HYBRIDisation – a resilient strategy in times of change and transformation

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Main Goal
Resilient buildings, neighborhoods & districts

Research Topic
Strategic transformation of the built environment

1 Material & Construction
2 Structure & Building
3 Neighborhood & Spatial Development
4 Interaction & Processes

Buildings-, Spatial – and Urban development

Fundamentals & Methods
1 Interdisciplinary Team (Architecture, Urban-Planning, Real Estate, Design, Building-technology, Informatics, Economy, Philosophy)

23 Employees (no students included)

13 Years of Experience

101 Projects in the context of resilient strategies for the built environment

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SBE19 Graz, Sustainable Built Environment D-A-CH Conference 2019
08 September 2019, TU Graz
The only constant in the universe is change

Heraclitus (535 BC)

Firmitas (Durability)
Utilitas (Convenience)
Venustas (Beauty)

Vitruvius (1st century BC)

The buildings are permanently under pressure to adapt!

«You can’t control it!»

Resilience
Use Flexibility
Justifiable Design

Vitruvius 4.0
«Resilient Spaces»

Resilience
Indicator of a system's robustness.
The system overcomes disturbances, can reorganize itself and emerges stronger than before.

Resilience ≠ Resistence!

to promote their capacities to support continual adaptions and strategic transformations
“This category corresponds with the “model of a city with short routes, places to work on site and good social mixture”. [6] The goal is to support areas that accommodate residential space and “service and business enterprises in small-scale, mixed use. […] This mobilises additional living space where the city is at its most attractive, ensures well-functioning intermixing and makes conservative use of land.” [7] These new zoning codes make it possible to build higher and more densely in “urban areas”, and use an apartment as both working and living space. Consequently a new hybrid, multifunctional typology of buildings is necessary. The challenge now is to formulate structural, creative and location-specific typology approaches in such a way that they correspond with current demands and can hold their own in changing times.”
«The typology is dead – long live the Hybrid»

[Peter Schwehr, 2017]

«The hybrid building has the multifunctional, adaptable and synergetic genes in its code»

[schwehr, schuchert, 2019]

«The adaptable structure has a highly stimulating nature to encourage adoption of the building, can respond dynamically to the location and the changing requirements, exploits synergies ...»

[schwehr, schuchert, 2019]
«New genetic alliances through interaction of different hybrids»
[Schwehr, Schuchert, 2019]

Character Hybrids

Application-specific
Has “unexpected mixing of functions”
Appropriation as a principle, scope for action

Multi-used
Oriented towards usage and changes thereof (e.g. learning)
Based on unknown future
Use creates form
Full-time activity

Environment as system boundary
Focus impact on city
Sensible interaction with environment required
Uses synergies

Open system
Interconnected and open to development
Anti-fragile (disruption = opportunity), fault-tolerant
Great diversity
From visible to undercover

Changes within and outside the system through spontaneous or planned initiation
Change can only be planned and controlled to a certain extent (e.g. appropriation by new users)
Challenges

- Existing Structures
- Building Culture
- Politics / NIMBY
- Gentrification
- Unknown Future

[...]

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