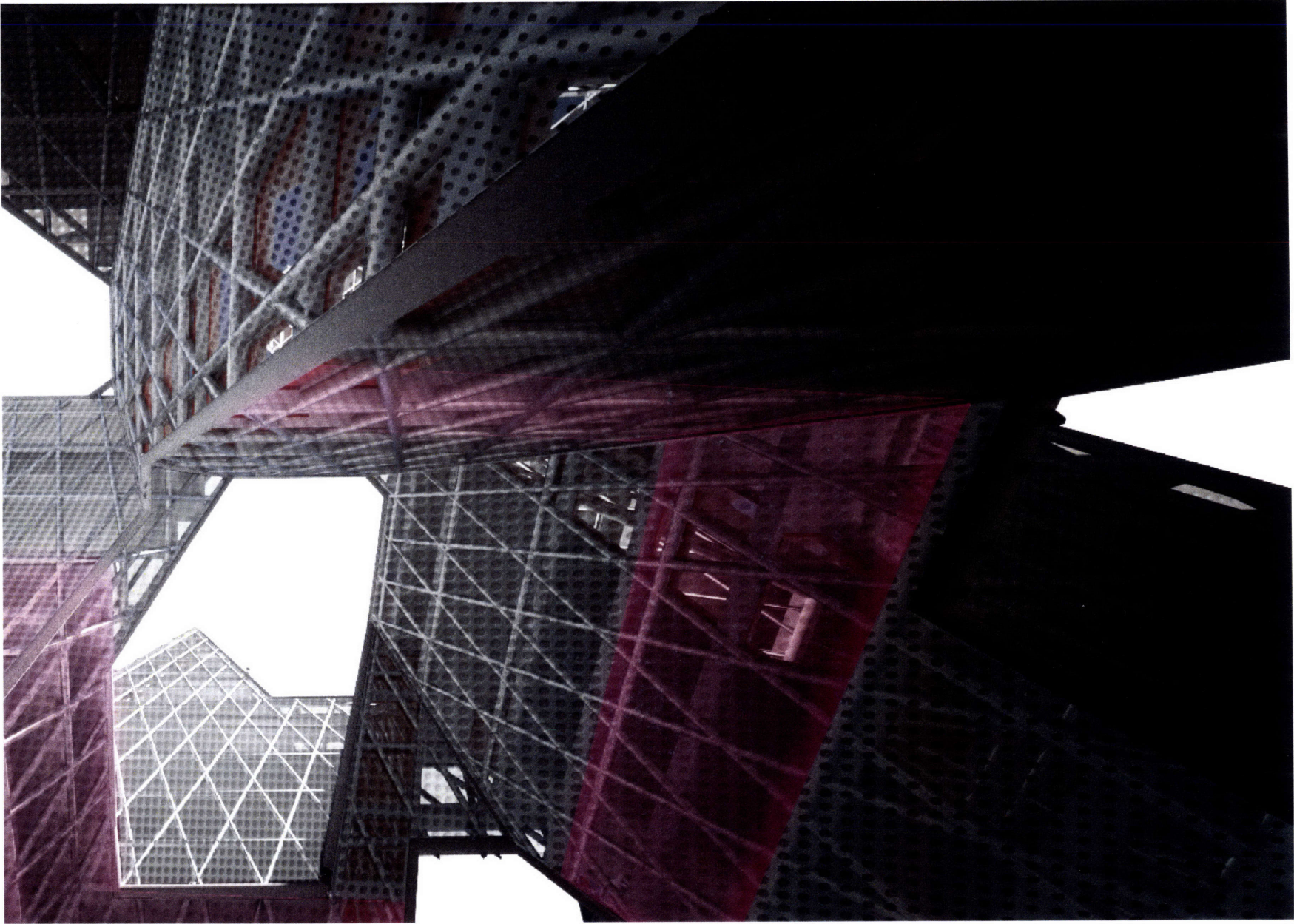


destination arrival lobby



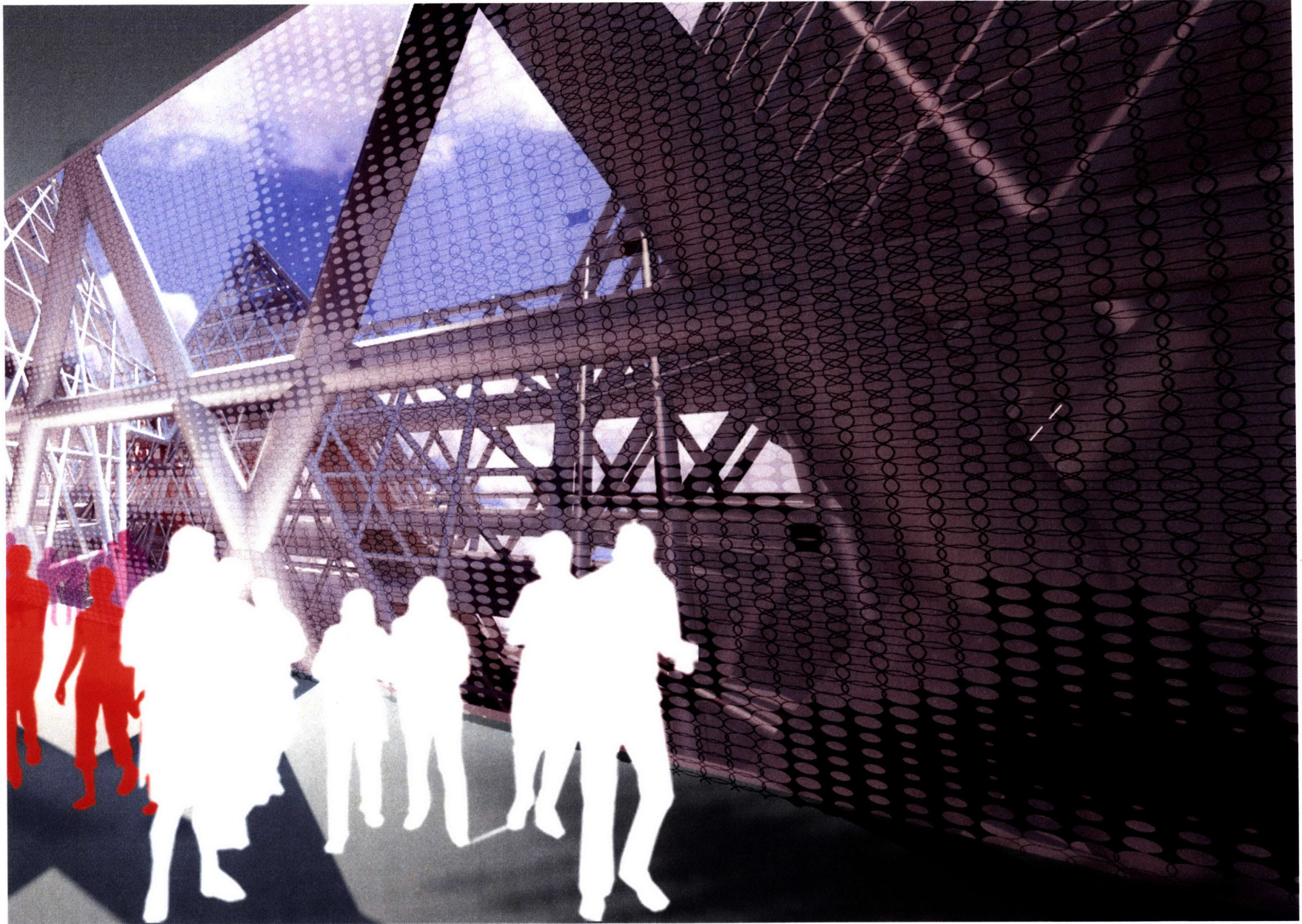


