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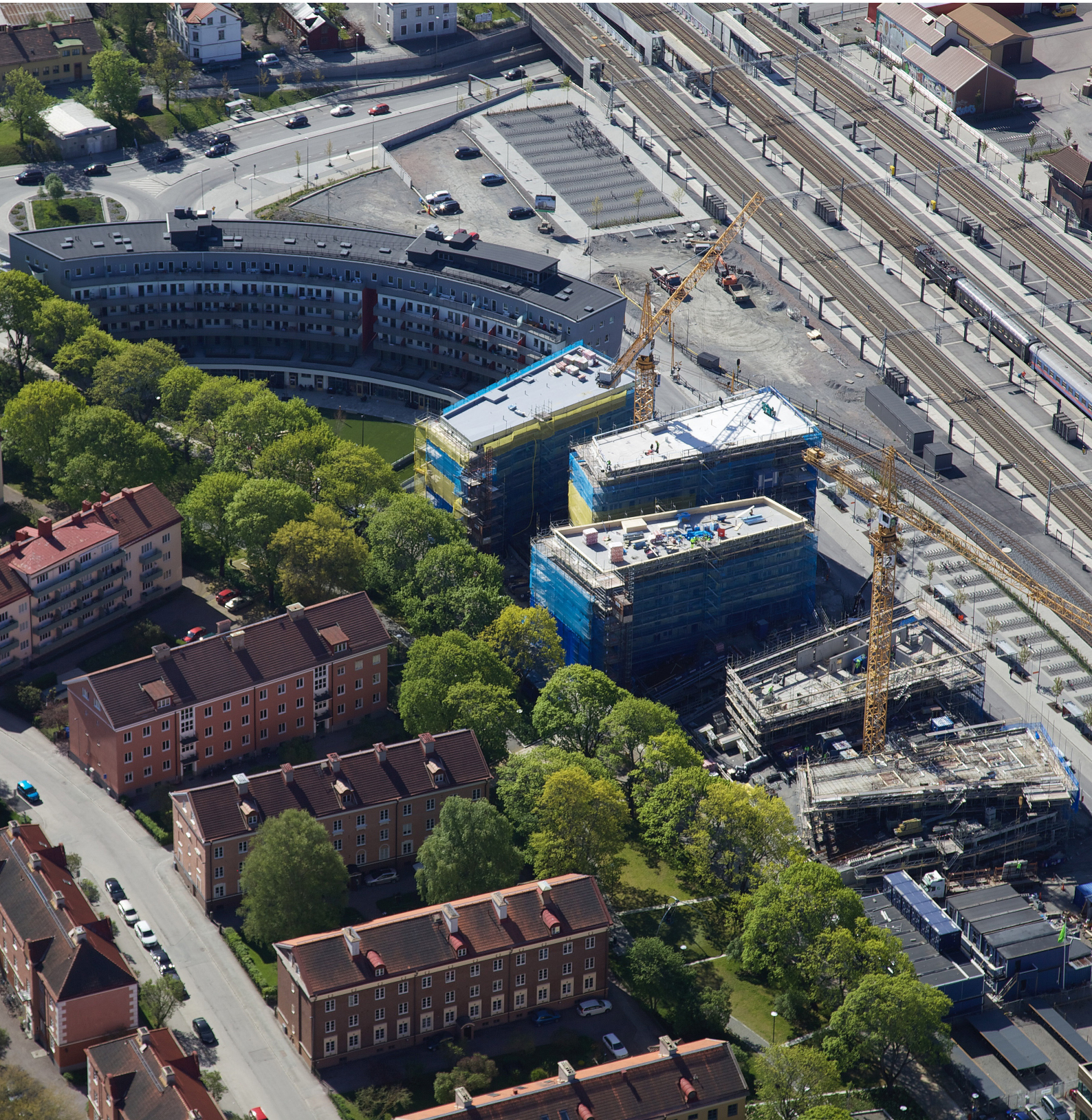

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THEME ISSUE
DENSIFICATION AS A PLANNING STRATEGY

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Manuscripts are to be sent to Madeleine Granvik (Madeleine.Granvik@slu.se), Claus Bech-Danielsen (cbd@sbi.aau.dk) and Anni Vartola (anni.vartola@gmail.com) as a text file in Word, using Times New Roman font. Submitted papers should not exceed 8 000 words exclusive abstract, references and figures. The recommended length of contributions is 5 000–8 000 words. Deviations from this must be agreed with the editors in chief. See Author's Guideline for further information.

