The aim of the invention is to create techniques for the encoding, production and viewing of stereograms, supplemented by methods for selecting certain optical filters needed in these novel techniques, thus providing a human observer with stereograms each of which consist of a single image for viewing through special filter pairs, the stereogram encoding essentially the full colour information of the original stereogram or of the original scene, while at the same time encoding the full parallactic depth of the original stereogram or the parallactic depth that would normally be found in a conventional stereogram recorded of the scene. The invention makes use of a colour-based encoding technique and viewing filters selected so that the human observer receives, in one eye, an image of nearly full colour information, in the other eye, an essentially monochrome image supplying the parallactic differences prescribed by the stereoscopic principle and supplementing the colour perception. For selecting the filters, the invention suggests an auxiliary test. For encoding the stereograms, the invention suggests a special process of channel separation and replacement. For colour correction in the resulting image, the invention suggests a multistage process. Generally speaking, the best results are obtained when all of these are used together.

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