

Compendium of Image Errors in Analogue Video

KAROLINE BELTINGER

The «Compendium of Image Errors in Analogue Video» is a long awaited reference work on cataloguing, viewing and diagnosing the condition of analogue video-cassettes. Published jointly by the Swiss Institute for Art Research (SIK-ISEA), Bern University of the Arts (HKB) and the Swiss Federal Office of Culture (BAK), the compendium is in two languages – German and English – and comes accompanied by a DVD.

Videos have become part and parcel of many art collections in recent decades, and they are used as information carriers for both “single channel” works and complex video installations. Often, however, the video medium presents a challenge to the art historians, curators, restorers and registrars whose task it is to look after these works. Even at the inventory stage, good advice is at a premium given the sheer diversity of cassette and tape formats. When the time comes to digitise analogue footage, viewing is unavoidable, along with a precise assessment of any damage. In many cases, defects in the analogue image can be eliminated or minimised before they are irreversibly wedded to the content in the digital conversion process.

With this «Compendium of Image Errors in Analogue Video», authors Johannes Gfeller, Agathe Jarczyk, Joanna Phillips and Irene Schubiger have created a useful guide for collection managers, offering advice on viewing and cataloguing analogue videos and a reference manual for diagnosing their condition. The Compendium was conceived and compiled as part of the research project «AktiveArchive». This research, funded by the Federal Office of Culture (BAK), was devoted to the preservation of digital art and carried out in partnership by SIK-ISEA and Bern University of the Arts (HKB). Swiss Re of Zurich made a substantial contribution towards the cost of editing and publishing the volume.

Content and use of the Compendium

The first step when viewing and assessing analogue videocassettes is to identify the format. Users of the Compendium are aided here by pictograms printed on the endpapers: at the front the most common analogue cassette formats, and at the rear the more recent digital formats for comparison. The flypapers provide additional tips for distinguishing between cassettes that are very similar in appearance.

Identifying the format is not just an essential aspect of professional cataloguing. It is also the first step towards viewing, as every format usually requires its own particular player. The first chapter, «Viewing and cataloguing videocassettes – a guide», takes the reader stage by stage through the correct procedure for viewing a video. As an aid to the systematic description of technical specifications, content and condition, the authors have drawn up a «Data sheet for viewing and cataloguing videocassettes» which can be adapted to meet the specific needs of any collection.

The central chapter on «Video defects» is the heart of the compendium. This reference source is designed to facilitate the identification and assessment of damage to cassettes and tapes. The authors of this section, Johannes Gfeller, Joanna Phillips and Agathe Jarczyk, provide detailed descriptions of 28 commonly found defects. They are intended as examples rather than as an exhaustive list, but they have been selected for their relevance to analogue art videos produced in Europe. Digital errors have been excluded, as have errors typical of analogue formats with component recording; accompanying audio defects are only mentioned peripherally.

Each defect is given a name and classified as a tape error, operator error, equipment error or production error. There is still no standardised terminology for describing image errors, and so the authors have compiled a list of synonyms currently in use for each defect. The next stage is to describe the problem and its possible causes in detail, and each of these has been illustrated by one or more video stills. Each entry ends with some advice on whether and how the error can be removed by a lay technician or whether it is preferable to hand the tape, player or both over to an expert.

The video stills which illustrate the central chapter have been cross-linked with the relevant video sequences on the DVD inserted into the cover pocket. Consulting the DVD is especially important when errors cannot be distinguished with the aid of the stills.

The chapter by Johannes Gfeller on «Basic principles of video technology» explains the essential historical and technical background; Irene Schubiger's section on «The artistic use of analogue video distortion» adds an artistic dimension to the discussion, describing how artists have played with distortions and manipulations over the years, deliberately incorporating them into their works.

