

Urban Design begins with Master Planning

Hong Kong Institute of Urban Design

Hong Kong

31th March 2012

Liu Thai Ker

Architect-Planner

Present

Chairman

Centre for Liveable Cities

Director

RSP Architects Planners & Engineers

RSP Singapore

Past

CEO & Chief Architect
Housing & Development Board, 1969-1989

CEO & Chief Planner
Urban Redevelopment Authority, 1989-1992

Chairman
National Arts Council, 1996 - 2005

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Singapore

RSP GROUP

Architecture, Planning, Engineering, Interior

Since 1956

Singapore - 500, Overall - 1400 People

Associate Companies

Squire Mech Pte Ltd

Property Facility Services Pte Ltd

12 Overseas Offices

Projects in 18 Countries

Centre for Liveable Cities

Established June 2008

Knowledge Hub under MND and MEWR

2 Yearly World Cities Summit

Document Singapore Experience

Exchange with International Experts

CONTENTS

- Two Key Tasks in Master Planning
- Perfect Machine for Living
- Great Work of Art
- Roles of Urban Design
- Roles of Architecture in Urban Design
- Selected Examples
- Wrapping Up

- Two Key Tasks in Master Planning

Science

Art

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- Science : To create a city
That works like a dream.

A PERFECT Machine for Living.

Perfection is Good Enough

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- Art : To Nurture an Urban Milieu
People Friendly and Beautiful.

A GREAT Work of Art.

There is No Function without Beauty

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●● Perfect Machine for Living

