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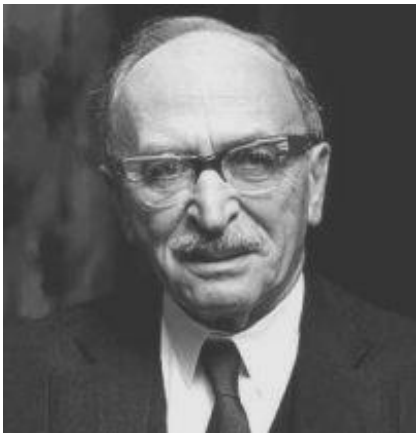
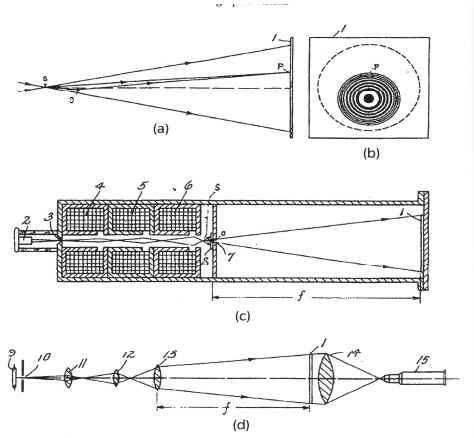
Introduction

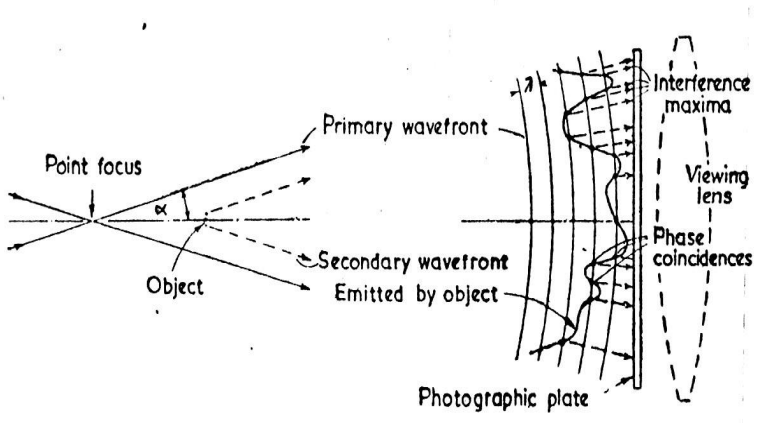
The SPIE Holography Conference which takes place every year in January is an important international event in the field of practical holography and holographic materials. This year marks the 60th anniversary of Dennis Gabor's landmark invention of holography and the 22nd meeting of the Practical Holography Conference. To commemorate the very first paper on holography, a short presentation on Dennis Gabor and his work was given at the SPIE Holography Group meeting. The paper, "A New Microscopic Principle" in *Nature*, Vol. 161, May 15, 1948, pp 777-778, was the first publication on holography.



Dennis Gabor 1900 – 1979



Gabor's patent drawings



Gabor in-line holography

Hungarian-born Dennis Gabor got his PhD in Germany but left Germany in the 1930s and moved to England. He became employed at British Thompson-Houston Co. Ltd., in Rugby. There he conceived "wavefront reconstruction" while working on improving the resolution of the electron microscope. He won the Nobel Prize for Physics in 1971 for his invention of holography.

Gabor next to a laser transmission holographic portrait of him.
The 50 by 60 cm hologram plate was recorded by R. Reinhart at McDonnell Douglas commemorating Gabor's winning of the 1971 Physics Nobel Prize

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The conference provides a venue for all aspects of holography from art forms to microscopy. The conference also brings together participants from all over the world including Europe, Australia, Asia, and America. This year's meeting consisted of 29 oral and 23 poster papers. In addition, the Holography Working Group had a standing room only crowd discussing new developments in materials, applications such as solar concentrators, and a plan for the 8th International Symposium on Display Holography to take place in July 2009 in China.

This year's conference featured many interesting contributions in various fields during two days of oral presentations. It was divided into four main sessions: Recording Materials, Techniques and Applications, Display and Color Holography, and Digital and Computer-generated Holography. We had an average of about 40 people in the meeting room during the two days.

The amount of papers on photopolymer materials and other materials such as dichromated gelatin (DCG), polyvinyl alcohol (PVA), methyl methacrylate (MMA), and photo-thermo-refractive (PTR) glass are increasing every year. HOEs and holographic projection screens are improved and finding important applications. Digital holography systems are now able to generate full-color real-time displays. A paper from MIT covered the progress on holographic video. This work started when Stephen Benton was responsible for the holographic R&D program at MIT, and is now being carried out by M. Bove and his team. Holographic data storage is another field which is now a reality.

We would like to thank all the authors and the Practical Holography XXII Program Committee members for their contribution. The session chairmen: G. Heidt, D. Speer, K. Sato, and C. Slinger are acknowledged for helping with the paper presentations during the four sessions. The Practical Holography Conference, the Holography Working Group meeting, and the Short Course on Holographic Techniques for Advanced Photonics Systems provide a good collection of activities for those interested in holography.

We look forward to seeing you in San Jose in January 2009.

Hans I. Bjelkhagen
Raymond K. Kostuk