There follows a «Glossary of video terminology», where the specialist terms used in the Compendium are explained. The final section in the book contains «Details of video sequences and stills». Most image errors result from damage to the tape or the player, and

Ill. 1–4, pages 18/19

Ill. 1

Moiré effect (equipment error, production error)
This recorded test picture consists of black-and-white concentric rings. The circular moiré effects with their colourful shimmering are produced in the monitor itself, and are known as cross-colour effects.
EBU Library of Video Test Sequences, *Luminance Zone Plate*, colour, test tone. Photo: Lukas Gähwiler

Ill. 2

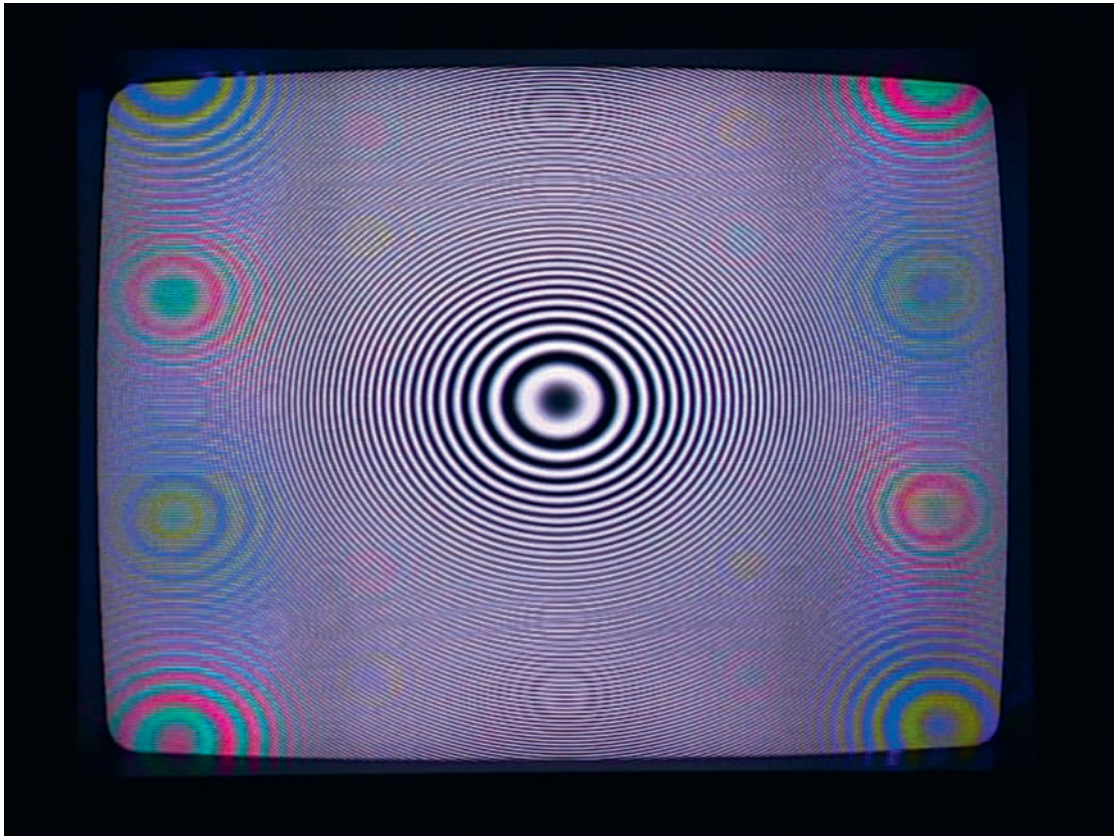
Deformation of the tape (tape error)
The manual tracking control can be used to split and recombine the noisy area, but cannot eliminate it completely. This is a symptom of what is known as a curvature error, i.e. a curved deformation of the tape.
TV recording of *Wer 3 x lügt*, 1978, colour, audio.
© Schweizer Fernsehen. Photo: Johannes Gfeller

Ill. 3 and 4

Incompatibility within a family of video formats (operator error)

Ill. 3: If we attempt to play a Hi8 cassette on a Video8 player, the picture is too bright and may appear almost colourless (achromatic). Horizontal black “flags” appear along contrasting edges.

