

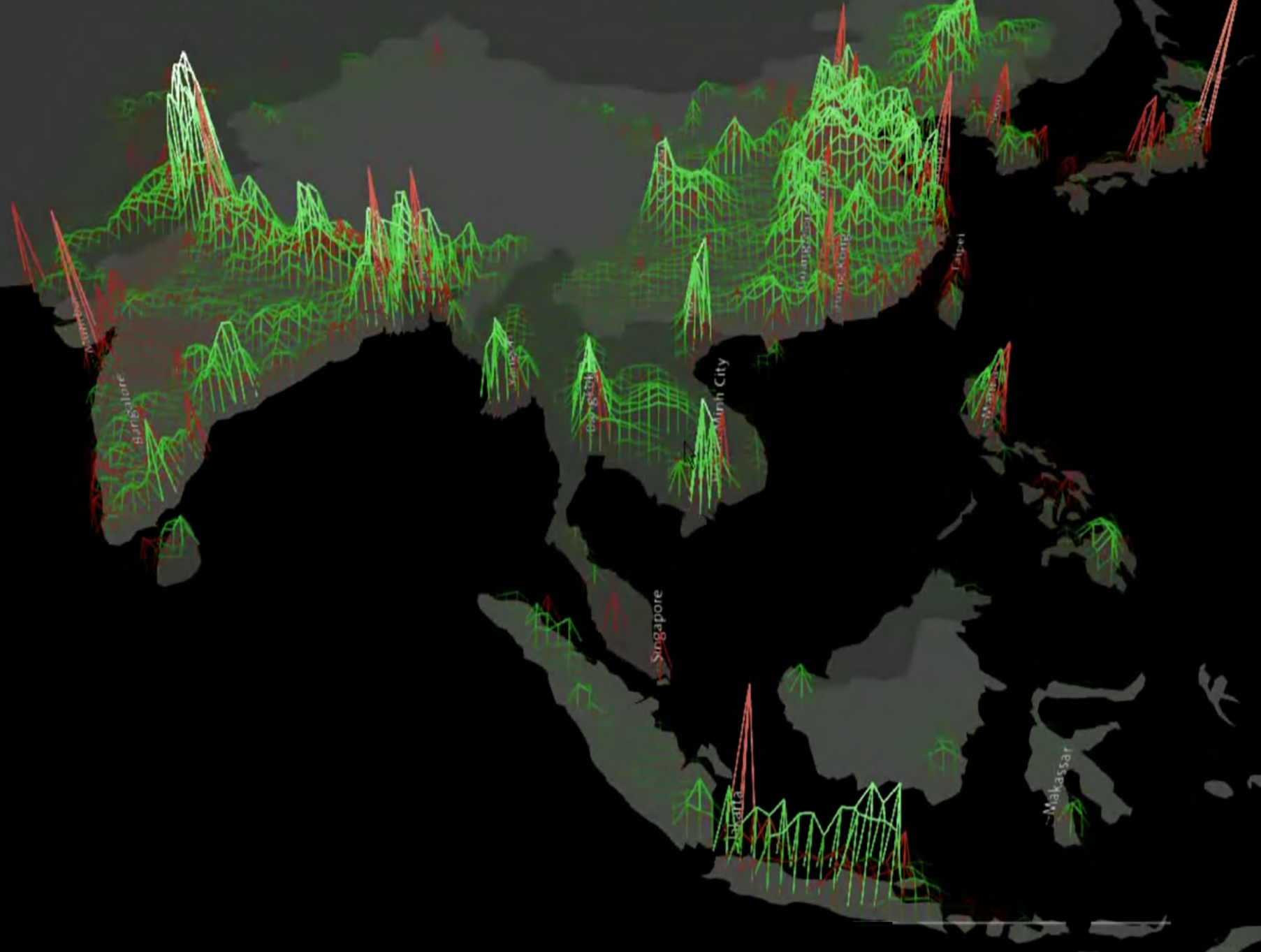
**(SEC) SINGAPORE-ETH 新加坡-ETH
CENTRE 研究中心**