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Picture on the front cover: «Frodeparken», Uppsala, Sweden. Photo: Gunnar Britse

THEME ISSUE

DENSIFICATION AS A PLANNING STRATEGY – EDITORS' NOTES

MADELEINE GRANVIK, PER G. BERG, ANNI VARTOLA AND CLAUS BECH-DANIELSEN

This special issue of *Nordic Journal of Architectural Research* is illustrating a deep concern among researchers that the up to now rather unreflected doctrine of densification may create a backlash. Densification as a strategy for sustainable urban development is undergoing a phase of fast development and there is a need to nuance the term. We may want to take a step back and ask ourselves if there are even more good models for the attractive and sustainable city around the corner. This is why we – as researchers and professionals – need to look for ways to articulate the concept of density, to discuss the functional aspects of urban densification and/or to elaborate on the qualities at stake when we plan for and build more compact human settlements.

The papers in this theme issue clearly demonstrate an ambitious research effort to contribute to a deeper understanding on why, how and when densification is used as a planning strategy. Interestingly enough, the papers also widen the scope of what objects we may refer to using the term. As one of the authors, Fabio Hernandez Palacio, points out, it is an interesting fact that the concept «densification» has not yet been an accepted term in the English language as exemplified by e.g. the Encyclopaedia Britannica. This indicates that there is a great need to work with relevant definitions, but also strive to reveal its many connotations and its ambiguities.

It is also reasonable to scrutinize other concepts relevant in the context of urban density. What concepts can help us understand alternatives to dense cities? Is it terms like *sprawling settlements, sparsely populated, scattered dwellings, dissipated structures* or even expressions like having *diluted or tenuous form*? And what are the hidden normative understandings of *densification?* Sometimes it is associated with desirable planning goals by certain planning actors (like an efficient use of scarce resources). Other times, and by other stake-holders, it represents a development that decrease the attractiveness of the urban landscape. What seems to be clear among all contributing authors in this special issue is that we need better conceptual understanding and more advanced *cause-and-effect* evaluations of urban densification processes. There are probably also a range of other relevant concepts related to densification, describing different urban planning goals, like *closeness* (i.e. to service and public transport) or *spaciousness* (i.e. for children's play).

The papers in this theme issue represent a wide range of contributions related to densification as a planning strategy. The first paper by Meta Berghauser Pont and Lars Marcus brings up the topic of measuring density. As density is a highly imprecise concept, the way it is measured varies in different studies. The authors stress a need to re-address the issue of measuring urban density and its usability for urban design and planning. Morphological qualities are in focus, which may pose the risk of being only abstract numbers. They introduce a further development of classic density measures like FAR (Floor space area) and GSI (Ground Space Index) in urban planning to account for not only the varying effect of urban scale or choice of area boundary (the Modifiable Area Unit Problem or MAUP), but also for introducing *accessibility* in their density measure. The paper draws from The Spacemate method for characterizing various urban categories of neighbourhoods, in turn based on the space syntax research. It is fair to say that this paper brings quantitative measurements of density together with subjective and experiential perceptions among citizens of urban density.

The second contribution stresses the association between higher residential density and lower energy use and greenhouse gas emissions. The authors Michael Mehaffy, Tigran Haas and Andy van den Dobbelsteen mean that three factors (individually or in combination) contribute to the benefits of density. The paper elaborates on three factors that need further investigation. The first factor concerns the distribution of destinations, something which is a classic planning problem (i.e. Christopher Alexander's patterns «Activity Nodes» and «Corner stores»). The novelty in this paper is that the authors actually show how different urban morphologies will expose destinations to a varying number of urban dwellers. The second factor – the provision of viable pedestrian-based multimodal pathways – relates to the current transition of many European cities to carbon neutral walkable urban environments. The third main

factor affecting the outcome of densification projects is summarized as «network effects» that appear to arise from the structural dynamics of certain features of urban networks. As part of a strategy to achieve carbon reduction goals, they suggest that these factors can be exploited as variable elements within urban design but also call for further studies in this field.