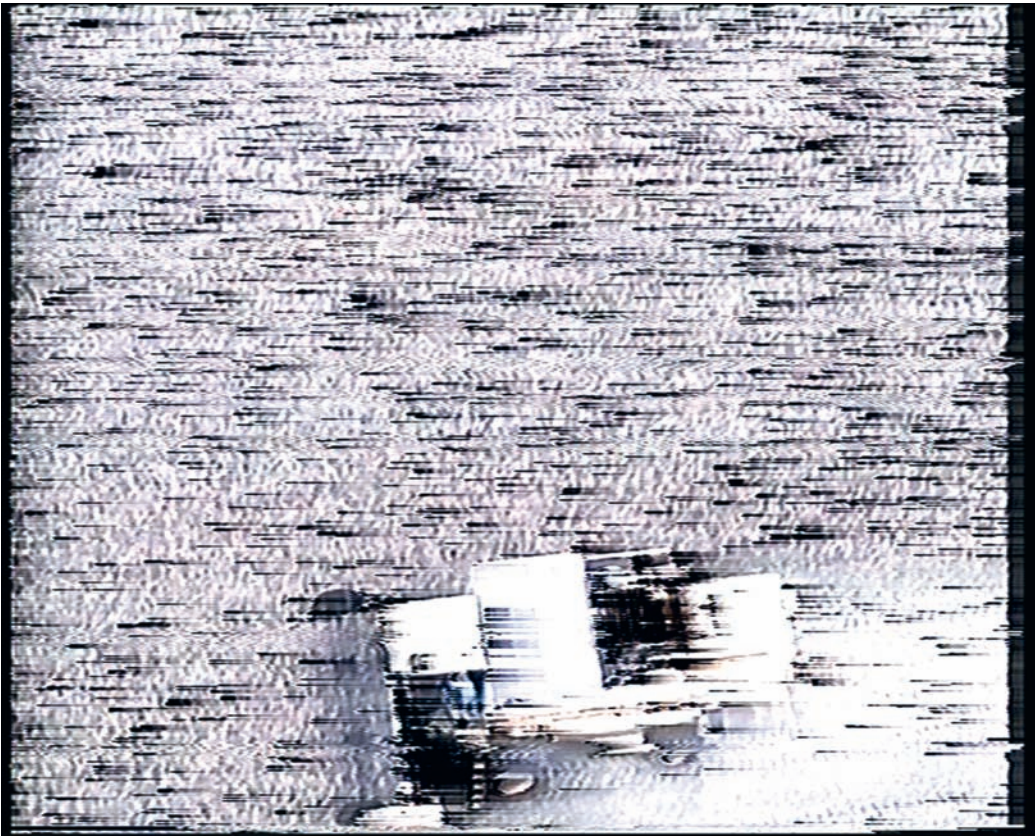
Ill. 4: This video was recorded on a Hi8 cassette; here it is being played back, without distortion, on a D8 player. Video8 cassettes can also be played back on Hi8 and D8 machines without distortion.
Rudolf Steiner, *Corn 4*, colour, audio.
© 1999 Rudolf Steiner. Photo: Agathe Jarczyk



1



2



3



4

the team were able to digitise these directly for the purposes of the DVD. Other defects attributed to incompatible or poorly adjusted monitors were shot from the screen. Errors not encountered in the existing tapes were specifically generated. This last chapter explains how this was done and how the equipment for recording the defects was set up.

The Compendium is the second volume in the series «KUNSTmaterial», launched by SIK-ISEA in 2007. The series is devoted to the analysis and conservation of artworks. It presents the findings of research carried out by SIK-ISEA's Art Technology department, either on its own or in partnership with other disciplines, institutions and specialists. A third title is currently in the pipeline.

Publication Data

Johannes Gfeller. Joanna Phillips. Agathe Jarczyk. Irene Schubiger, *Kompendium der Bildstörungen beim analogen Video / Compendium of Image Errors in Analogue Video* (KUNSTmaterial, 2), Swiss Institute for Art Research/Bern University of the Arts (eds.), Zurich: SIK-ISEA, 2012, German and English, ISBN 978-3-908196-76-1, ISSN 1661-8815, CHF 98.--
22 x 28 cm, 256 pages, 154 colour illustrations (of which 61 video stills), 39 pictograms, cased binding with DVD in front pocket (61 video sequences).

The authors

JOHANNES GFELLER

Until 2011 Professor of Conservation and Restoration of New Media at Bern University of the Arts, since Winter Semester 2011/2012 at the State Academy of Art and Design in Stuttgart. Project leader for «AktiveArchive».

AGATHE JARCZYK

Conservator-restorer with her own «Atelier für Videokonservierung» in Bern, teaches the conservation and restoration of modern materials and media at Bern University of the Arts and the Academy of Fine Arts in Vienna.

JOANNA PHILLIPS

Conservator of Contemporary Art at the Solomon R. Guggenheim Museum in New York specialising in the conservation of media artworks. 2005–2008 researcher with «AktiveArchive».

IRENE SCHUBIGER

Art historian. Her doctoral dissertation was on Self-Representation in Video Art. Freelance curator and lecturer in 20th- and 21st-century art history at several Swiss universities. 2004–2011 researcher with «AktiveArchive».