

Photo Credits

The Cover

The cover image is a composite of two different portraits of New York artist Hillary Burnett. The original photographs were taken by the author with a 4×5 inch view camera on Polaroid film type 52. One of the photos was mirrored, combined with the original, and merged with the second. The entire composite can be expressed in the picture editing language introduced in this book and executed with the image editor discussed in Chapter 5.

Chapter 1

The *Mona Leo* picture on page 1 is a composite of the Mona Lisa and a mirror image of a self-portrait of Leonardo da Vinci, both scaled and lined up to make a perfect fit. Computer artist Lillian Schwartz (see Chapter 4, photo 19) and I made the composite using the picture editing language discussed in Chapter 2. More information on this image can be found in the special issue of the monthly *Arts & Antiques* of January 1987.

The foreground of the combination print on page 2 is an old transparent collodium glass positive by an unknown photographer. The background was computer generated, with a program written by Don Mitchell of AT&T Bell Labs, and matted in.

On page 4, the photo on the left is a collage made by John Heartfield in 1931. The full title of the work is *The Crisis Party Convention of the Social Democratic Party of Germany*. It can be found in, a.o., *John Heartfield Leben und Werk*, by Wieland Herzfelde, VEB Verlag der Kunst, Dresden, 3rd printing 1986, LSV-8116. The photo is reproduced here with permission from the Heartfield Archiv in Berlin and publisher VEB Verlag der Kunst in Dresden.

The photo on the right was made by Jerry Uelsmann in 1970. It is titled *The Little Hamburger Tree*. It appears, for instance, in his book *Silver Meditations*, Morgan & Morgan Publishing, Dobbs Ferry, N.Y., 1975, ISBN 0-871-00087-3. The photo is reproduced with permission of Jerry Uelsmann.

Chapter 2

The photo on the title page is a portrait of Doug McIlroy of AT&T Bell Labs, digitally faded from a negative to a positive. The original photo was made by Rob Pike.

Page 9. Willard S. Boyle and George E. Smith, demonstrating the first CCD television camera at Bell Labs in 1974. Photo courtesy of AT&T.

A photo of the Canon RC-701 still video image camera on page 10 is reproduced with permission from Canon U.S.A., Inc.

Chapter 3

The photo that opens this chapter is of Jim McKie, a colleague at Bell Labs, with a transformation similar to the one used for Chapter 4, photo 6. McKie's portrait was also used for the transformations on page 22 and 23. All photos in this chapter are from the series of 4×5 inch polaroids taken by Rob Pike (see the introduction to Chapter 4). The only picture not taken by Rob is his own portrait, which was taken by the author.

Chapter 4

The first picture is the result a square root transformation (cf. photo 1 in this chapter) applied to the EWD icon, also shown on the same page.

Most photos in this chapter were taken by Rob Pike with a 4×5 inch view camera on Polaroid type 52 film. The exceptions are the following six photos.

The originals for photos 1 and 3 were made by Philippe Halsman in 1947 and 1958, © Yvonne Halsman 1988.

The original for photo 2 is a portrait of Alexander Graham Bell taken in 1876. The photograph is by Holton, courtesy and copyright of the Bell family and the National Geographic Society.

Photo 18, a portrait of Karen Nelson, is reprinted with permission from the *Bell Systems Technical Journal*, © 1969 by AT&T.

Photo 19 is a portrait of Lillian Schwartz taken by the author.

Photo 20 was taken in 1963 by a photographer named Lorstan.

Chapter 5

The photo at the top of page 75 is the result of a pixel smearing operation that uses an arbitrary other portrait from our database as an index. The operation is applied to a portrait of Don Mitchell, better known for his research in computer graphics and cryptography.

Chapter 6

The picture on page 109 is a transformed portrait of Peter Weinberger, but this time applied to only half of the image. Cf. photo 5 in Chapter 4.