Visual Communication and Inclusive Design – Colour, Legibility and Aged Vision

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This research project, a work in progress developed in Doctoral Design Course- FAUTL, has the aim of determining if there are specific design principles to be applied to visual communication design objects, in order to be easily read and perceived for all individuals; develop the study of aspects related with vision, colour vision, perception, chromatic contrasts and legibility so as to identify the problems related with the decrease of vision in the normal ageing process; what is easily perceived by young designers (some colour combinations, colour contrasts, typography), sometimes is difficult to perceive by the majority of people who do not fit this young profile.

With aging, quality of vision worsens independently of aging eye diseases, colour vision and contrast sensitivity are also affected. "Color vision deficits cause difficulties in discriminating colors on the three most important perceptual dimensions of color: hue, lightness and saturation. Colors are best chosen to differ dramatically on all three dimensions." (Arditi,1999, Effective color contrast: Designing for people with partial sight and congenital color deficiencies. NY: Lighthouse International). "Our research indicates that vision impairment increases dramatically with age. It is our goal to underscore the need to incorporate principles of universal graphic design into all visual media, so that they are truly useful and legible to the largest possible population. (Silverstone, 2007, Big Type Is Best for Aging Baby Boomers. A Case for Universal Graphic Design. Lighthouse International).The visually accessible design is a relevant approach, once the world population is getting older, life expectancy is enlarged; and "the vast majority of people benefit from having things made easier to see". (Evamy and Roberts, 2004, In sight – a guide to design with low vision in mind, Rotovision).

Scientific knowledge about vision, colour, colour vision, can improve design process and contribute for inclusive and efficient design practice.