



Shifting Metaphors for Re-Imagining Post-industrial City Futures

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Overview of Presentation

1. Macrohistorical View of Cities

- Pre-Modern Cities - Unconscious Unitive Worldview
- Modern Cities - Industrialization and Specialization
- Post-Modern Cities - Post-Industrial Conscious Re-integration

2. Layered Analysis of 21st Century Cities

Layer 1: Surface View - what's in the News?

- A "Crisis of Crises"
- A "Kaleidoscope of Hope"

Layer 2: Systems and policies

- What are governments doing?
- What can the people do?

Layer 3: Worldview analysis

- Modernism reduced to economic mega-development development
- Transmodernism as holistic human development

Layer 4: Hidden Metaphors

- Pre-modern: Human embedded in cosmos and nature
- Modern: Human as machine; city as factory
- Transmodern; Human as creative being; city as garden, city as university, sacred space; artists' studio; family home?

3. Shifting Metaphors for Post-industrial City Futures



PART 1:

Macrohistorical View of Cities

Macrohistorical Overview

A Soft Categorisation

	Premodern City <i>[Prior to 18th C]</i>	Modern City <i>[18th to 20th C]</i>	Postmodern City <i>[Late 20th to 21st C]</i>
Psycho-Socio-Cultural Phases	Premodern or Traditional	Modern or Industrial	Bifurction into Hyper-modern? and Post-industrial?
Political Imaginaries	City-states Organic Regions	Nation-states Nationalism	Global Imaginaries Planetary Networks
Dominant Worldviews	Pre-formal, Mythic Unconscious Unity, Humans led by Cosmic Order	Formal, Rational, Specialisation, Sense of Human as Omnipotent	Post-formal, Conscious Reintegration, Humans as Partners with Nature
Hidden Story or Metaphor	Human at Home in Cosmos and Nature City as "Templum"	Human as Machine in Building Block World City as "Factory"	Human as Steward of Earth and Nature City as "Potentia"



Pre-modern Cities:

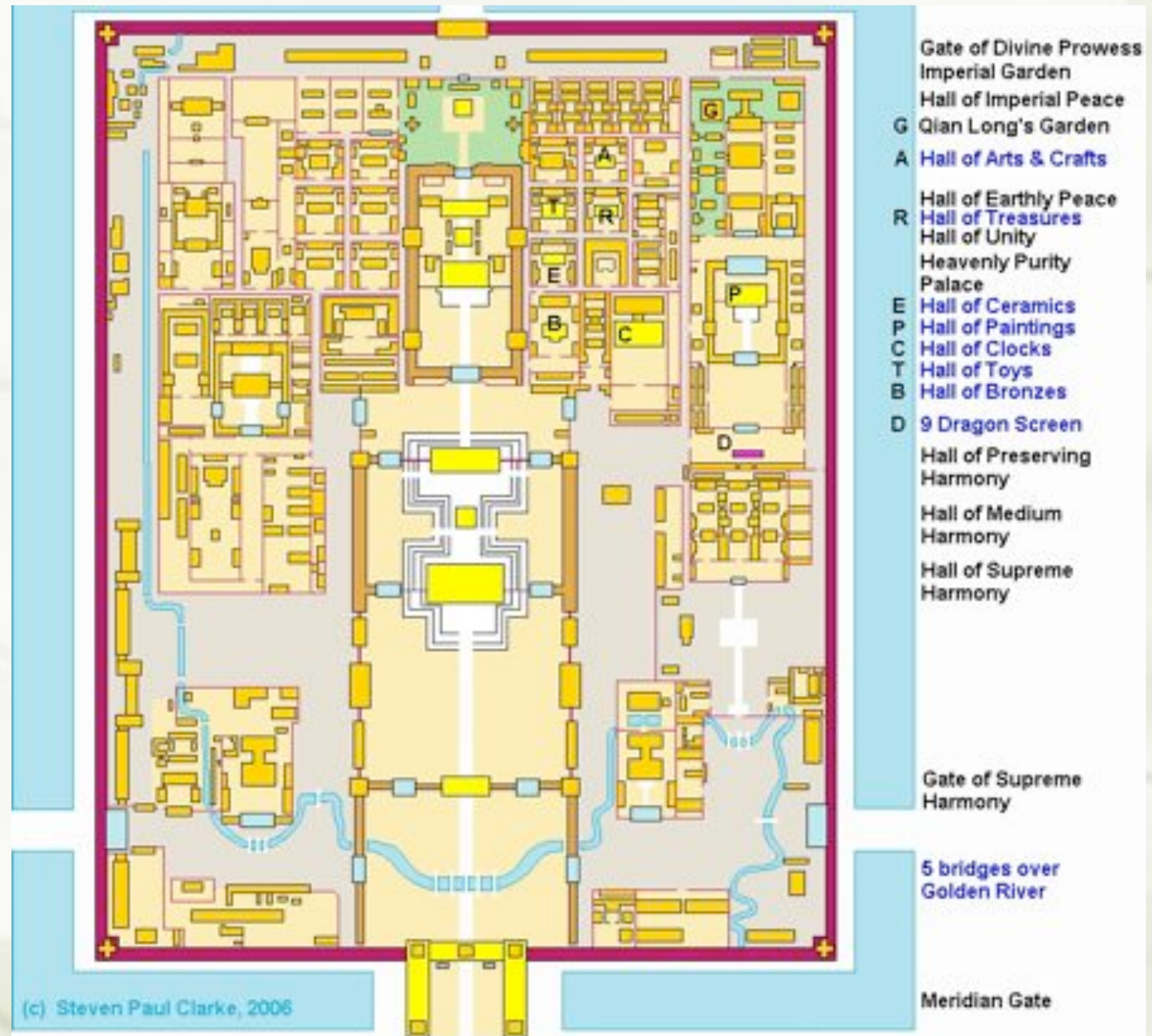
Unconscious Unitive Worldview

City as "Templum"

"An auger (seer) first divines the future city's templum (the outline of the shape in the sky). The outline of the temple can settle on the earth only after it has been considered (aligned with the stars)."

