Webinar series

Future Creative Cities

METHODS OF URBAN PLANNING: towards a smarter and more sustainable society.

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Urban Design Thinking – the HOW of Coming to Future Creative Cities

EUROPEAN CONSERVATIVES AND REFORMISTS GROUP

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Urban Design Thinking:
The *HOW* of Coming to Future Creative Cities

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Technische Universität Berlin

Talk Series ”Future Creative Cities“
Goethe Institut Lettland
11.05.2021

Fig. 1: [Laura Bornemann, 2018]
Fig. 2: [Mario Max Kolkwitz, 2018]
Fig 3: [Christian Fröhlich, 2018]

Structure

1. Where to go? Challenges for future Creative Cities
2. The *HOW* of Creative Urban Transformation
3. Lessons learnt: Urban Design Thinking Processes

1. Where to go? Challenges for future Creative Cities

- Urbanisation, increasing urbanistion rate and its spatial results
- Climate and Resources
- Digitization of cities
- Future Creative Cities

Growth of Cities

- Since 2007, the number of people living in cities worldwide exceeds the number of people living in rural areas.
- 95 % of global urban growth between 2015 and 2050 will be located in Asian and African cities.
- In the future, cities will also be an important focus in global and local migration flows as they are economic centers.
- Approximately 70 % of all new jobs until 2030 are expected to be generated in cities.

