Defining salience for landmark selection

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Abstract: Learning a novel environment involves representing objects encountered and their locations. Landmarks can be salient based on both their spatial features, for example, if they are located at an intersection, and their perceptual features, for example, if they are uniquely colored. The current experiment investigated the influence of spatial and perceptual features on landmark selection. Subjects watched a movie of a simulated path through a virtual environment. Four landmarks were located at the corners of each intersection, with one of the landmarks uniquely colored. After viewing the video, subjects provided both written descriptions and maps of the path. Landmarks included in these descriptions were coded for both location and perceptual salience. Participants included more landmarks located at far corners of an intersection and at intersections with a turn. Uniquely colored landmarks were not included more often than chance. These data suggest that spatial features predominately define the selection of landmarks.