Ivan Illich, 1985, H2O and the Waters of Forgetfulness: Reflections on the Historicity of 'Stuff'

Pre-Modern Beijing: The Forbidden City



Pre-Modern Tenochtitlan: Aztec Mexico



Pre-Modern Rome: Vatican Sacred City



1 The Document Palace

2 The "Clergy" of the St

3 The High Altar of St Peter's

4 The Papal Audience Hall

5 Michelangelo's Creation of Adam in the Sistine Chapel

6 Pope John Paul II addressing the crowd in St Peter's Square

7 Vatican Museums

8 St. Peter's Basilica

9 St. Peter's Square

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Pre-Modern Jerusalem - Sacred City





Modern Cities: Worldview of Specialization

City as "Factory"

Industrialization and Fragmentation

Manufacturing of steel in steel works

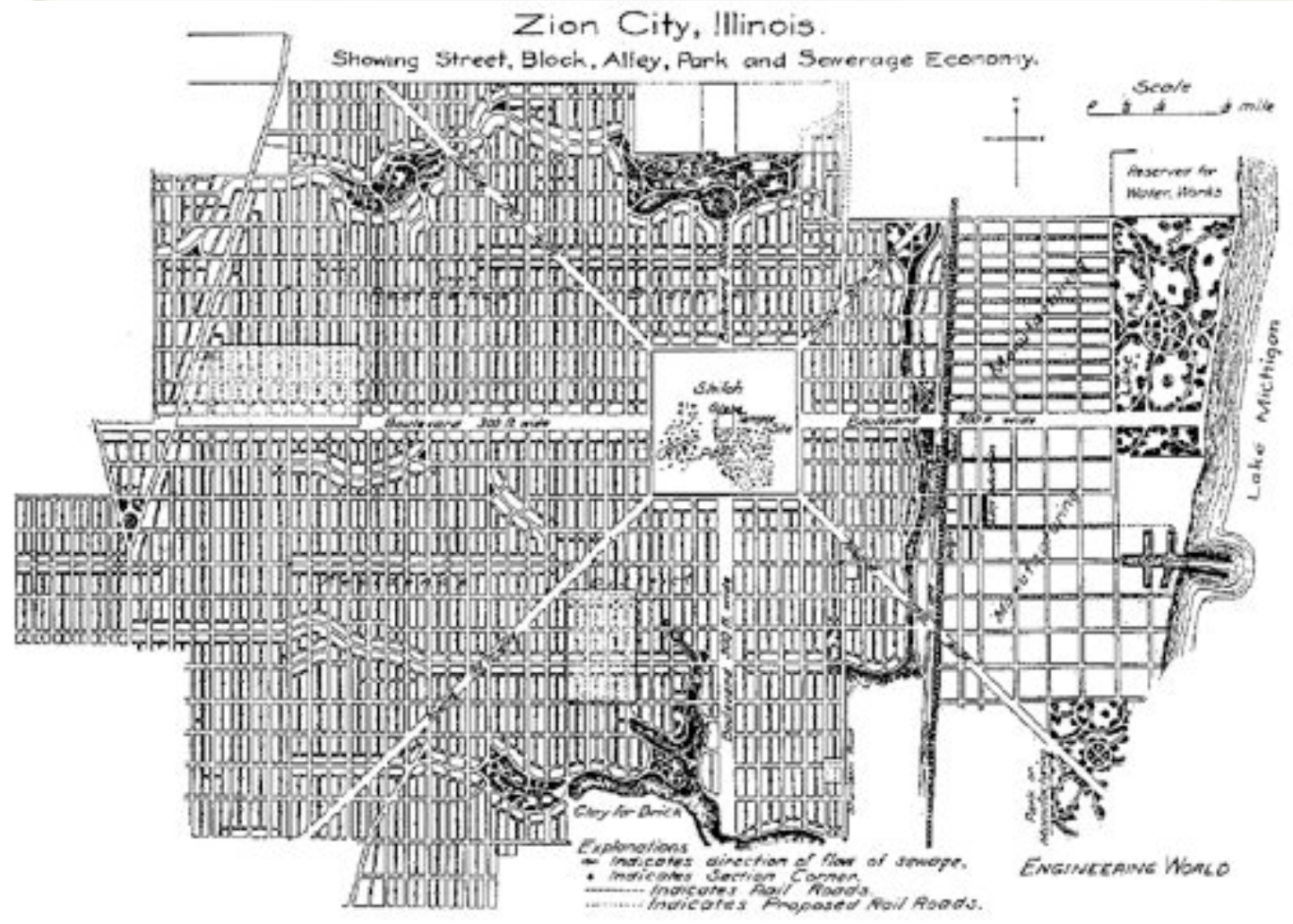
Car-based city growth built on oil discoveries.

