

## Oscar for Zeiss – again!

On the evening of February 2, Ralf Coenen, General Manager of the Camera Lens Division at Carl Zeiss, received the much-coveted Academy Plaque from the hands of the actress and presenter Anne Heche at the A.M.P.A.S. award ceremony in Beverly Hills. The award was conferred on Arnold & Richter Cinetechnik GmbH (ARRI) and Carl Zeiss for the design and implementation of the "Variable Prime Lenses", a set of three zoom lenses for 35 mm ARRI movie cameras. The reasons given for the award were outlined as follows: "This series of Variable Prime Lenses opens many creative possibilities, since any focal length can be continuously selected throughout the entire range. They offer sharp, high-contrast, high-resolution images with minimized vignetting, superior to many prime lenses."

Expressing his gratitude to the Academy for the award, Ralf Coenen commented: „It is a great honor and pleasure for us to receive this award. It is a special source of delight for me that our lenses have helped to make a visit to the movies an unforgettable experience for millions of people all over the world.“ When the Oscars(r) were awarded at the end of March, the successful movies included some, e.g. „Shakespeare in Love“, that have been originated on film with these award-winning lenses.

The three Variable Prime lenses cover, in total, a focal length range from 16 to 105 mm, offer a speed of f/2 (or T 2.2) and are the flag-ship products in the Carl Zeiss optical arsenal for motion picture camera manufacturer Arnold & Richter.

Although size and price of the Variable Prime lenses range above average, they offer a clear and valuable advantage to the motion picture industry: increased productivity. Carl Zeiss Variable Prime lenses save time exactly when it costs a hefty premium: during shooting

on the set. Time and effort for precise framing and lens changes can be significantly reduced by using these flexible high performance optics.

However, the 1999 Oscar for the Variable Prime lenses is not the first Oscar the AMPAS awarded to Carl Zeiss. In 1987 Carl Zeiss won a technical Oscar for the range of superspeed lenses f/1,2 (T 1.3). And the 1999 Oscar for Zeiss may also not be their last one: There are ideas on Zeiss' drawing boards, offering new benefits to the industry, that may be well worth a technical Oscar in some years from now...

## Info from Zeiss for Journalists

If you contribute to photo magazines and are about to write on Carl Zeiss lenses, it might be of help to get access to Carl Zeiss sources. We offer you to get in touch with us to make sure your readers find the information you present about Zeiss lenses for Alpa, Arri, Contax, Leica, Hasselblad, Rolleiflex, Sony, and Yashica as accurate as possible. Just use the contact information in this issue of Camera Lens News, or contact Markus Wieder-spahn (phone: +49 7364-2194, e-mail: m.wiederspahn@zeiss.de) indicate for what magazine you are working, and we will do our best to provide you with answers to your questions, ideally immediately or within hours.

## Cyber-shot:

### SONY Digital Still Camera with Carl Zeiss Lens

Sony's new digital still camera for demanding modern photographers is the DSC-F55E named "Cyber-shot". The camera is based on a Sony 1/2" CCD image receiver chip with 2.1 megapixel resolution. The image creator – the lens – of the new Sony DSC camera is a Carl Zeiss Distagon 1:2,8/6,85. The camera is supposed to be available in Europe from CeBIT on at a price around 1000 Euro.



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Indicated by the "...gon" in any Zeiss lens name, the Distagon 1:2,8/6,85 delivers images with a wide-angle perspective. In this case the perspective is similar to a 37 mm lens in 35 mm photography. An additional 2.5 x digital extender may be applied by the photographer either during actual shooting or later during an in-camera editing process.

As indicated by the "Dista..." this wide-angle lens is a special optical design with extended distance between the rear of the lens and the image receiver. This extended space would be used for the moving mirror in an SLR camera or, in case of the DSC-F55E, for filters and protective cover of the CCD.