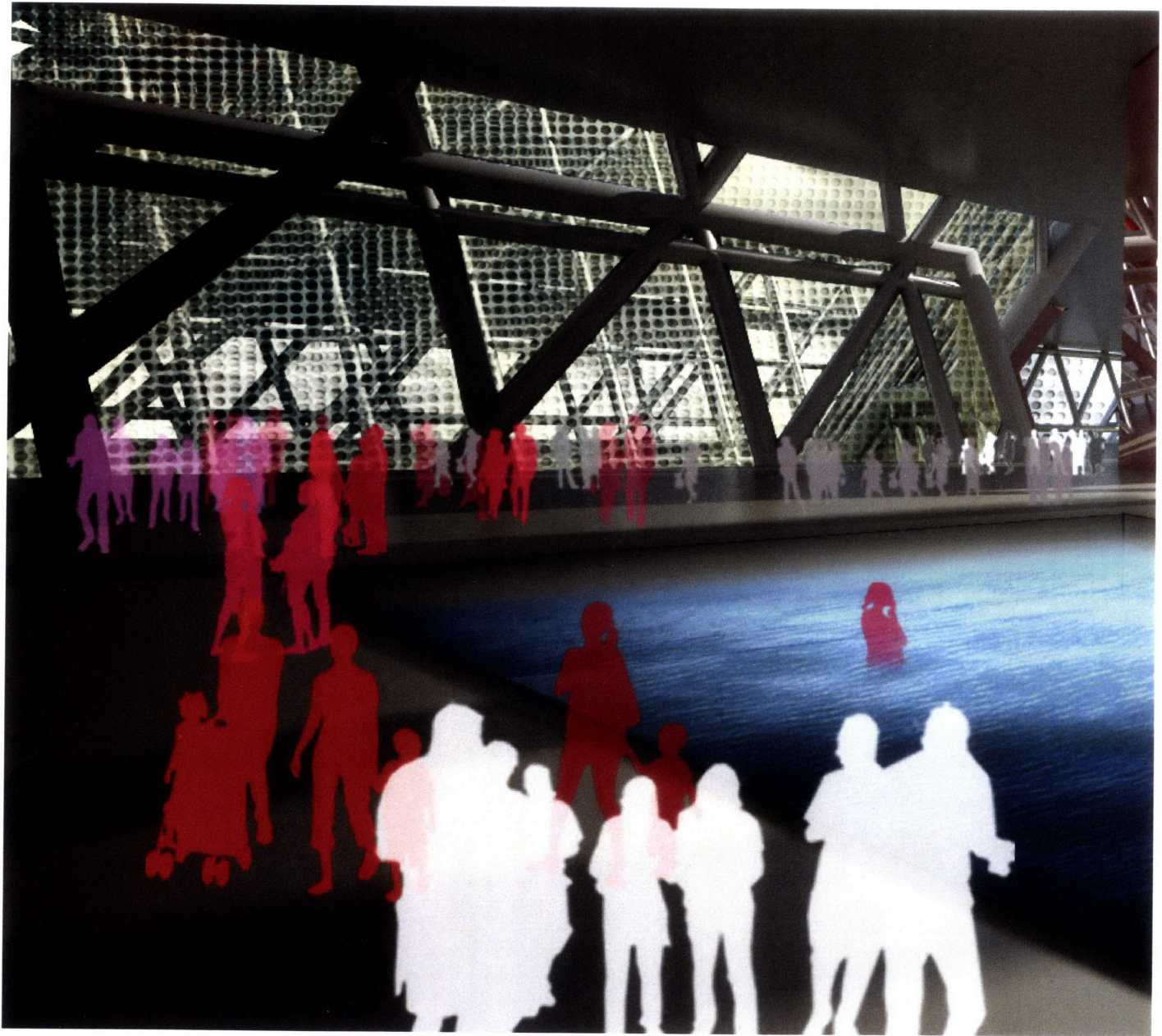
public healing courtyard