**(FCL) FUTURE
CITIES
LABORATORY**

Stephen Cairns
Director, Future Cities Laboratory

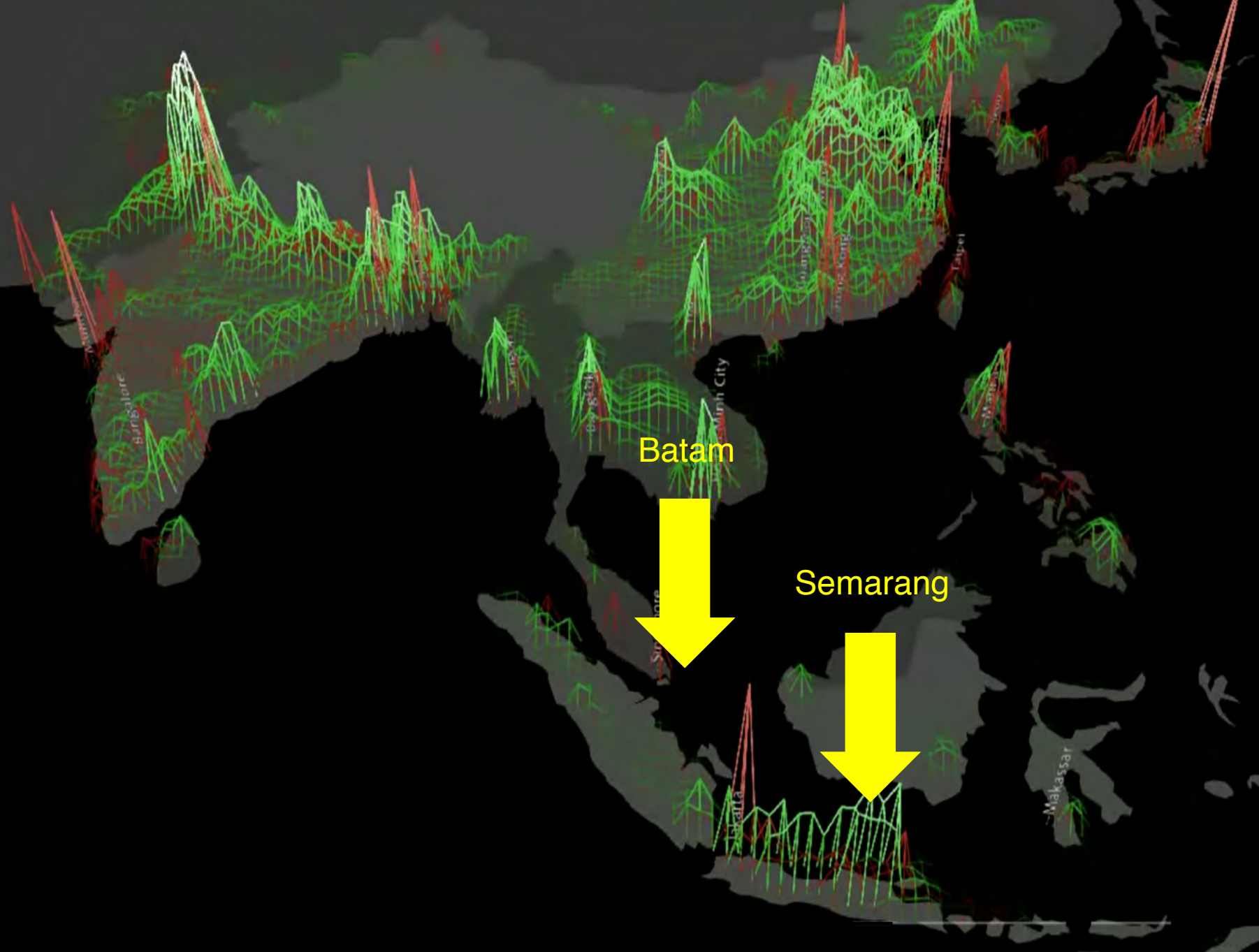
Urban-Rural Systems (URS)

