>> THESIS COMMITTEE

>> THESIS SUPERVISOR:

NADER TEHRANI
PROFESSOR OF ARCHITECTURE
HEAD, DEPARTMENT OF ARCHITECTURE

>> THESIS READERS:

BRENT D. RYAN
ASSISTANT PROFESSOR OF URBAN DESIGN AND PUBLIC POLICY
DEPARTMENT OF URBAN STUDIES AND PLANNING

DAVID GIANOTTEN
PARTNER IN CHARGE OF OMA ASIA
OMA

ZIAD JAMALEDDINE
PRINCIPAL
L.E.FT ARCHITECTS, NEW YORK
“THE DEATH OF GROWING CITIES?! RECONSTRUCTING THE POST-UTOPIAN URBANISM IN CHINA NOW!”
BY SING YEUNG (SUNNIE) LAU
SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE ON JANUARY 31ST, 2013.
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARCHITECTURE

>> ABSTRACT
THROUGHOUT HUMAN CIVILIZATIONS; THERE WERE MOMENTS OF COLLECTIVE ATTEMPTS TO REBUILD A UTOPIAN FUTURE TRIGGERED BY POLITICAL, ENVIRONMENTAL, SOCIAL AND/ OR ECONOMIC CRISSES. CRISIS SEEMS TO BE A UNIQUE MOMENT TO INITIATE/ GAIN CRITICAL MASS ATTENTION TOWARDS MAKING A NEW PAGE/CHANGE IN HISTORY. IN OTHER WORDS, AS (ARCHITECTS AND URBAN PLANNERS) WE ARE CONSTANTLY RECONSTRUCTING UTOPIAN FUTURES, GREAT MODERNIST VISIONS IN THE 1920S’ AND LATER IN 1960S’; THOUGH THEY WERE NOT ABLE TO COPE WITH THE EVOLVING ECONOMIC/ SOCIAL CONSTRUCT OF THE CURRENT SYSTEM--THE URBAN DEVELOPMENT MODEL OF CAPITALISM - THAT WE ARE OPERATING WITHIN SINCE THE INDUSTRIAL REVOLUTION. THE DISCREPANCY BETWEEN REALITIES AND THE INDIVIDUAL/ COLLECTIVE, PROJECTED FUTURE HAS SEEMED TO FAIL US. UTOPIA- BECOMES DYSTOPIA- OR EVEN SOMETHING UNREACHABLE – A MERE IDEOLOGICAL HOPE OF HUMAN CIVILIZATION--ALMOST LIKE A DOGMATIC RELIGION.

PROJECTING INTO THE FUTURE, IN THE YEAR 2050, WHAT IF MOST DEVELOPMENTS IN DEVELOPED COUNTRIES ARE FACING PROBLEMS OF MAINTAINING OR DEALING WITH OVERSIZED INFRASTRUCTURES? PROBING THE FUTURE IN TODAY’S EYES SUGGEST THAT THE FATE OF “NEW” CITIES HAVE LONG BEEN SCRIPTED AND ARE PRESCRIBED TO DOOM.
AND NOW, WE ARE IN A CRITICAL MOMENT OF CRISIS/ OPPORTUNITY IN TURNING OVER TO A PATH TO A NEW ATTAINABLE REALITY IN THE MIST OF UNIMAGINABLE SPEED OF CITY MAKING PROCESS IN CHINA. NEVER BEEN MORE URGENT THAN BEFORE, ECONOMIC GROWTH ACCOMPANIED BY VAST URBANIZATION—THE CITIES AND THEIR QUALITY OF LIFE ARE IN TROUBLE NOW…. HOW SHOULD ARCHITECTS/ URBANISTS REACT IN A SMART WAY THAT COULD DErive A REMEDY TO “CORRECT” THE ULTIMATE “SYSTEMATIC FAILURE” IN THE POST-UTOPIAN FUTURE? AND WHAT SHOULD HAVE HAPPENED TO URBANISM--30 YEARS AGO—WILL HAPPEN NOW?

THIS THESIS INTENDS TO REVISIT AND UNPACK THE ARCHITECTURAL TYPOLOGY OF HYBRID GROUP-FORM IN HOUSING, QUESTIONS THE PERMANENT/ INFLEXIBLE NATURE OF THE IDEOLOGIES OF THESE TYPOLOGIES. THE THESIS ATTEMPTS AS AN COMPREHENSIVE DOCUMENTATION OF AN ANATOMY OPERATION IN FINDING THE ELEMENTS THAT CONTRIBUTE TO THE PARADOX OF INCAPABILITY IN ADDRESSING THE CYCLE OF LIFE AND DEATH OF CITIES ESPECIALLY AT THOSE MOMENTS OF ARISING COMPLICATION AND MULTIPLICITY OF ECONOMIC, POLITICAL, ENVIRONMENTAL AND CULTURAL CRISIS IN THE NEW ERA OF CHINA.

> THESIS SUPERVISOR: NADER TEHRANI
> TITLE: PROFESSOR OF ARCHITECTURE; HEAD, DEPARTMENT OF ARCHITECTURE
TO MY PARENTS- STEPHEN & ELLA.

TO MY THESIS MENTORS AND PRECIOUS FRIENDS WHO HAVE SUPPORTED, INSPIRED ME ALONG THIS JOURNEY.
## TABLE OF CONTENT

### CHAPTER 1: WHY CHINA NOW?

- PROLOGUE - OU-TOPIA? EU-TOPIA, POST-UTOPIA!  
  - 12
- BACKGROUND OF ISSUES, AND CONTEXT  
  - 15
- WHY CHINA IS SHRINKING?-SIGNS OF SYSTEM OBSOLESCENCE  
  - 17
- SITE  
  - 23
- OPTIMIZING THE SCALE OF OPERATION -GRID SIZE  
  - 34

### CHAPTER 2: THEORETICAL RESEARCH OF THE “PROTOTYPICAL TYPOLOGY”

- ARCHITECTURAL INQUIRIES AND MANIFESTO ON URBAN FORM  
  - 39
- PRECENT STUDIES ON HOUSING TYPOLOGY  
  - 41
- TRANSITION OF DESIRES: PROGRAM VS TYPOLOGY  
  - 53
- THE INFORMAL APPROACH: KOWLOON WALLED CITY, HONG KONG  
  - 58
- CORE EFFICIENCY AND TYPES IN HIGH RISE TYPOLOGY  
  - 63
- SUMMARY OF DESIGN RESEARCH INQUIRIES  
  - 65

### CHAPTER 3: OPERATIONAL METHODOLOGY & OUTCOMES

- THE POST-UTOPIAN URBANISM : MULTIPLICITY IN SCALES  
  - 67
- URBAN MASTERPLAN  
  - 75
- BLOCK  
  - 81

### CHAPTER 4-APPENDIX:

- THESIS DEFENSE  
  - 95
- MODELS  
  - 103
- PRELIMINARY SCHEMES  
  - 109
- BIBLIOGRAPHY AND ACKNOWLEDGEMENTS  
  - 131
WHEN...EVERYTHING GROWS FAST, DIES FAST; THE WORD “NOW” CEASED TO EXIST. TRACES OF PERMANENCY OF GRAPHIC, WORDS AND PROJECTS ON PAPER SEEM MORE PROMISING THAN THE UNCERTAIN “ECONOMIC BUBBLES” CREATED BY THE MONSTER OF CAPITALISM.

AS ARCHITECTS,
WE BETTER DRAW FAST BEFORE THE BURST OF ANOTHER FALSE DREAM...
THEN,
>>>! ARCHITECTURE REGAINS ITS AUTONOMY!
PROLOGUE - OU-TOPIA? EU-TOPIA, POST-UTOPIA!


ANOTHER EXAMPLE LIKE BROADACRE CITY BY FRANK LLOYD WRIGHT IS TO CREATE AN ALTERNATIVE FOR SOLVING THE INTENSIFIED AND DISORGANIZED AMERICAN INDUSTRIAL CITIES, POSES FORWARD AN AMERICAN DREAM OF DECENTRALIZATION VERSION OF INDIVIDUALITY AND DEMOCRACY—“THE CITY OF THE NEW FREEDOM” DISPERSAL OF INHABITANTS ACROSS THE LAND ON ONE-ACRE PLOTS, INTO SEPARATE NUCLEAR FAMILIES.” OTHER EXAMPLEES FOR URBAN PLANNING IS EBENEZER HOWARD’S GARDEN CITY OF TOMORROW…

YET, IF SUCH PROPOSALS OF VISIONARY ARCHITECTURE / UTOPIAN CITIES WERE BETTER PLACE FOR LIVING, THEY WOULD HAVE BEEN SUCCEED AND REALIZED IN CERTAIN WAYS PLACE-MAKING ADVANCEMENT. IF THESE PROPOSALS WERE NOT TESTED IN A PARTICULAR MOMENT OF SOCIAL, POLITICAL AND ECONOMIC SITUATION, THEY WOULD EASILY TURN INTO ‘UTOPIA’. ‘UTOPIA’ IS A NO-PLACE, WHICH MEANS THAT THE VISION OF ARCHITECTS IS SO FAR-FETCHED AND EVERYTHING IS MERE HYPOTHETICAL WITHOUT ANY CLOSE ALIGNMENT TO CURRENT STATUS QUO. SUCH PROPOSALS ARE DOOMED TO FAIL OR JUST FOR THE SAKE OF CREATION— “WITHOUT IDEA OF A PLACE- UTOPIAN THOUGHT WOULD SIMPLY LAPSE INTO SOME OTHER STYLE OF ETHICAL, METAPHYSICAL, OR

POLITICAL SPECULATION. THIS IS WHY IT IS SO IMPORTANT THAT UTOPIAN THOUGHT IS THE ONLY WAY TO SPECULATE CONCRETELY ABOUT A PROJECTIVE CONNECTION BETWEEN ARCHITECTURE AND POLITICS. TO DESIGN UTOPIAS IS TO ENTER THE LABORATORY OF POLITICS AND SPACE, TO CONDUCT EXPERIMENTS IN THEIR RECIPROCITY. THIS LABORATORY—UNLIKE THE CITY ITSELF—IS A PLACE IN WHICH VARIABLES CAN BE SELECTIVELY AND FREELY CONTROLLED. AT THE POINT OF APPLICATION, OF THE CONCRETE, UTOPIA CEASES TO EXIST.”