● Key Spare Parts

Urban Grid

- Green, Blue, Roads, Rail

Urban Cells

- Regions, Towns, Neighbourhoods, Blocks, Precincts

Commercial Centres

- CBD, Other Centres

Infrastructure

- Water, Sewer, Electricity, Heavy Industries

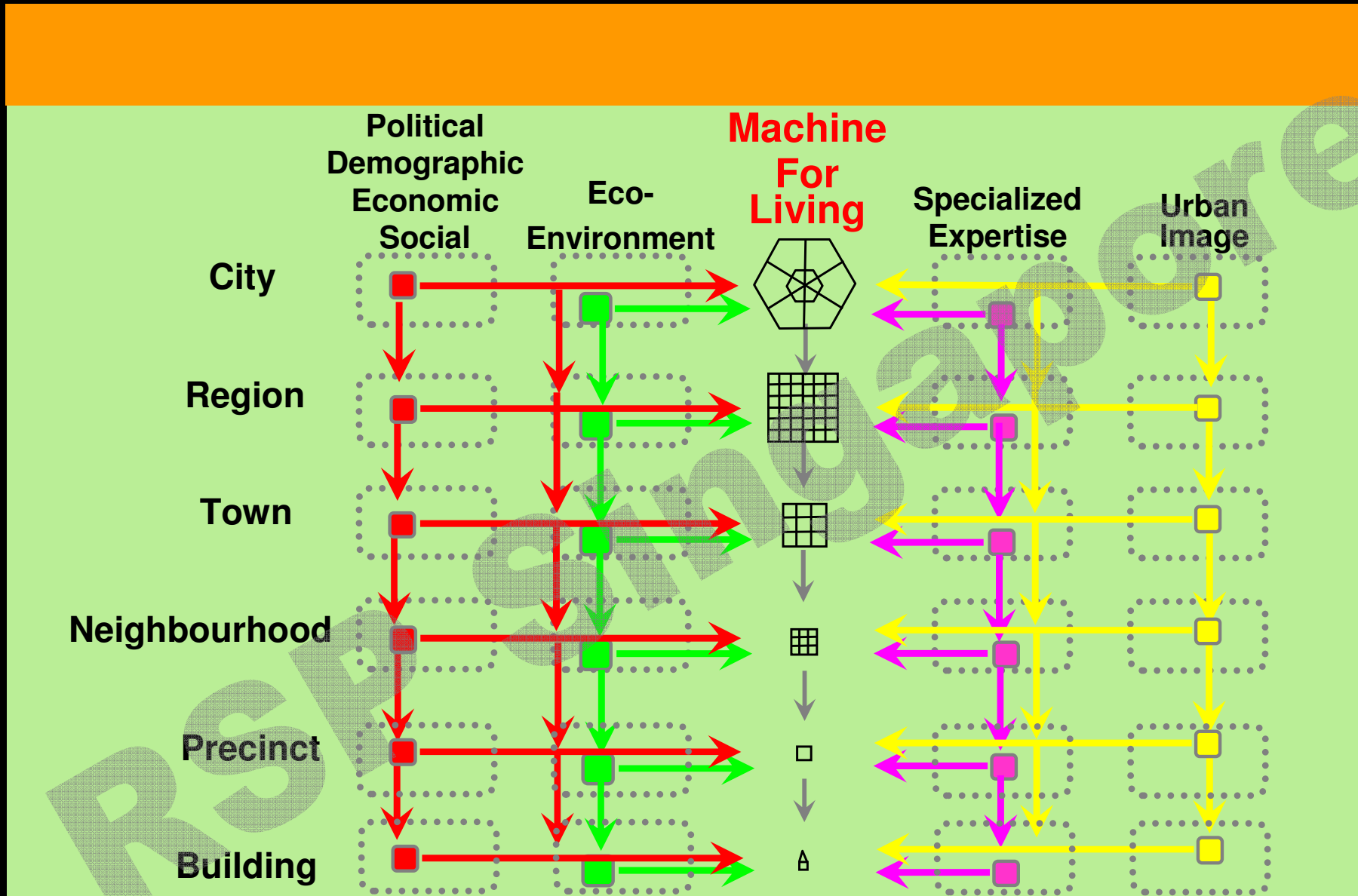
Urban Organs

- Sea + Air Ports, Heavy Industries

Urban Amenities

- Education + Cultural Centres, Sports Centres, Parks, Hospitals etc.