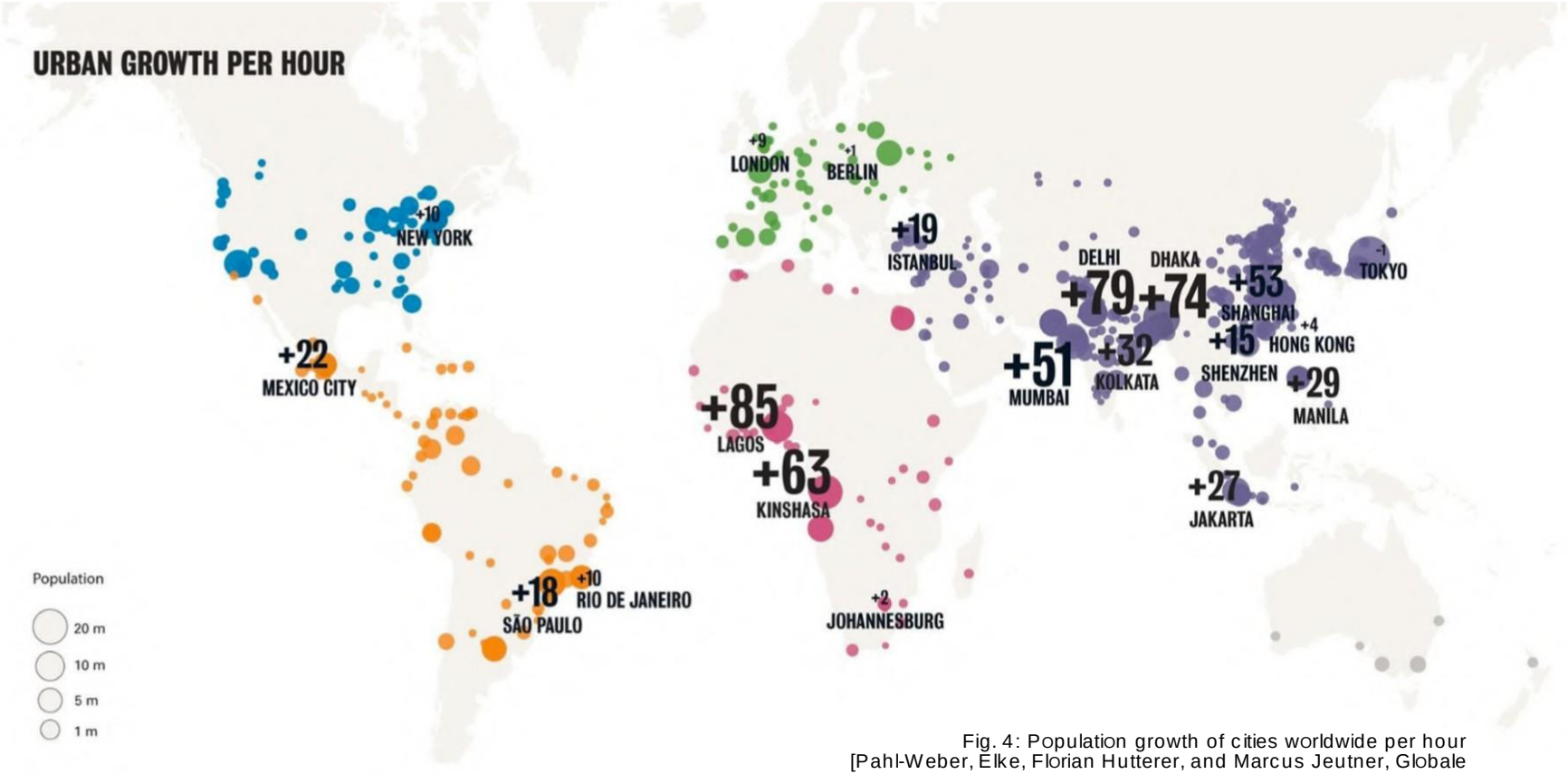

Fig. 4: Population growth of cities worldwide per hour [Pahl-Weber, Elke, Florian Hutterer, and Marcus Jeutner, Globale Urbanisierungstrends Und Zukunft Des Wohnens (Global Urbanization Trends and the Future of Habitation), 2019 <https://doi.org/10.14279/depositonce-8110>; original source: LSE Cities. Urban Growth Per Hour, Urban Age, https://LSECitie.es/u33181391]

Demographic developments and real estate economic effects

- Global population growth, coupled with rising life expectancies, leads to a sharp increase in the number of elderly people.
- Demographic development has a considerable influence on real estate markets. In the future, individuals and institutions will increasingly focus on property as a supplementary or alternative pension protection.
- This results in a risk of overheated real estate markets.

Spatial Development

- Extensive expansion of settlements is still a dominant trend in urban growth.
- Growth of settlement areas leads to the interlinking of urban and rural areas in intermediate cities, extended metropolitan regions or urban fringes.
- Spatial growth of settlements is increasing resource consumption and decreasing the energy efficiency of urban structures and systems.
- Even more than today, existing settlements and infrastructures need to be upgraded and further developed.