UNDoubtedly, Typological Advancement of Architectural Form is a device of social change that falls in the hands of architects. Utopian proposals are supported by Ian Tod and Michael Wheeler: “designer’s work inevitably involves speculations and assumptions about the future, however much that might be clothed in professional jargon. indeed, if progress is the realization of utopias, it is to considerable extent designers who turn the technical utopias into working projects and programmes”.

In this thesis, I argue for a post-utopian proposal which should be considered a ‘eutopia’ (a good-place) that would be able to embrace the systematic failure of the current situation in China, projecting into a plausible future by a new investigation of an appropriate scale of architectural typology of hybridized housing.


"LADDER STEP DOCTRINE AND ITS RESULTS OF DISPOSABLE INCOME/CAPITA, 2009 SOURCE: NATIONAL BUREAU OF STATISTICS
ILLUSTRATION DATA FROM ROGGEVEEN, DAAN. HOW THE CITY MOVED TO MR. SUN, SUN PUBLISHERS, 2010., P27
>>CHAPTER 1: WHY CHINA NOW?

>1.1 BACKGROUND OF ISSUES, AND CONTEXT

GLOBAL CAPITALISM- CHINA TAKES ON THE GLOBE HOMOGENIZED SITUATION/IDEOLOGY BUT RESULTED WITH A SLIGHT DEVIATION / TRAJECTORY.
CHINA - AS A LEGITIMIZED TESTING GROUND OF CONTEMPORARY TIMES. THE RAPID GROWTH OF CHINESE CITIES ARE UNPRECEDENTED, CREATING ITS OWN KIND OF MONSTER OF “GDP BOOSTER”. IN MANY WAYS, THE SITUATIONS IN CHINA ARE SIMILAR TO THE RAPID MODERNIZATION IN JAPAN HALF A CENTURY AGO. BUT SLIGHTLY DIFFERENT THAN ANY OTHER COUNTRIES, CONDITIONS IN CHINA ARE EXTREMELY FAST-PROCESSED AND OPERATED UNDER A HYBRIDIZED NATURE OF SOCIAL AND POLITICAL UNPRECEDENTED CONSTRUCT IN POST-SOCIALIST CHINA. ECONOMIC REFORM WITH A PLANNED AND CENTRALIZED GOVERNMENTAL POLICY DRIVEN PLANNING MODEL, THE SINGleness OF GOAL-ORIENTATION IS TO PROMOTE ECONOMIC GROWTH WITH AN UNPRECEDENTED SUCCESS.

THE CHINESE “CAPITALISM WITH CHINESE CHARACTERISTICS” IS A LIBERATED ECONOMY YET WITH A CONTROLLED FREEDOM. THE PLANNED ECONOMY STRATEGY FOUND ITS FLEXIBILITY IN EXPANDED AND CONTRACTED GROWTH OF DEVELOPMENT THROUGH AN EFFECTIVE TOP-DOWN PLANNING MODEL. YET, CHINA IS NOT STABLE BUT DYNAMIC, CHAOTIC, UNPREDICTABLE: “ONE SHOULD BEAR IN MIND THE BASIC RULE OF STALINIST HERMENEUTICS: SINCE THE OFFICIAL MEDIA DO NOT OPENLY REPORT TROUBLE, THE MOST RELIABLE WAY TO DETECT IT IS TO LOOK OUT FOR COMPENSATORY EXCESSES IN THE STATE PROPAGANDA; THE MORE “HARMONY” IS CELEBRATED, THE MORE CHAOS AND ANTAGONISM THERE IS IN REALITY. CHINA IS BARELY UNDER CONTROL. IT THREATENS TO EXPLODE.”

4 IN THE CHINESE CONTEXT, THE FAST PACED- CONSTANT CENTRALIZATION - DECENTRALIZATION AND RECENTRALIZATION IS A PROMINENT PHENOMENON THAT ARCHITECTURE HAS TO BE ABLE TO ADDRESS WHEN ITS PARADOXICAL NATURE OF PERMANENCE. ARCHITECTURE NEEDS TO BE ABLE TO ADDRESS THE CURRENT FLUX OF IMPERMANENCE/CHAOTIC --

THE EXTREME CONDITIONS IN CHINA.

4 ZIZEK, SLAVOJ. LIVING IN THE END TIMES , VERSO, NEW YORK: 2010
COUNTRY-WIDE URBANIZATION; ITS IMPLICATIONS AND EFFECTS

ILLUSTRATION DATA SOURCE: GOOGLE MAP OF XI’AN; IMF INTERNATIONAL FINANCIAL STATISTICS
ROGGEVEEN, DAAN. HOW THE CITY MOVED TO MR. SUN, SUN PUBLISHERS, 2010., P29, 71, 209

MIT School of Architecture + Planning
1.2 WHY CHINA IS SHRINKING? - SIGNS OF SYSTEM OBsolescence AND (VACANCY) VACANT BUILDINGS

CRISIS 1: GHOST TOWNS - REAL ESTATE BUBBLE PRIVATE COMMERCIAL (COMMODITIZED) APARTMENT AS THE SINGLE MODEL OF “GDP BOOSTER”; WITH AN EXTREME POLARIZATION OF THE RICH AND THE POOR --URBAN LANDSCAPE SHAPED BY THE FORCE OF CAPITALISM THAT IS “PROGRAMMED TO DIE” NO LONGER IS AN ANSWER TO THIS COUNTRY.

SMALLER TOWNS AND VILLAGES ARE BEING RE-ALOGERMERATED INTO LARGER YOUNGER DEVELOPING CITIES THAT ARE TRYING TO CATCH UP WITH THE REST OF THE WORLD. THESE THIRD-TIER CITIES IN CHINA ARE FACING REGENERATION, VAST SCALE DEMOLITION AND RECONSTRUCTION. AND WE ARE NOW TALKING ABOUT BIG SCALES….A SCALE OF UNPRECEDENTED.

“VAST NEW CITIES OF APARTMENTS AND SHOPS ARE BEING BUILT ACROSS CHINA AT A RATE OF TEN A YEAR, BUT THEY REMAIN ALMOST COMPLETELY UNINHABITED GHOST TOWNS. IT’S ALL PART OF THE GOVERNMENT’S EFFORTS TO KEEP THE ECONOMY BOOMING, AND THERE ARE MANY PEOPLE WHO WOULD LOVE TO MOVE IN, BUT IT’S SIMPLY TOO EXPENSIVE FOR MOST.” GHOST TOWNS IN ZHENGZHOU, ORDOS, DONGGUAN, QINGSHUIHE ... ETC, WERE BUILT WITHIN THE LAST DECADE. INCLUDING CIVIC BUILDINGS, PUBLIC BUILDINGS, HOTELS AND APARTMENT BUILDINGS; WITH ALL NECESSARY INFRASTRUCTURES-- THE HARDWARE. HOWEVER, ACCORDING TO AN ANALYST FROM FORENSIC ASIA LIMITED BASED IN HONG KONG, GILLEM TULLOCH, HIS STATISTICS SHOWS THAT 64 MILLION VACANT EMPTY APARTMENTS ARE IN EXISTING ACROSS CHINA, WITH A MAXIMUM OF 25% OCCUPANCY RATE, IF BEING OPTIMISTIC.

SINGLE “BUILDING/ DEVELOPMENT” FORMULA CREATED WHICH IS A HIGH-RISE APARTMENT BUILDING TYPE THAT IS “TRANSPLANTED” FROM ECONOMIC SUCCESSFUL CITIES- HONG KONG, SINGAPORE AS THE “IDEAL” DEVELOPMENT MODEL FAILED TO RESPOND TO THE LOCAL RICH CULTURE/

5, 6. MARCH 20, 2011. HTTP://WWW.SBS.COM.AU/DATELINE/ STORY/ABOUT/ID/601007/N/CHINA-S- GHOST-CITIES
DIVERSE CULTURE WITHIN CHINESE COMMUNITIES. MUCH REAL ESTATE LEFT BUILT BUT NEVER OCCUPIED. IN ORDUS—AN INNER-MONGOLIA CITY WITH RICH NATURAL RESOURCES (COAL AND OIL) HAS SHOWN A PROPERTY BOOM SINCE 2006. THE LOCAL GOVERNMENT BUILT A NEW CITY FOR ONE MILLION PEOPLE CALLED KANGBASHI BUT EVERYTHING TURNED STAGNANT IN 2011 WHEN THE CENTRAL GOVERNMENT STARTED MEASURES AIMED AT CLAMPING DOWN THE COUNTRY’S PROPERTY INFLATION. PRICES HAVE DROPPED BY UP TO A THIRD—ARE HAPPENING IN CITIES ACROSS CHINA, INCLUDING SHANGHAI AND BEIJING. THESE RESULT IN WORRIED INVESTORS (HOME BUYERS), UNFINISHED SKYSCRAPERS AND FLEEING MIGRANT WORKERS. 7

