

The Role of a Form-led Approach in the Expansion of Irish Towns: urban morphology tools for planning

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Irish towns have expanded at an unprecedented rate over the past fifty years. The suburbs with their diverse land use critically lack a coherent structure and spatial schema. This crisis results to a large extent systemically due to planning that prioritises land use and infrastructure over form.

A study was carried out into how a form-led approach to town expansion in Ireland can engender better urban planning and design. The study identifies four essential urban morphological determinants that can be used as tools for description and analysis as well as for planning and design. These tools are: *conceptual determinants*, concerning the essential layout type of the town; *physical determinants*, comprising landscape characteristics and the infrastructure of transportation; *organisational determinants*, focused on the sequential arrangement of tissues reflecting, density, intensity and land use; and *structural determinants*, involving five essential urban elements as concepts, namely, routes, nodes, edges, districts and landmarks.

Within this framework, eight case study towns were selected and rigorously analysed. Consistently this study demonstrated that, without having recourse to an underlying plan-based form, town suburbs lack coherence. Yet in each of the towns examples of where the urban fabric contributes to morphological order were found, so providing the basis of a set of models for form-led planning. In conclusion, the study recognises the importance for decision makers of understanding urban form both two-dimensionally and three-dimensionally, including sequentially, at all of its levels, from the building/plot to the whole town scale, in order to achieve improved coherence of the urban fabric.

Keywords: morphological determinants; coherent structure; urban form; urban morphology; urban planning.