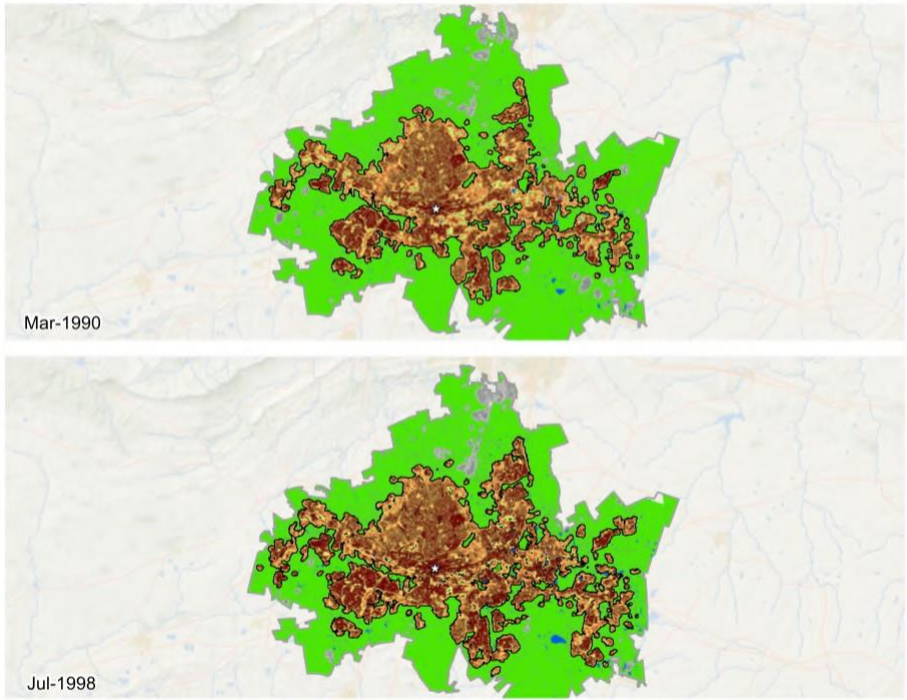

Fig. 5: Maps of Johannesburg's land growth [Pahl-Weber, Elke, Florian Hutterer, and Marcus Jeutner, Globale Urbanisierungstrends Und Zukunft Des Wohnens (Global Urbanization Trends and the Future of Habitation), 2019 <https://doi.org/10.14279/depositonce-8110>; original source: Shlomo Angel, Alejandro M. Blei, Jason Parent et al. (2016). Atlas of Urban Expansion. The 2016 Edition. Volume 1: Areas and Densities, New York: New York Uni- versity, Nairobi: UN-Habitat, and Cambridge, MA: Lincoln Institute of Land Policy. S. 190]

Climate and Ressources

- Cities carry a considerable responsibility for energy consumption worldwide: 70 % of the demand for energy and the emission of greenhouse gases are induced by cities.
- Cities are central areas for implementing a global energy market. Energy-saving potential is offered by the construction of buildings and infrastructures, the modernization of heating systems, emission-free vehicles and access to renewable energies.
- The risks associated with climate change are all important for life in cities. Events like heavy rains, heat waves, droughts and storm surges are associated with those risks.

Climate and Resources

- Paris Agreement - UN Framework Convention on Climate Change (2016)
- European Green Deal (2019):
- → Goal is to become climate resilient and climate neutral by 2050
- → Initiatives under the Green Deal include: The European Climate Law, the European Climate Pact, the 2030 Climate Target Plan and the New EU Strategy on Climate Adaption
- Biggest Challenge is not reaching the set objectives
- Decision by German Constition Court: Climate Change law of 2019 is not ambitious enough to reach goals set for 2030

→ Demographics and climate objectives are connected

Digitization of Cities

- Digitization in all areas of urban life is currently being discussed under the term „Smart City“.
- Expression of the innovative spirit of municipalities and their cooperation with the creative and technological industries.
- Digitization and networking will generate significant contributions to the development of integrated solutions, e.g. Mobility Hubs.

Digitization of Cities

- Smart Cities: Processes and dialogue all over the world
- Germany: Platform of dialogue, all levels of actors participating
- Data Strategies for common Welfare and common Goods
- Platform: Draft May 2021, presented on the Conference of National Urban Development Policy

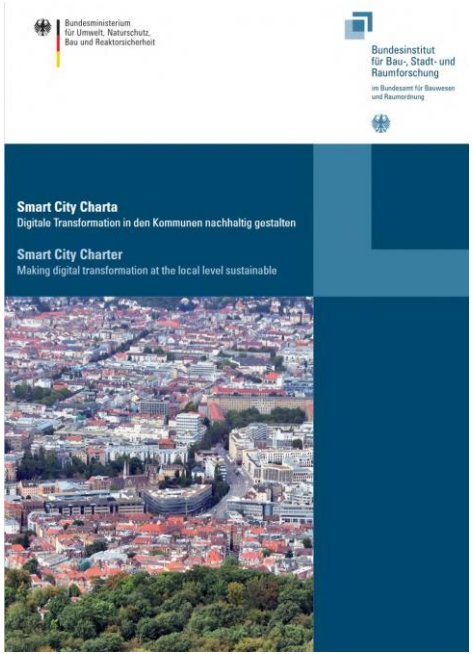

Fig. 6: Datenstrategien für die gemeinwohlorientierte Stadtentwicklung [https://www.smart-city-dialog.de/wp-content/uploads/2021/04/Datenstrategien-fuer-die-gemeinwohlorientierte-Stadtentwicklung.pdf]

