Virtual recurrences. About building typologies in the AI era

Urban Morphology in the Age of Artificial Intelligence

Book of Abstracts

ISUF | Torino | 2025

17th - 20th June

XXXII - International Seminar on Urban Form

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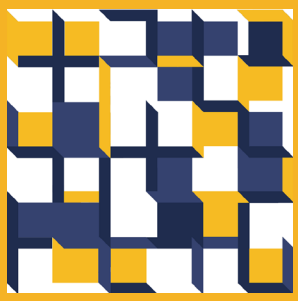

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Virtual recurrences. About building typologies in the AI era

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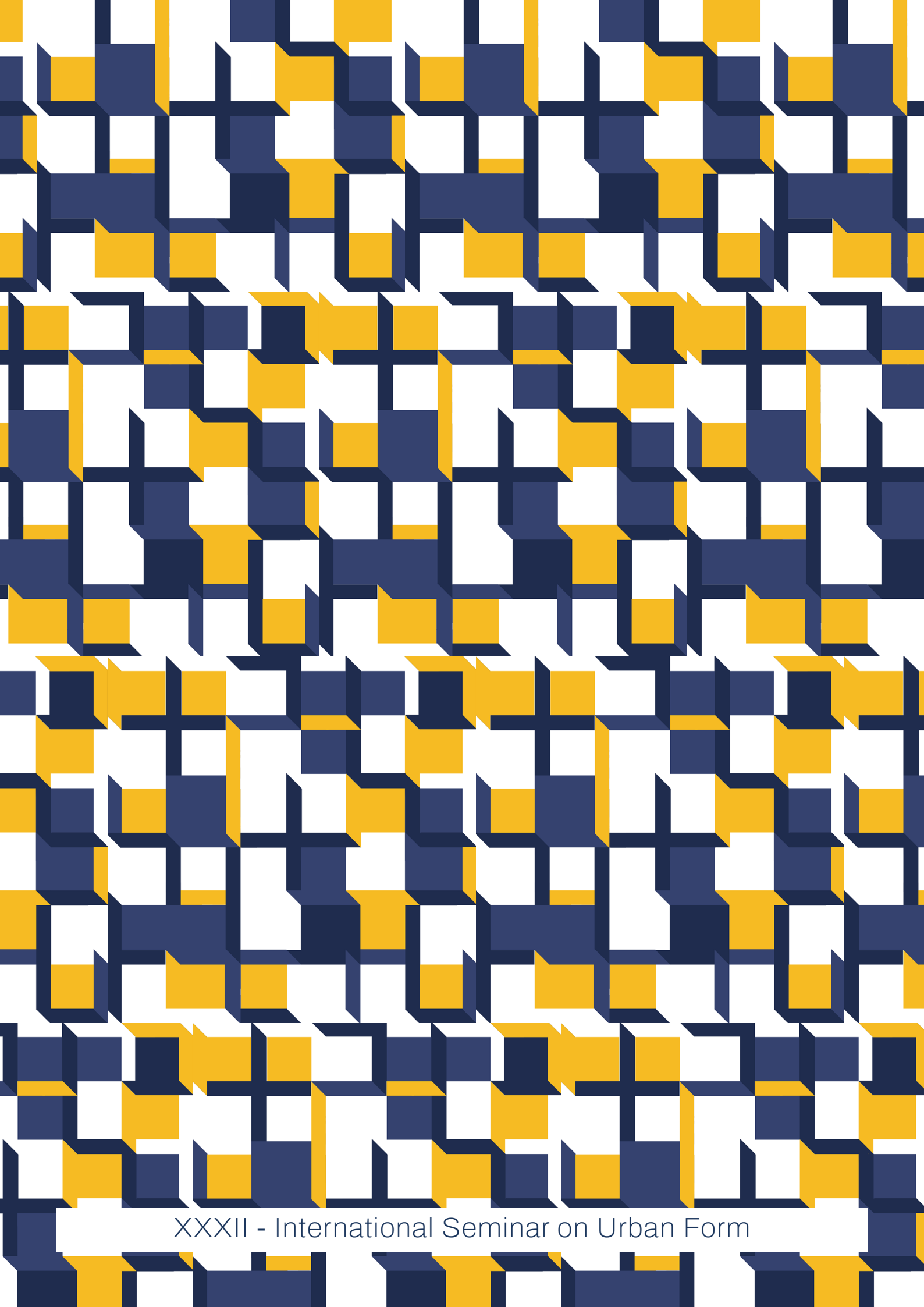
Sequences, repetitions and typological differences are the basis of urban fabrics' aggregation and development, particularly historical ones. Many authors have brought to light how study, design and cumulative knowledge of planimetric recurrences are precious tools for investigating both urban forms and design procedures (prefiguration and intervention) on the built fabric. Technological shifts in reading and planning built fabrics require a focus on how and whether the refinement in cataloguing and prefiguration of planimetric aggregations has built links with the traditional typological study. This is true, especially in a cultural context where AI is assuming a role that makes irreversible some of these shifts.

In a society dominated by data, in architecture and urban studies, it is easy to see how these are mostly aggregated to return plausible images of possible scenarios as quickly as possible, according to the increasingly frequent iconographic and textual demand, starting with the most popular commercial software such as ChatGPT. This general 'visual trend' is also motivated by the fact that architectural images have progressively become one of the primary references for the project, making use of representations selected by algorithms that are refined according to individual searches and their frequencies, in a process that becomes cyclical.

The contribution investigates the potential – although underdeveloped or unexpressed – of AI in the study of the recurrence and combination of architectural and urban systems mainly from a cultural point of view. Thanks to some examples, simulating scenarios and testing some of the common tools that adopt AI, the aim is to highlight how the discipline of architectural and urban design needs a more profitable in-depth study of these tools so that it can be enriched as much in practice as in theoretical debate, without, however, becoming a quotation of itself or a mere communication tool.



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