Oil based development is unsustainable

Assembly line work dehumanizes employees.

*Hyper-factories standardise, homogenise and
degrade humanity.*

Modern Industrial City: Illinois 1900



Modern Oil City: Superhighways, Bangkok



Modern Oil Cities: Gulf Oil Spill 2010

(Cost of Modern Cities to the Natural Environment)



Modern Chinese Cities: (Hyper-industrialization of Factory City Model)





Modern HyperCity: Suicides & Violence

Psycho-Socio-Cultural Costs of Hyper-Modernism

- ✦ Rising suicide rates particularly of young people
- ✦ Rising urban homelessness
- ✦ Increases in sudden and bizarre violence
- ✦ Increases in youth mental health issues (eg in Australia 20% of young people suffer some form of mental health issue during childhood and adolescence, including depression, anxiety and eat disorders).



Post-Industrial Cities: Attempts at Conscious Re-integration

“If the nature of [humanity] is self-organising, evolutionary, complex, adaptive and co-constructive with [the] environment, then how does the city reflect this nature holographically?”

“How can we integrate the multiple disciplines and sciences to reframe the city as a whole system?”

Marilyn Hamilton, “Integral City” New Society Publishers, BC, Canada, 2008.

Post-Modern, Hyper-industrial: Dubai (Palm Island Resort and Business Centre)



Satellite Image



Post-Modern Eco: Solar Valley Germany

(near Berlin, previous hub of Eastern bloc chemical industry)

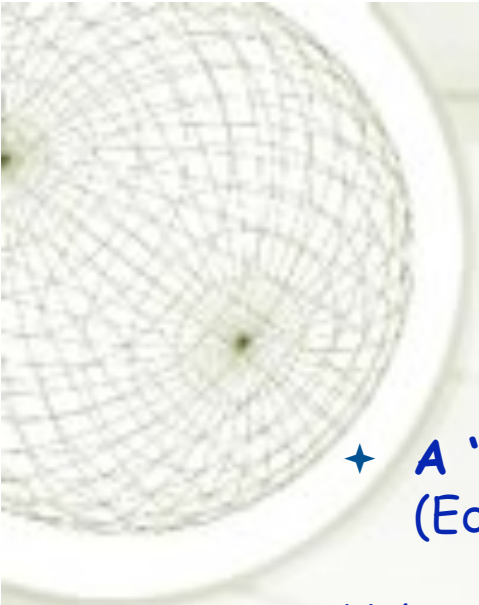




PART 2:

Layered Analysis of 21st Century Cities

Based on Causal Layered Analysis (Sohail Inayatullah)



Layer 1: The Surface View: Statistics? What's in the News?

- ✦ **A "Crisis of Crises"**
(Edgar Morin)

Urbanisation of the planet
can lead to:

- ✦ A planet of slums (Mike Davis)
- ✦ Overpopulation
(Malthusian view)
- ✦ Destruction of the
environment
- ✦ Increasing violence
- ✦ Water wars

- ✦ **A "Kaleidoscope of Hope"**

Wise Urbanization of the
planet can lead to:

- ✦ Resource concentration to
conserve the environment
- ✦ Wise water and land use
- ✦ Hubs of creativity
- ✦ Innovative re-design
- ✦ Ecological sensitivity
- ✦ Critical mass of
sustainable thinking



The Urbanization of the Planet

- ✦ Since 1950, while the global rural population has less than doubled, the global urban population has grown five times.
- ✦ By 2010 the global urban population has overtaken the global rural population for the first time in human history.
- ✦ What are the psycho-socio-cultural and environmental costs of this development?
 - ✦ Is this sustainable and how?


Planet Earth as A Megalopolis?

Cities as Shopping Malls



A New "Urban Poor" Emerges





Layer 2: Systems and Policies

What can be done?

What are governments doing?

- Many national government policies are inadequate in the face of the challenges that confront us
- Some local governments are rising to the challenge and bringing about city-driven sea-changes
 - The Mayor of Sao Paolo - No Logo Policy
 - The Mayor of Columbia - Dedicated Express Buslanes

What can the people do?

- Civil society can make a major contribution through NGOs
- Individuals and community groups can create huge pressure on governments towards sustainability
- Critical mass is fostered through alternative media

São Paulo City: "No Logo" Policy

Mayor Gilberto Kassab: 2007>>



Bogotá City: Express Buslanes

Mayor Enrique Peñalosa: 1998-2001



National Communal Projects

People-Power: "Clean up Australia Day"

Initiated by Ian Kiernan in 1989.

In 2010 over half million volunteers.