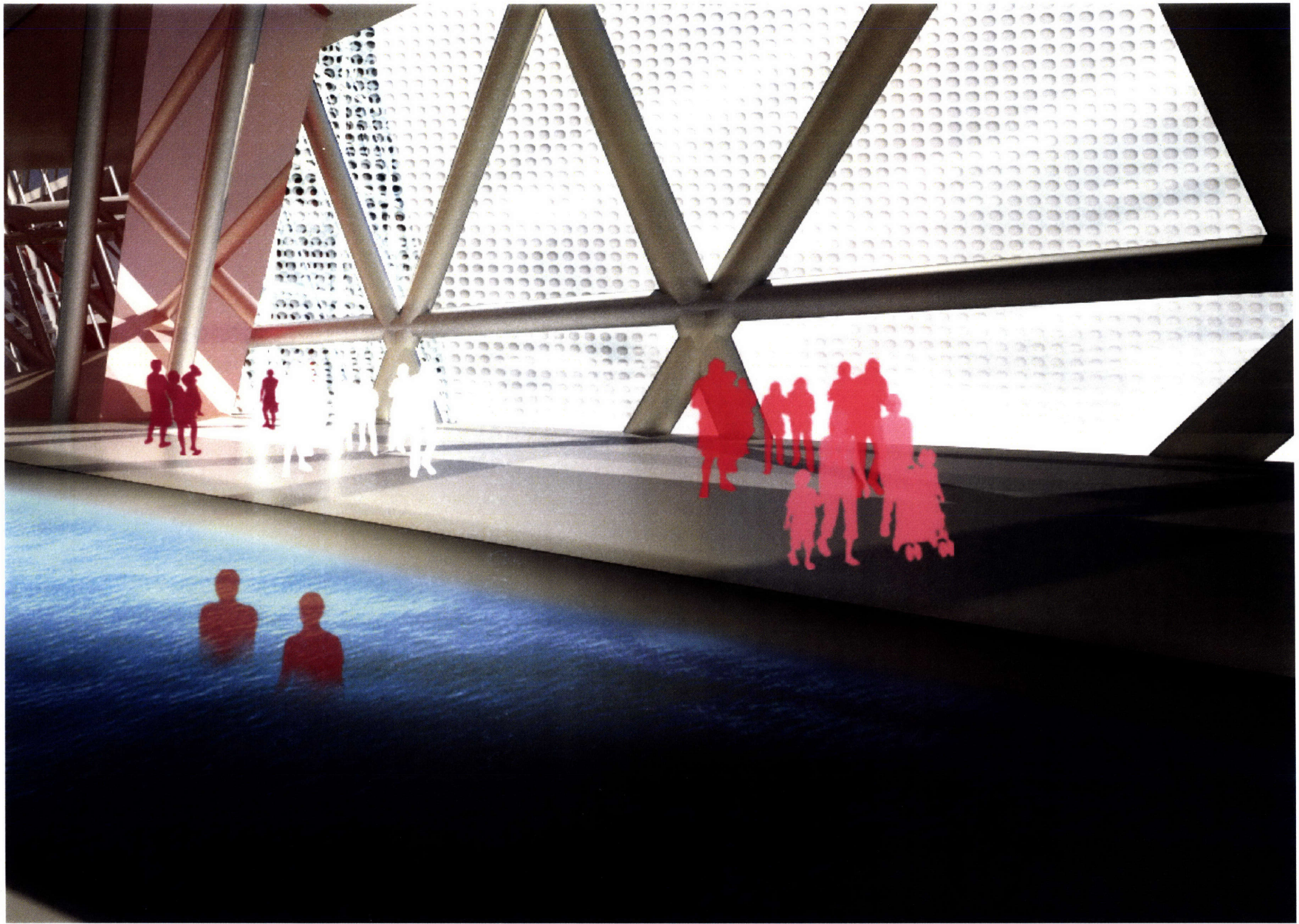


nutrition + medication





recreation + rehabilitation



[E] REFERENCES // RESEARCH CREDITS

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