www.ur.systems



5 ½ Points for an Ideal School of Urban Design

5 ½ Points for an Ideal School of Urban Design



5 1/2 Points for an Ideal School of Urban Design

1. Spatial Reasoning

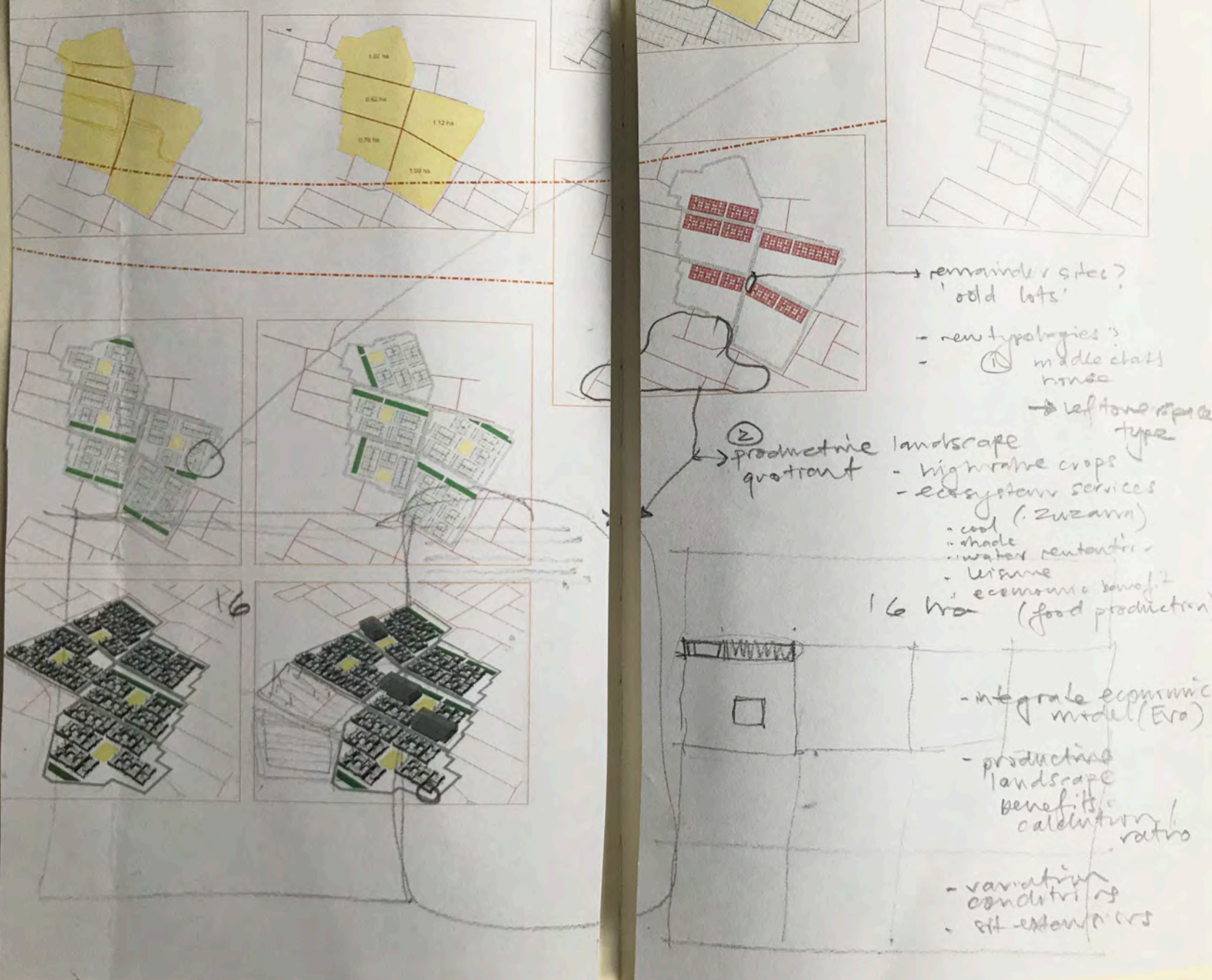
Proximity

Distance

Scale

Organisation

Resolution (hi/lo-res)





5 ½ Points for an Ideal School of Urban Design

1. Spatial Reasoning

Proximity

Distance

Scale

Organisation

Resolution (hi/lo-res)



5 ½ Points for an Ideal
School of Urban
Design

2. Fragile Obduracy

Stable Fabric + Variable
Elements

Form vs Event

‘My Grandfather’s *Cankul*’
Paradox (formal cause /
material cause)



5 ½ Points for an Ideal School of Urban Design

3. Medium Thinking

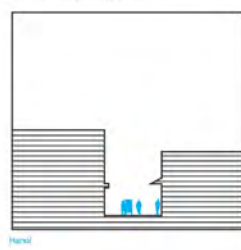
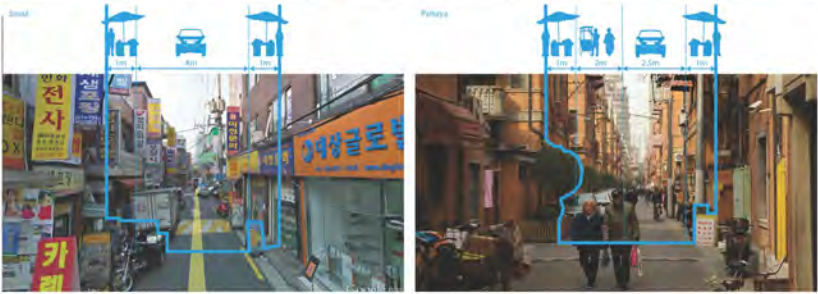
Representational Tools
Sensors
Data

Environment

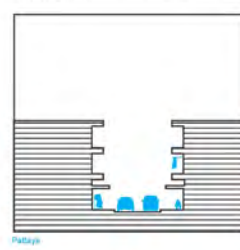


5 ½ Points for an Ideal School of Urban Design

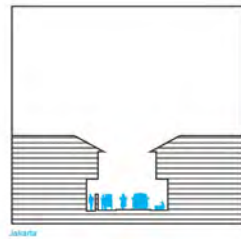
4. Viscosities Not Flows



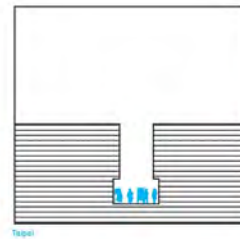
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cum re pretibus si vendep
lorem, osum



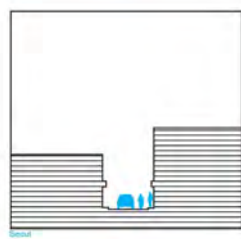
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cum re pretibus si vendep
lorem, osum



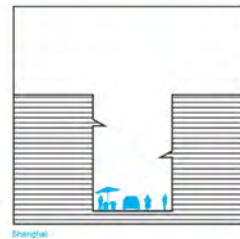
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cum re pretibus si vendep
lorem, osum