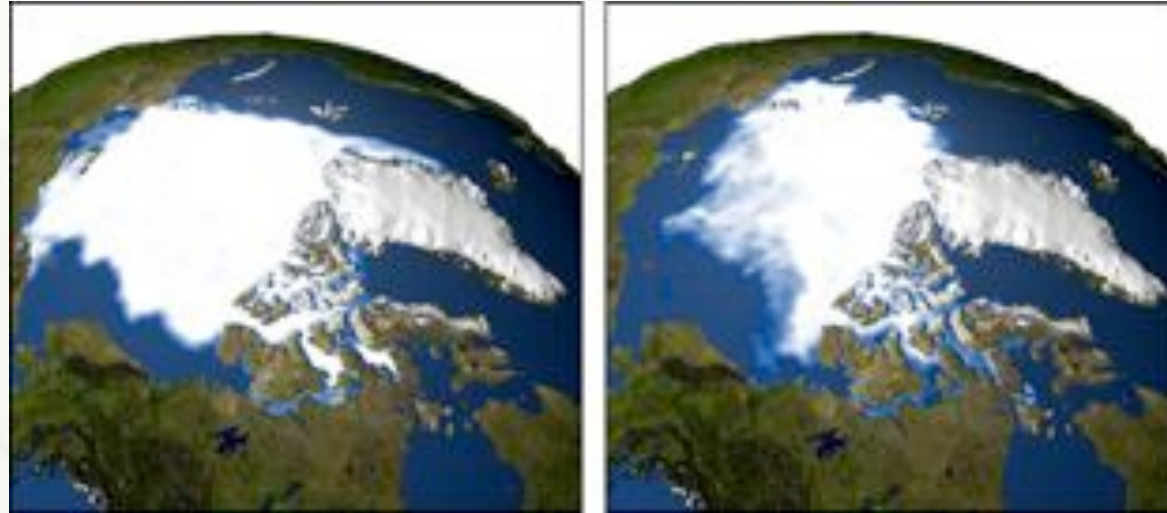
Kiernan began "Clean up the World" in 1993.

In 2009 it had 35 million volunteers from 130 countries.



International Networking

"350" Individual Initiative > Global Response



NASA images of melting ice-caps from 1979 - 2007

Bill McKibben
initiated "Day
of Climate
Action" 2009.
5,200 Events
in 181
Countries





Layer 3: Worldview analysis *Ideologies, Cosmologies and Paradigms*

Pre-modern:

A worldview of mythic, pre-rational consciousness, a cosmology of wholeness and embeddedness in nature and cosmos. See Cosmology 1.

Modern, Industrial:

A worldview of rationality and scientific empiricism. See Cosmology 2.

Modernism has become reduced to economic mega-development.

Postmodern, Transmodern, Post-Industrial:

Humans make conscious choices to re-integrate with nature and cosmos. See Cosmology 3.

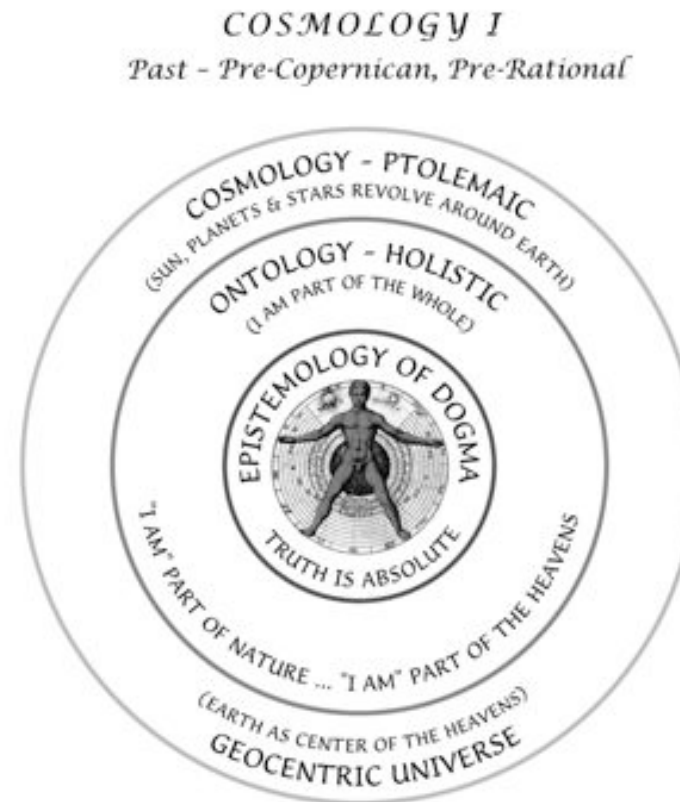
Towards holistic human development.

Cosmology 1: Pre-modern Worldview

The Pre-modern
Human

“Unconsciously
at Home in
the Universe”

Unitive
Cosmologies



TYPE OF THINKING:

- Pre-Rational, Pre-Logical
- Pictorial, Sentient

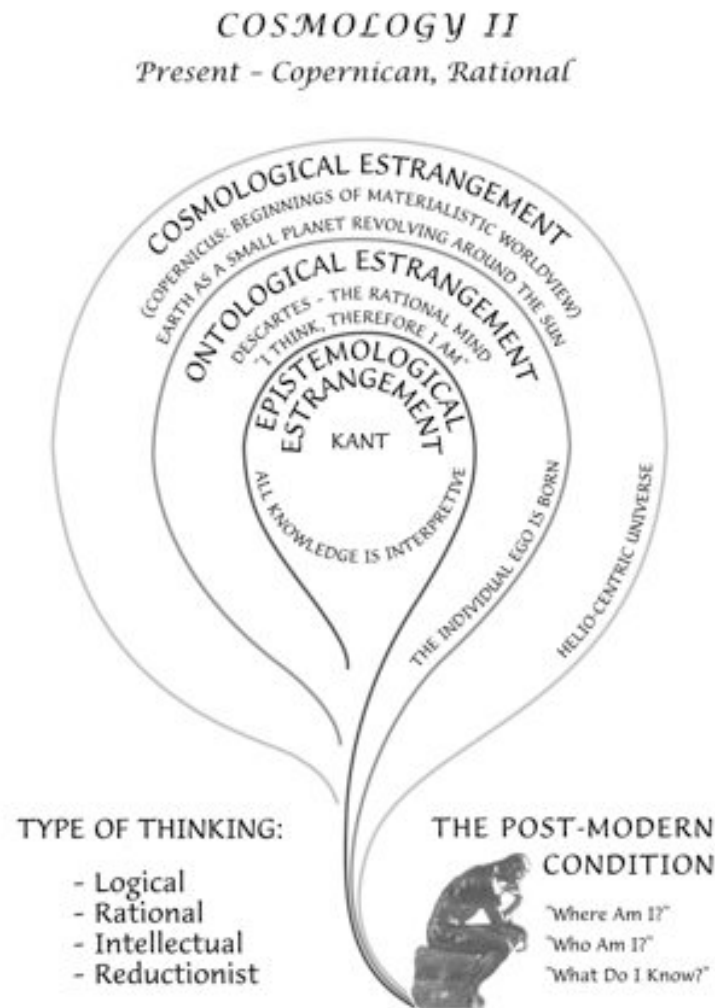
*Figure 5: The Human Being Within the Cosmic Womb
The Pre-Modern Condition*

