



Expert interview

Dr. Vladan Blahnik, from Research and Development at ZEISS, explains the technological and photographic challenges of the lunar mission.

How did the astronauts prepare to use the camera?

Since they were engineers and pilots rather than professional photographers, they received a special training. They had to learn how to photograph more or less blind. Their helmet made it impossible to look through a viewfinder. Instead, they had to memorize the image section captured by the Moon lens. The desired motives were written down on their gloves like in a script, so they had a checklist and would not forget anything.

Lunar dust and lighting conditions – what did the astronauts have to pay attention to?

They needed to make sure that the dust did not blur the images. During their 2.5 hours of walking on the Moon, the astronauts kept returning to the lunar module to wipe the lens clean. And, luckily, the lighting conditions were easy to forecast in the absence of any atmosphere or weather. Thus, the camera settings were mostly fixed in advance and then slightly adapted according to the position relative to the sun.

How would you rate the optical quality of the photographs?

The definition and brilliance of the images taken on the Moon's surface speak for themselves. In a picture such as the "Man on the Moon" which has been greatly enlarged subsequently, small image sections such as the tiny letters on the astronaut's suit still boast high definition and contrast. The detailed panoramic photographs enabled us to create an exact map of the landing site. The quality of the photographic equipment as well as adapting it for ease of use under such difficult circumstances were the basis for many iconic images captured during the lunar mission.

Infobox

Magazines from the Apollo 11 mission: Overall, 1.407 photographs were taken, using nine magazines. 857 of the images were taken in black and white, 550 in color. All images are available [online](#). A total of more than 30,000 photos were captured with Hasselblad cameras and ZEISS lenses during all the Apollo missions.

"Biogon" Moon lens: The registered ZEISS brand denotes a special wide-angle lens. "Bio" exemplifies "vivid", because this type of lens is characterized by wide apertures and short exposure times, making it possible to capture "vivid, moving" images. The ending "gon", derived from the Greek word "gonia", meaning "angle", is used for several wide-angle lenses designed by ZEISS. Current ZEISS photo and cine lenses still bear the names "Distagon" or "Biogon" today.