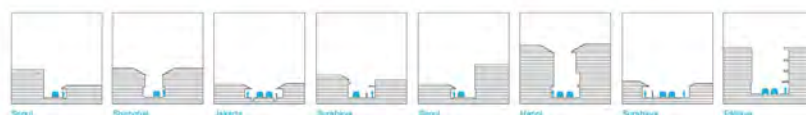
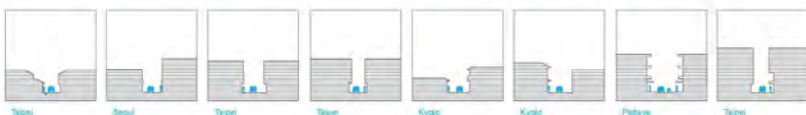
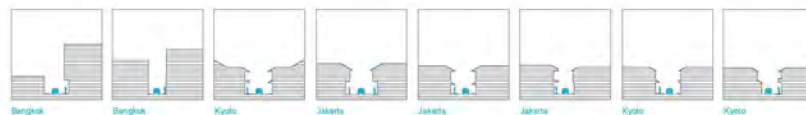
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lorem, osum



Seoul
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lorem, osum



Singapore
Sua con con rem re cupiam
danta voluatur re nido ium
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lorem, osum



5 ½ Points for an Ideal School of Urban Design

4. Viscosities Not Flows



5 ½ Points for an Ideal School of Urban Design

5. Distributed Agency





5 ½ Points for an Ideal
School of Urban
Design

5 ½ Pandora's Box

Pleasure
Beauty
Charm
Cute
Comfort
Cool
Chic
Shabby
Ugly
Disgust
Greed
Avarice
Fear
Jealousy
Aspiration

.....

