REVISITED COMPOSITION

urban sprawl vs sustainable development
Bandung, Indonesia

REVISITED COMPOSITION

urban sprawl vs sustainable development
REVISITED COMPOSITION

urban sprawl vs sustainable development
Bandung, Indonesia
polycentricity: mobility based development
urban redevelopment
REVISITED COMPOSITION

urban sprawl vs sustainable development

Bandung, Indonesia

polycentricity mobility based development urban redevelopment

2040
REVISITED COMPOSITION

- urban sprawl vs sustainable development
- Bandung, Indonesia
- polycentricity mobility based development urban redevelopment
- 2040
- vision & implementation strategy city scale neighborhood scale
CONTENT

phenomena
context

questions
objective
vision

methodology
outcome

analyses

initial idea
next steps
annual population growth
average: 1.31 %

highest: Oman (8.09 %)
lowest: Andorra (-4.19%)
(2014 - 2015)
(http://data.worldbank.org/indicator/SP.POP.GROW/countries)

53 % world’s population lives in urban area
(http://data.worldbank.org/topic/urban-development)
“... low-density, scattered, urban development without systematic large-scale or regional public land-use planning.”

(Bruegmann, 2005, p. 18)
WHAT DOES URBAN SPRAWL DO?

- Happens between city centre and sub-urban area.
- Happens within city centre area.
- Sprawling development.
- Congestion.
- Time-consuming.
- Air pollution.
- Car-oriented.
- More people coming.
- Attempts to provide facilities & infrastructure fail.
- Informal housing & economy.
- Increasing development pressure.
- Environmental degradation.
The Netherlands to Indonesia: 11,512 km
148 km

155 km

Cirebon

Bandung

Jakarta

Jakarta-Cikampek Toll Road

Cipularang Toll Road

Padaleunyi Toll Road

WEST JAVA PROVINCE
SIZE OF THE CITY

16,767 hectares

2,575,478 inhabitants
COMPARING THE DISTANCE
TRAFFIC CONGESTION

UNCONTROLLED DEVELOPMENT

SLUMS
http://static.panoramio.com/photos/large/29491225.jpg

FLOODS
http://sp.beritasatu.com/media/images/original/20140303100107118.jpg
How can redefinition of centrality in Bandung City contribute to alleviate the physical development pressure around the city centre?
What are the drivers of urban development in Bandung City?

How does new physical structures (polycentric urban model) help to alleviate the development pressure?

How can redefinition of centrality in Bandung City contribute to alleviate the physical development pressure around the city centre?

What makes urban centrality in general?
OBJECTIVE

to encourage sustainable development in Bandung City by providing comprehensive mobility plan and urban redevelopment strategies
in 2040, Bandung can thrive from the variety of urban centres, ease of access, and better quality of life.
**Methodology**

1st Quarter

- **Urban Sprawl Phenomenon**
- **Problem Analysis**
- **Context Selection**
- **Research Questions**

2nd Quarter

- **Layered Analysis** on existing condition
- **TOD Potentials in BMA** (Wheysnain & Indradjati, 2014)
- **Potential Location** new centralities

How will the new centralities be incorporated to the urban network?

- **Critical Analysis** on case studies
- **Dialogue with experts**
- **Possible Approach** for developing TOD
THEORETICAL FRAMEWORK

‘COMPACT CITY’

Physical manifestation of agglomeration relation between urban form & sustainability
Focus: reducing travel distance

‘Centrist’

Idea: the use of technology enable people to access land / facility
Prerequisite: planned development
Reality: unplanned sprawl
Protagonists: FLW, Mumford, Osborn, Abercrombie

‘Decentrist’

Idea: decongest city centre by increasing density, deplore the use of car & urban regeneration
Reality: monocentricity congestion
Protagonists: Le Corbusier, Jacobs, de Wolfe, Dantzig & Saaty

‘Compromiser’

Idea: advocacy position between the two extremes; more realistic
Reality: never very fashionable
Protagonists: Breheny, Scoffham & Vale, Thomas & Cousins

‘Deconcentrated-concentration’

Idea: “a compromise between the two extremes of concentration” (Hall, 2002, p.179)
Characteristic: scale-dependent; functionally networked to one another;
Prerequisite: “guided” development; around public transport links; clustered urban dev.
Protagonists: Lambregts, Champion, Hall, Pain, Kloosterman, Musterd, Dieleman, Faludi, Scott, Nadin, Dühr, Zonneveld, Balz, Arribas-Bel, Sanz-Garcia,

POLYCENTRIC URBAN MODEL

Geography of agglomeration location of the centre & their connection
Focus: decentralization of urban functions

Similarity of concept
OUTCOME

VISION
for Bandung City 2040

FRAMEWORK
comprehensive plan on polycentric urban development based on mobility in Bandung City

URBAN DESIGN
key project showing implementation of mobility based development in one of the new centralities
annual population growth: 1.11%
urbanisation rate: 12.11%
urban population: 100%
(2000 - 2010)

redrawn & reinterpreted from Siregar, 1990
1882-1906

Administrative Area

1880 1890 1900 1910

Built Area

2,130

1,900

38,403

47,980

70,000

1906

Bandung received its city right (gemeente)

1906

1911

prepared as capital city replacement for Batavia (Jakarta)

