Urban Thinkscapes
building for knowledge and innovation
Luleå, Feb 2016
Dr Emma Read Källblad, KTH
How can we develop the city – its buildings, the spaces around them and its points of connection – to enable and sustain a Learning Society?
Overview

1. What research tells us about…
   • The knowledge society
   • The processes of making knowledge and innovations

2. Design Principles for making a Learning City.

3. Design Processes for making a Learning City.
In 1950 just 3.5% of a cohort went to university in England. In 2011 49% of the peer group went to university with 65% qualified to enter some type of tertiary education. 55% of those entering university are women. The largest degree educated group is currently under 40 – so this is an emerging trend.
Urban Intelligence

People go to (large) cities to study and then stay.

44.7% of people in inner London have a degree, compared with 27.4% for the nation as a whole.
Urban Benefits

*Smart people push UP urban wages for everyone.*

As the number of college graduates in metropolitan area increases by 10%, individual earnings increase by 7.7%, *no matter waht level of education an individual holds.*

Glaeser & Gottlieb 2008
What’s happening in knowledge cities?

Cities display a superliniarity as they grow and this holds true for knowledge production.

The addition of one more person to a city improves creativity by more than one.

\[1+1=2+\]

*Bettencourt et al. 2007*

*Knowledge is urban, as well as individual, rocket fuel.*
What’s the mechanism that makes cities so creative?
Buzz: face-to-face connection in cities

- Cities enable face-to-face contact between informed and diverse people.
- This produces higher levels of innovation and there by economic prosperity.

Storper and Venables 2004

Buzz: Face-To-Face Contact and the Urban Economy
Cultural norms about where knowledge should be produced
Greening and "Knowledging" Cities

The Urban Thinkscape

Cambridge Science Centre, UK
Understanding how knowledge works enables informed design and planning

Core Principles

1. New ideas tend to emerge through combining different elements of old ideas in an original manner.

2. Knowledge spills over; ideas spread easily.

3. Ideas are fragile and don’t travel well.

4. Ideas can be shared without being diminished, unlike many other resources.
# Design Principles for a Learning City

<table>
<thead>
<tr>
<th>1. Density</th>
<th>3. Edges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Diversity</th>
<th>4. Dynacism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Density

- Knowledge and ideas "spill over" – but do not travel well.

- Building knowledge-creating assets close to each other is important.

- **Density in use** (temporal density) is also vital – 24/7 thinking.
The Knowledge District

- Bring assets together.
- Increase intensity.
- Increase interaction.
- Brand.

City of Manchester, Manchester Knowledge Corridor UK
Diversity

• New knowledge and insights require diversity.

• The foundation of this diversity is human diversity.

• Diversity in planning and design also plays a vital role.
Diversity in building type and quality

"Nobelhuset" by David Chipperfield & Christoph Felger, David Chipperfield Architects Berlin

Aalto Design Factory, Finland
Edges

Innovation happens when **different types** of knowledge (*well, knowledgable people*) interact with each other.

In planning and design, its important to think about the **edges** where different types of knowledge/people come in to contact with each other.
From Centre to Edge

City Planning

Traditional

Looking outwards

KTH Campus Plan
University Building: UCL, Institute of Making
Dynacism

- Knowledge should change and evolve.
- Flexible spaces and re-purposed buildings are essential.
Design Principles for a Learning City

| 1. **Density** | 2. **Diversity** | 3. **Edges** | 4. **Dynacism** |
Process
Thinkscape Matrix: a tool for the co-creation of public university campuses
Different Knowledge Publics

General

Different Knowledge Publics

Expert
LSE
• "Traditional" campus – academic offices and lecture halls.
• Owned by the university.
• Early and tight security.
• Internal "public" realm that’s really private.

CSM
• A greater variety of space types.
• A greater variety of owners.
• Later tight security – and a large “in-between”, semi-secure realm for public-private interaction.
• Active engagement in the external public realm by the university.
“Campus for Everyone”

“Campus with Industry”

“The Entrepreneur’s Campus”

“The Researcher’s Campus”
Reflections for Luleå

Its all about people.

• This is a numbers game; more people create more creativity. How can the university, its campus and its knowledge partners help attract and retain people with ideas in Luleå?

• Remember the importance of ”buzz” – face-to-face contact between diverse people. What’s the coffee strategy?

• A focus on the design of edges helps enable buzz. What’s the ground floor strategy?

• The process of campus making and re-making can be a creator of buzz.
End – and thank you!

Emma Read Källblad

E: emma.kallblad@gmail.com
T: @emmakallblad
M: 070 3436365