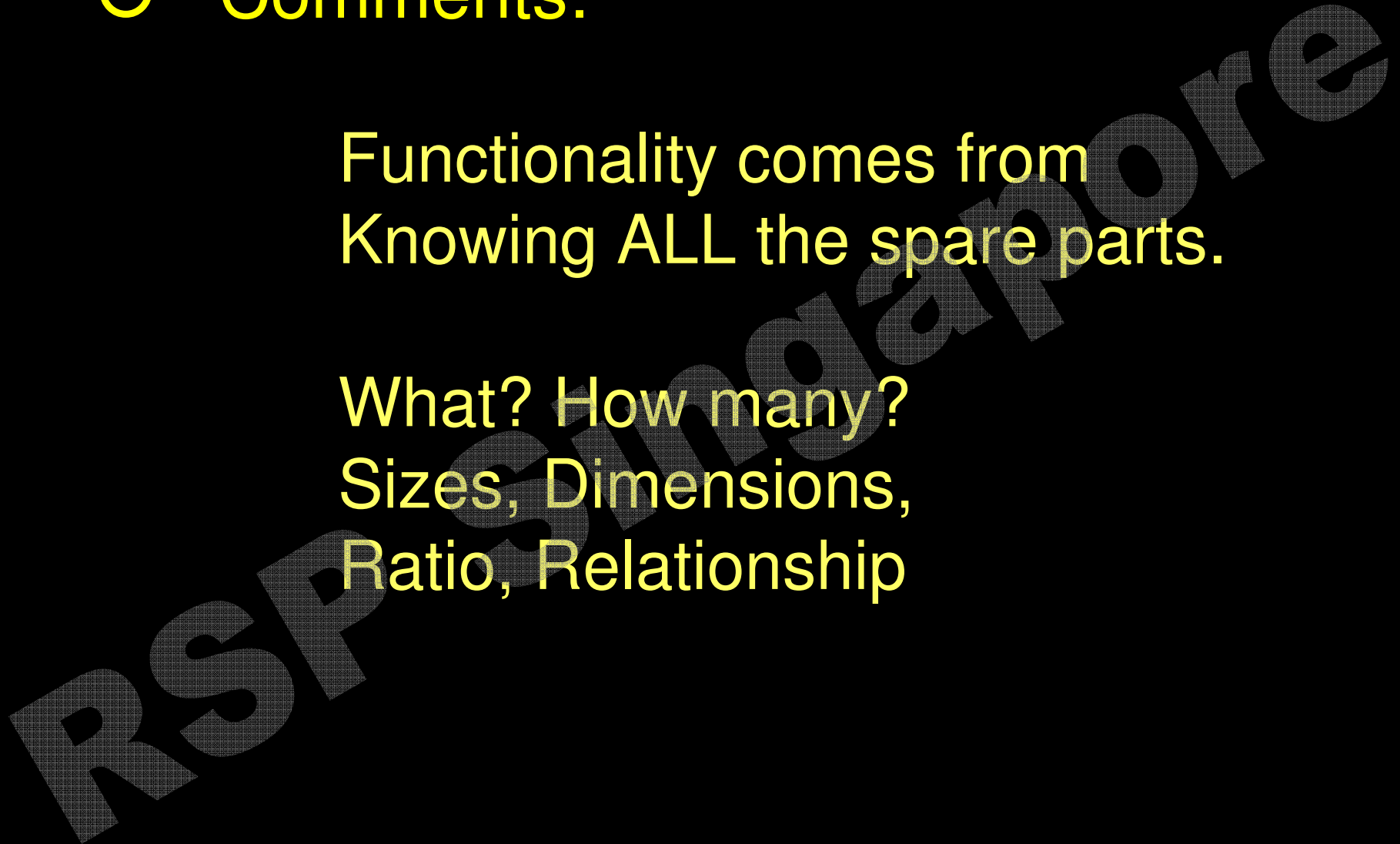
○ Assembling The Urban Machine



○ Comments:

Functionality comes from
Knowing ALL the spare parts.

What? How many?
Sizes, Dimensions,
Ratio, Relationship



● Integrating Urban Spare Parts
Singapore Example

Basic Structure

Nature

Heritage

Grids

Urban Organs

Urban Cells

Landuse

RSR Singapore

- Comments:

- Master Planning as Science

Contents : Urban Spare Parts

Vocabulary : Urban Space

Master Plan : A Machine + Form Giver

●● Great Work of Art

● Key shapers of Personality + Image

History - Monuments, Historical Districts

Nature - Green & Blue

Terrain - Master, not Slave of Development

Geometry - Good Fit

● Art

●● Great Work of Art

Different Approaches to Different Members of Urban Clan

Positioning	Building	Precinct	Neighborhood	New Town	Region	City	Constellation	Urban Milky Way
Population				150 – 200 K	0.6 – 2.0 Mil	2 – 3 Mil	3 – 20 Mil	> 20 Mil
Identity		Baby	Child	Teen	Youth	Adult	Family	Clan
Independence				Basic Needs	Partial	Full	Fuller	Even Fuller
Density		Low					High	
Character		Rustic					Dignified	
Approach		Organic					Stylised	

At All Times, **ROMANCE** with **LAND**

- The Singapore Story
An Efficient Machine
A Rich Mosaic of Images

- Old Singapore

Dilapidated

Poor

Backward

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○ New Singapore

Modern Business Centres

Public Housing

Industrial Estates

Art & Cultural Venues

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○ Signature Gateways

Best Airport

Largest Seaport

Bus, Rail Services

Tree Lined Parkways

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- History

 - Monuments

 - Adaptive Reuse

 - Historical Districts

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○ Nature

Singapore River

Secondary Jungle

Swamps

Underwater World

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○ Achieve Quality Environment Despite Density Surge

Category	Unit	1970	2000	2009	2010	X
Population	('0,000 persons)	200	400	500	510	650
Area	sq.km.	590	680	710	712	760
Density	persons /sq.km	3400	5900	7000	7100	8600

●● Roles of Urban Design

- More than for Visual Effect
In the Service of people

○ Landmark Buildings

- Visual Excitement with classical quality

- Common misconception

Big, Tall, Grotesque, Western, Grand, Straight = Progressive ?