“AFTE.ER A HOUSING BUBBLE THAT DOUBLED VALUES IN 35 CITIES BETWEEN 2004 AND 2009, PRICES ARE NOW FALLING NATIONWIDE. THE CENTRAL BANK SAID ON FRIDAY PROPERTY PRICES HAD REACHED A TURNING POINT WHILE BANKS ARE WORRIED A PRICE SLIDE OF 20 PERCENT COULD TRIGGER PANIC SELLING.” “PEOPLE ARE WORRIED. ESPECIALLY IF THEY HAVE BOUGHT TWO OR THREE APARTMENTS,” SAID YU MINGJUN, A WORKER SITTING IN A DOWN JACKET AT A RAMSHACKLE OFFICE OF A HALF-COMPLETED PROJECT IN THE OLD TOWN.” 8

THE EXTREME COMMODITIZED OF HOUSING CREATES SOCIAL ANXIETY AND DRIVES POLARIZATION OF SOCIAL INEQUALITY—THE PRICE OF EXISTING REAL ESTATE DEVELOPMENT ARE SO EXPENSIVE THAT OWNING AN APARTMENT BECOMES AN IMPOSSIBLE DREAM OF MANY WORKING CLASS. THE NEW EMERGING CLASSES: NEW EMERGED MIDDLE CLASS & YOUNG ‘OVERSEA ENLIGHTENED’ AND THE POOREST MIGRANT WORKING CLASS, WHOM ARE NOT EVEN CAPABLE OF BUYING THEIR OWN APARTMENTS. WITH AN AVERAGE MONTHLY INCOME OF MIGRANT WORKER COUPLES WHO EARN ABOUT $900 RMB = $143.55USD, THEY COULD ONLY RENT AN 11.35 SQ. M BY USING ALL OF THEIR MONTHLY INCOME. 9, 10


9. HTTP://WWW.GLOBALPROPERTYGUIDE.COM/ASIA/CHINA/RENTAL-YIELDS

10. POPULATION POVERTY LINE = $2300RMB; CURRENT LIVING MODEL : 25-30% ARE JOIN FAMILY IN A UNIT ; NEW POLICY BY THE CENTRAL GOVERNMENTAL PLAN IN 2012 IS TO BUILD AND HAS AT LEAST 20% OF AFFORDABLE HOUSING IN A 5-YEAR PLAN GOAL -AND FINANCIALLY SUPPORT THE BANKRUPTED DEVELOPERS
CRISIS 2: OBSEOLSCENCE OF INFRASTRUCTURE AND SUSTAINABILITY ISSUE – FORESEEABLE SHRINKAGE


IT IS HAPPENING IN 2012 NOW, IN THE SOUTHERN COASTAL PARTS OF CHINA (PEARL DELTA RIVER), WHERE MOST OF THE FIRST INDUSTRIALIZATION HAPPENED HERE. INDUSTRIAL POLLUTION THREATENING THE LIVES OF ITS CITIZENS, ABANDONED FIELDS AND DERELICT FACTORY BUILDINGS ARE INCREASING. AN IMPORTANT AND UNPRECEDENTED QUESTION HAS RISEN--HOW CAN WE BRING PRODUCTION CLOSER TO USER? DO WE NEED TO (RE-)INTRODUCE A NEW LIVE/WORK MODEL FOR A SUSTAINABLE HOUSING TYPOLOGY?

AMERICAN & EUROPEAN CITIES ARE SHRINKING

Detroit lost 51% of its population since 1950

THE CYCLE OF DEVELOPMENT IN THE WORLD SCENE
DECLINE AND SHRINKAGE IN U.S. AND E.U. VS. RAPID GROWTH AND EXPANSION IN CHINA
ILLUSTRATION DATA SOURCE: ATLAS OF SHRINKING CITIES EDITED BY PHILIPP OSWALT & TIM RIENIET 2006; GLOBALHEALTHFACTS.ORG
CHINA NOW IN NEED OF A FLEXIBLE FRAMEWORK TO ACCOMODATE FLUCTUATION IN DENSITY

AS MANY OF THESE DREAMS GRADUALLY BECAME DYSTOPIA-- OBSEOLESC OF OVERSIZED INFRASTRUCTURE AND EMPTIED APARTMENT REAL ESTATES; THE RIDGID SINGLE “BUILDING/ DEVELOPMENT” FORMULA HAS TO BE RETHUGHT AND A NEW FLEXIBLE FRAMEWORK IS NEEDED TO ACCOMODATE CONSTANT/ UNPREDICTABLE FLUCTUATION IN DEMAND AND DENSITY.

IN THIS THESIS, I ARGUED FOR A POST-UTOPIAN PROPOSAL WHICH SHOULD BE CONSIDERED A ‘EUTOPIA’ (A GOOD-PLACE) THAT WOULD BE ABLE TO EMBRACE THE SYSTEMATIC FAILURE OF THE CURRENT DEVELOPMENT SITUATION IN CHINA, PROJECTING INTO A PLAUSSIBLE FUTURE BY A NEW INVESTIGATION OF A FLEXIBLE INFRASTRUCTURAL FRAMEWORK FOR HYBRIDIZED HOUSING WITHIN AN APPROPRIATE SCALE OF INTERVENTION.

GHOST TOWNS AND OBSELETE BUILDINGS, FARMLAND AND INFRASTRUCTURES ABANDONED BY OWNERS IN CHINA. COLLAGES OF IMPACT OF CHANGE IN ECONOMIC SHIFTS AMONG WORLD POWERS - CHINA AND U.S.A.
SHANGHAI
NINGBO
JINHUA
(SITE OF STUDY)

179 km
2.3 hr

249km
3.5 hr

HANGZHOU

222 km
2.6 hr

NINGBO

177 km
2.8 hr

JINHUA- IN RELATIONSHIP TO OTHER LARGER CITIES; SOURCE: GOOGLE MAP

MIT School of Architecture + Planning

| 22 |
1.3 SITE- JINHUA CITY, ZHEJIANG

HOUSING THE MASS POPULATION IS ALWAYS AN ISSUE IN THE EARLY DEVELOPMENT STAGE OF A GROWING NEW TOWN. THE VAST POPULATION ACROSS THE COUNTRY OF CHINA IS UNDERGOING THE PROCESS OF CENTRALIZATION INTO DIFFERENT MAJOR DEVELOPING CITIES. TOWN AND VILLAGES ARE ABSORBED INTO MAJOR CHOSEN STRATEGIC CITIES. THIS PROJECT TAKES PLACE IN ONE OF THE MANY GENERIC GROWING SMALL INDUSTRIAL CITIES OF CHINA, JINHUA (SITUATED WITHIN THE PROXIMITY OF CLOSED BY LARGER PROVISIONAL CITIES IN THE YANGTZE RIVER DELTA ECONOMIC ZONE- HANGZHOU, NINGBO AND SHANGHAI). BLOOMING CONSTRUCTIONS, MONO-MODEL OF INDUSTRIALIZATION (FIRST STAGE OF ECONOMIC CYCLE) AND THE NEED OF EXPANSION AND URBANIZATION FOR ECONOMIC AGENDA THE LOCAL GOVERNMENT IS PROJECTING A GROWTH OF URBANIZED POPULATION FROM 1,150,000 TO 1,920,000 (EQUIVALENT TO 121% OF PEOPLE LIVING ON MANHATTAN ISLAND IN 2010) IN 2020.

UNDER THE DIRECTION OF THE CENTRAL GOVERNMENT, JINHUA IS EXPECTED TO EXPAND INTO A LARGER SCALED CITY. HOWEVER, WHAT IF THE CITY IN 2050, AFTER THE PEAK AND THE AGING POPULATION BEGAN TO DECLINE; INFRASTRUCTURE AND BUILT BUILDING BECOMES OBSOLETE, ESPECIALLY THE RIDGID HOUSING UNITS DESIGNED ONLY AS A MONO-TYPE.

THE HYPOTHESIS OF RECREATING A SELF-SUSTAINING BUILDING ENTITIES THAT ARE INDEPENDENT FROM EXISTING URBAN CENTERS BY REPRODUCING HETEROGENEOUS ELEMENTS OF MINIATURE OF A CITY -- A-CITY-WITHIN-A-CITY.

HETEROGENEOUS ELEMENTS INCLUDES A GOOD MIX OF LIVE/WORK/PLAY/OPEN SPACES ARE IMPORTANT IN MAINTAINING CERTAIN LEVEL OF VITALITY OF A LIVABLE PLACE. THE SEPARATION BETWEEN GENERIC VERSUS A SPECIFIC PROGRAM IS NO LONGER ABLE TO SATISFY INDETERMINANCY IN HOUSING TYPOLOGY, THUS A NEW MIXED-USE HIGH DENSE HYBRID HOUSING TYPOLOGY IS THE POSSIBLE ANSWER IN A FAST GROWING, YOUNG CITY.
HISTORICAL HERITAGE WITHIN THE CITY -- SHRINES AND TEMPLES

EARLY CITY WALLS DATED BACK TO THE TIME OF THE MONGOL EMPERORS IN 1352. (SOME WERE RELOCATED FOR TOURISM)

OLD DISTRICT- NORTH OF RIVER

JINHUA- UNDERSTANDING THE CITY
LOCAL URBAN FABRIC AND LIVING CONDITIONS

SMALLER STREET WIDTH, MORE INTIMATE NEIGHBOURHOODS AND "SEMI-GATED" COMMUNITIES WERE FORMED IN THE TIMES OF PRE-1980’S. A SMALL NUMBER OF COMMUNAL HOUSING / WORK UNITS ARE REMAIN IN THE OLD DISTRICT.
THE MODERN JINHUA-- MAIN COMMERCIAL AREA

TALLEST BUILDING IN THE CITY IS THE --BEST WESTERN WORLD TRADE HOTEL JINHUA - 35 FLOORS ; SURROUNDED BY LARGE COMMERCIAL SHOPPING MALLS AND STREET NIGHT MARKETS

JINHUA- UNDERSTANDING THE CITY
JINHUA INDUSTRIAL PART - BUILT IN 2002.
17 PAVILIONS IN A PARK ALONG THE YIWU RIVER, DEDICATED TO THE MEMORY OF THE POET AI QING.