(source: Siregar, 1990)

http://www.vansandick.com/familie/archief/Bandoeng/Nieuw-Bandoeng.jpg
1945: Independence of Republic of Indonesia

1946: Bandung Lautan Api revolt; most of the buildings on the southern part of the city were burnt

1950's: DI/TII revolt; triggered massive migration and causing squatting

1955: First masterplan by municipality

1959: Anti-Chinese sentiments; most Chinese moved to larger urban centers

1965: National political turmoil

(source: Siregar, 1990)
1965
national political turmoil

1971
construction boom

1975

1977
larger housing project in Sarijadi

1979
rapid govern
decentralization

1980's
beginning of mall development trend

1987
expansion of administrative border mainly to the east & south

1990's

1998
national economic crisis & political turmoil

1998

1990

(source: Siregar, 1990)
Layered Analysis

Settlement
- built environment
- concentration of population
- housing cluster

Urban Centre
- higher education
- offices
- industries
- commercial ‘horeca’

Urban Network
- highway
- railway
- streets
- stations
- terminals
- accessibility

Governance
- governance units
- administrative border
- planning units

First Nature
- topography
- water bodies
- green area
First Nature
Governance
Urban Network
Urban Centre
Settlement

NATURAL CONDITION
GOVERNANCE UNITS

PRIVATE SECTOR

PUBLIC SECTOR

CIVIC SOCIETY

GOVERNANCE STRUCTURE

National
Provincial
Municipality
District
Sub-District

LKMD: community forum
LPM: community empowerment
RW: borough (1 RW = 5-15 RW)
RT: neighborhood (1 RT = 30-75 households)
PKK: woman empowerment
Karang Taruna: youth's community (sub-district level)
Bandung City, Indonesia
ADMINISTRATIVE BORDER
ADMINISTRATIVE SERVICES
TRANSPORTATION MODE

INTER-URBAN
AIRPLANE
TRAIN
INTERCITY BUS
SHUTTLE BUS

INTRA-URBAN
LOCAL BUS
"ANGKOT" / MINIBUS
TAXI
"OJJEK" / TAXI-BIKE
INTER-URBAN NETWORK
INTRA-URBAN NETWORK
ACCESSIBILITY BY PUBLIC TRANSPORT
T.O.D. POTENTIAL IN BANDUNG METROPOLITAN AREA
HIGHER EDUCATION & RESEARCH CENTRE

LEGEND
- CITY BORDER SINCE 1987
- HIGHER EDUCATION
- RESEARCH CENTER
CONCENTRATION OF POPULATION
WORK CLUSTERS + NETWORK = …

CONCENTRATED, NOT EVENLY DISTRIBUTED
COMMERCIAL + NETWORK = CONCENTRATED/MONOCENTRIC
HOUSING + NETWORK = ... DISCONNECTED
HOUSING + WORK
+ NETWORK = ...

MONOFUNCTION, WITH VARIATION
INITIAL IDEA

- What is the role of Ciancian in the metropolitan area?
- What is the relation with Bandung?
- What is the role of Ledeng?

Do we need another servicing centre around Ledeng?

- Serving the "north" part of the city
- Existing urban centre
- How to demarcate the attractiveness/divide city?

- Existing arrival point
- What to do to improve the attractiveness/security?
- Centre for east/north east
- How to improve to increase the attractiveness?

- Serving the west part of the city
- How to promote?
  (because nothing much is happening here now)

- "Arrival" point from south
- How to make it work?

- "Arrival" point from north
- How to make it work?

- More frequent train traffic
- Elevated vs underground? obvious option, but currently doesn’t work → Why?

- Inter-city/provincial road
- Commuter line

INITIAL IDEA
improve connectivity & accessibility of the southern part of the city
promote new form of urban centrality in existing centre, especially in the east part of the city
rethinking the role of existing urban centre
optimizing the railway function for daily commuting system
## WHAT’S NEXT?

### STUDY T.O.D.
- case study
- literature review
- interview
- matrix of possible interventions

**20 - 28 JAN**
**22 FEB - 18 MAR**

**to be contacted:**
- Carlos Morales-Schechinger
- Verena Balz
- Remon Rooij
- Dominic Stead
- Will Zonneveld
- ...

### SITE VISIT
- interview
- site visit & analysis
- focus group discussion

**prep: 20 - 28 JAN**
**visit: 01 - 17 FEB**

**to be contacted:**
- Selly Riawanti
- municipality
- PSUD
- BCCF
- Riset Indie
- ...

### STAKEHOLDER ANALYSIS
- stakeholder mapping
- power-interest analysis

**15 FEB - 4 MAR**

**to be contacted:**
- Selly Riawanti
- BCCF
- municipality
- ...
- ...
LET'S DISCUSS!

- What is the role of Cimahi in the metropolitan constellation?
- How is it related to Bandung?
- Do we need another servicing centre around Ledeng?
- How to promote Cimahi?
- What is the north part of the city?
- Existing urban centre, how to enhance its attractiveness?
- Existing arrival point, how to improve its built environment?
- How to serve the east part of the city?
- Centre for east north part?
- What does it mean for the city's role?
- How to improve to increase attractiveness?
- Need to provide new stations or reactivate old stations?
- Inter-city/provincial road needs?
- More frequent train traffic?
- Elevator or underground option?