A fixed focal length lens was chosen to provide ease and speed of use, f/2,8 for good quality indoor shots, reliable high resolution of fine object detail, and very small space requirements: The Cyber-shot camera has the size of an APS camera although it includes 2 inch color CCD monitor, built-in flash, rechargeable battery, Sony "memory stick" interchangeable data storage device, still and movie operating modes, voice recording, and many more possibilities.

## **Cyber-shot: First Results**

The performance of the Sony Cyber-shot camera was recently tested by Carl Zeiss application specialists. They took photos from a variety of different subjects like portrait, still life, products. The results were printed on a HP Desk Jet 895 Cxi ink jet printer, which costs far less than 1000 DM. Special HP premium paper for photo grade prints and appropriate premium printing inks were used. Printing size of the images was A 4 full page and A 3 dual page spread.

The resulting A 4 prints prove that the performance in terms of detail sharpness and image smoothness of the Sony Cyber-shot camera with Carl Zeiss

Distagon 1:2,8/6,85 clearly outclasses everything the Zeiss application specialists have seen from APS (= Advanced Photo System) so far.

Their impression is: In conventional "chemical photography" it takes at least a 35 mm SLR camera and a high quality film of not more than 100 ISO to challenge the technical image quality achievable with the Sony DSC-F55E.

## **How Digital One-Shot Cameras Perceive Color**

One-shot color CCDs (= charge coupled devices) with a built-in filter grid are the most common image receivers in the majority of today's digital cameras, be it still or motion. They have a regular pattern of optical color filters in the three primary colors R, G, B (Red, Green, Blue) arranged over the light sensitive pixels of the CCD. Such a color filter is a device that lets light of its own color travel through and sharply cuts out all other colors. Thus a red filter would let red light pass through and completely block out blue and green. Each pixel of the CCD has exactly one filter color patch in front of it. It can sense the intensity for this color only. But how can the two remaining color intensities be sensed at the very location of this pixel? They cannot.

They have to be generated instead through interpolation (averaging) by monitoring the signals from the surrounding pixels which have filters of these other two colors in front of them. The interpolation algorithm assumes, that colors and intensities are distributed in some random fashion. In general this assumption and the algorithms based upon it deliver pretty accurate results.

In some special situations, however, they generate artifacts. The picture can show colors where only black and white (bright and dark with no color whatsoever) should be. This side-effect is unavoi-

dable with one-shot colour CCDs coming with a built-in filter grid. This is not a matter of certain makes or of negligence in design or manufacturing. It is just principally unavoidable.

## **Coming up soon on the Internet: The Carl Zeiss Camera Lens Division**

Carl Zeiss has been present on the internet with an own site for quite a while now. But so far the content of the camera lens division was under construction. This phase is about to end as you read this: Scheduled for Spring 1999 the first organized appearance of "official information on Zeiss lenses" will come to the net, right from the source. In a first step we will make Zeiss data sheets of lenses available and downloadable. Also we will provide information on the inherent qualities and performance highlights of Zeiss lenses. Even Camera Lens News will eventually come to the internet. The Carl Zeiss web site can be found at this address: <http://www.zeiss.de>

## **Telephoto Power Pack (TPP): First Results in Print**

Currently several prototypes of the Carl Zeiss Telephoto Power Pack (the Tele-Superachromat T\* 1:2,8/300 and the Apo-Mutar 1,7 x plus polarizing filter) are in the hands of professional photographers for field testing of the new optics and exploring the new creative potential the TPP brings to the Hasselblad system. These photographers use Hasselblad focal plane shutter cameras (like 202 FA, 203 FE) and they specialize in fields like fashion, beauty, science, editorial, landscape, industrial. Their reactions are enthusiastic throughout.

In the meantime some first photos taken with the TPP have been published in print: "Innovation", a full color magazine published by Carl Zeiss in German and English



had a first short report in their no. 5 issue with a photo showing flamingos.