Fig. 7: Smart City Charta [https://www.bmi.bund.de/SharedDocs/downloads/DE/veroeffentlichungen/themen/bauen/wohnen/smart-city-charta-kurzfassung-de-und-en.pdf?__blob=publicationFile&v=4]

Future Creative Cities

- Leipzig Charter (2007)
- The New Leipzig Charter (2020)

Fig. 8: The New Leipzig Charter https://ec.europa.eu/regional_policy/en/newsroom/news/2020/12/12-08-2020-new-leipzig-charter-the-transformative-power-of-cities-for-the-common-good]

Fig. 9: Future Creative Cities Collage [*https://keanet.eu/future-creative-cities-culture-smart-investment-cities*]

Future Creative Cities

- Cities are facing multiple major challenges that threaten their existence and future – and those challenges are getting worse!
- Creativity is needed to tackle those complex and interwoven problems.
- The knowledge and ideas of residents of cities is a massive creative potential to tackle those wicked problems, but *HOW* can the barrier between expertise and everyday knowledge be broken?[1]

[1] Pahl-Weber, Elke, and Nadja Berseck, 'Smart Cities. A Spatial Perspective. - On the "How" of Smart Urban Transformation [Unpublished]', in Routledge Handbook of Smart Technologies, 2021

2. The *HOW* of Creative Urban Transformation

Need for a new paradigm

- Cities are complex entities with dynamically changing spaces → Smart City development needs a spatial perspective
- Which kind of planning approach is needed for developing Smart Cities? → Not quite clear about the process of urban environments succeeding in becoming smart
- *HOW* to develop smart cities:

  → Holistic approach; Combination, connection and integration of all urban aspects; Analyze cities in a context of complex systems + role of space[1]

[1] Pahl-Weber, Elke, and Nadja Berseck, 'Smart Cities. A Spatial Perspective. - On the "How" of Smart Urban Transformation [Unpublished]', in Routledge Handbook of Smart Technologies, 2021

Process of transition

- Human factor is essential for development in urban space because when we put needs of citizens first, we: → produce better technology; have greater success in tackling theory urban problems; increase the acceptance of solutions
- Approach for process of transition (the *HOW*): → Multi-stakeholder; Human-centered; Place-specific
- Use Design Thinking to shape urban space and address challenges we see in Smart Cities[1]

[1] Pahl-Weber, Elke, and Nadja Berseck, 'Smart Cities. A Spatial Perspective. - On the "How" of Smart Urban Transformation [Unpublished]', in Routledge Handbook of Smart Technologies, 2021

Smart City Approaches

- Assumption: integrate technologies into operations of a city and the city becomes “sustainable” and “smart” → How about equity, justice, collaboration, fairness, …?
- Initiatives start with technology and not the core issue the technology might address
- Cities are products of countless individual and collective decisions
- Smart Cities are complex systems and consist of interrelated subsystems → Shift in thinking: cities not as a controllable system (“machine”) but as complex systems (“organisms”)[1]

[1] Pahl-Weber, Elke, and Nadja Berseck, ‘Smart Cities. A Spatial Perspective. - On the “How” of Smart Urban Transformation [Unpublished]’, in Routledge Handbook of Smart Technologies, 2021

Wicked problems and problem identification

- Wicked problems, e.g. ethnic segregation, housing market bubbles, Pandemics
- Analysis and identification of those wicked problems is crucial to the sustainability of Smart Cities
- Take decisions suitable to situation instead of following a very sharp planning process which is unable to react to changes
- → Being "smart": understanding complex systems and wicked problems → Requires holistic, not only technology approach, intervention logic, new levels of collaboration, complex problem-solving competencies[1]

[1] Pahl-Weber, Elke, and Nadja Berseck, 'Smart Cities. A Spatial Perspective. - On the "How" of Smart Urban Transformation [Unpublished]', in Routledge Handbook of Smart Technologies, 2021

What is Urban Space?

