



**Dr Hans I Bjelkhagen**, Director and Adviser, Bowater Holographic Research, Consultant, Hansholo Consulting Ltd and Professor *Emeritus* of Interferential Imaging Sciences, at Glyndŵr University, Centre for Modern Optics (CMO), located in North Wales, UK, was awarded his Doctoral Degree in 1978 by the Royal Institute of Technology in Stockholm, Sweden.

Over the last fifteen years Bjelkhagen has received much international recognition for his work in the field of colour holography and holographic recording materials. He has specialised in recording Denisyuk-type colour holograms. He has researched and improved Lippmann photography over a period of many years.

In 1983 Bjelkhagen joined CERN in Geneva, Switzerland, where he was involved in the development of bubble chamber holography. A year later he participated in an international team project, recording holograms in the 15-foot bubble chamber at Fermilab in Batavia, IL, USA. Between 1985 and 1991 he was employed at Northwestern University, in Illinois, USA, working on medical applications of holography.

In 1997 Bjelkhagen was invited by Professor Nick Phillips to join him at CMO at De Montfort University, Leicester, England. In 2004 CMO moved to the then newly established OptIC in Wales. In addition to scientific applications Bjelkhagen is a well-known holographer who has recorded many holograms for 3D display purposes. From his early years in the field he has been involved in large-format, high-quality display holography, using both pulsed and cw lasers. He has recorded many unique art objects, such as, for example, the Swedish *Coronation Crown of Erik XIV* (the crown dates back to 1561), or the Chinese *Flying Horse from Kansu* (from 100 A.D.). Bjelkhagen has worked with a number of famous artists, for example, *Carl Fredrik Reuterswärd*, creating holograms exhibited in many art museums and galleries around the world.

Bjelkhagen has also used pulsed holography to record a number of holographic portraits. In 1989 he recorded a portrait of the inventor of single-beam reflection holography, Yuri Denisyuk. The most famous person recorded by Bjelkhagen was *President Ronald Reagan*. His portrait was recorded on 24 May 1991. This was the first and, so far, the only holographic portrait recorded of an American President. A copy of this holographic portrait is held in The National Portrait Gallery of the Smithsonian Institution in Washington DC.

Bjelkhagen has published over 100 papers in refereed journals and conference proceedings, and holds 14 international patents. He has published three books: *Silver-Halide Recording Materials for Holography and Their Processing* by Springer and with David Brotherton-Ratcliffe as co-author: *Ultra-Realistic Imaging, Advanced Techniques in Analogue and Digital Colour Holography* by CRC Press, Taylor & Francis Group, 2013 and *Holography and Philately – Postage Stamps with Holograms* by Xlibris, 2014.

He is a member of the Optical Society of America (OSA) and a fellow of the International Society for Optical Engineering (SPIE). He is the Chairman of SPIE's PhotonicsWest Practical Holography Conference and the SPIE's Holography Technical Group. He is an Accredited Senior Imaging Scientist and Fellow of The Royal Photographic Society (RPS) as well as Chairman of the RPS 3D Imaging & Holography Group. In 2001 he received the RPS SAXBY AWARD for his work in holography and in 2011 the DENISYUK MEDAL, from the D.S. Rozhdestvensky Optical Society, Russia.