IN 2002 DESIGNER AND CURATOR AI WEIWEI INVITED 16 ARCHITECTS AROUND THE WORLD TO DESIGN PAVILIONS FOR A PARK ON A RIBBON OF LAND THAT STRETCHES OVER 2 KILOMETERS ALONG THE YIWU RIVER. THE PARK IS DEDICATED TO HIS FATHER, THE POET, AI QING WHO WAS BORN IN JINHUA.

PARTICIPATED BY INTERNATIONAL ARCHITECTS SUCH AS: HERZOG DE MEURON, YUNGHO CHANG, WANG SHU, TOSHIKO MORI, BUCHNER & BRUENDLER ARCHITECTEN, CHRIST & GANTENBEIN, MICHAEL MALTZAN...ETC

STATUS AS IN 2012: THE PARK WAS NOT FREQUENTLY USED AND POORLY MAINTAINED; IT WAS BEING CRITICIZED AS BEING TOO FAR FROM THE CITY CENTER; THERE IS NO OBVIOUS PROGRAM NOT FUNCTION WITHIN THESE PAVILIONS.
CHosen site -- Wu Bian Tian Island

Currently a blank slate; possibly constructing a new commercial mall and a recreational landscape.

Jinhua- Proposed Site Location - Wu Bai Tian Island
THE VISION OF THE CITY: URBAN PLANNING OF CITY EXPANSION IN 2006-2020
### Jinhuā Population Growth Trend Analysis and Estimation of Required New GFA for Housing the Anticipated Urbanizing Populations in Both 2020 (Growing) and 2050 (Shrinking) Scenarios; Source: [http://www.jinhuā.gov](http://www.jinhuā.gov)

### 1. Flexibility and Choices Will Be More and More Demanded in the Future Living

### 2. Small-Scale Affordable Living Units for All Classes and a More Sustainable and Plausible Lifestyle.

### 3. Diversed and Collective Shared Spaces and Programs Will Be Preferred and Demanded
CHAPTER I:
WHY CHINA NOW?

1.3 SITE- JINHUA CITY, ZHEJIANG
THE EXPERIMENTAL CASE OF AN EXPANDING THIRD TIER CITY:
(IN)FILLING THE INNER VOID OF (THE CORE OF) THE CITY

WHY “URBAN ARCHIPELAGO” AS THE URBAN TACTIC?
Post-utopian urbanism argues that under the globalization of capitalistic development model, China has seemingly urged for a new model of development. The exhaustion of the old typical-- the typical represents certain ideology within a culture thus becomes “the most effective and efficient survival form” of a particular city- a multiplicity of such type is being replicate and stamp all over the city thus create its overall urban form--the obsolesces of the “typical” post forward a certain idiosyncratic nature of the isolated “ideal” type. The idea of urban archipelago suggests that architecture form no longer stands as if a separated formal entity but has to be able to “react” and “relate” to it surrounding city. This thesis project sees architecture as the “archetypical” island (a micro-city) within a larger urban fabric, an island that in a possible scale achieve by architect; an island of new ideology that could be tested.

The archipelago ideal was theorized by Oswald Mathias Ungers in the 1970’s, and described in the new book of Pier Vittorio Aureli’s “The Possibility of an Absolute Architecture”: “The concept of the archipelago describes a condition where parts are separated yet united by the common ground of their juxtaposition. In contrast to the integrative apparatus of urbanization, the archipelago envisions the city as the agonistic struggle of parts whose forms are finite and yet, by virtue of their finiteness, are in constant relationship both with each other and with the “sea” that frames and delimits them. The islands of the archipelago describe the role of architectural form within a space more and more dominated by the “sea” of urbanization. The islands are framed by this sea, yet their formal boundaries allow them to be understood as what frames and, to a certain extent, (re)defines the sea between the islands. Such an act of framing and redefinition consists not in the imposition of a general principle
OR OF AN OVERALL NORM, BUT IN THE STRATEGIC DEPLOYMENT OF SPECIFIC ARCHITECTURAL FORMS THAT ACT AS FRAMES, AND
THUS AS A LIMIT TO URBANIZATION.” AURELI ALSO ADDS, “THESE FORMS ARE THE OPPOSITE OF WHAT TODAY ARE CALLED “ICONIC
BUILDINGS.” ICONIC BUILDINGS ARE TYPICALLY SINGULAR LANDMARKS WHOSE AGENCY IS INSCRIBED ENTIRELY WITHIN THE LOGIC OF
URBANIZATION. INDEED, THE AGENDA OF THE ICONIC BUILDING IS A POST-POLITICAL ARCHITECTURE STRIPPED BARE OF ANY MEANING
OTHER THAN THE CELEBRATION OF CORPORATE ECONOMIC PERFORMANCE.” 12

“NOW, THERE ARE FEW OBJECTS WHICH THE PEOPLE SO JEALOUSLY GUARD AS THEIR PARKS AND OPEN SPACES; AND WE MAY, I
THINK, FEEL CONFIDENT THAT THE PEOPLE OF GARDEN CITY WILL NOT FOR A MOMENT PERMIT THE BEAUTY OF THEIR CITY TO BE
DESTROYED BY THE PROCESS OF GROWTH OF THEIR CITY, AND THIS PRECLUDE MANY FROM ENJOYING ITS ADVANTAGES? CERTAINLY
NOT. THERE IS A BRIGHT, BUT OVERLOOKED, ALTERNATIVE. THE TOWN WILL GROW; BUT IT WILL GROW IN ACCORDANCE WITH A
PRINCIPLE WHICH WILL RESULT IN THIS—THAT SUCH GROWTH SHALL NOT LESSEN OR DESTROY, BUT EVER ADD TO ITS SOCIAL
OPPORTUNITIES, TO ITS BEAUTY, TO ITS CONVENIENCE.” 13

NEVERTHELESS, THE ENDLESS EXPANSION OF CITIES IS MAKING US MOVE AWAY FROM THE ORIGINAL IDEALS OF EBENEZER HOWARD’S
GARDEN CITIES; CONFINE AND LIMIT THE DEVELOPMENT OF A GROWING CITY.

AT THIS MOMENT OF CHINA, CONCENTRATION OF POPULATION (DENSITY) HAS NEVER BEEN THAT DESIRABLE AS BEFORE--AND
CHINA IS RUNNING OUT OF AGRICULTURAL LAND; HOW CAN WE INTERNALIZE AND REGISTER THE URBAN MORPHOLOGY FOR
UNDERSTANDING THE CYCLE OF CITY GROWTH AND DEATH OF CITY?
THUS, THE ISLAND IN BETWEEN THE HEARTS OF A DIVIDED CITY IS THE BEST CORE FOR UNDERTAKING SUCH EXPERIMENTATION.

RAPID GROWTH AND RADIAL OUTWARD EXPANSION IN 26 YEARS TIME IN JINHUA; SOURCE: JINHUA CITY PLANNING - HTTP://WWW.JINHUA.GOV.CN
WU BAI TIAN ISLAND: SITE OF NEW INTERVENTION IDENTIFIED IN THE CENTRAL VOID OF THE CITY CORE
CHAPTER 1:
WHY CHINA NOW?

1.4 OPTIMIZING THE SCALE OF OPERATION - GRID SIZE

NEW SUPERBLOCKS DEVELOPMENTS VS TRADITIONAL URBAN FABRIC IN DIFFERENT PARTS OF CHINA; BEIJING, SHANGHAI AND HONG KONG
SOURCE: GOOGLE MAP
NEW AND OLD CITY BLOCK SCALES IN NEW YORK AND BARCELONA
SOURCE: GOOGLE MAP

IMAGE SET ON THE LEFT:
THE TYPICAL NEW YORK CITY LOT- 20X100 TO 65M BY 250M

IMAGE SET ON THE RIGHT:
CERDA’S NEW CITY BLOCK FOR BARCELONA:-113.3 X 113.3 M
FACTORS IN DETERMINING BLOCK FORMS

ORIGINAL SOURCES: AURELI, PIER VITTORIO. "THE POSSIBILITY OF AN ABSOLUTE ARCHITECTURE", MIT PRESS, CAMBRIDGE: 2011
MAKI, FUMIHKO. INVESTIGATIONS IN COLLECTIVE FORM, A SPECIAL PUBLICATION NUMBER 2, THE SCHOOL OF ARCHITECTURE, WASHINGTON UNIVERSITY, ST. LOUIS: 1964; P.49
COLLAGE OF PROPOSED SIZE OF 60M X 60M GRID OVER THE SITE (WU BAI TAIN ISLAND) IN JINHUA; GOOGLE MAP
>CHAPTER 2: THEORETICAL RESEARCH OF THE “PROTOTOTYPICAL TYPOLOGY”

>2.1 ARCHITECTURAL INQUIRIES AND MANIFESTO ON URBAN FORM

If a country of a vast population is demanding for a new and better way to house its population, housing typology is undoubtedly the first dominant typology to be advanced. Moreover, it should not be merely a political slogan in resolving housing problem, but an important moment of opportunity to inject a social reform through a eutopian design that would address the volatile situation to better the systems—especially considering the tremendous scale of effect on urban form of Chinese cities.

“Typology is a way of analytical moment of architecture and it becomes readily identifiable at the level of urban artifacts.” - Aldo Rossi, 1984. -14

We can read a city of its culture and ideals by understanding the urban type. One can identify certain pattern across and generalize, categorize certain form into particular ‘types’. Suggested by Rafael Moneo in his writing “On Typology”, "‘-logy’ of ‘Typology’ is the discourse, treatise, theory (method) or science of type”.15 This theorization process creates “Typology” that consists of an ideology of the dominant type in particular situation. Thus this dominant type can be read as the irreducible element of a city and hold an extensive synthesis of its culture, geographical, political and economic logic within the city’s larger system of operation.