- Conditions for development of urban space to improve life: → Toolkit of urban planning in an integrated way, including smart elements; Knowing what will improve quality of life of inhabitants
- → Demands of inhabitants are crucial for all urban development
- Lefebvre: Space as a social product
- Urban space is not changing because of application of those technologies but because it has its own dynamics
- → No smart city development without recognizing space as social product[1]

[1] Pahl-Weber, Elke, and Nadja Berseck, 'Smart Cities. A Spatial Perspective. - On the "How" of Smart Urban Transformation [Unpublished]', in Routledge Handbook of Smart Technologies, 2021

The Knowledge of Citizens

- Stakeholder's interests are often not clear → crucial to understand their concerns
- Citizens have the power to be partners in collaborative processes
- "competent urbanite" and "embodied knowledge" (Sennet 2018)
- → Citizens have the knowledge about the place embodied
- Knowledge becomes visible when they talk
- → Communication = practicing and changing the physical circumstances
- → Planning process, that makes these competencies available, includes the spatial perspective[1]

[1] Pahl-Weber, Elke, and Nadja Berseck, 'Smart Cities. A Spatial Perspective. - On the "How" of Smart Urban Transformation [Unpublished]', in Routledge Handbook of Smart Technologies, 2021

Conditions for Planning Processes to enable Smart Urban Transformation

- **Integrated:** Improve understanding of complex problems
- **Citizen-centered:** No passive involvement but more inclusive and empowering co-creation approaches
- **Place-specific:** Knowledge of urbanites is important to make sure that the solutions are benefiting; find solutions tailored to place and its identity and qualities
- **Consensus-building:** Co-creation supports dialogue and constructive feedback while working on a shared goal[1]

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Why use Urban Design Thinking?

- Allows to deal with wicked problems (integrated and place-specific)
- Reframes these problems in human centric ways (citizen-centered)
- Generates and explores ideas as a group (consensus-building)
- Adaption of Design Thinking for usage in urban projects
- Urban Design Thinking can be used for co-creating smart solutions, co-designing implementation strategies and building collaborative skills[1]

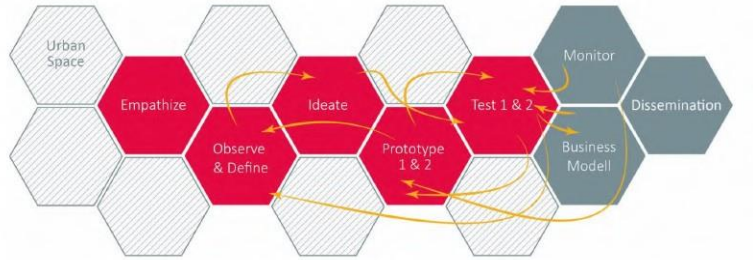

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Fig. 10: The Urban Design Thinking Process
[TU Berlin, Elke Pahl-Weber, Grafik: Marcus Jeutner, 2015]

3. Lessons learnt: Urban Design Thinking Processes

examples from the Research: applied research projects in Mannheim, Berlin, India

“Migrants4Cities” in Mannheim, Germany

”Distribute” in Berlin, Germany

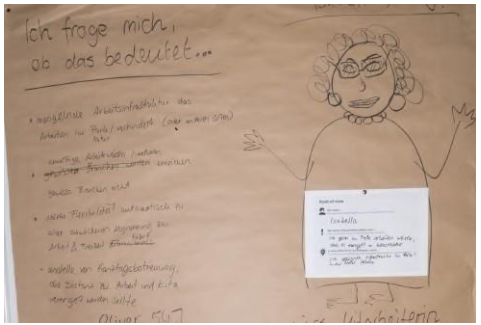
“Climate Smart Cities” in Bhubaneswar, India

Fig. 11: [Marcus Jeutner, 2020]
Fix. 12: [Gabriele Schlipf, 2020]
Fig. 13: [Marcus Jeutner, 2020]

The research project „Migrants4Cities“ in Mannheim, Germany

1: Empathize

2: Observe & Define



3: Ideate

4: Prototype 1 & 2

5: Test 1& 2

Fig. 14 : [Stefan Koderisch, 2017]
Fig. 15-17: [Mario Timm , 2017]
Fig. 18: [Marcus Jeutner, 2018]

Migrants4Cities: Results

A built prototype that can be tested...