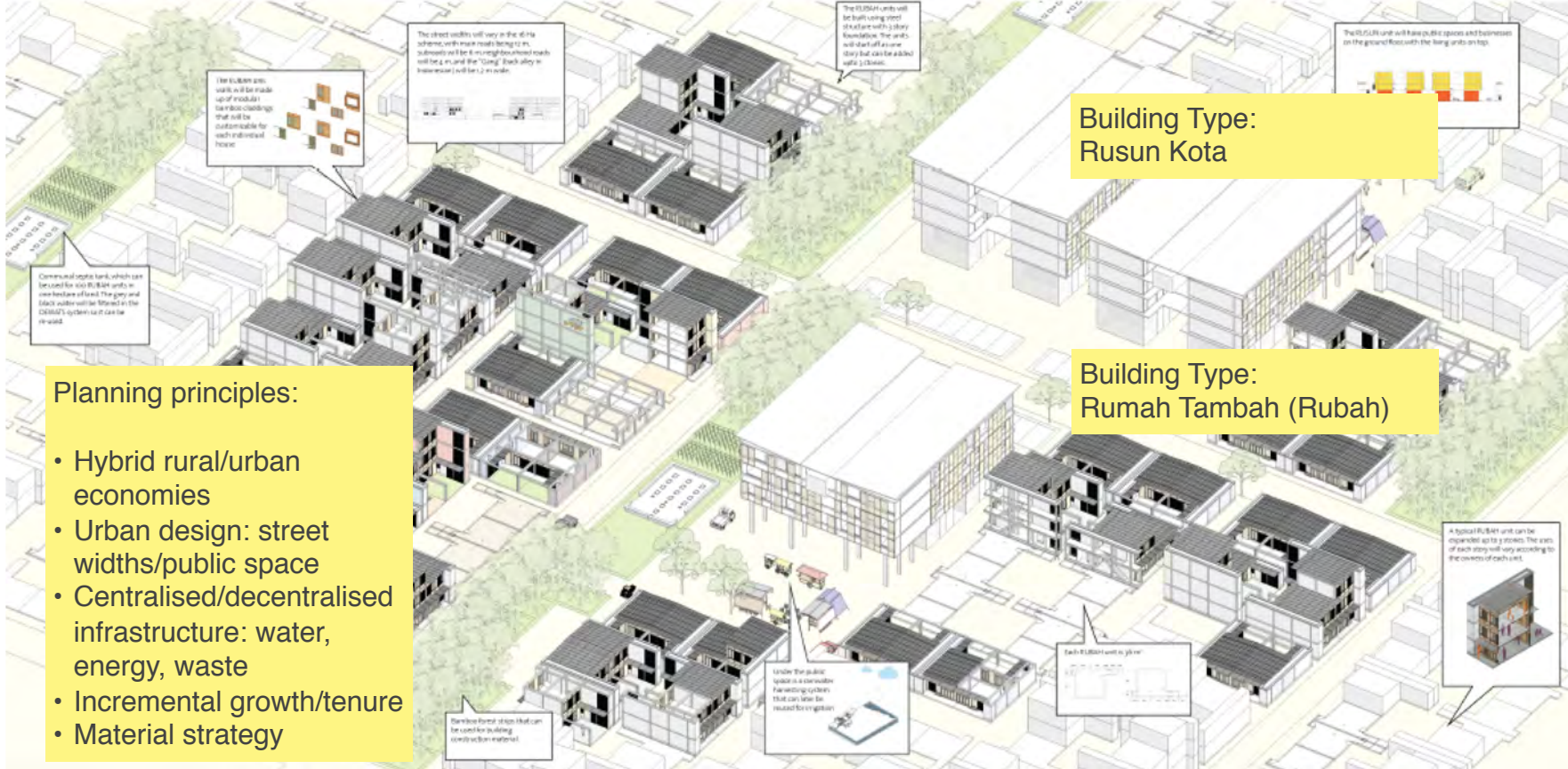
Summary

1. Spatial Reasoning
2. Fragile Obduracy
3. Medium Thinking
4. Viscosities Not Flows
5. Distributed Agency

5 ½. Pandora's Box

Space
Form/Time
Representation
Mobility
Design

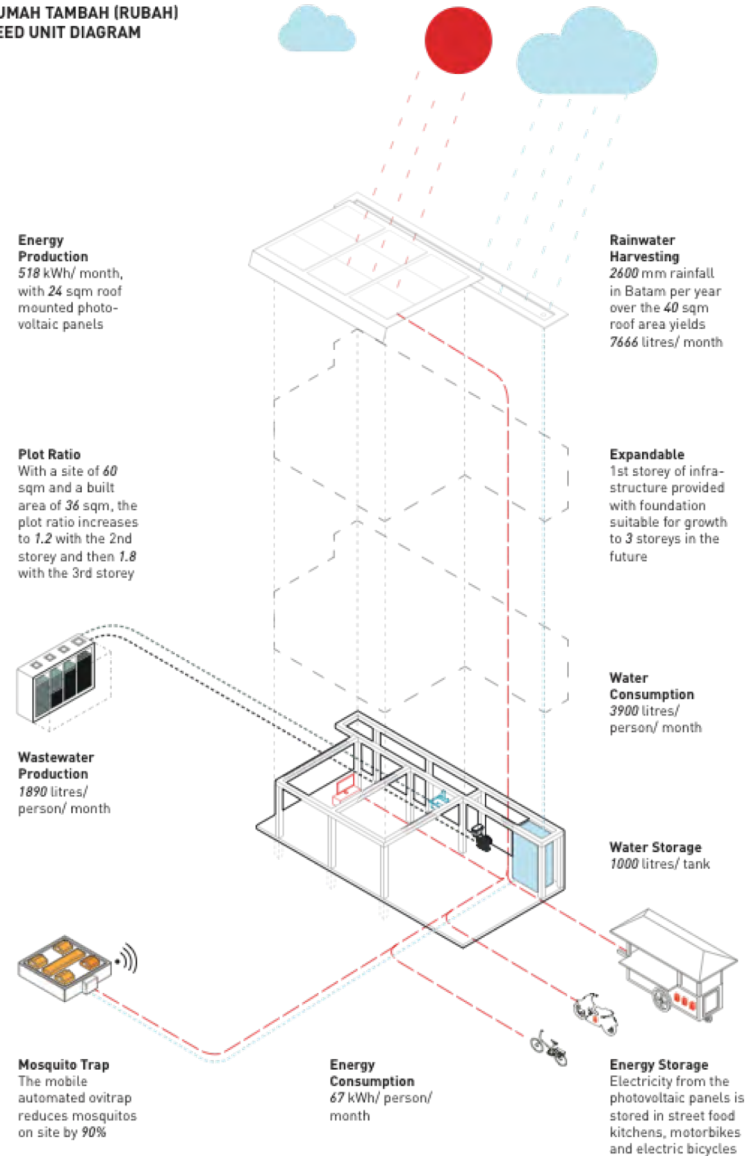