Most importantly, this thesis argues that architectural type is at its maximal control and power over a city when a typical form triumphs in existence. The moment it succeeds through self-multiplication and recreation of variants that would spread across the landscape of a city. Thus “type” is a valid cultural production and in the end is “a question on the architectural work itself” argued by Karel Teige, in 1932 “any ideal proposal would be technically and economically capable of realizations”. 16


CHAPTER 2: THEORETICAL RESEARCH OF THE “PROTOTYPICAL TYPOLOGY”

2.2 PRECEDENT STUDIES
HOUSING TYPOLOGIES CORRELATIONSHIPS

1930-2010
TERRACED COMPLEX
SLAB / SUPERBLOCK
APARTMENT TOWER
GROUP FORM STRUCTURE
CHAPTER 2:
THEORETICAL RESEARCH OF THE “PROTOTYPICAL TYPOLOGY”

DESIGN STRATEGY IN HABITAT ‘67
ARCHITECTURAL SCALE - INFRASTRUCTURAL SYSTEM

SECTIONAL DIAGRAM ANALYSIS OF HABITAT’67
Infrastructure within the “tube” in relationship to the units

Walkable walkway with plastic street shelter

The plumbing and electrical distribution diagram:

Infrastructure layout within the “tube” in relationship to the units

Total Unit Area: 111 sqm
Unit Areas: 56 sqm, 55 sqm

Terrace Area: 28 sqm

Unit Area vs Terrace Area
1:1

Unit Area vs Terrace Area
1:0.25

Unit Area vs Terrace Area
1:0

Unit Area vs Terrace Area
1:0.48

ANALYSIS DIAGRAMS OF INFRASTRUCTURAL SYSTEM & UNIT AGGREGATION VS. OVERALL SYSTEM OF ORGANIZATION
MIT School of Architecture + Planning

System of Organization

System of Unit Aggregation

Structural system

Inclined structure and load bearing system

Terraces with safety railing and 4-sided views

Load bearing units: Prefab modular units of box module which are based on 3.5' grid

ANALYSIS DIAGRAMS OF INFRASTRUCTURAL SYSTEM & UNIT AGGREGATION VS. OVERALL SYSTEM OF ORGANIZATION
SIMPLE CORRIDOR CIRCULATION
MASS HOUSING
FLEXIBILITY IN SECTIONAL (MAISONETTE)

MOST EFFICIENT REAL ESTATE DEVELOPMENT

CENTRALIZED CORE CIRCULATION AND STRUCTURE

FAIR NUMBER AND SIZES OF UNITS

EASY CONSTRUCTION METHOD (VERTICAL EXTRUSION)

KEELING HOUSE, CLUSTER BLOCK
DENYS LASDUN - 1955-1958

APARTMENT TOWER

GROUP FORM STRUCTURE

AN URBAN ENCLOSED SPACE
SHARED PUBLIC OPEN SPACE WITHIN A COMMUNITY
VISUAL AND SPATIAL CONNECTION OF RESIDENTS
(INNER-CONNECTIVITY)
CREATE AN IDENTITY OF THE GROUPED COMMUNITY
(IN SOCIAL AND URBANISTIC SENSE)

ILLUSTRATION REFERENCE: FRENCH, HILARY KEY URBAN HOUSING OF THE TWENTIETH CENTURY, LAURENCE KING
PUBLISHING, LONDON:2008
> > CHAPTER 2:
THEORETICAL RESEARCH OF THE “PROTOTYPICAL TYPOLOGY”

> 2.2 TRANSITION OF DESIRES: PROGRAM VS TYPOLOGY

The current existing mono-typology could not satisfy the changing demand of program in housing development; the post-utopian urbanism proposes a more vigorously mixed use hybrid typology in the projected futures, in order to satisfy the drastically changing population density.

<table>
<thead>
<tr>
<th>Year</th>
<th>Live</th>
<th>GFA</th>
<th>SRO</th>
<th>NFA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>955.8</td>
<td>38400</td>
<td>36</td>
<td>24</td>
<td>900</td>
</tr>
<tr>
<td>Family Unit</td>
<td>90 x 20</td>
<td>90 x 20</td>
<td>150 x 40</td>
<td>90 units</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Live</th>
<th>GFA</th>
<th>SRO</th>
<th>NFA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>955.8</td>
<td>46800</td>
<td>36</td>
<td>19115</td>
<td>12325</td>
</tr>
<tr>
<td>Family Unit</td>
<td>90 x 20</td>
<td>90 x 20</td>
<td>150 x 40</td>
<td>90 units</td>
<td></td>
</tr>
</tbody>
</table>

**FAR 25.3**
- Live 955.8 sqm
- GFA 38400 - SRO 12 x 200
- 240 sqm x 300
- 360 sqm x 800
- Total 1300 units
- GFA 9600 - Family Unit
  - 90 sqm x 20
  - 150 sqm x 40
  - Total 90 units

**FAR 12.6**
- Live 955.8 sqm
- GFA 46800 SRO 36 sqm
- GFA 19115 - 60/90/150 sq.m. unit types

**Mixed Use Program**
- Program changes in the two projected scenarios of 2020 and 2050
CHAPTER 2: THEORETICAL RESEARCH OF THE “PROTOTOTYPICAL TYPOLOGY”

THE MORPHOLOGY OF HYBRID HIGHRISE TYPOLOGY IN RECENT YEARS:

THE INCREASED SCALE OF SINGLE BUILDING DEVELOPMENT AND EVER CHANGING NEEDS OF INHABITANTS PROMOTES THE RISE OF THIS NEW HYBRIDIZED TYPOLOGY WITH MIXED USE FUNCTIONS. THESE FUNCTIONS INCLUDE AS MANY AS: CAR PARKS, LIVING UNITS, LIVE-WORK UNIT, OFFICE, SHOPPING, HOTEL, CULTURAL, CIVIC, EDUCATION AND SPORTS, ETC.

IN THIS NEW TYPOLOGY, IT PROMOTES AND RECREATES A KIND OF SELF-SUSTAINING VERTICAL NEIGHBOURHOOD WITHIN A LARGER URBAN FABRIC ON GROUND.
HOWEVER, THE CURRENT INEFFECTIVENESS OF THESE HYBRID HIGH RISE TYPOLOGY ARE STILL REMAIN AN EVOLUTION OF THE CONVENTIONAL HIGH-RISE MODEL WHICH ARE MERELY AN ONE DIMENSIONAL EXTRUSION IN PLAN-- STACKING OF REPETITIVE PLANS. FLOOR PLATES ARE STILL REMAIN SEGREGATED. IT IS DISCONNECTING THE HORIZONTAL PLAN IN BETWEEN EACH BLOCK AS WELL AS EACH FLOOR AND PROVIDE NO RELATIONSHIPS AND INTERACTIONS BETWEEN THE TWO.

THE POST-UTOPIAN URBANISM IS AN ATTEMPT TO ILLUSTRATE A NEW PROJECTED REALITY WHERE CHINA NOW IS HEADING TOWARDS; --THE INTRODUCTION OF DIVERSED SPECIFIC INFRASTRUCTURAL FRAMEWORK IS DESIGNED FOR A SELF-SUSTAINING VERTICAL URBAN SITUATION. MOREOVER, HOW DO WE EXPLORE THE SECTIONAL DIVERSITY BY PREMANENT INFRASTRUCTURAL INTEGRITY THAT PREVENTS OBsolescence?

ILLUSTRATION REFERENCE: A + T, VITORIA-GASTEIZ, SPAIN : 2009, NO. 33-34 HYBRID III
STRATEGY DIAGRAMS OF ANALYSING INTERNAL MIXING OF PROGRAM ORGANIZATION IN RELATIONSHIPS TO THE BUILDING STRUCTURE:

FOUR DIFFERENT STRATEGIES IN CURRENT AND PROPOSED NEW MODEL
CHAPTER 2:
THEORETICAL RESEARCH OF THE “PROTOTOTYPICAL TYPOLOGY”

2.4 THE INFORMAL APPROACH: KOWLOON WALLED CITY, HONG KONG (DEMOLISHED IN 1993)
WHAT CAN WE LEARN FROM THE INFORMAL APPROACH OF KOWLOON WALLED CITY (KWC) IN HONG KONG, PRE-1993?

THE INFORMAL APPROACH IN RESOLVING A DRAMATIC INCREASE OF POPULATION DENSITY IN THE CASE OF KOWLOON WALLED CITY WAS AN INTERESTING PRECEDENT TO LEARN FROM:

CONFINED IN AN ISOLATED PLOT OF 120M X 200M, THE DIVERSITY OF COMMUNITY LIFE AND PRODUCTION WAS CELEBRATED BY INCREMENTAL INFILLS BETWEEN EXISTING INDIVIDUAL BUILDING STRUCTURES. AT ITS FULL CAPACITY, ALL THE BUILDINGS WERE LINKED TOGETHER AS A COMPLETE UNIFIED AGGLOMERATION. PRODUCTION HOUSES, DAY-CARE CENTERS AND LOCAL STORES WERE ALL DIVERSELY DISTRIBUTED AMONG THE LIVING UNITS.

THE VERTICAL MIXING OF PROGRAM FOSTERS A NEW KIND OF URBANISM – RE-CREATING THE HORIZONTAL NEIGHBORHOOD IN THE VERTICAL DIMENSION. YET, EACH BUILDING REMAINED ITS OWN CHARACTERISTICS AND DOMINANT FEATURE… IT WAS A TRULY SUCCESSFUL IN MAKING THE CASE OF A “DIVERSED SPECIFIC” MODEL.