...from idea and vision of a flexible “work box“.

Fig. 19: [Claudia Möller, 2019]
Fig. 20: [Mario Max Kolkwitz, 2018]

Migrants4Cities: Results

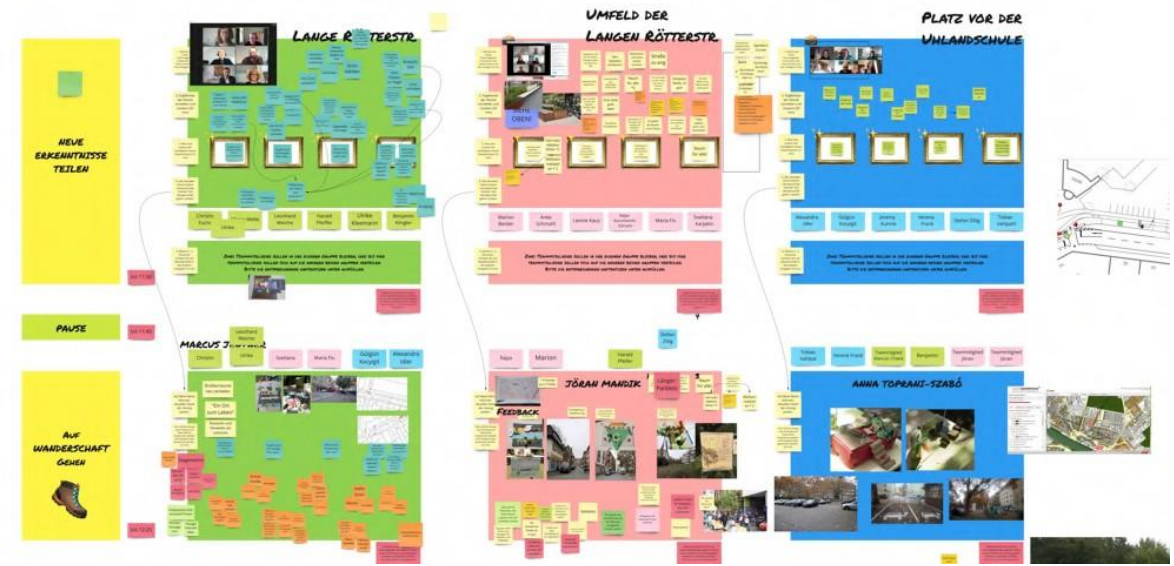
A „KulturTram“ event...

...and the first prototype of a “KulturTram”.

Fix. 21-22: [Christian Fröhlich, 2018]
Fig. 23: [Markus Proßwitz, 2018]

Migrants4Cities: Virtual coworking during the pandemic

Lessons from the Pandemic:
Outdoor-UrbanLabs…

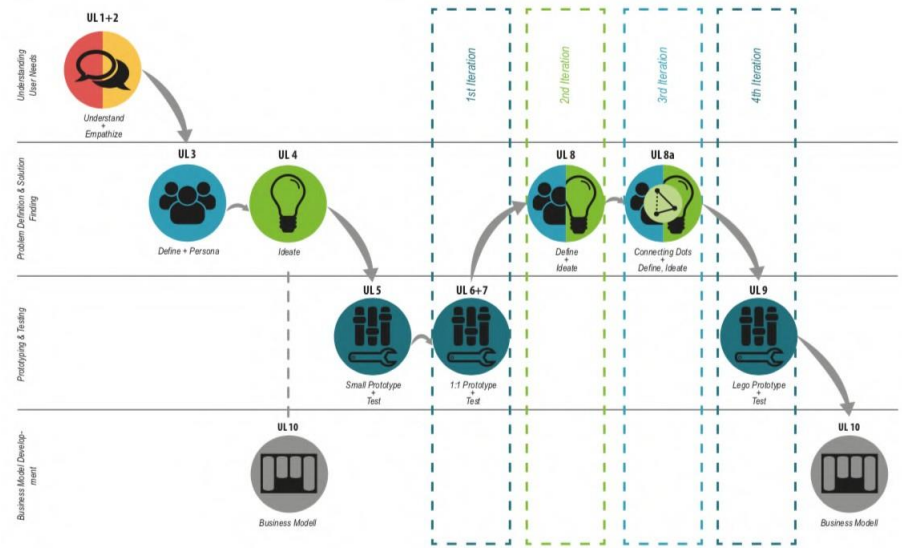


… and online UrbanLabs.