大, 高, 奇, 洋, 壮, 直 = 先进 ?

Small, Low, Neat, Indigenous, Gentle, Curvy = Backward ?

小, 矮, 正, 土, 柔, 曲 = 落后 ?

○ Background Buildings

- Neat, Harmonious environment
- Comments

Like Chorus group and Soloists

Uncoordinated Collection of Iconic Buildings
= Architectural Provision shop

- People Friendliness

sense of well-being and enjoyment

- Walkability – Buildings accompany pedestrians

- Urban Spaces - Big, Medium, Small, Tiny
Plazas, Parks, Gardens,
Squares, Streets, Alleys,
Surprise Elements

- Denser Road Networks, Narrower Roads
Easier to cross

○ Environment

• Urban Texture

through Road Patterns

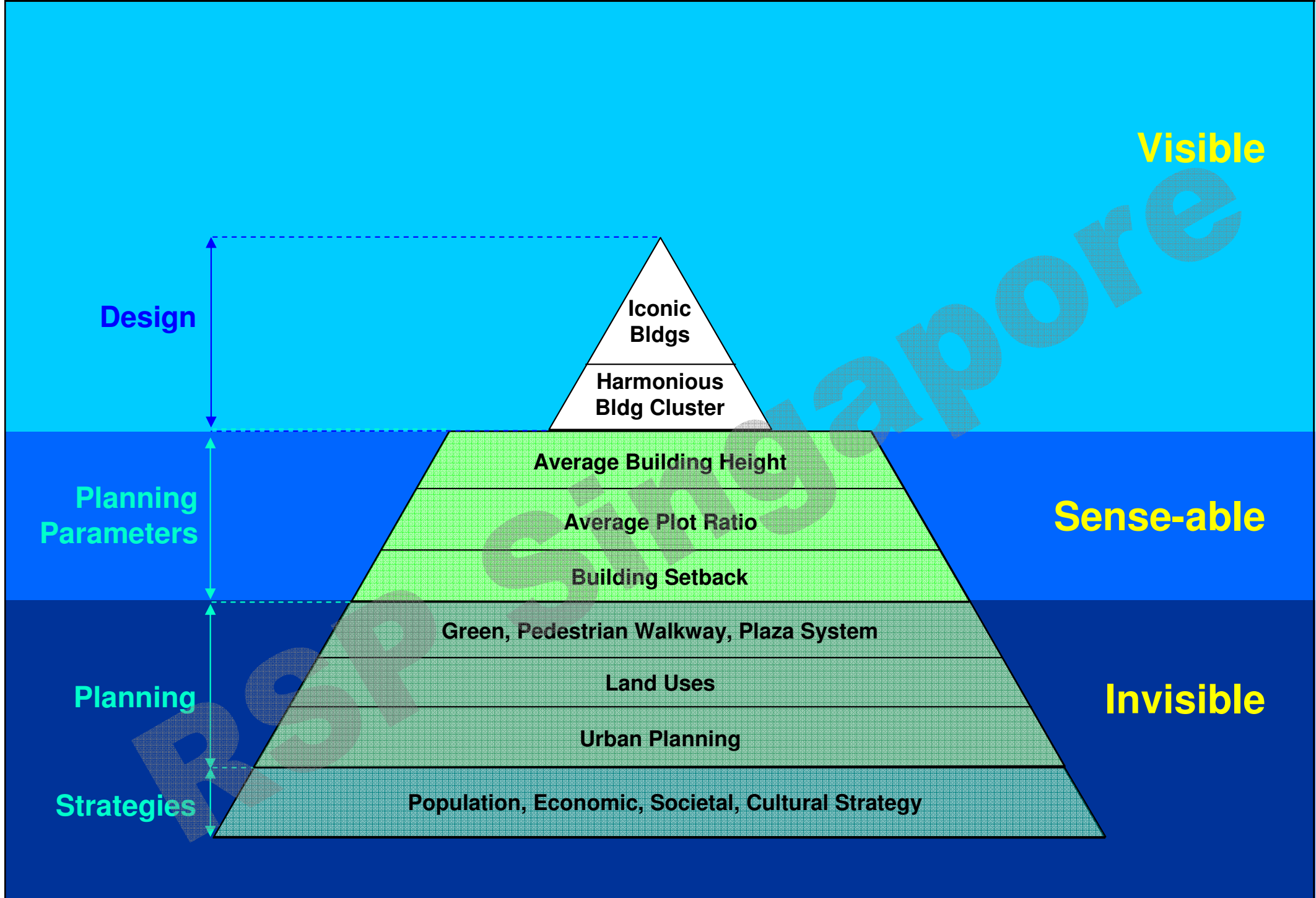
Both Science and Art

• Unifiers of Buildings

through Trees, Shades, Porosity

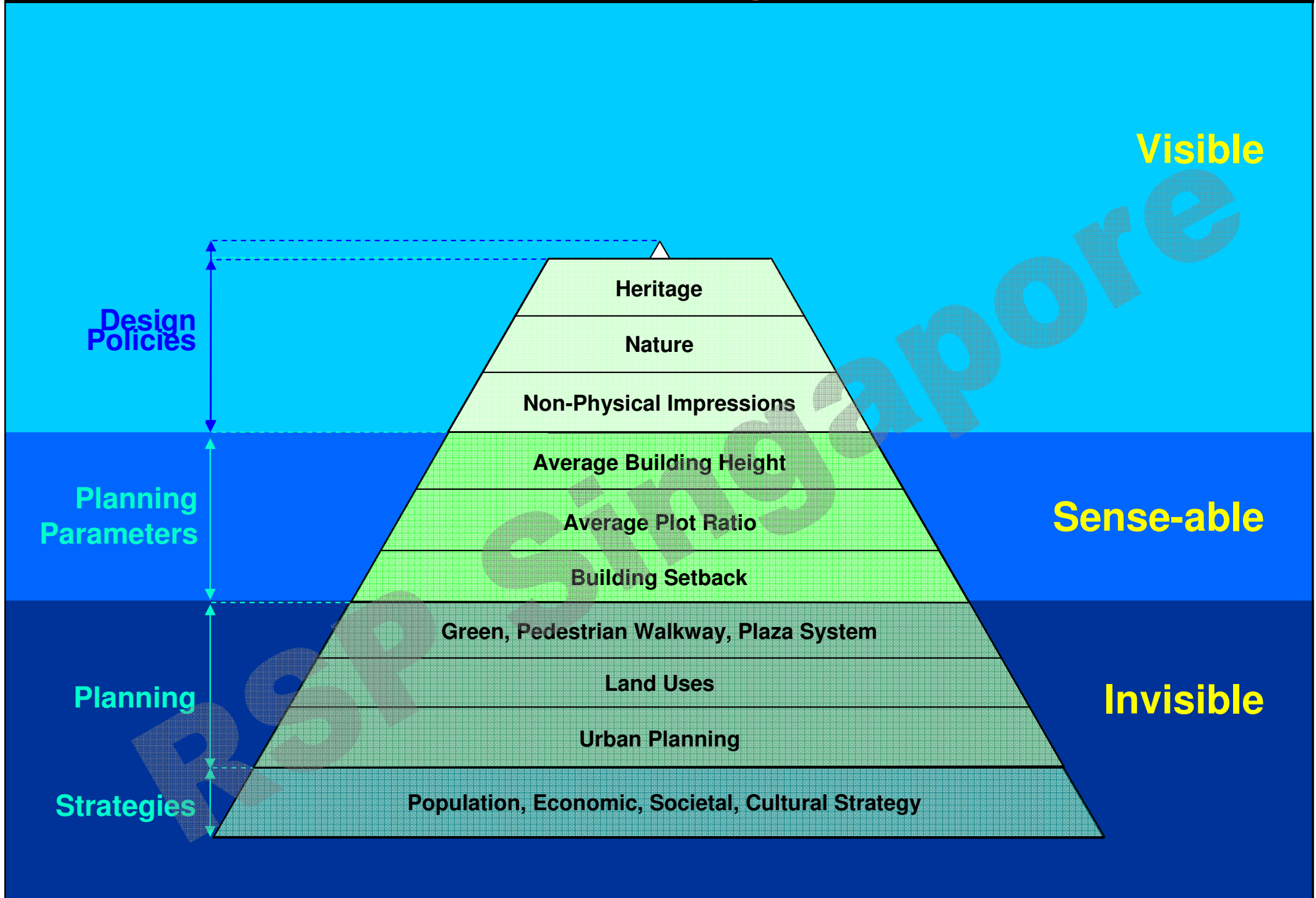
● Total Effect of Urban Image

●● Roles of Urban Design



● Total Effect of Urban Image

●● Roles of Urban Design



● Comments:

○ New Challenges – Reality Check

- Hasty Delivery
- Pressure of Consumerism
- Destruction of Walkability
- Pressure of Political Leaders' KPI
- Misunderstanding of Urban Image

