**Proposition:** During a depth-first search of a strict digraph, any vertex accessible by a path from the initial vertex origin r of the search is visited, with a previsit, then a postvisit, and eventually also a revisit.

Proof: Imagine you're in a maze, and you're trying to explore it thoroughly, making sure you don't miss any paths. You start from a specific spot (let's call it the "starting point"), and you follow a rule:

1. Every time you reach a new intersection (where paths meet), you always choose a path you haven't taken before.
2. If you hit a dead end (a path that doesn't lead anywhere), you backtrack to the last intersection where you had another option.
3. You keep doing this until you've explored every possible path from the starting point.

Now, the proposition says that if you follow this rule in exploring the maze, you'll eventually visit every part of the maze that you can reach from your starting point. You won't miss any areas.