

Abstract

In the process of visual perception and observation of space, with a particular focus on the architectural space, indoors or outdoors, the image designed by the brain is made according to the visual knowledge. The observer is driven to understand the world around through perspective images, as since the Renaissance. This method of observation and perception of visual images doesn't translate exactly the way we see things, and the space around us.

Among different movements of the eye, during the process of vision, eye movements take greater importance.

When studying how Man looks the surrounding space, in order to observe and analyse it, a feature that stands out is that this operation is not performed continuously, from left to right and from top to bottom, but randomly. To understand that, the question, then, is: - What kind of geometric structure is behind the visual process?

This work aimed to study how Man looks at the surrounding architectural space, in order to build visual images. For analysis, only three-dimensional indoors or outdoors architectural spaces were considered, refusing all the analysis and experiments on pictures or models, in their representation.

The methodology used was the collection of images by eye tracking technology, and then the analysis of its geometric characteristics in order to get some conclusions. The crucial elements of images collected in video support, were transferred to a two-dimensional photographic support, in order to allow a comparative analysis of data.

Analysis of eye movements, regarding its physical characteristics and its form, were made. The aim of this analysis is to determine the existence of a possible geometric support resulting from eye movement (Saccadics) during the observation process and then to understand, or even recreate a type of perspective, or outlook, which represents the real visual image, in the strict sense of visual perception.

To this effect, all the constructions were made, exclusively, based on drawing representation, either manual, computerized or photographic.