The third paper is written by Per-Johan Dahl and brings up the suburban houses' backyards as potential catalyst arenas for new densities in the city of Los Angeles. Such an additional dwelling in any real estate with a single house is called Accessory Dwelling Unit (ADU). Taking three built examples of ADU architecture as the subject matter for case study analysis, the paper explicates the significance of backyard architecture and articulates a disciplinary context for ADU architecture. The author elaborates on the benefits of a well-regulated ADU, such as more efficient use of land, energy, water and other resources. Dahl also describe some of the risks with the current *unregulated* development of backyard homes, like potential fire hazards and effects of varying standards resulting in unclear conditions of loans and insurances. The argument put forward in this paper is that the ADU standards and regulations need to be formalized in order to achieve substantial impact.

The issue of feasibility and effectiveness of urban densification in Norway is highlighted by Fabio Hernandez-Palacio. In the Norwegian case, the national programme «Cities of the future» operating since 2008 is part of a National policy on urban densification. The paper presents results from empirical studies in the four largest urban areas in Norway: Oslo, Bergen, Trondheim, and Stavanger. Data from these cases have been analysed in relation to densification, dwelling types, and transportation modes. The feasibility of densification is for instance affected by the socio-economic situation in Norwegian cities. And the author states that although densification is proven feasible, the effectiveness of compaction depends on a combination of various factors and not merely density – for instance demographic development and the modes of mobility.

The fifth paper, which also has focus on Norway, and is written in Norwegian, brings up the topic of heritage in the context of dense urban planning. Densification is rather seen as a threat than as an opportunity to existing heritage. The author Elin Børrud has conducted research in four Norwegian cities that all have, however, ambitions for both urban growth and the protection of cultural heritage. The question in focus deals with how the concept of cultural heritage can be operationalized to manage the processes of transformation following from the official Norwegian urban densification strategy. Børrud argues that the change in status from protected object to resource value can move the discussion of cultural heritage from a matter of threat to opportunities.

The three following papers have all in common that they have green issues in focus related to densification. They all stress the conflict in urban dense planning, between land use for e.g. dwelling and land use for recreation e.g. parks. In order to solve this conflict there is a need to provide qualified descriptions of green structure values and functions. The contribution by Märit Jansson presents a literature review on urban green space benefits and values as important in providing ecosystem services for sustainable dense cities. Several of the cited works assess, categorize and describe in detail the many functions, services and benefits of green spaces and elements: cleaning of the air, regulation of temperature and water, recirculation of nutrients, recreation and health. Numerous research studies emphasize and exemplify the need of the many functions, services and benefits which are provided by green spaces and elements. However, there is often a risk that ecosystem services and other functions and values of green structure are undervalued in urban planning processes. The literature review stress the contribution of urban green spaces related to economy, health, quality of life and ecological benefits.

Tim Delshammar presents in his paper how green infrastructure is developed in the city of Malmö. Six types of green spaces, developed in dense urban structures and which were not classified as public parks, were selected in the study. Urban green spaces appear in varying shapes, and therefore altering types might be of different importance in diverse contexts. This paper focuses on six types of green spaces promoting social cohesion. The findings suggest that there are reasons for analysing and discussing urban greening strategies in new categories, and how they contribute to cultural ecosystem services, in terms of access for viewing, staying or interacting with the places.

The last contribution, by Erik Skärbäck, Jonas Björk, Jonathan Stoltz, Kristin Rydell-Andersson and Patrik Grahn, concerns how green qualities in urban neighbourhoods can contribute to satisfaction and well-being among its inhabitants. The green qualities are based on earlier studies defining eight distinct characteristics of parks labelled as *serene, nature, species-richness, space, prospect, refuge, social and cultural*. Results from two empirical studies conducted in the city of Malmö are being compared with a study conducted in semi-urban and rural areas in the Skåne region. The authors are emphasizing the socio-economic aspect of densification location in the city and the access to green-blue, e.g. *serene*, environments, by analysing the results in relation to socioeconomic segregation. They argue that parks and recreational green areas cannot shrink – as a result of densification – too much without losing key landscape recreational values for its citizens, having influence on people's health.

Our hope is that this theme issue of *Nordic Journal of Architectural Research* will inspire the Nordic research community to join the on-going discourse on the attempts to create tools for understanding how dense urban planning can be understood and used in practice in the future. Defining, nuancing, elaborating and making densification operational in planning and urban design is a designated task for researchers in the field.

Madeleine Granvik, Per G Berg, Anni Vartola and Claus Bech-Danielsen