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Chinese urban residential blocks: Towards improved environmental and living qualities

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Abstract

The complex urban environment has multiple levels of design and planning that are applied in the form of blocks, layouts and city patterns. This paper develops an analytical study based on urban residential blocks in Ningbo city in China. It explores issues of density, green infrastructures, and urban quality with particular focus on environmental performance. At what point does exaggerated density reduce both living qualities and opportunities for good climatic design and a low carbon footprint?

The study applies a simple methodology to evaluate and compare planning options for residential areas. The goal is pragmatic, seeking not ideal solutions but realistic and inexpensive alternatives to current practice which is particularly inefficient in terms of energy and climate emissions. Some potential advantages of low-dense as compared to high-rise solutions are noted. The study highlights questions as to optimal or appropriate typologies and densities for sustainable cities, in particular in the fast expanding cities of developing countries.

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