Aesthetics



Tropical Town Expandable House

Township diagram Planning principles

**RUMAH TAMBAH (RUBAH)
SEED UNIT DIAGRAM**



Tropical Town Expandable House

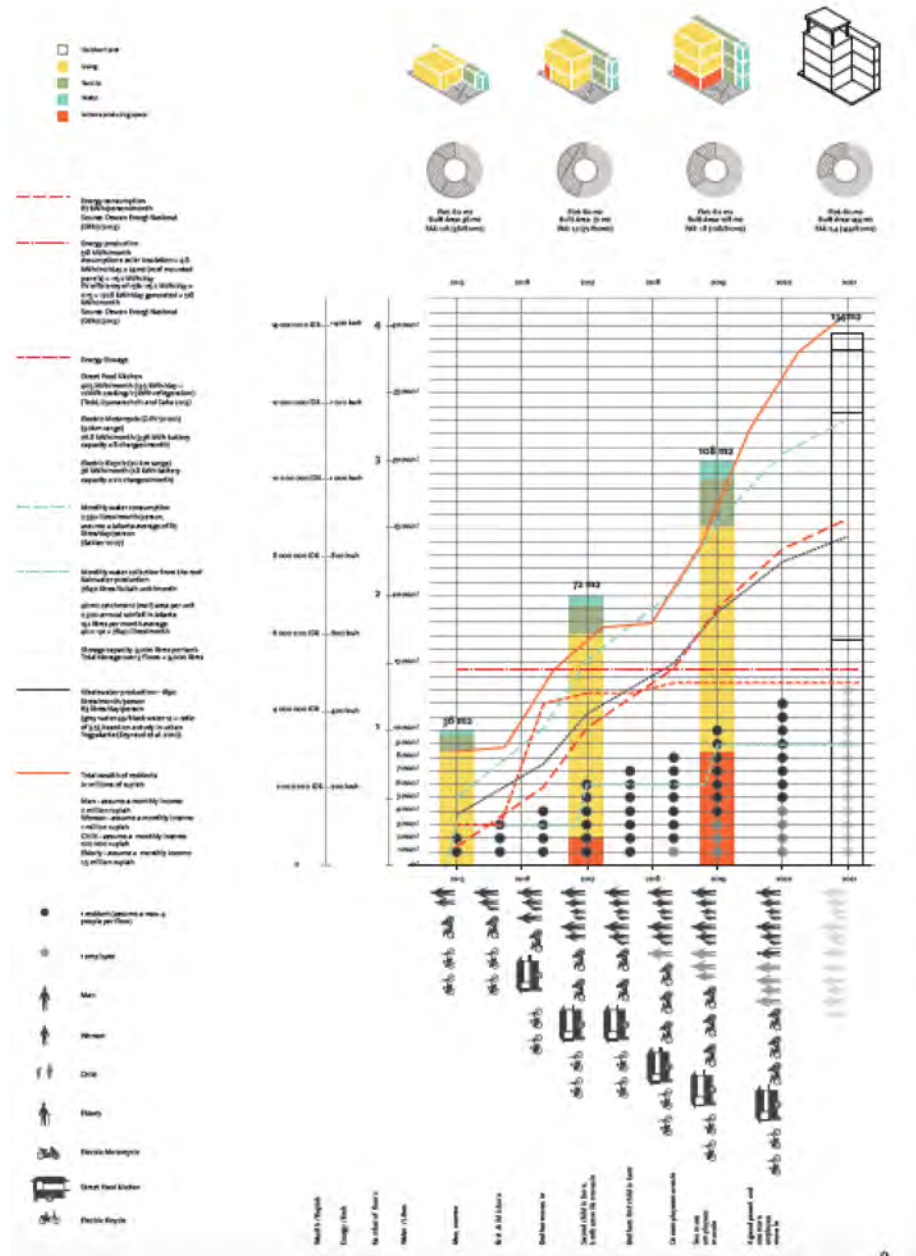
'Seed' unit
Decentralised infrastructure