Cosmology 2: Modern Worldview

The Modern and Alienated Human

"I think, therefore I am"
Descartes

Estranged from Nature and Cosmos



*Figure 6: The Human Being,
Hurled Out of the Cosmic Womb*

Cosmology 3: Transmodern Worldview

The Postformal
Integral
Planetary
Human

"I am, therefore I
create"

Consciously
evolving and
recreating our
connections
with Nature
and Cosmos

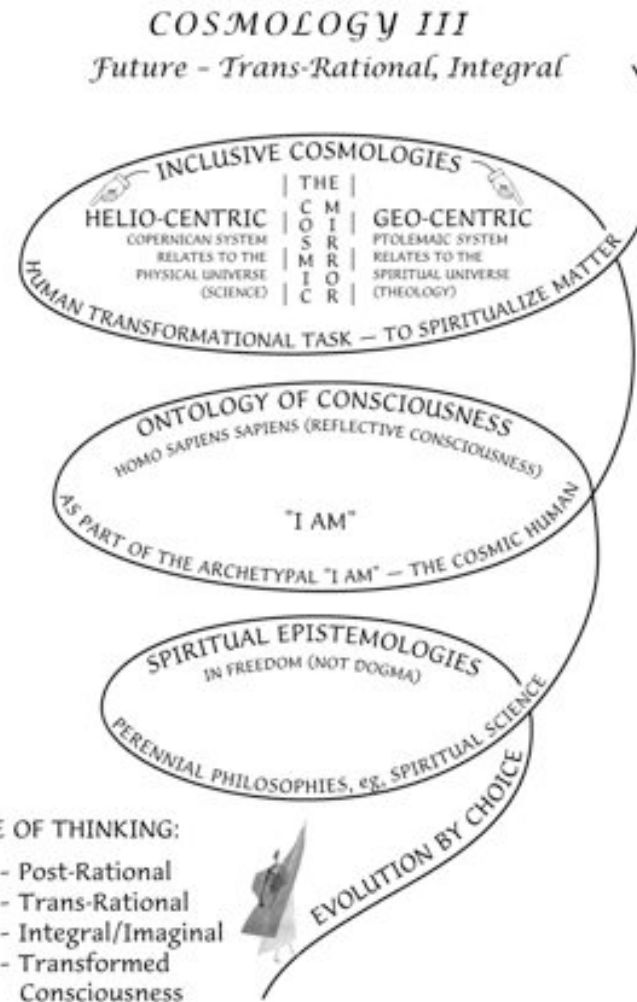


Figure 15: The human being steps in freedom up the ladder of Spiritual Epistemologies to a conscious ontology, reintegrating the cosmological schism between Science and Spirituality.



Layer 4: Hidden Metaphors

What's the Underlying Story?

Pre-modern:

Human embedded in cosmos and nature
City as community, tribal home, sacred centre

Modern, Industrial:

Human as machine in building block universe
City as factory, suburbs as dormitories

Postmodern Bifurcation:

Hyper-modern

Hyper-industrial

Human as Consumer
City as Shopping Mall

Transmodern,

Post-Industrial

Human as creative being
City as garden
university, sacred space,
artists' studio and more



PART 3:

*Creating & Exploring
New Metaphors for
"Post-industrial City Futures"*



Post-Industrial City Metaphors

Alternatives to Modern "City as Factory" and Hyper-modern "City as Shopping Mall"

Building on the notion of Human Beings as creative beings rather than machines:
What metaphors might we use for cities?

City as:

- *University*: wise city or smart city
- *Artists' studio*: creative city, beautiful city
- *Family home*: communal city, healthy city
- *Garden*: green city, eco-logical city
- ✦ *Sacred Space*: temple city, utopian city
- ✦ *Human Hive*: integral city, holistic city



City as Garden:

Green city, Eco-logical city, Sustainable City

Urban Reform and Transformation

- ✦ Greening spaces within existing cities
- ✦ Revolutions in transportation
- ✦ Shifting to non-carbon energy sources



Greening Spaces:

Green Building Standards & "Living" Buildings

The UN Global Cities Compact:

- ✦ Paul James has discussed

The Leadership in Energy and Environmental Design
(LEED) USA

- ✦ Green Building Rating System

The "Living Building Challenge" Portland, Oregon

Criteria:

- ✦ It generates all of its own energy with renewable resources,
- ✦ It captures and treats all of its water on site and
- ✦ It uses resources efficiently and for maximum beauty.

