

The diagram illustrates the construction of a perspective projection of a line segment onto a plane. Key elements include:

- Planes:** A horizontal plane (top) and a vertical plane (bottom) are shown, intersecting along a horizontal line.
- Points:**
 - N : A point on the horizontal plane.
 - H : A point on the vertical plane.
 - A : A point on the horizontal plane, representing the center of projection.
 - M : A point on the horizontal plane.
 - M' : A point on the vertical plane, representing the projection of M .
 - P : A point on the vertical plane.
 - Q : A point on the vertical plane.
 - B : A point on the vertical plane.
- Lines:**
 - r : A line passing through A and M .
 - r' : A line passing through M' and P .
 - l, k' : A line passing through B and Q .
 - J, J' : Points on the horizontal and vertical planes, respectively, representing the intersection of the line of sight and the plane.
- Constructions:**
 - The line segment AM is projected onto the vertical plane as $M'P$.
 - The line segment AM is extended to intersect the horizontal plane at N .
 - The line segment AM is extended to intersect the vertical plane at H .
 - The line segment AM is extended to intersect the horizontal plane at J .
 - The line segment AM is extended to intersect the vertical plane at J' .