Tropical Town Expandable House

Mixed domestic economy
Income-generating space



Tropical Town Expandable House

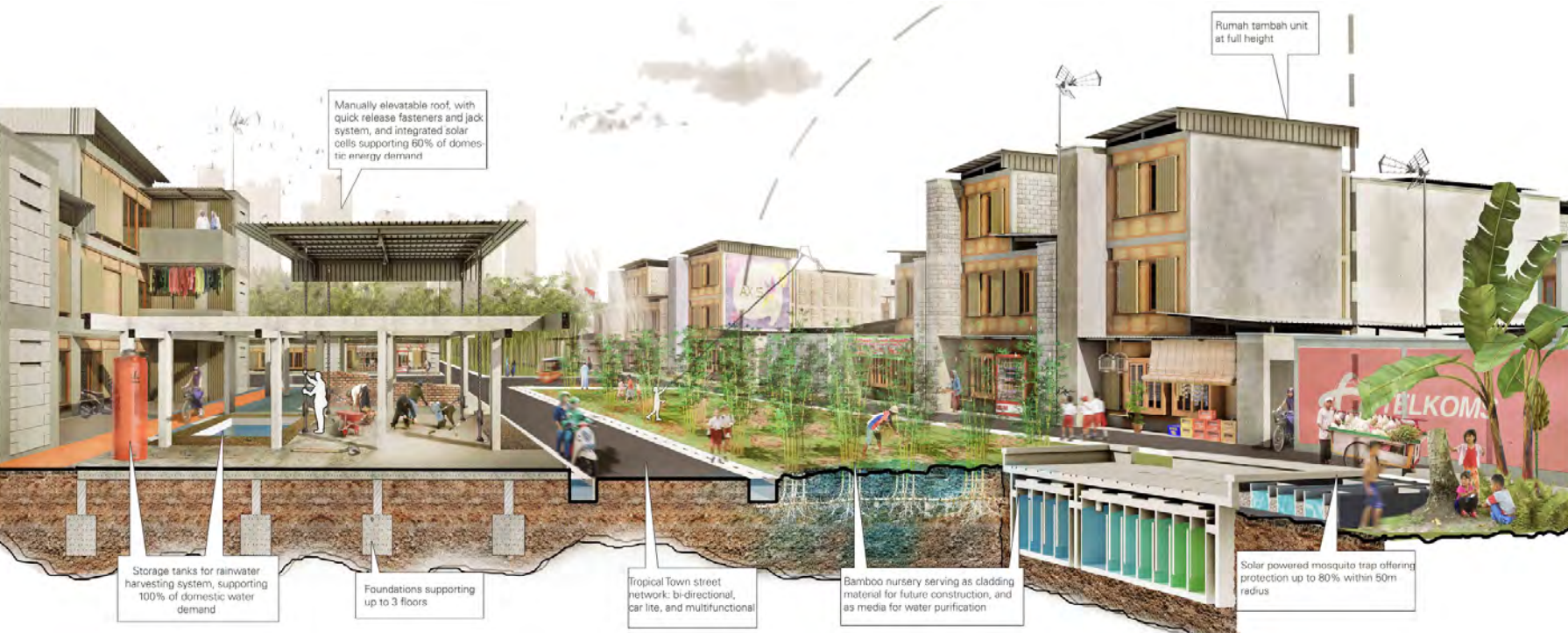


- Domestic metabolism
- Water
 - Waste
 - Energy
 - Income

Tropical Town Expandable House

Illustrative domestic
economy scenarios





Tropical Town Expandable House

Illustrative Section



Tropical Town
Expandable House



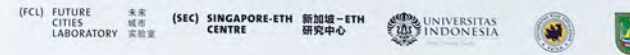
Tropical Town Expandable House

TROPICAL TOWN: RUMAH TAMBAH (RUBAH)

SEBUAH PROYEK PERCONTOHAN

LOKASI	Kampung Tua Kampung Melayu, RT 01 RW 08 Kecamatan Batu Besar, Kacamatan Nongsa, Batam	ARSITEK BATAM	Rahman Kurniawan Praktisi Arsitektur UNRIKA Batam
KLIEN & PERANCANG	Singapore-ETH Centre Future Cities Laboratory 1 Create Way #08-01 CREATE Tower Singapore 138602 www.fcl.ethz.ch	PENASEHAT STRUKTUR PROFESIONAL	Tedy Tambunan Fakultas Teknik UNRIKA Batam
CONTACT PERSON	Diq Duna Putra +62 852 6330 3423 diqgnatcl@gmail.com	PERANCANG STRUKTUR	Herdiak Wijaya Bumi Serpong Damai 19501 Tangerang
		KONTRAKTOR STRUKTUR	

HASIL KERJA SAMA ANTARA







Rubah Interior

- The perforated hebel the cross ventilation, natural lighting, keep the privacy
- The removable ceiling Reducing heat transfer





Tropical Town
Expandable House

Tropical Town Expandable House







Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



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Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House



Tropical Town
Expandable House

- Data Layers**
- Transportation**
 - Reachability
 - Resources**
 - Solar GHI
 - Rain Fall
 - Water Consumption
 - Economy**
 - GDP
 - Poverty
 - Night Light
 - Agriculture Production**
 - Cropland
 - Soil Suitability
 - Maize
 - Wheat
 - Rice
 - Field Size
 - Geography**
 - Green Cover
 - Land Cover
 - Demography**



Output

UR-Scape is supporting planning and design for rapidly urbanising towns, cities and regions.

Developed by Urban Rural Systems (URS) at Future Cities Laboratory (FCL), established by ETH Zürich and the National Research Foundation (NRF); supported by Asian Development Bank (ADB) and the Swiss Secretariat for Economic Affairs (SECO).

Current version: 1.0 Alpha
Licence type: MIT License

Principal Investigator:
Stephen Cairns

Design Leader:
David Neudecker

Senior Software Engineer:
Michael Joos

UX Designer:
Serene Chen

Site Browser

- World
- Palembang
- Semarang
- Wereta
- Bandung
- Batam

Legend & Credits

Longitude: 124.9
Latitude: -8.3

- Backgrounds**
- None
 - Default with Traffic
 - Dark
 - Satellite imagery
 - Catastral map


