TERM	DEFINITION
Categorical Ambiguity	Sometimes a perspective type appears to be both a category (method) and form (image outcome) at the same time. But why is this so? The answer is that (for example) linear perspective is a name that applies to both a perspective category (a method/process) and a perspective geometric image form (image geometry) simultaneously.
Category Chaining	A perspective category refers to a specific class of perspective system, with a corresponding set of optical, mathematical, graphical, instrument/illusive, or new-media processes. Oftentimes, more than one category is involved simultaneously to produce a perspective view/image; this is called category chaining, such as when we use a camera (instrument perspective) to photograph a natural scene (natural perspective), which is then viewed by a human (visual perspective of a second type).
Category Overloading	Sometimes the same perspective sub-class can appear under multiple top-level categories; named as category overloading; for example, when we have a linear perspective drawing which seems to be equally a graphical and mathematical process simultaneously.
Equivalence / Correspondence Problem(s)	The so-called 'Correspondence' and/or 'Equivalence' Problem(s) of monocular perspective; refer to the fact that for a single 2-D image of a 3-D object projected onto a 2-D image plane, the projection does not contain sufficient information to unambiguously identify all of the geometric details of said 3-D object (ref. object shape/size/angle/location).
Planes / Visual Angles Problem	The **eye** deals with 'visual angles', or inherently measures the apparent angular size of an object (projected image angular extent on a spherical retina); whereas **perspective** (linear form) deals with the size of an object (or image) created by an entirely different method, being projection onto a picture plane (typically). A spherical retina causes planar objects that subtend smaller visual angles (each at identical depth distance(s) from the viewpoint, to create correspondingly smaller images relative to the identically sized (projected) images of linear perspective.
Problem of Space	Since space is invisible, we need ways to structure spatial reality to enable reverse-engineering of perspective views/images, or comprehension, of spatial scenes/objects. Geometrical assumptions—or known contexts—are used to solve such image decoding problems. We employ known axes/lines/planes/grids/horizons to segment, order, index, measure, and gauge physical space. Examples are ground plane metric grids and checkerboards patterns, etc.
Problem of TIme	Desired are ways to explore time on multiple scales; viewing images using natural-speed, slow-motion, or fast-forward time-flows, much like a typical video player.
Problem of Viewpoint	Due to the singular optics and geometry associated with a particular vantage point. Each view contains unique (but partial) information about the scene or object under inspection. We often need to consider multiple views to probe visually—or model/understand—an object/scene sufficiently.
Real / Simulated Problem	Problem of distinguishing between the **real** and the **simulated** (digital/AI-generated) perspective images/views; or identifying physical related, as opposed to virtual and/or digital sourced/ generated, perspective images/views.
Scale / Shape / Size Problem (Extrinsic Simplicity)	Measuring **size** implies measuring also the dimension of **shape**—wherein perceived object shape is a variable quantity that becomes fixed (or quantified) only at a specific **projection scale** or optical magnification. Thus **shape** and **measured size** are both function(s) of the **projection scale** and associated **projection scale resolution**; which is named the scale/ shape/size problem of optical/technical perspective.
Shape Sufficiency and Levels of Abstraction (Intrinsic Simplicity)	A perspective image captures (or represents) physical reality using geometric **Forms** that are valid only at a particular dimensional **scale**. For example, while making a perspective drawing of a spatial scene using linear perspective, we assume that within the depicted reality (at the chosen **scale**), the ground plane, picture/image plane, plus vertical-planes, etc., are all sufficiently flat, and any orthogonal(s) exist as sufficiently parallel and sufficiently rectilinear. Ergo, **geometrical simplification(s)** underpin all artificial perspective methods/ systems (plus even some natural perspective processes).
Validity of Linear Perspective	According to Pavel Florensky, linear perspective is based on 6 premises which are false (one and all): 1) We live not in euclidean but in a visual space which is bounded, finite and distorted; 2) The point-of-view of beholder is not the centre-of-world; 3) A monocular point-of-view ignores binocular aspects; 4) Fixed position of beholder is not the usual case; 5) Whole world is not static; 6) Excludes all psycho-physiological processes such as memory. The result is that we humans (re)construct images with a fragmented and roving eye/mind that is closer to the principles of reverse perspective.