The Gutman Visitation Centre

Bird Research Centre, Jerusalem



*California Academy of Sciences
Architect Renzo Piano*



The Living Roof (CAS)

Highest rating on the LEEDS criteria



*The ACROS Office Building
Fukuoka City in Japan*



Living, Growing Walls

Musee-du-Quai-Branly, Paris



Eco-Boulevard *Vallecas, Madrid, Spain*

A new form of "urban acupuncture"



New York

begins the Greening

Disused,
Neglected,
Over-head
Rail-line in
New York City



Transformed
into an
Over-head
Park





Havana, Cuba

An Organic Revolution

Havana is now a world leader in urban agriculture.

In their search for political and economic independence, Cubans have embraced and adopted/adapted sustainable solutions.

Organic agriculture, urban gardening, permaculture, herbal medicines, renewable energy, waste minimisation, have all developed rapidly since 1990.

Today more than 50 per cent of Havana's fresh produce is grown within the city limits, using organic compost and simple irrigation systems.



Havana
Organic City
of the Green
Revolution





Revolutions in transportation

Curitiba, Brazil Model Sustainable Public Transport System

City as a pedestrian-only zone

Green moats by planting millions of trees

Highways reserved solely for mass transit

Innovative recycling program. The Mayor created a social and environmental revolution by offering groceries and bus passes to the city's poor in return for bags of recyclables. The result? Two-thirds of Curitiba's garbage is recycled.

Curitiba, Brazil

Futuristic Bus Station in Curitiba





Shifting to Non-carbon Energy

Vaxjo, Sweden: Towards Zero Carbon Footprint

In 1980, at a time when environmental issues were barely a blip on the planetary radar, Vaxjo created an energy company that used biomass to produce heating and electricity.

The city made a pledge in 1996 to become fossil-fuel free.

By 2006, the city had succeeded in reducing its CO₂ emissions per capita by 30% since 1993.

Vaxjo produces a carbon footprint similar to that found in many developing countries, while still maintaining high living standards.

*Vaxjo,
Sweden*



Giant Solar Lily-pads: Glasgow

Scottish Architect, Peter Richardson





Freiburg, Germany

Europe's Solar City

In the 1970s, the region of Baden-Wurttemberg planned to build a nuclear power plant at Wyhl, just 30 km from Freiburg. There was a major protest, with widespread civil disobedience, and in 1975 the plans were defeated.

Solar Region Freiburg is a long term development vision that the city of Freiburg in southwest Germany has embraced since 1986, which has resulted in multiple benefits for both the environment and the local economy.

Freiburg is now Europe's most prominent solar city.



Freiburg
Germany
Solar City





Futuristic Eco-Cities:

Green city, Eco-logical city, Sustainable City

New Eco-logical Designs

- ✦ Eco-cities
- ✦ Zero Carbon energy cities
- ✦ Ocean Cities
- ✦ Wild Designs



Eco-cities:

Tianjin Eco-city, China: A 10-15-year Plan

Although China's Dongtan Eco-city project appears to have stalled (if not failed) a new project is being planned.

Based on a collaborative agreement between the Governments of China and Singapore to jointly develop a socially harmonious, environmentally friendly and resource-conserving city in China.

The Eco-City will be a walkable community, with a light rail system, seamless public transportation transfers, smart road designs and well-connected walking paths.



Tianjin Eco-city, China





Zero Carbon Energy Cities

Masdar Ecopolis, Abu Dhabi, UAE

Masdar City, Abu Dhabi aims to be the first carbon neutral, zero waste city in the world.

It aims to become the silicon valley for clean, green and alternative energy. A global centre where over 1500 companies will converge to address one of humanity;s greatest challenges.

It aims to be a global model for a 100% renewable energy city integrating traditional arab planning principles and existing and future technologies.

Questions remain about it.