Tools


Contours

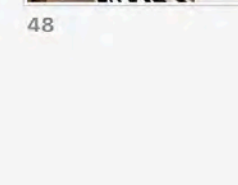
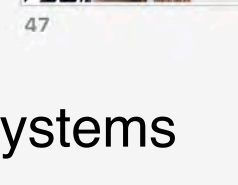
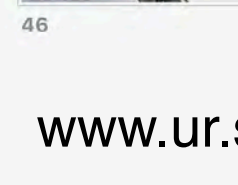
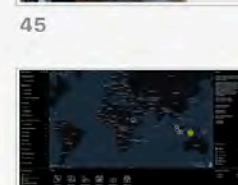
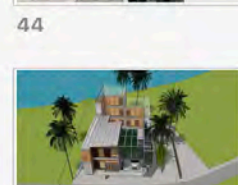
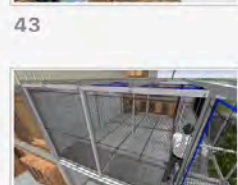
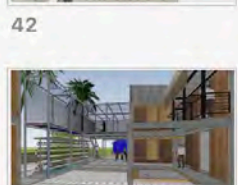
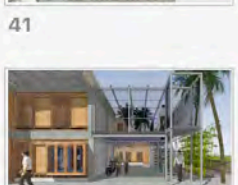
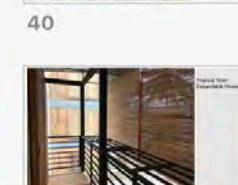
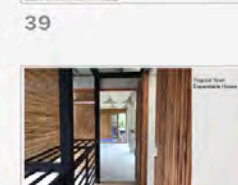
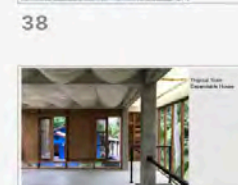
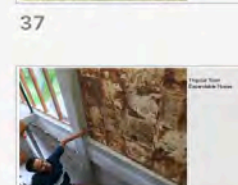
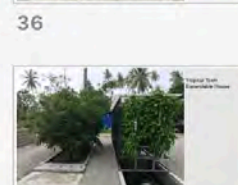
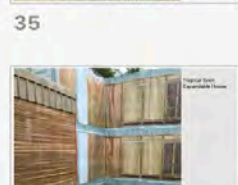
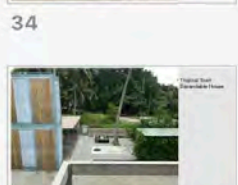
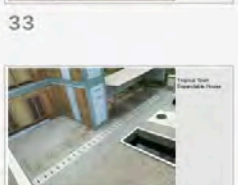
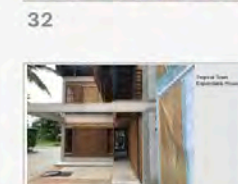
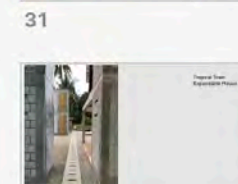
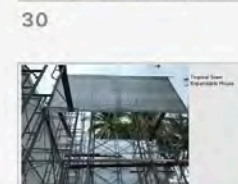
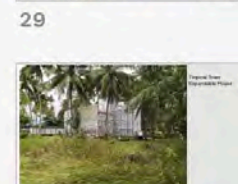
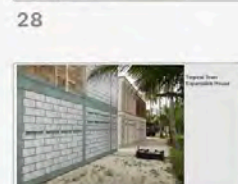
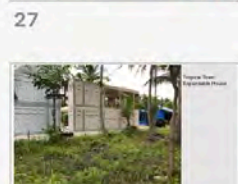
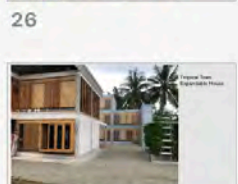
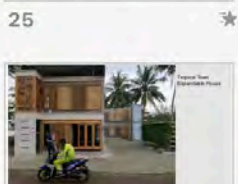
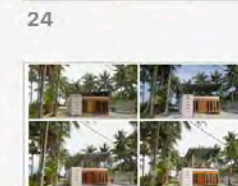
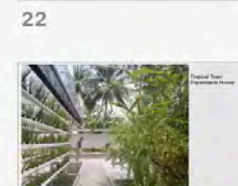
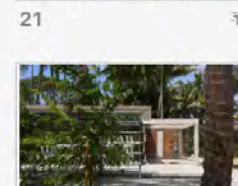
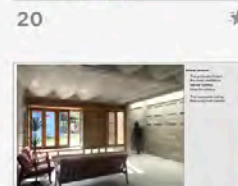
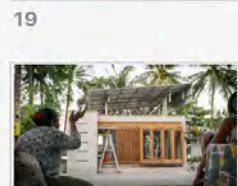
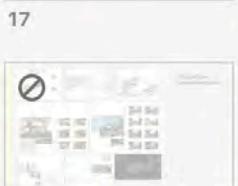
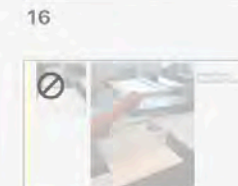
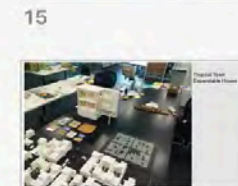
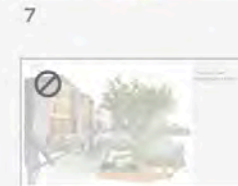
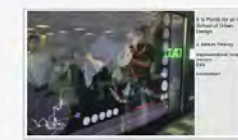
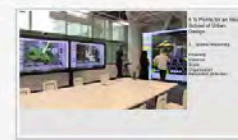
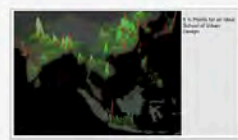
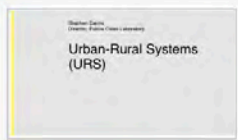

Planning Options


Reachability


Timeline


Word Cloud


Municipal Budget



www.ur.systems