

## Press Release

No. 26 / Cologne, September 2014

photokina – World of Imaging 2014

## Experience the future, today

**Every other year, anyone wanting to get an idea of the future of photography joins with industry experts from around the world in a pilgrimage to Cologne. This year as well, from 16-21 September 2014, the World of Imaging flagship trade fair will again be offering its visitors a comprehensive perspective on tomorrow's worlds of imaging.**

There is scarcely another medium that is developing at such breakneck speed and so revolutionising human communication as photography, 175 years young this year. From the Daguerreotype to video glasses with automatic dioptre adjustment based on light field technology, photography has constantly reinvented itself, expanded its boundaries and developed its social significance. Whether still image or video, recording devices have become more multifunctional, handling ever more tasks with only one device. Imaging products for the consumer market deliver professional quality. Buzzwords such as 4K, WiFi, GPS, Curved Sensor, CGI etc. are now part and parcel of consumers' daily lives. There is scarcely any area of human endeavour where imaging processes don't play a role in some way or other. That is why photokina, the industry's leading trade fair held in Cologne every two years, encounters such keen visitor and media interest, not just from a technical perspective but from a social one as well. This year once again it will exert an influence that will critically shape our view of the future.

The focus is not just on innovative image capture processes but also on image editing, archiving, presentation, use and forwarding. Whereas the early years of photography were first and foremost about realistic representation, today it is also about processes for creating artificial image worlds such as "Computer Generated Imaging" for conjuring realistic looking fantasy worlds.



photokina  
World of Imaging  
16<sup>th</sup> – 21<sup>st</sup> September 2014  
in Cologne

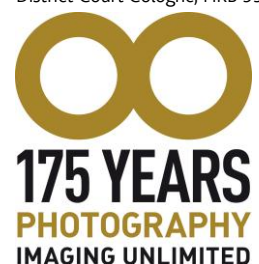
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## **The dawning of a new world of images**

Where before the saying was "a picture speaks a thousand words" this expression could now be modified with light field technology in mind to "a photograph contains a thousand pictures".

**Light field photography** is one of the most important trend topics at this year's fair that promises to trigger a paradigm shift similar to the introduction of digital technology into the "World of Imaging". It no longer just depicts subjects in two dimensions but the entire space captured by the lens because of the additional capture of the direction of the light rays falling on the sensor. Recorded images can thus become experienced interactively. Subsequent changes of perspective, extended acuity or 3D presentations are only a small selection of the numerous possibilities afforded by this technology, which has finally made it out of scientific research laboratories into cameras for the consumer market. The ability to focus images after the fact now also provides the technical prerequisites for using light field technology to achieve dioptre adjustment in the case of video glasses or display 3D photos or Living Pictures on the smartphone. It imbues images with an interactive component while at the same time making it possible to design compact, high-luminosity lenses with fewer components. (*Lytro Illum, Light-field camera for professional and semiprofessional use, Hall 5.2 Stand D006*)

## **Camera innovations for every sensor format**

The triumphal procession of the smartphone as the camera you are never without has confronted camera manufacturers with fresh challenges and led to the discovery of camera niches addressing the particular needs of specific user groups. The trend is away from the everyman's camera for every occasion to the appropriate recording device for individual users and specific tasks.

The question whether a smart phone with built-in camera affords sufficient creative scope or enables satisfactory image quality becomes obsolete as of photokina 2014. There will be cameras with smart phone operating systems with large sensors, high quality, versatile lenses and excellent telecommunication attributes just as there will be smart phones with outstanding cameras. The new category of **compact cameras with a smart phone** is entering the market on a broad front.

### **Photography with a system**

The camera categories that are on the up include system cameras, which despite their significantly more compact design boast all the benefits of a DSLR camera. Here too all the important market players will expand their product portfolio with innovative models. There will be new models with high definition Four Thirds- (*Olympus OM-D E-M1 with digital shift function, Halle 2.1, Stand B030*), APS-C (*Sony QX1L, Hall 2.1 Stand D020*) and full format sensors both in the entry level and professional markets. Systems will also be extended with new lenses (*Fujifilm X, Hall 4.2,*) and innovative accessories (*Olympus M.Zuiko Digital 1,4x Teleconverter*). WLAN, WiFi and NFC interfaces will enable wireless remote control of the cameras as standard and also handle the image transfer without any cable connection.

### **New DSLR cameras for compact and medium format**

In digital photography the 24 x 36 sensor format was long held to be the optimum for professional photography. It combines the flexibility of a relatively compact body with the required picture quality for professional applications. What initially struggled as a compact format to establish itself as a quality standard in analog photography became the "full format" in the digital world. There will be new full format cameras at photokina not just for professionals; this sensor size will make its way into in the entry level segment as well (*Nikon D750, Halle 4.2*).

Miniaturisation is the enduring trend in technical product development. More compact and handier models are also in vogue in the medium format digital camera arena (*Pentax 645 Z, Ricoh Hall 2.2*). Sensors with resolutions of the order of 50 megapixels (*Hasselblad, H5X, Hall 2.1*) don't just make for high brilliance and color fidelity photographs but also ensure low-noise pictures in low light situations. Faster processors and higher image storage transfer rates now enable these cameras also to achieve high quality videos in 4K resolution and continuous-advance images with ultra fast frame rates, ensuring no phase is ever again lost during motion studies.