Innovation can be obtained free of charge from Carl Zeiss (For contact information see CLN's publishers imprint. Please indicate if you prefer the English or German version. By the way: Innovation 5 also contains an editorial on photography by Wolf Wehran and a 6-page article by Martin Schwenk on wildlife photography with the Tele-Apotessar T\* 4/600 prototype and Contax 35 mm SLR cameras.)

"FORMAT", the color magazine of Hasselblad, Germany, is published in German and devotes several pages including the front cover of their spring 1999 edition (Nr. 14) to the TPP. Their TPP images come from the fashion and beauty field and were taken by Arendt Schmolze. FORMAT can be obtained free of charge from Hasselblad Vertriebsgesellschaft m.b.H., Postfach 1209, D-22902 Ahrensburg, phone: +49-(0)41 02-49 101, fax: +49-(0)41 02-49 143.

## TPP – New Delivery Date

When introduced at Photokina 1998 the TPP was supposed to ship starting in February 1999.

Since Photokina Carl Zeiss received several suggestions from professional photographers who field tested the TPP. Due to implementing these suggestions the shipping date moved somewhat further out. As of today deliveries of the TPP will begin in June 1999. Carl Zeiss will then make TPPs from serial production available to photo magazines for testing and evaluation.

## What Cameras can the Telephoto Power Pack (TPP) be used with?

Carl Zeiss developed the TPP for use with Hasselblad cameras equipped with a focal plane shutter (200 series, like 201 F, 202 FA, 203 FE, 205 FCC and previous versions). The TPP will be available for

these cameras as of June 1999.

Integration of the TPP into other camera systems has not been decided to date. Since nowhere in medium format technology a central shutter of appropriate large diameter and fast speed is available, the TPP cannot be integrated in a medium format system relying on central shutters, like Hasselblad 500 series or Rollei 6000 system.

However, the TPP can be combined with many other cameras, especially 35 mm SLRs, using available adapters. This may cut back the functionality of the equipment in some cases (diaphragm may work manually only) but add new functions in others: autofocus operation with Contax AX 35 mm SLR camera is possible.

## Hasselblad's Brilliance Improved: CFi/CFE – First results in print

One of the most frequently asked questions from Hasselblad users currently is: Does the new generation of CFi/CFE lenses from Carl Zeiss offer something new that is worth changing an older lens for a new one?

We at Carl Zeiss of course know why we introduce these new lenses:

- we improved brilliance and color saturation,
- we improved handling and legibility of scales in dim light,
- we improved durability of lens mechanics, especially the shutter even further.

And we at Carl Zeiss do make the switch ourselves: we will change all our internally used older lenses on Hasselblad cameras with new CFi/CFE types. And so do many photographers who have used the new CFi/CFE lenses and thoroughly compared to previous models.

Hasselblad headquarters in Sweden is currently publishing striking comparisons in pictures between old and new lenses. This material will become available through Hasselblad dealers as you read

this. (The photographers involved in this project who were provided by Hasselblad with new CFi lenses didn't want to go back to their old ones...)

Even faster were the people at Hasselblad, Germany: They couldn't wait and took their own comparison photos with a Carl Zeiss Makro-Planar T\* 4/120 CFi from the area of studio product shots for the fragrance industry. They published some of them in the latest edition of their magazine "FORMAT": The progress in brilliance with CFi can be clearly seen. FORMAT can be obtained free of charge from Hasselblad Vertriebsgesellschaft m.b.H., Postfach 1209, D-22902 Ahrensburg, phone: +49-(0)41 02-49 101, fax: +49-(0)41 02-49 143.

## German Versions of CLN Articles Available to You

### Publisher's Imprint

Camera Lens News

A quarterly newsletter for all who use, buy, sell, like, report about and are interested in Carl Zeiss lenses

No. 6

Winter 1998/1999

All information contained in Camera Lens News is given to the best of our knowledge at the time of going to press. Technical specifications of Carl Zeiss products are subject to change.

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