Create.

The Mid-city's Apple Center 🍎
Structure:

1. Mid-city strategy
   1. Research
   2. Concept
   3. Master plan

2. Cluster plan
   1. Concept
   2. Nolli Map and Cluster Plan
   3. Topics

3. Building design
   1. Concept
   2. Site Analysis within Cluster
   3. Targets Overview
   4. Site Plan and Volume Organization
   5. Program Distribution
   4. Station Proposal
   5. Building Proposal
      1. Solid Block
      2. Main Body Targets
      3. Ground Floor Plan
      4. Two Section Void
      5. Exterior Structure Proposal No. One (No)
      6. Exterior Structure Proposal No. Two
      7. Interior Beams Proposal
      8. Facade
      9. Climate
      10. Facade Construction
      11. Exterior Impression
      12. Interior Performance
Individuality

Mid-city strategy
vacancy
Research
decay

Mid-city strategy
Programmatic: Existing potential of strong neighbourhood identities
Infrastructure: A N\S Train connection would benefit the area
Built: Vacancy and decay lead to shrinking city areas.
Can we propose a new city model that adapts to shrinking and growing?

Can this new model guide a collective mentality in the american individualistic society?
Hard core - flexible outline
Today: ~ 70,000 people
Future: over 100,000!
Topics

Think.
Balanced education system

Discuss.
Public street life

Create.
Collective work opportunity
The advantages of Manufacture reshoring in Chicago

1. Provides more jobs opportunities for local people
2. Save the costs on the goods transportation
3. Appeal to the consumer demand for "Made in USA"
4. Better long-term corporate stability
Obama Announces New Manufacturing Hub In Michigan
February 25, 2014 5:01 PM

WASHINGTON, DC – FEBRUARY 25: U.S. President Barack Obama makes remarks on manufacturing innovation institutes alongside a Navy robotic arm project for underwater explosive ordinance disposal, during an East Room event February 25, 2014 at the White House in Washington, DC. (Photo by Alex Wong/Getty Images)
“Create”

1. Transition: Chain

Research --- Production --- Consumption
The density of urban structure, the concentration of resources, the accessibility of infrastructure and the trend of tele-economic mode helps this switch.
Targets Overview

How could an architectural envelop connect with the urban transportation system, play a key role within the high-density urban hardcore and contain the fluent multiple-layer targeted chain of creation?
Volume Organization
Program Distribution

Building design
Solid Block

Building design
Building Main Body

Building design
The Vertical Void

Building design
The Vertical Void
Exterior Structure Proposal

Building design
Exterior Structure Proposal

Block A

Block B

Block C

Building design
Interior Structure Proposal

Building design
Facade

Curved Shape

Glass

Casa de Musica, Porto, Portugal, OMA, 2005

The curved shape of the glass panels not only gives the facade a softer appearance but also provides an enhanced thermal performance by acting as a thermal barrier. This reduces heat loss and gain, making the building more energy-efficient.

Polymer technology is another subject of several research projects related to the material’s potential for property changes of building parts and components. A polymer coating can, for example, offer a switchable change of the surface – to become reflecting, absorbing or change in colour. Such adaptive surfaces offer great potential for the building sector; however, a lot more development work is needed to comply with current and future requirements and needs.
Solar Cells. Advantages of (organic and inorganic) Thin film PV
Facade

Building design
Facade

Building design
Climate

Winter

Solar Energy

Energy Exchange

Wind Energy

Air In

Air Out

Heat Exchange

Heat Pump

Geothermal Storage
Facade Construction

Thin Film Solar Panel
Curved shape Glass

Finishing Layer
Concrete Floor
Heated water tube System
Steel Beam
Air outlet System
Light System

Electricity System
Steel Beam
Insulation Layer
Curved Shape Glass Frame
Aluminum Panel Cover
Steel Plate
Solar Panel Frame

Building design
Interior Performance

Building design
Interior Performance

Building design
Interior Performance
Interior Performance
Interior Performance

Building design
Thanks for your attention

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