HOWEVER, WE CANNOT OVERLY CELEBRATE KOWLOON WALLED CITY WITH ITS DEFICIT IN PROVIDING A HEALTHY AND WELL LITE LIVE AND WORK ENVIRONMENT.
NOW: HISTORICAL REMINISCE IN KOWLOON PARK

1963: POPULATION
5000

1973: POPULATION
10,000

1984: POPULATION
35,000-50,000

1993: DEMOLITION

PRECEDENT STUDIES REFERENCE: WWW.ARCHITECTURE.UWATERLOO.CA/PORTFOLIO/.../KWREPORT080123.PDF
>> CHAPTER 2: THEORETICAL RESEARCH OF THE “PROTOTYPICAL TYPOLOGY”

> 2.5 CORE EFFICIENCY AND TYPES IN HIGH RISE TYPOLOGY

Central Core

RUFINO PACIFIC TOWER

BNI BUILDING

UOB PLAZA 1

Glass to Core Depth (m)
Owner Efficiency
Tenant Efficiency

Central Core

HONG KONG TELECOM

CITIBANK PLAZA

SOORN-HWA BUILDING

Distributed Core

ITU IME BUILDING

TECHPOINT

NTT MAKAHARI

Glass to Core Depth (m)
Owner Efficiency
Tenant Efficiency

Central Core

WAVE TOWER

GOVERNOR PHILIP TOWER

TERRICA PLACE

Side or Hybrid Cores

Telekom Malaysia

Menara Mesiniaga

Century Tower

Glass to glass Depth (m)
Glass to Core Depth (m)
Owner Efficiency
Tenant Efficiency

CORE TYPES AND EFFICIENCY IN HIGH RISES
### Core Types and Tenant Divisions Summary Table

<table>
<thead>
<tr>
<th></th>
<th>Central Core</th>
<th>Split Core</th>
<th>End Core</th>
<th>Atrium Core</th>
<th>Core</th>
<th>Atrium</th>
<th>Atrium</th>
<th>Core</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan</strong></td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>Single Tenant</strong></td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>Double Tenant</strong></td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>Multiple Tenant</strong></td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
</tr>
</tbody>
</table>
> > CHAPTER 2: THEORETICAL RESEARCH OF THE “PROTOTOTYPICAL TYPOLOGY”

SUMMARY OF DESIGN RESEARCH INQUIRIES:

WHAT IS “DIVERSED SPECIFIC”?
A SPACE WHICH IS SPECIFICLY DESIGN YET ABLE TO ADAPT TO DIVERSE ACTIVITIES.

WHAT KIND OF SPECIFICITY CAN BE INNATELY DESIGN FOR TRANSFORMATIONS?
AS THE SIZE OF SPACE INCREASES, THE RANGE OF PROGRAM INCREASES, THUS THE MORE AMBIGUOUS AND THE MORE ARCHITECTURAL QUALITY EXISTS.

HOW TO MONUMENTALIZE THE INFRASTRUCTURE?
THE PERMANENCE OF STRUCTURAL SYSTEM HAS TO BE MAINTAINED.

HOW TO EFFECTIVELY FILLED IN PLAN AND SECTION, YET QUALITY OF SPACE (LIGHT AND AIR) HAS TO BE ACHIEVABLE AND MAINTAIN LIVABILITY?
MAXIMIZE THE DEPTH OF THE BUILDING, AND RADICALIZE A BUILDING ORGANIZATION TO REACH MAX. FAR.
CHAPTER 3: OPERATIONAL METHODOLOGY & OUTCOMES

THE POST-UTOPIAN URBANISM: MULTIPLICITY IN SCALES

3.1 URBAN MASTERPLAN
RESERVED GREEN SPACES FOR PUBLIC USE & WATERFRONT INFRASTRUCTURES
THE POST-UTOPIAN URBANISM : METHODOLOGY-IN-TEST --MULTIPLICITY IN SCALES

THE THESIS ARGUES THAT THE NEW “TYPICAL” URBAN FORM AS A SUCCESSFUL (POST-UTOPIAN) AND A GENERIC SOLUTION, APPLICABLE TO ALL, OVER 667 CITIES OF CHINA IN DIFFERENT MOMENT OF THE CLOSED-LOOP CYCLE WHICH ARE TRYING TO TAKE UP THE PRESSURE OUT OF GROWING EXPANSION OF LARGER CITIES CLOSE BY.

A NEW RELEVANT HYBRID BUILDING THAT INVESTIGATES THE NEW TYPOLOGY AS A FLEXIBLE SYSTEM THAT COULD ADDRESSES THE GROWING URBANIZED POPULATION YET ABLE TO ADAPT TO THE SHRINKAGE AND CONDENSIFICATION PROCESS OF THE POPULATION THROUGHOUT 30 YEARS OF TIME. MOREOVER, **FLEXIBILITY AND LIVABILITY (LIFESTYLE)** IS THE KEY IN THE PROJECTED FUTURE.

THIS THESIS ARGUES FOR THE EXTREME HYBRIDIZED COLLECTIVE LIVING MACHINE AS A THE NEW DOMINANT SUSTAINABLE “TYPE” -- HIGH RISE COMPACT MIXED-USE HOUSING. IDEA AS A CITY WITHIN A GROUP-FORMED BUILDING- FINDING THE OPTIMUM SCALE OF THIS TYPOLOGY IS CRUCIAL IN DEFINING A SELF-SUSTAINABLE SYSTEM THAT ALLOWS FLEXIBILITY AND INDETERMINACY IN THE UNCERTAIN FUTURE.

ONCE THE NEW TYPOLOGY IS BEING “PLUGGED-IN”/DEPLOYED, IT WOULD MANIFEST INTO A SITE SPECIFIC AND NO LONGER GENERIC; THUS TAKES ON A NEW LIFE OF ITS OWN. **GENERIC THEN LOCALIZED. TYPICAL YET HETEROGENEOUS.**

**ATTEMPTS IN THREE DIFFERENT SCALES:**

ON AN URBAN SCALE, THIS THESIS SEES ARCHITECTURE CAN BE SERVED AS AN AGENT OF DERIVING AN URBAN FORM BY REGISTERING THE CHANGING NEEDS OF THE SOCIETY AND DESIRE OF ITS INHABITANTS.

ON A BLOCK SCALE, DESIGNING THE INFRASTRUCTURAL AMATURE FOR LOCAL ADAPTATION. REDEFINING THE RIGIDITY OF AN ORTHOGONAL GRID AND RESIZING SUPERSIZED BLOCK TO A OPTIMIZED SCALE.

ON BUILDING DESIGN SCALE, THIS THESIS IS TESTING THE ABILITY OF ARCHITECTURE AS A FLEXIBLE FRAMEWORK WHERE ADDITIVE AND SUBSTRACTIVE PROGRAMMATIC ELEMENTS COULD BE ADAPTED AND KEEP THE ARCHITECTURE FROM OBSOLENCE AND REMAIN AS A PRODUCTIVE ARTIFACT THAT IS RELEVANT TO ITS CULTURAL CONTEXT-- ESPECIALLY IN THE VOLATILE, COMPLEX AND UNCERTAIN FUTURE OF CHINA NOW.
AS LAND IS A LIMITED RESOURCES IN THIS CASE; IN ORDER TO COMPLETELY SATISFIED THE NEED OF HOUSING IN ABOUT 20 PLOTS (AN AREA OF 60M X 80M PER PLOT), THE MINIMUM FAR WOULD BE 25.3 (2020) & FAR 12.7 (2050).

TO BUILD A HIGH RISE IS TO MAXIMIZE THE GFA OF A PLOT. THE PROPOSED RANGE OF TOWER HEIGHTS ARE 100M, 200M & 300M.

IN YEAR 2020: POPULATION IS PROJECTED TO REACH ITS PEAK, VAST AMOUNT OF LAND WILL BE PROGRAMMED TO SUPPORT HOUSING (25%) AND ITS RELATED INFRASTRUCTURES (I.E. TRANSPORTATION AND AMENITIES (30% OF EACH PLOT) ONLY 20% WILL BE FOR LANDSCAPE AND 10% FOR “ENTERTAINMENT” (PLAY).

HOWEVER, IN YEAR 2050; AS THE POPULATION AGED AND DECLINED, VANCANCY OF HOUSING UNITS COULD BE TURNED INTO LANDSCAPE AND FURTHER MIXING OF PROGRAMS BETWEEN THE THREE - LIVE, WORK, PLAY WOULD BE MORE INTEGRATED; SMALLER SPACES ARE EXPECTED TO BE ABSORBED INTO LARGER AGGLOMERATIONSAND (50%).

LIVING SPACES PER PERSON WOULD AT LEAST BE DOUBLED - FROM 12 SQ. M. TO 24 SQ. M.
A MINI-CITY THAT IS CONSTANTLY RECONFIGURING ITSELF
>> LOGIC OF SYSTEMS: STREET NETWORK

URBAN GRID BASE ON A HIERARCHY OF OPTIMUM STREET WIDTHS (6M, 12.5M, 15M & 30M), BLOCK SCALE (60-90M X 60-90M) AND TRAFFIC FLOWS (BOTH ACROSS THE ISLAND VERTICALLY AND HORIZONTALLY).

BUILDINGS ARE SE-NW FACING ORIENTED;

A MESH-LIKE NETWORK IS DERIVED.
A structural framework is introduced according to main building orientations and perpendicular to each other. Formal folds to create landscapes at the edge conditions.

Diagrams illustrating the logic of new grid and its corresponding structural system for the flexible urban framework to follow in both X, Y directions.