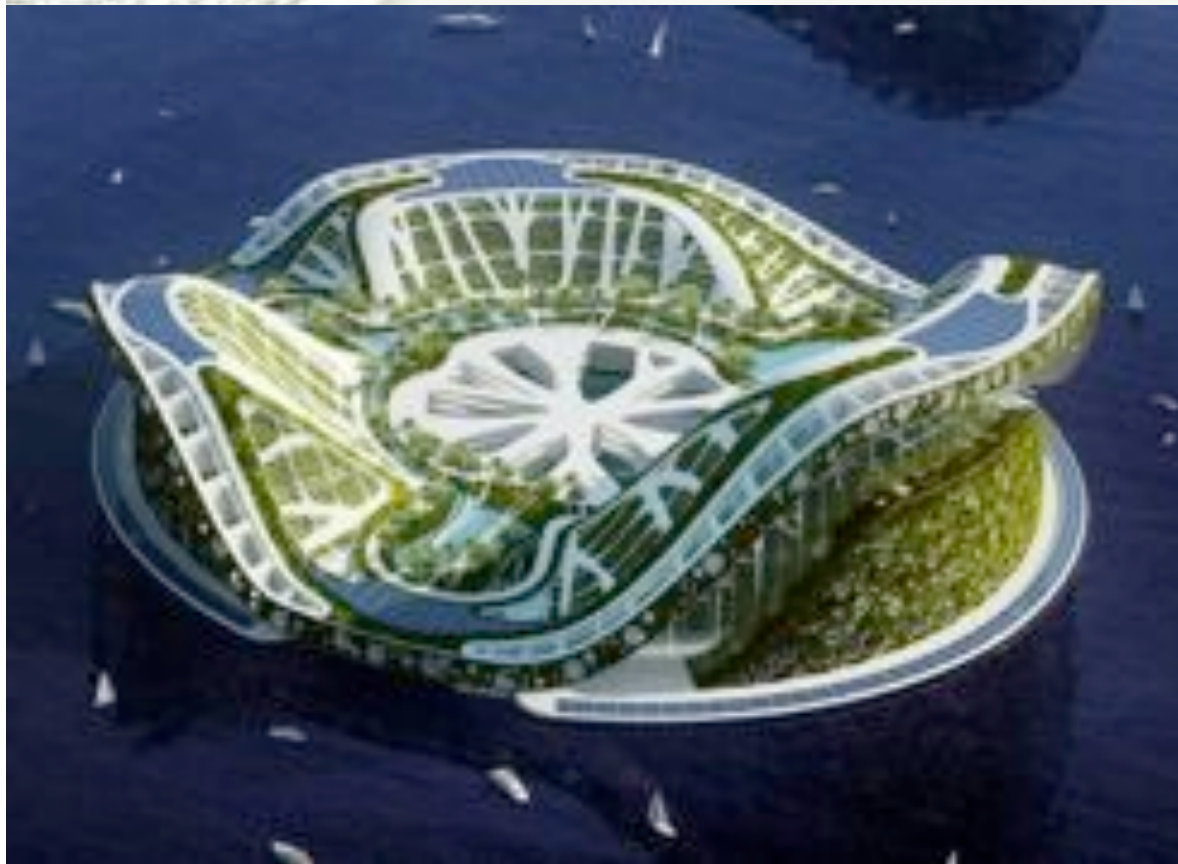
Masdar City, Adu Dhabi, UAE



Ocean Cities: The Lillipad

Futuristic Post-Ocean Rise Visions

Design by Vincent Callebaut
Belgian Architect



Wild Designs:

Architecture and the Fourth Dimension: Time



*Architect:
David
Fischer's
Dynamic
Tower*



Wild Designs:

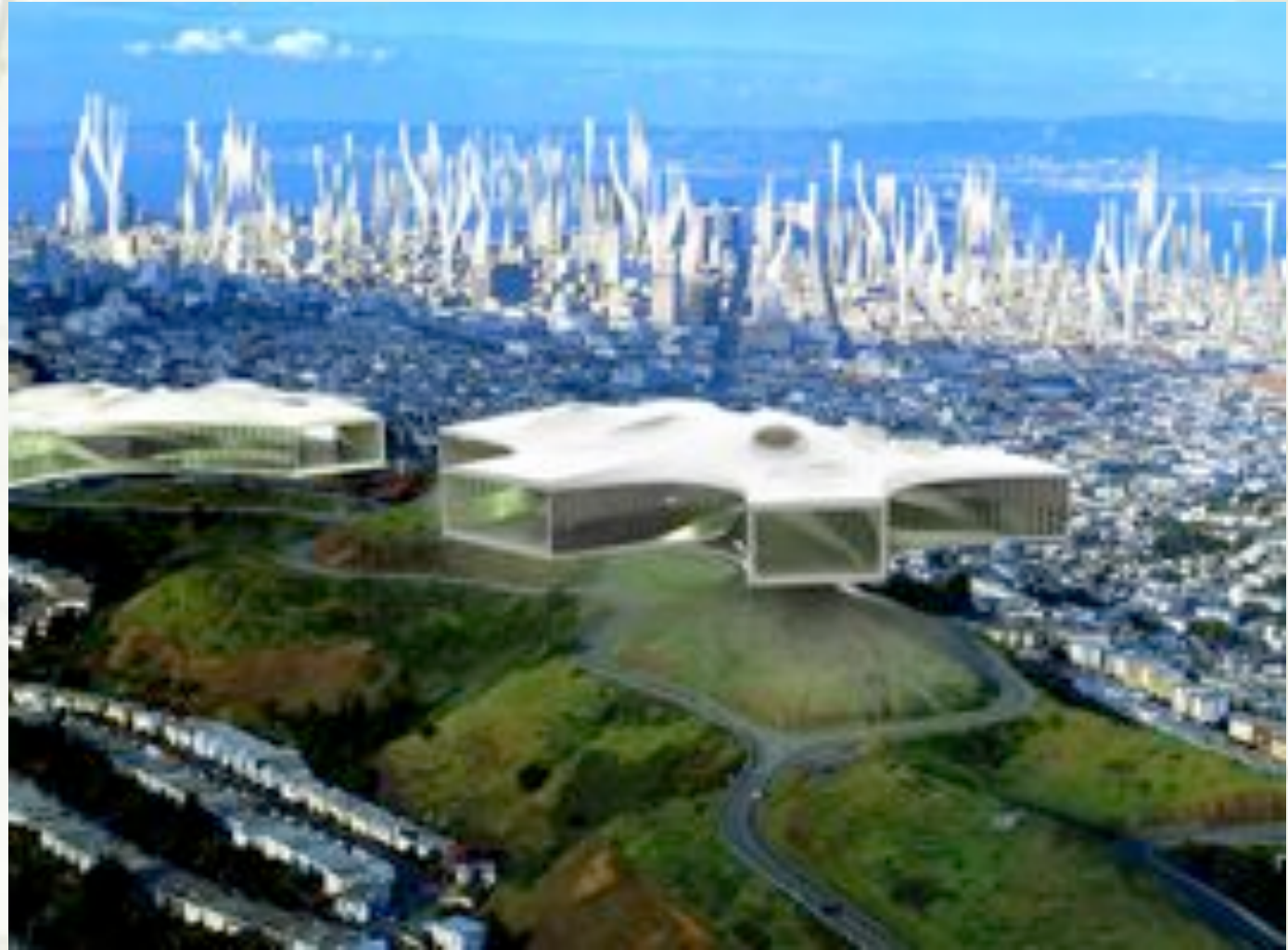
San Francisco's Hydro-Net 100-year Vision

