The knowledge that shapes the city:

The human city beneath the social city

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Abstract

In the Atlanta Symposium (Hillier, 2001, 2003a) a theory of the social construction of the city was presented. In this paper it is proposed that underlying the various kinds of social city there is a deeper, more generic human city, which arises from the pervasive intervention of the human cognitive subject in the shaping and working of the city. This intervention is explored at two critical stages in the forming of the city: in the 'vertical' form-creating process by which the accumulation of built forms creates an emergent spatial pattern; and in the 'lateral' form-function process by which the emergent spatial pattern shapes movement and sets off the process by which an aggregate of buildings becomes a living city. The nature of these cognitive interventions is investigated by asking a question: how do human beings 'synchronise' diachronically acquired (and diachronically created) spatial information into a synchronic picture of ambient urban spatial patterns, since it is such synchronic pictures which seem to mediate both interventions? A possible answer is sought by developing the concept of 'description retrieval', originally proposed in 'The Social Logic of Space' as the means by which human beings retrieve abstract information from patterns of relations in the real world. Our ability to retrieve such description happens, it is argued, at more than one level, and can includes the high-level notions of the grid which seems to plays a key role in cognitive intervention in the city. Finally we ask what the ubiquity of the human cognitive subject in the formation of the city implies for how we should see cities as complex systems. It is argued that, as with language, there is a 'objective subject' at the heart of the processes by which cities come into existence, and that this provides us both with the need and the means to mediate between the social physics paradigm of the city, with its focus on the mathematics of the generation of the physical city and phenomenological paradigm with its – too often anti-mathematical - focus on the human experience of the city. Since the intervention of the cognitive subject involves formal ideas and has formal consequences for the structure of the city, we cannot, it is argued, explain either without the other.

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