○ Revisit Old Aesthetic Values

Neat, Harmonious

Picturesque, Romantic

Character, Personality

Remember the Past while looking to the Future

●● Roles of Architecture in Urban Design

- A Building is not an Island

Be a good Neighbour

A city needs more

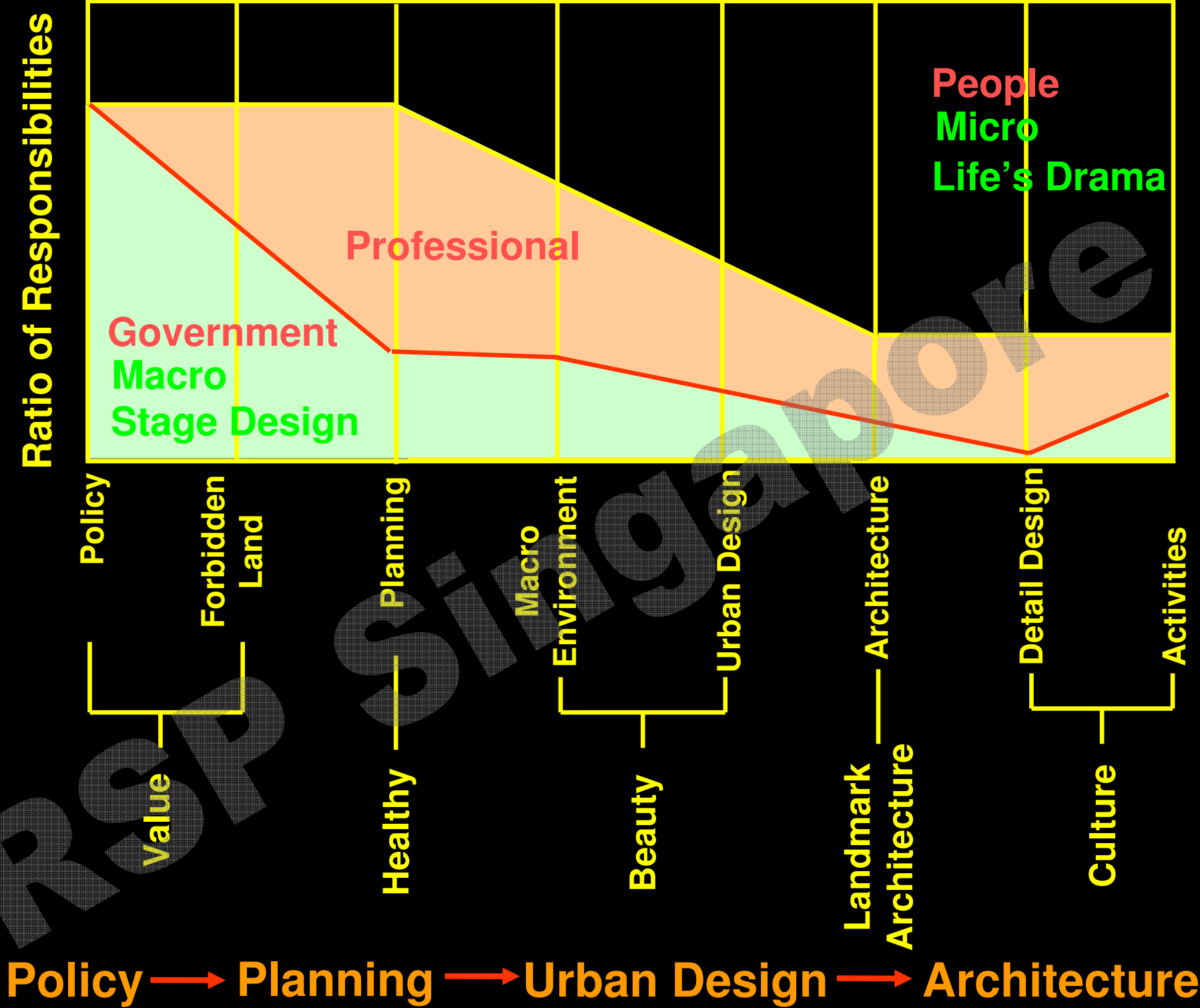
Quality background buildings

and

Carefully placed landmark buildings

● Planning Protocol

●● Roles of Architecture in Urban Design



○ Undue importance given to Architecture

- A City & its various urban cells are each one piece of Art Work
- Many new Cities are Urban Islands
Not Cities but American Suburbs

- Accept Limitation of Modern architecture

High Degree of Similarity

Same Structural System, Same Technology

Same Materials

Temptations to go for the Grotesque

We may live to Regret it

●● Selected Examples

Yangzhou	- City	- Urban
KAEC	- City	- Urban
Tatarstan	- Town	- Suburban
Chongqing	- Neighbourhood	- Rustic

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- Yangzhou, Jiangsu, China

- Special Attributes

Slim West Lake 瘦西湖

Yangtze River, Grand Canal, Rivers

Tang, Song Ruins

History, Nature, New Development

- Salient Data

POP : Planned 3.5M

Land : 540 Km²

- KAEC, Saudi Arabia

- Special Attributes

- Virgin Desert

- Red Sea

- Complete New Beginning

- Salient Data

- POP : Planned 1.5M

- Land : 272 Km²

- INNOPOLIS, Kazan, Tartastan, Russia

- Special Attributes

Cold Climate, Low Density

River Volga, Forests

12th Century Historical Island

Complete New Beginning

- Salient Data

POP : Planned 0.15M

Land : 20 Km²

- GuangYang Island, Chongqing, China

- Special Attributes

 - Second largest Island in Yangtze River

 - Virtually undeveloped, Beyond Urban Fringe

- Salient Data

 - POP : Planned 25K

 - Land : 6 Km²

●● Wrapping Up

● A City is like a Human Being

○ Urban Designers assume Multiple Roles

Doctor

Healthy

Master Plan

Nutritionist

Nutrients

Ecology

Taylor

Dress

Urban Design

Background Buildings

Decorator

Paraphernalia

Landmark Buildings

Special Projects

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- Comments

- Urban Designers create
Efficient Urban Machines
with Diverse Environments

- Planners design the stages
Citizens act out Life's Dramas

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THANK YOU