Hydro-Net will bring San Francisco into the 22nd Century with algae-harvesting towers, geothermal energy mushrooms, and fog catchers which distill fresh water from San Francisco's infamous fog.

The aquifer and geothermal sources beneath San Francisco would be utilized as the source of water and power, while ponds and forests of algae would produce hydrogen.

San Francisco Vision 2108

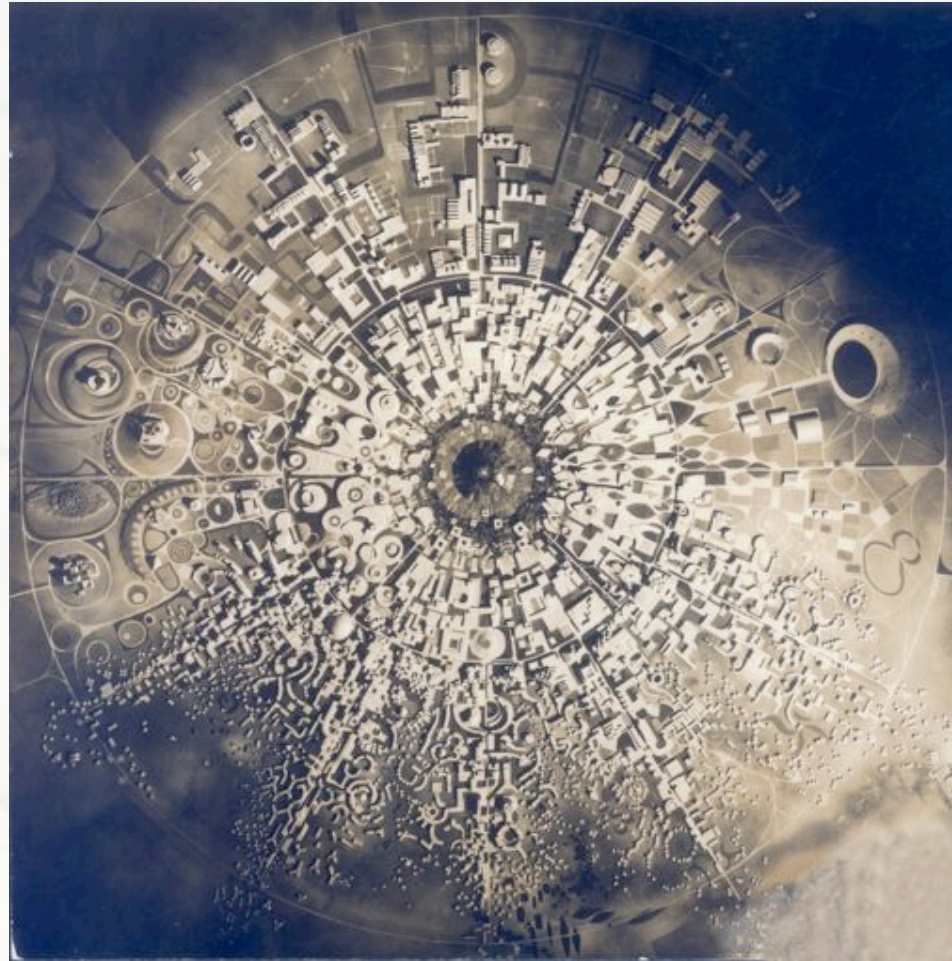
The
Hydro-
Net



City as Sacred Place: *Utopian Cities, Spiritual Cities*

Can we re-
create the
cosmic harmony
of pre-modern
cities?

Through acts of
deep
consciousness
bearing in mind
the complex
integrality of
sustainable
cities





Auroville, India *A Utopian Universal City*

Auroville intends to be a universal town where men and women of all countries are able to live in peace and progressive harmony above all creeds, all politics and all nationalities.

The purpose of Auroville is to realise human unity.



The Matrimander, Auroville, India





City as Human Hive: Integral Cities, Holistic Cities

- ✦ “Integral City” is an organisation set up by Marilyn Hamilton. Its purpose is “meshworking evolutionary intelligences for the human hive and eco-regional resilience.”
- ✦ Her book “Integral City: Evolutionary Intelligences for the Human Hive” sets out her vision and practice.
- ✦ Her book proposed the need for a new “science of human cities” base on transdisciplinary integration of planning.



Post-Industrial Cities: *Attempts at Conscious Re-integration*

Summary Reflections:

The early 21st provides a kaleidoscope of possibilities for researchers who are able to work globally and collaboratively across disciplines to re-imagine city futures.

City Futures can be socially just and harmonious, economically and ecologically sustainable and secure as well as aesthetically and culturally flourishing.