

Visible Magic Painting

I am really, really proud and thrilled to include Visible Magic Painting in this book. Why is that, I hear you ask? Well, because I invented VMP! If I don't blow my own trumpet about it nobody else will.

Background

By trade, I am a telecommunications engineer. During the 1960s (when the UK was switching from mono television to colour) I taught television engineers about colour TV principles and how to mend colour television sets. At our technical training school, we employed Over Head Projectors (OHP) and pre-drawn foils as visual aids. I modified a particular visual aid, and, quite by accident it became the now well known Visible Magic Painting, see **Fig 4.61**.

Part of the course's subject matter was about the rods and cones on the eye's retina, and their respective resolution to distinguish colour from monochrome. Basically, the visual aid was two acetate foils. One foil had a very poor resolution colour picture drawn on it, while the other acetate foil had a mono hi-definition line drawing on it.

When the two foil sheets were exactly superimposed on the OHP, it showed as a hi-definition colour picture. The purpose was to explain how the TV system could transmit poor colour resolution pictures while transmitting hi-definition black and white pictures (thus saving valuable frequency bandwidth).

The diagram of **Fig 4.62** makes an attempt to



illustrate the principle, but it's almost impossible to display it clearly in this book using mono printed pictures.

During storage, the two acetate foils sometimes stuck together so I kept them apart by inserting a sheet of plain white paper between them. One day, quite by accident, the white sheet of paper slipped out, and the mono picture became coloured before my eyes! I made a window envelope for it, and it



Fig 4.61 (above)

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Fig 4.62 (left)

An attempt to illustrate the principle, but it's almost impossible to display it clearly using mono pictures.