Fig. 24: [Marcus Jeutner, 2020]
Fig. 25: [Kilian Flade, 2020]

The research project „Distribute“ in Berlin, Germany

The publication from the research project

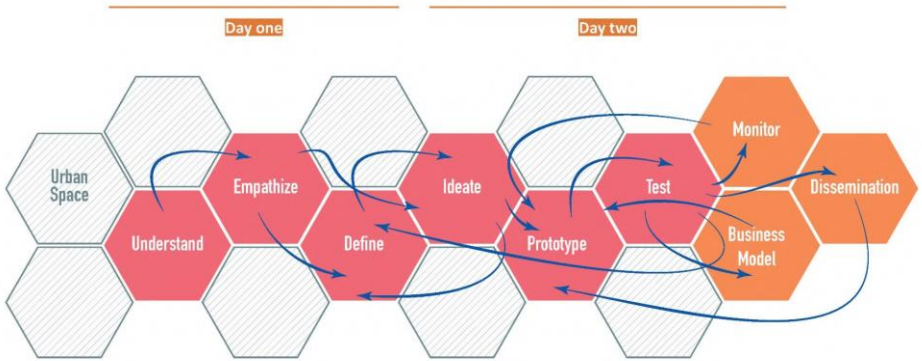


Schematic representation of the Urban Design Thinking process in the project.

Fig. 26: [https://depositonce.tu-berlin.de/bitstream/11303/11178/3/kiez-logistik_fuer_die_letzte_meile.pdf]
Fig. 27: [Jöran Mandik, 2020]

The research project „Climate Smart Cities“ in Bhubaneshwar, Coimbatore and Kochi, India

Impressions from the building of prototypes



Schematic representation of the Urban Design Thinking process in the project.

Fig. 28-29: [Marcus Jeutner, 2020]
Fig. 30: [Marcus Jeutner, 2020]

Summary

- We often discuss the objectives and topics of urban development to come to smart urban development
- The process of transformation is crucial for this
- This is why the question of *HOW* is brought forward
- Urban development creates the space, people live and work in and with
- So people are a constitutive part of the space
- They must be a constitutive part of urban development
- My thesis: if we stick to the human scale in its more technical view we will not deal with the challenges of urban development in a successful way

Thank you for the attention.
I am happy to answer your questions.

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Fig. 32 [Mario Max Kolkwitz, 2018]
Fig. 33: [Christian Fröhlich, 2018]

Figures

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Webinar series

Future Creative Cities

13 April 11:00 EEST
CULTURAL PLANNING FOR CULTURAL PLACES
In cooperation with Danish Cultural Institute

Emīls Rode Cultural Planning as a Method for Urban Social Innovation
Travor Davies Cultural Capital of Europe - Mind The Gap
Hans-Peter Degn Case study: Aarhus - European Capital of Culture 2017

23 April 11:00 EEST
ARTISTIC CREATION IN PUBLIC SPACES. Experience of Marseille - European Capital of Culture 2013
In cooperation with the French Institute in Latvia

Sébastien Cavalier Overview of Marseille 2013
Loïc Magnant Presentation of the GR2013 project
Jean-Sébastien Steil Artistic creation in public spaces

11 May 14:00 EEST
METHODS OF URBAN PLANNING: towards a smarter and more sustainable society
In cooperation with Goethe Institut and the Nordic Council of Ministers

Prof Dr. Elke Pahl-Weber Urban Design Thinking – the HOW of Coming to Future Creative Cities
Marielle Furnes Mannseth Major Agenda 2030 – Action now with United Future Lab Norway
Dr. Anne-Lise Sagen Major Agenda 2030 – Action now with United Future Lab Norway

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