

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 at 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.
 - M : A point on the horizontal plane.
 - J : A point on the horizontal plane.
 - B : A point on the vertical plane.
 - Q : A point on the vertical plane.
 - P : A point on the vertical plane.
 - M' : A point on the vertical plane.
 - N' : A point on the vertical plane.
- Lines:**
 - r : A line passing through A and M .
 - r' : A line passing through M' and N' .
 - l, k' : A line passing through B and Q .
 - J' : A line passing through J and M .
 - A' : A line passing through A and M .
- Constructions:**
 - A line segment AM is projected onto the vertical plane as $M'N'$.
 - A line segment AM is projected onto the horizontal plane as AM .
 - A line segment AM is projected onto the vertical plane as $M'N'$.
 - A line segment AM is projected onto the horizontal plane as AM .