MIT School of Architecture + Planning
CHAPTER 3: OPERATIONAL METHODOLOGY & OUTCOMES

3.2 BLOCK

THE CHOSEN SITE: WU BAI TIAN AND THE PROPOSED MASTERPLAN
RED MARK INDICATES THE SELECTED PLOT FOR BUILDING SCALED DESIGN DEVELOPMENT
maximize distance between towers 15-18m single corridor slab block

Block size ~ 60x80m
5m Set back
PUBLIC PROGRAMS AT GROUND AND PODIUM LEVELS OF INDIVIDUAL TOWERS
2 way streets - Car accessible
15m front street
13.5m back street
Pedestrian Oriented
30m main car access
elevated Pedestrian bridge
@12m
public transit @15m

DIAGRAMS ILLUSTRATING THE STREET ACCESS AND PUBLIC TRANSIT ACCESS IN RELATIONSHIP TO THE BUILDING TOWER
AMENITIES WITHIN EACH TOWER VS. LARGER CIVIC AND COMMERCIAL PROGRAMS AT GROUND LEVEL

civic school can be emptied out in 2050 become landscape

water front infrastructure

residential units

large commercial center

commercial

expendable units and infilled amenities
CHAPTER 3:
OPERATIONAL METHODOLOGY & OUTCOMES

3.3 BUILDING DESIGN
specific programs:
"re-creational" cultural/creative production:
- theater
- multi-purpose public spaces

+72m
+108m
+116m
+140m
+136m
+84m
+8m
+120m
+124m
+128m
+112m
+132m
+0m
-4m
-8m
-12m
+100m
+104m
+68m
+96m
+76m
+80m
+88m
+92m
+36m
+48m
+52m
+56m
+60m
+64m
+40m
+44m
+4m
-8m
-12m
-16m
-20m
-24m
-28m
-32m
+4m

+120m
+124m
+128m
+112m
+132m
+0m
-4m
-8m
-12m
+100m
+104m
+68m
+96m
+76m
+80m
+88m
+92m
+36m
+48m
+52m
+56m
+60m
+64m
+40m
+44m
+4m
-8m
-12m
-16m
-20m
-24m
-28m
-32m
+4m

generic programs:
retail
restaurant
day care

circulation space
larger multi-purpose amenities space
flexible expansion community socializing space
parking access
public plaza - buffering zone between public and private
piling
community classroom
permanent "shelf" structure for future program infill
vertical circulation space
meeting spaces
circulation space
circulation space
flexible expansion community socializing space
multiple purposes spaces
green terraces
flexible expansion community socializing space
flexible expansion community socializing space
flexible expansion community socializing space
flexible expansion community socializing space
public transit
green terraces

specific programs:
"re-creational" cultural/creative production:
performance place
theater
multi-purpose public spaces
expandable unit: extra living spaces
individual unit's green houses

+252m
+72m
+164m
+288m
+268m
+264m
+260m
+256m
+168m
+280m
+276m
+272m
+284m
+188m
+300m
+292m
+296m
+284m
+184m
+108m
+176m
+228m
+180m
+172m
+200m
+192m
+208m
+204m

generic programs:
retail
restaurant
day care

circulation space

larger multi-purpose amenities space
flexible expansion community socializing space

public plaza: buffering zone between public and private

parking access

infrastructure:
sewage/water
behind the elevator core (circulatory space)

meeting spaces

traffic
Road 6m Pedestrian path

public transit

generating and analysis spaces

community classroom

permanent "shelf" structure for future program infill

vertical circulation space

circulation space

circulation space

flexible expansion community socializing space

multiple purposes spaces

green terraces

flexible expansion community socializing space

community classroom

meeting spaces

vertical circulation space

public plaza

parking access

infrastructure:
sewage/water
behind the elevator core (circulatory space)

绿化平台

特定项目：
"再创造"文化/创意生产：
表演场所
剧院
多功能公共空间
可扩展单元：额外生活空间
个人单元的绿色房子

+252m
+72m
+164m
+288m
+268m
+264m
+260m
+256m
+168m
+280m
+276m
+272m
+284m
+188m
+300m
+292m
+296m
+284m
+184m
+108m
+176m
+228m
+180m
+172m
+200m
+192m
+208m
+204m

通用项目：
零售
餐厅
日托

交通空间

大型多功能公共服务空间
灵活扩展社区社交空间

公共广场：公共和私人之间的缓冲区

停车场访问

基础设施：
污水/水
在电梯核心（交通空间）的后面

会议室

公共过渡

生成和分析空间

社区教室

永久“货架”结构，用于未来项目填充

垂直交通空间

交通空间

交通空间

灵活扩展社区社交空间

多功能空间

绿色平台
2020...

TO BE PROVIDED: PHASE 1: -2020
1.) LIVE

MOSTLY SMALLER STUDIOS AND SOHO OFFICE UNITS
FAMILY UNITS WITH SHARED AMMENITIES

2.) CIRCULATIONS SYSTEMS
- SPLIT CORES AT BOTH ENDS

3.) STRUCTURAL FRAMEWORK
- SEMI-SPACE FRAME STRUCTURE (HEXAGON SYSTEM)

2050...

TO BE PROVIDED:

PHASE 2: -2050
1.) LIVE / WORK

LARGER FAMILY UNITS PARTIALLY ALTERED TO
SHARED AMMENITIES
OPEN SPACES / GREEN TERRACES ARE ACCESSIBLE
TO INDIVIDUAL UNIT
RESIDENTIAL UNITS AND MODULES:

SRO UNITS; TYP A, B, C

IN 2050:
SRO UNITS CAN BE COMBINED INTO LARGER FAMILY UNITS

1 BEDROOM (2PP) TYP A
IN 2050:
UNIT “DISSOLVES” INTO PUBLIC CIRCULATION AREA AND COMMON AMENITIES SPACES

3 BEDROOMS (4PP)- DISSOLVABLE TYP. A
CHAPTER 4: APPENDIX

4.1: THESIS DEFENSE
>> CHAPTER 4: APPENDIX

> 4.2: MODELS

1:200 TOWER MODEL
1:2000 MASTERPLAN SITE MODEL
> > CHAPTER 4: APPENDIX

> 4.3: PRELIMINARY SCHEMES

ITERATIONS ON DIFFERENT SCALES
> INITIAL ITERATIONS - BLOCK SCALE: TEST OF MASSING STRATEGY, DENSITY, ACCESSIBILITY AND POROSITY

**STRATEGY 1 - COURTYARD ENCLAVES**
26 UNITS x 2 EACH LEVEL (50% LIVING - 50% OTHER PROGRAMS)
GFA: LAYERING HIGHER LEVEL OF PEDESTRIAN WALKWAYS AND CREATE PUBLIC GREEN SPACES

- Concept:
  - Internalized Courtyards
  - High inner connectivity
  - Increase surface area for terracing

**STRATEGY 2 - LINKED**
28 - 30 LEVELS / 3 M FLOOR TO FLOOR HEIGHT
26 UNITS x 2 EACH LEVEL (50% LIVING - 50% OTHER PROGRAMS)
GFA: High level of pedestrian-oriented inter-connectivity
- Public shared zones between building blocks

**STRATEGY 3 - LINKED MAT - HYBRID**
26 UNITS x 2 EACH LEVEL (50% LIVING - 50% OTHER PROGRAMS)
28 - 60 LEVELS / 3 M FLOOR TO FLOOR HEIGHT
GFA: High level of pedestrian-oriented inter-connectivity
- Public shared zones between building blocks
- Create variety of density of building types

MIT School of Architecture + Planning
STRATEGY 4 - STEPPED ENCLAVES
6X6X6 CUBE MODULES
EMCLOSED SHARING / NON-RESIDENTIAL PROGRAMS EMBEDDED

STRATEGY 5 - EXTENDED INFRASTRUCTURE SLAB
20M X 32.5M PER SLAB
20M X 130M PER BLOCK

STRATEGY 3.5 - COURTYARD HYBRID ENCLAVES
26 UNITS X 2 EACH LEVEL (50% LIVING - 50% OTHER PROGRAMS)
28 - 30 LEVELS / 3 M FLOOR TO FLOOR HEIGHT
STRUCTURAL STRATEGY: UNIT AGGREGATION ATTEMPT
DESIGN STRATEGY VER 1.0 - LEARNING FROM THE HABITAT 67'

URBAN SCALE

SYSTEM OF ORGANIZATION:
CONTINUOUS INTERWOVEN WALKWAYS AND INFRASTRUCTURAL ELEMENT

Minimum number of units accommodate:
- 28 units per level per plot - total 168 units per level per block
- 2-3 cores per block
Distance between cores: 27-40 m

BLOCK PLAN (115m X 200m)
1:250

ARCHITECTURAL SCALE

UNIT AGGREGATION: STACKING/LOAD BEARING AS THE STRUCTURAL STRATEGY
PROGRAM ANALYSIS & THE PROJECTIVE LIVING MODEL
MID-REVIEW: BUILDING SCALE

TEST 1: DIAGONAL BRACING AND TRAY SYSTEM; SPLIT CORE VERTICAL CIRCULATION SYSTEM; PODIUM TOWER
RESIDENTIAL AND INTERCHANGEABLE OFFICE UNITS

MIXED USE LOW-RISE COMPLEX

TRAY SYSTEM FOR ADDITIVE UNITS /PROGRAMS

FROM GROUND PLAZA

FROM GROUND UP

UNIT ACCESS CORRIDOR
> ITERATIONS: BUILDING SCALE

TEST 2: HEXAGON STRUCTURAL FRAMING WITH I BEAMS AS CONNECTIONS; DUAL FACADE AND SPACE DIVISION SYSTEM

TEST 3: HEXAGON STRUCTURAL FRAMING WITH I BEAMS AS CONNECTIONS; SEPARATED SYSTEM OF SPATIAL CONFIGURATION FROM THE HEXAGON STRUCTURE; FLOOR SLABS SUPPORTED BY SECONDARY VERTICAL CORES.
**DESIGN STRATEGY**

