Organization of rights and responsibilities in complex 3D real property developments – the relevance of bridging research fields

(a discussion paper of different 3D property systems)

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Condominium vs. 3D property system

- Condominium systems were introduced in
  - Denmark 1966 (in principle, still in its original shape)
  - USA in the early 1960s (2. Generation legislation in 1978)

- Simple and complex condominium developments
  - Simple is an traditional apartment building
  - Complex include a mix of use, and e.g.:
  - Staged development
  - Flexible condominium

Condominium vs. 3D property

- Complex condominium development
  - Split the common property into a two-tier governance structure
  - Making each use type in a building independent

- The complex design is a re-organization of the condominium standard organization
  - The unit is individual owned and the rest of the property is commonly owned
  - Methods are described in condominium literature

Condominium vs. 3D property

- 3D Property in Sweden
  - Individual 3D property unit (2004)
  - 3D property space (2004)
  - Condominium (2009) only for residential use

- All three 3D property types can be mixed within the same traditional 2D property
  - In the cadastral procedure it is decided what should be common property
  - Methods are not described in detail in literature (at least to these authors knowledge)

BOSTÄDER
1:5

KONTOR
1:4

BUTIKER
1:3

Condominium vs. 3D property

- Both systems create 3D property, however
  - The Swedish 3D property system is more flexible in terms of registration different types of boundaries in the cadastre.
  - The Danish condominium system is challenged but traditional options are still working.
  - Important to notice that there is no evidence that the cost of organizing rights and responsibilities are better or less expensive in the 3D property system.

- The Achilles heel of the 3D property lies not in the representation of boundaries but in organizing the rights and responsibilities of the commonly owned property.
  - Perhaps this is the main reason 3D cadastre receives little attention in Denmark. The organization is working in practice despite that legislation has not been adjusted.
  - The developer is free to make the legal design, and the property market is the control.

Summery

- Future research
  - investigate if the Danish system can benefit of implementing parts of the Swedish model
  - Identify problems in Denmark and propose (partly) the Swedish system as the solution

- Condominium literature is rich on organizational aspects in complex developments
  - We believe 3D cadastre and traditional condominium literature could benefit form each other

- Based on the situation in Denmark and Sweden we propose a theory
  - that systems with a long history of condominium practice and legislation will hesitate implementing 3D property solutions because condominium legislation or practice has mutated as building structures over history has become more complex.
  - In Sweden there is not a long history of condominium ownership, but instead a new 3D property legislation.

PhD course in Urban Design with 3D Cadastre and Property Rights

Organizer: Esben Munk Sørensen. ems@plan.aau.dk

Lecturers:
Prof. Jesper M Paasch and Assoc. Prof. Esben Munk Sørensen, Aalborg University, Denmark
Prof. Peter Ekbäck and Assoc. Prof. Jenny Paulson, KTH Royal Institute of Technology, Stockholm, Sweden
Prof. Sjur Kristoffer Dyrkolbotn, University of Bergen, Norway
Prof. P.J.M. van Oosterom, TU/Delft, the Netherlands.
Prof. Abbas Rajabifard and Assoc. Prof. Mohsen Kalantari, University of Melbourne, Australia

ECTS: 3

Time: 15-19 November 2021

Place: ONLINE at Aalborg University

Number of seats: 15

Deadline: 26 October 2021