

The visibility graph:

An approach for the analysis of traditional domestic M'zabite spaces

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Abstract

This paper examines domestic spatial arrangements of the Berber people of the M'zab. It covers the areas of Ghardaia, Beni Isguen, El Ateuf, Melika and Bounoura - the five walled towns or Ksours of the M'zabite league. In his famous study of the Kabyle Berber house, the late Pierre Bourdieu underlined the symbolic significance of domestic spatial arrangement. A simple rectangular form on plan, the Kabyle house is divided into two parts, a division which becomes the basis for an elaborate system of binary oppositions - dark versus light, nature versus culture, male versus female. In configurational terms the house is integrated and has a shallow 'core'. By contrast the distinctive feature of the M'zabite house is that it is inward-looking, with rooms distributed around a small internal courtyard, commonly on two floors. This is combined with a sharp division between male and female quarters and between spaces for visitors and those reserved for the family. The access pattern is characteristically tree-like and reveals two main 'genotypes', one centred on the Wast Eddar, the ground-floor living space, the other on the Ikoumar, an upper-floor 'portico' used for various female and family activities.

Visibility mapping (depth map), applied to a cross-sectional sample of the M'zabite houses, further clarifies the internal structure of the dwelling. Local measures, such as the clustering coefficient, and global ones, such as point depth entropy, point to a high level of visibility in many of the interiors, especially in and around the Wast Eddar, the Ammas N'Tadart (a central space), the Ikoumar and the Tigharghart (upper courtyard). This is in spite of the irregular geometry on plan and the associated junctions and turning points, which sometimes lead to a loss of visual fields. Interestingly, the Tisifri, a ground floor room used for women visitors, tends to be well-connected visually to neighbouring spaces. This would appear to be due to its strong physical and functional link with the central courtyard, the Wast Eddar, which is the hub of female activity. This is very different from the men's spaces, such as the Houdjrat (on the ground floor) and the Aali (on the first floor), which are highly enclosed. The Skifa (entrance hall), is always enclosed, peripheral and private (see cluster coefficients and point depth entropy), reflecting its role of restricting entry and breaking the field of view. Other highly bounded spaces include the Tazeka (room) and the Tazeka N'El Aoulat (storage room), which are commonly to be found at first floor level.

Keywords

Domestic space, visibility graph analysis, cultural differences, habitus

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These visibility characteristics, like the spatial genotypes, are widely repeated across the sample, irrespective of location. It is notable, however, that Ben Isguen, the most sacred settlement of the five that comprise the M'zabite league, yields both the highest and the lowest values for clustering coefficient and entropy. El Ateuf, the most ancient of the settlements, by contrast, produces values that are clustered in a much narrower band. Bearing in mind the morphological consistency across the sample, it is difficult at this stage to explain these cross-settlement differences. However, further study of room-use, orientation, and the functional and physical relationship between the house and the settlement may be informative.

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