Wayfinding

The process of using spatial and environmental information to navigate to a destination.[1]

Whether navigating a college campus, the wilds of a forest, or a Web site, the basic process of wayfinding involves the same four stages: Orientation, Route Decision, Route Monitoring, and Destination Recognition.[2]

Orientation refers to determining one's location relative to nearby objects and the destination. To improve orientation, divide a space into distinct small parts, using landmarks and signage to create unique subspaces. Landmarks provide strong orientation cues, and provide locations with memorable identities. Signage is one of the easiest ways to tell a person where they are and where they can go.

Route Decision refers to choosing a route to get to the destination. To improve route decision-making, minimize the number of navigational choices, and provide signs or prompts at decision points. People prefer shorter routes to longer routes (even if the shorter route is more complex), so indicate the shortest route to a destination. Simple routes can be followed most efficiently with the use of clear narrative directions or signs. Maps provide more robust mental representations of the space, and are superior to other strategies when the space is very large, complex, or poorly designed. This is especially true in times of stress, where the wayfinding may need to be adaptive (e.g., escaping a burning building).[3]

Route Monitoring refers to monitoring the chosen route to confirm that it is leading to the destination. To improve route monitoring, connect locations with paths that have clear beginnings, middles, and ends. The paths should enable a person to easily gauge their progress along their lengths using clear lines of sight to the next location, or signage indicating relative location. In cases where paths are particularly lengthy or the traffic in them slow moving, consider augmenting the sight lines with visual lures, such as pictures, to help pull people through. *Breadcrumbs*—visual cues highlighting the path taken—can aid route monitoring, particularly when a wayfinding mistake has been made and backtracking is necessary.

Destination Recognition refers to recognizing the destination. To improve destination recognition, enclose destinations such that they form dead-ends, or use barriers to disrupt the flow of movement through the space. Give destinations clear and consistent identities.

See also Errors, Mental Model, Progressive Disclosure, and Rosetta Stone.

[1] The seminal work on wayfinding is *The Image of the City* by Kevin Lynch, MIT Press, 1960.

[2] "Cognitive Maps and Spatial Behavior" by Roger M. Downs and David Stea, in *Image and Environment*, Aldine Publishing Company, 1973, p. 8–26.

[3] See, for example, "Wayfinding by Newcomers in a Complex Building" by Darrell L. Butler, April L. Acquino, Alicia A. Hissong, and Pamela A. Scott, *Human Factors*, 1993, vol. 35(1), p. 159–173.

The wayfinding design of the Pittsburgh Zoo and PPG Aquarium is divided into unique subspaces based on the type of animal and environment. Navigational choices are minimal and destinations are clearly marked by signage and dead ends.

The visitor map further aids wayfinding by featuring visible and recognizable landmarks, clear and consistent labeling of important locations and subspaces, and flow lines to assist in route decisionmaking.