

De Stéréo-Club Français.

Olivier CAHEN: *L'image en relief, du film au numérique.*

This is an update, in French, of the book: *L'image en relief, de la photographie stéréoscopique à la vidéo 3D*, published in 1990 by Editions Masson.

It is defined as a reference for readers searching methods for stereoscopic presentations, pitfalls to be avoided, and commitments to be met in order to obtain comfortable results for the viewers. From the earliest trials for rendering stereoscopic vision by pioneers of photography, up to the challenges to be taken up by cinema operators for the next decade, this book relates the history of techniques and scientific advances in this area with many examples.

The CD-ROM attached to the book contains nearly two hundred stereo images, as anaglyphs and side-by-side, that the reader can comfortably view with an anaglyph lorgnette and a simple folding stereo viewer (supplied with the book), as well as various documents mentioned in the bibliography and links to many websites related to stereoscopy.

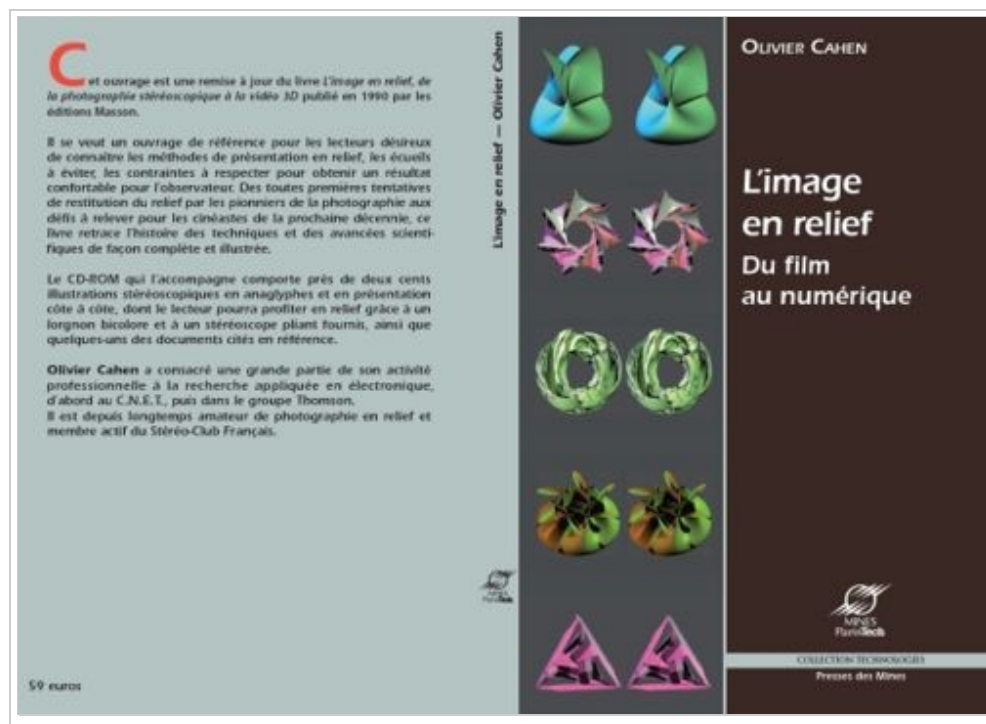
Olivier Cahen worked as an electronics engineer, mainly in applied research. For long time an amateur of stereo photography, he is an active member of the French stereo club since he retired.

Abstract of the contents

- Preface
- Forewords to the first and present editions

1. DEPTH PERCEPTION

- Monocular depth perception from static and moving images
- Binocular depth perception



History and status of our knowledge, depth range and sensitivity

- **Notion of proximity**

2. FUNDAMENTALS OF 3-D IMAGING

- **Conditions for comfortable viewing**
- **Methods for separating left and right views**
- **Direct 3-D imaging (holography and other methods)**

3. GEOMETRY AND DEFORMATIONS OF THE STEREOSCOPIC IMAGE

- **General rules, systematic proximity errors**
- **Effects of parameters such as camera interval, focus, convergence, viewer location, projector interval, Window effects**
- **Computer-generation of stereo images**

4. BASICS OF STEREOSCOPIC EQUIPMENT AND PROCESSES

- **Cameras. Stereoscopes. Projectors.**
- **Non-depolarising screens. Slide mounting, digital mounting software.**
- **3-D movies. Methods for 3-D television.**

5. HISTORY AND FUTURE OF STEREOSCOPY

- **Early discoveries. Present status of the technology.**
- **Early and present uses.**
- **Applications in medical imaging, industry and aerospace engineering, C.A.D., teaching, consumer entertainment, and forecasts.**

APPENDIXES :

- **Theoretical calculations**
- **Glossary**
- **Table of symbols**
- **Bibliography**
- **Suppliers and societies in stereoscopy**

The CD-ROM includes all the stereoscopic pictures, as well side by side as anaglyphs (only some of them are printed); a Loreo Lite viewer and an anaglyphic lorgnette are supplied with the book. More than a hundred links to websites with more information or images are given to those who are reading online. Some documents are also included in this CD-ROM, such as papers published in the monthly newsletter of the French stereo club.

Récupérée de « https://www.image-en-relief.org/SCFWiki/index.php/Oca_book »

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