### **Short processes**

Image processing software is becoming ever more complex and ever more closely intertwined with the image optimisation of the recording systems, enabling manufacturers to develop devices that are ever easier to operate or

lower cost components, thus making photography more convenient and the high tech devices this requires more feature-rich and thus even more attractive. The more computing processes are required for image capture and for optimizing photos and video recordings, the faster also the growth in the requirements on image processing processors inside the camera. Even more powerful chips and even more sophisticated algorithms are accelerating processing operations and enabling even more complex recording processes, conjuring perfect photography with brilliant colors, finely graduated contrasts and optimal sharpness out of a multitude of individual shots. And all this even in unfavorable light conditions in which previously everyone put their camera to one side. Many latest generation devices now also enable more complex image processing steps within the camera itself. This includes not only RAW development, color adjustment or image area selection; even optimizations such as perspective correction are now possible as well (*f. ex. Keystone-Shift, Olympus OM-D E-M1, Hall 2.2*).

### **Photography, filming, sharing**

Multi-functionality has long since become the standard with recording devices. The latest generation of modern cameras can be used for photography, filming, sharing images, printing and even telephony. In the process the quality of sound, video or photo recordings has now attained a professional level, even with devices for private applications. Where specialist devices were formerly required to record photos, videos or sound, nowadays only one single recording device is needed. Even location information is embedded in the recordings.

### **Constantly in action**

Image capture devices are used to document one's every step as robust miniaturized action cams or as so-called wearables or photo and video glasses. At the same time the recordings can be shared with any desired individuals, groups or with everyone via WiFi, NFC, smartphone and WLAN connections. The new WiFi-enabled image capture devices enable everyone to participate in their own personal experiences and those of others. Personal recordings are of a quality that not even some commercial media companies can consistently offer. The talk is of high resolution 4K video images (*Sony, Hall 5.2, Panasonic Hall 3.2*) from which perfect snapshots can be grabbed as single frames. Similar quality is exhibited by the fascinating HD action videos in which everyone

nowadays can record his adventures and experiences in 3D and breathtaking picture quality (*Polaroid Cube, ActionCam as cube Hall 5.2*).

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### **Faster, higher capacity storage**

In addition to requiring the recording devices to have greater computing power and faster processors, the increased multifunctionality also requires the storage media to have greater capacity and faster transfer rates. What was considered just a few years ago to be pushing the envelope of hard disk capacities and reading and writing speeds has now been increased many times over. This year's photokina will be showcasing innovative types of memory card for new camera generations that open up whole new dimensions in processing speed. These result in faster consecutive frame rates and improved video characteristics, even with extremely large image files (*Sandisk 512 GB SD memory card Hall 2.1 and new CFast memory card*).

### **Need to get in a spin**

Multicopters have become indispensable tools in aerial photography, enabling high-quality bird's-eye view pictures. A novel use for them is also lighting, spawning important applications both in artistic photography but also for the fire brigade and police.

The primary photo and video image presentation is on the recording devices' displays, also used as the viewfinder for selecting the image area. Higher resolutions, better contrasts and more brilliant colors on brighter monitors expand their use. High resolution large screen monitors make home projection superfluous. Large-scale projection is reserved for large rooms that scarcely need to be darkened any longer for an optimal image experience.

### **The pressure is on for print: from paper image to 3D objects**

The physical picture is experiencing a renaissance, in numerous variants from cheap postcard printing via poster printing to photo wallpaper and the photobook.

### **Lifestyle and fashion discover photography**

Photography has always been an optimal vehicle for lifestyle and fashion. Now ever more manufacturers of fashionable lifestyle products are discovering photographers as potential customers. This is expressed, for example, in an

expanding offering of camera bags, rucksacks and even gloves that are not just practical but chic as well. For example, Leica Camera AG has been collaborating for some time now with its former shareholder Hermes on especially elegant camera bags, such as for special editions. Other fashion labels have since partnered with the traditional brand on camera straps and bags.

The 175 year old fashion company Roeckl will be presenting at photokina for the first time. Together with a new product line featuring camera bags and photographer's gloves, developed in conjunction with Isarfoto Bothe, the specialist consultant for professional photographers, the fashion specialist wants to make the carrying and handling of photographic equipment more elegant (Roeckl/Photo, exclusive camera bags and photographer's gloves, Hall 2.1).

Anticipated advances in sensor technology also promise picture experiences previously considered unachievable. In addition to light field sensors for capturing 3D photos with only one lens (*Lytro Hall 5.2*), they also include innovative structural elements with a curved surface (*Sony Hall 5.2*), enabling lens rendering artifacts to be more easily compensated for.

Without question there is scarcely another medium that is changing as rapidly as photography. In the process it is expanding its possible uses while at the same time influencing the way we live. This is also the only constant of this medium, whose concentrated innovative firepower finds its forum every two years at photokina in Cologne.

Current information on the trade fair can be found in the press section of our homepage at [www.photokina.com](http://www.photokina.com).

#### **Koelnmesse GmbH**

Die Koelnmesse führt seit 90 Jahren Menschen und Märkte zusammen. The success story of Cologne trade fairs began in 1924 with the opening of the first event on the exhibition grounds in Cologne-Deutz. During the "economic miracle" of the post-World War II era, the "Rheinische Messe" became a global trading center. Today Koelnmesse has the world's fifth-largest exhibition complex and organizes approximately 75 trade fairs in Cologne and all over the world. During its anniversary year of 2014, Koelnmesse is bringing its history to the public's attention through numerous activities, publications, and exhibitions.