**ARCHITECTURAL SCALE - SECTIONAL EXPLORATION**

**ARCHITECTURAL SCALE - PROVIDING A INFRASTRUCTURAL FRAMEWORK**

**TO BE PROVIDED: PHASE 1: 2020**

1. **LIVE**
   - All smaller studios and some office units
   - Mini-family units
   - Shared amenities

2. **Circulation Systems**
   - Split Core
   - Atrium Core

3. **Structural Framework**
   - Semi-Space Frame
   - Hexagonal system

**TO BE PROVIDED: PHASE 2: 2050**

1. **LIVE**
   - Larger family units partially altered to
   - Shared amenities
   - Other programs and open spaces

**RENTAL UNIT PLANS 1:100**
>ITERATIONS

URBAN SCALE TESTS ON OVERALL DENSITY DISTRIBUTION
TEST 1: CONCENTRATED DENSITY AT THE CENTER OF THE ISLAND - CITY CENTER MODEL
TEST 2: ROAD INFRASTRUCTURAL INTEGRATION WITH BUILDINGS AND CREATE AN OVERALL BUILDING ENVELOPE
TEST 3: VARYING GRID NETWORK SYSTEM (A DISTORTED SQUARE)
TEST 4: VARYING DIAGONAL GRID NETWORK SYSTEM OVERLAY ON STRUCTURAL GRID AND CREATE SPECIFIC EDGE CONDITIONS
PROCESS SCENARIO: URBAN SCALE: ANOTHER DYSTOPIA?
DESIGN STRATEGY
REGENERATING A FLEXIBLE AND DIVERSED URBAN SYSTEM

1. TRAIN/PUBLIC TRANSIT TRAFFIC
2. FOOT TRAFFIC (FOOT BRIDGE)
3. CAR TRAFFIC

DENSITY TEST = HIGHEST - SQUARE GRID
DENSITY TEST = HIGHEST - HEXAGON GRID
DENSITY TEST = HIGHEST - DIAMOND GRID
DENSITY TEST = MEDIUM - DIAMOND GRID
DENSITY TEST = HIGHEST - DIAMOND GRID WITH SETBACK BLOCKS
DENSITY TEST = MEDIUM - DIAMOND GRID WITH SETBACK BLOCKS

50% Housing (50% public circ.)
30% Housing
70% open
50% Tranisit circ.
100% Housing
100% Open space

155.85
93.66
100.29
84.90
90.00
180.00
104.53
50.00
128.25
112.87
115.82

OPTIMIZED DENSITY = MEDIUM - DIAMOND GRID WITH SETBACK BLOCKS
DESIGN DEVELOPMENT OF TEST 4: STRUCTURAL AND PROGRAM INTEGRATION
> 4.3: BIBLIOGRAPHY AND ACKNOWLEDGEMENTS


ZIZEK, SLAVOJ. LIVING IN THE END TIMES, VERSO, NEW YORK: 2010

MARCH 20, 2011. HTTP://WWW.SBS.COM.AU/DATELINE/STORY/ABOUT/ID/601007/N/CHINA-S- Ghost-Cities

MARCH 20, 2011. HTTP://WWW.SBS.COM.AU/DATELINE/STORY/ABOUT/ID/601007/N/CHINA-S- Ghost-Cities


HTTP://WWW.GLOBALPROPERTYGUIDE.COM/ASIA/CHINA/RENTAL-YIELDS


ROSSI, ALDO. THE ARCHITECTURE OF THE CITY (OPPOSITIONS BOOKS), P.41. MIT PRESS, CAMBRIDGE: 1984

MONEO, RAFAEL. “ON TYPOLOGY”, P.23. OPPOSITIONS 13, 1978, P.23

KARIEL TEIGE, THE MINIMUM DWELLINGS, TRANSLATED BY ERIC DLUHOSCH, MIT PRESS (CAMBRIDGE, MA AND LONDON), 2002; [NEJMENSI BYT, VACLAV PETR (PRAGUE)] 1932., P.12

CHRIST, EMANUEL, AND CHRISTOPH GANTENBEIN. P.37 IN “HONG KONG TYPOLOGY.” ZURICH: GTA PUBLISHERS 2010.

 CHAPTER 4: APPENDIX


AURELI, PIER VITTORIO. “THE POSSIBILITY OF AN ABSOLUTE ARCHITECTURE”, MIT PRESS, CAMBRIDGE: 2011


KOOLHAAS, REM. HANS ULRICH OBRIST, PROJECT JAPAN: METABOLISM TALKS, TASCHEN:2011


OSWALD,PHILIPP. TIM RIENIET (ED.) ATLAS OF SHRINKING CITIES = ATLAS DER SCHRUMPFENDER STÄDTE. HATJE CANTZ PUBLISHERS:2006

SERGE, SALAT. CITIES AND FORMS. HERMANN, FRANCE:2011

MAKI, FUMIHIKO. INVESTIGATIONS IN COLLECTIVE FORM, A SPECIAL PUBLICATION NUMBER 2, THE SCHOOL OF ARCHITECTURE, WASHINGTON UNIVERSITY, ST. LOUIS: 1964

A + T, VITORIA-GASTEIZ, SPAIN: 2008, NO.32 HYBRIDS II

A + T, VITORIA-GASTEIZ, SPAIN: 2009, NO. 33-34 HYBRID III

HOWARD, EBENEZER. GARDEN CITIES OF TO-MORROW (LONDON, 1902. REPRINTED, EDITED WITH A PREFACE BY F. J. OSBORN AND AN INTRODUCTORY ESSAY BY LEWIS MUMFORD. (LONDON: FABER AND FABER, [1946])50-57, 138-147.

KOWLOON WALLED CITY: WWW.ARCHITECTURE.UWATERLOO.CA/PORTFOLIO/.../KWCREPORT080123.PDF

ROGGEVEEN, DAAN. HOW THE CITY MOVED TO MR. SUN, SUN PUBLISHERS, 2010., P27, 29, 71

MIT School of Architecture + Planning | 132
THANK YOU!

> THANK YOU ALL
TO NADER, FOR BEING A CRITICAL MENTOR, PUSHES IDEAS, CONSTANTLY DEMANDS AND MOTIVATES ME; NEVERTHELESS ALWAYS REMIND ME THINGS BEYOND THESIS—HOW TO FIGHT FOR DESIGN AND ENJOY!

TO BRENT, ZIAD AND DAVID FOR ALL THE INVALUABLE SUPPORT, INSIGHTFUL DISCUSSIONS, CRITICISM ALONG THIS AMBITIOUS JOURNEY.

TO JAN, FOR GIVING ME THIS UNIQUE OPPORTUNITY TO WORK AS YOUR STUDIO T.A.; IT WAS AN INCREDIALLY FUN EXPERIENCE TO WORK WITH YOU AND THE YOUNGER GENERATIONS OF MIT; & THANK YOU FOR YOUR SUPPORTING WORDS AND ENCOURAGEMENTS AT ALL TIMES.

TO ALL DESIGN MENTORS & SUPPORTING STAFF AT MIT, ESP. CYNTHIA, JIM & CRON; THANK YOU FOR ADVANCING MY UNDERSTANDING IN ARCHITECTURE IN DIFFERENT MEANS, YOUR PATIENCE AND UNDERSTANDING.

TO MY MANY DEAR FRIENDS & 2013 CLASSMATES FOR ALL THE SUPPORT, ADVICE AND SHARED INSPIRATIONS, EXPERIENCE, THOUGHTS AND MAKING IT THROUGH MIT WITH ME. THANK YOU FOR SUPPORTING ME ALONG THIS STRESSFUL YET FRUITFUL TIME OF MY LIFE—BOTH PHYSICALLY AND SPIRITUALLY; I WOULD NOT HAVE GONE THIS FAR WITHOUT ANY ONE OF YOU:

ALEXANDER DIXON, ANDREW MANTO, ANDY & PENNY, BENNY LEE, CECILIA HO, CHRISTIN & HUGO, CHUI YING CHEE, CLAIRE YUEN, CURTIS ROTH, CYNTHIA TING, DAN LI, DENNIS CHEUNG, FAI TANG, FEI FEI, GEORGE LIN, HOKAN WONG, HUANG LI, JAE K KIM, JESSICA LEE, JIE ZHANG, JIN & YOON, JINHUI HUANG, KATHY KU, KIAN YAM, MAVIS YIP, MENG SUN, NATALIE WONG, OTTO NG, RICHARD ONG, SLOBODAN RADOMAN, YAN PING WANG.

TO MY 4.114 STUDENTS, ESP. ANNA FALVELLO, ANDREW SANG, P.J., BRYAN LEE

TO MY FAMILY FOR GIVING ME EXTENSIVE FREEDOM TO PURSUE MY DREAMS EVER SINCE I WAS BORN.

SUNNIE
2013.
THE ROLE OF ARCHITECTURE IN THE MOMENT OF CRISIS:
“However, our point is not that architecture should somehow be “critical,” but that it cannot not reflect and interact with social and ideological antagonisms: the more it tries to be pure and purely aesthetic and/or functional, the more it reproduces these antagonisms.” Zizek, Slavoj; Living in the End Times, p.274

>>! Architecture regains its autonomy!
“THE DEATH OF GROWING CITIES?!
RECONSTRUCTING THE POST-UTOPIAN URBANISM IN CHINA NOW!”

BY
SING YEUNG (SUNNIE) LAU

B.A. ARCHITECTURE, 2007
UNIVERSITY OF CALIFORNIA, BERKELEY

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 2013

© 2013 SING YEUNG LAU. ALL RIGHTS RESERVED.