BIBLIOGRAPHY

BBC, Big Cat Diary. (1996-2002). http://www.bbc.co.uk/nature/programmes/tv/bcd

Bergman, L.D., Rogowitz, B.E. and Treinish, L.A. (1995). A rule-based tool for assisting colormap selection. *Proceedings of IEEE Computer Society Visualization*, pp. 118-125, 1995.

Blinn, J.F. (1978). Simulation of wrinkled surfaces. *Proceedings of the 5th annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH*, pp. 286-292, August 23-25, 1978.

Braun, J. (1993). Shape-from-shading is independent of visual attention and may be a 'texton'. *Spatial-Vision*, 7(4): pp. 311-322, 1993.

Brodatz, P. (1966). *Textures*. New York: Dover, 1966.

Cabral, B., Leedom, L.C. (1993). Imaging vector fields using line integral convolution. *Proceedings of the 20th annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH*, pp. 263-270, September, 1993.

Callaghan, T.C. (1989). Interference and domination in texture segregation: Hue, geometric form, and line orientation. *Perception & Psychophysics,* 46(4), pp. 299-311, 1989.

Callaghan, T.C. (1990). Interference and dominance in texture segregation. *Visual Search*. D. Brogan, editor. Taylor & Francis, New York, 1990, pp. 81-87.

Callaghan, T.C., Lasaga, M.L., & Garner, W. R. (1986). Visual Texture Segregation based on Orientation and Hue. *Perception & Psychophysics*, 39, pp. 32-38, 1986.

Chernoff, H. (1973). The use of faces to represent points in k-dimensional space graphically. *Journal of the American Statistical Association*, 68, 342, pp. 361-367, 1973.

Cook, R.L. and Torrance, K.E. (1982). A reflectance model for computer graphics. *ACM Transactions on Graphics (TOG)*, Vol. 1, No. 1, pp. 7-24, January 1982.

Crawfis, R.A., Allison, M.J. (1991). A scientific visualization synthesizer. *Proceedings of the IEEE Computer Society Visualization, 1991*, pp. 262-267, 1991.

de Leeuw, W, and van Liere, R. (1998). Comparing LIC and spot noise. *Proceedings of the IEEE Computer Society Visualization, 1998*, pp. 359-365, 1998.

EDAX, Inc. [2003]. http://www.edax.com

Eyles, J., Molnar, S., Poulton, J., Greer, T., Lastra, A., England, N., and Westover, L. (1997). PixelFlow: the realization. *Proceedings of the 1997 SIGGRAPH/Eurographics workshop on Graphics hardware*, pp. 57-68, August 1997.

Foley, van Dam, Feiner, Hughes. (1990). *Computer Graphics Principles and Practice, 2nd Edition*. Addison-Wesley Publishing Company, 1990.

Grinstein, G., Pickett, R., and Williams, M. (1989). EXVIS: An exploratory data visualization environment. *Proceedings Graphics Interface 1989*, pp. 254-261, 1989.

Haeberli, P., and Akeley, K. (1990). The accumulation buffer: hardware support for high-quality rendering. *Proceedings of the 17th annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH Computer Graphics,* 24(4). pp. 309-318, September 1990.

Healey, C.G. (1998). On the use of perceptual cues and data mining for effective visualization of scientific datasets. *Proceedings Graphics Interface 1998,* pp. 177-184, 1998.

Healey, C.G. (2001). Formalizing artistic techniques and scientific visualization for painted renditions of complex information spaces. *Proceedings International Joint Conference on Artificial Intelligence 2001,* pp. 371-376, 2001.

Healey, C.G. and Enns, J.T. (1998). Building perceptual textures to visualize multidimensional datasets. *Proceedings of IEEE Visualization 1998,* pp. 111-118, 1998.

Healey, C.G. and Enns, J.T. (1999). Large datasets at a glance: combining textures and colors in scientific visualization. *IEEE Transactions on Visualization and Computer Graphics,* 5, 2, pp. 145-167, 1999.

Healey, C.G. and Enns, J.T. (2002). Perception and painting: A search for effective, engaging visualizations. *IEEE Computer Graphics & Applications (Visualization Viewpoints),* 22, 2, pp. 10-15, 2002.

Healey, C.G., Booth, K.S., and Enns, J.T. (1993). Harnessing preattentive processes for multivariate data visualization. *Proceedings Graphics Interface 1993*, pp. 107-117, 1993.

Healey, C.G., Booth, K.S., and Enns, J.T. (1995). Visualizing real-time multivariate data using preattentive processing. *ACM Transactions on Modeling and Computer Simulation,* 5, 3, pp. 190-221, 1995.

Healey, C.G., Booth, K.S., and Enns, J.T. (1996). Choosing effective colours for data visualization. *Proceedings of IEEE Visualization 1996,* pp. 263-270, 1996.

Healey, C.G., Interrante, V.L., Kremers, D., Laidlaw, D.H., Rheingans, P. (2001). Combining perception and impressionist techniques for nonphotorealistic visualization of multidimensional data. *SIGGRAPH 2001 Course 32: Nonphotorealistic Rendering in Scientific Visualization,* pp. 20-52, 2001.

Healey, C.G., St. Amant, R., and Elhaddad, M. (1999). ViA: A perceptual visualization assistant. *Proceedings 28th Applied Imagery Pattern Recognition Workshop*, pp. 1-11, 1999.

Hoffman, D.D. (1998). *Visual Intelligence: How We Create What We See*. W. W. Norton & Company, New York, London, 1998.

Interrante, V. (1997). Illustrating surface shape in volume data via principal direction-driven 3D line integral convolution. *Proceedings of the 24th annual conference on Computer graphics and interactive techniques ACM SIGGRAPH Computer Graphics,* pp. 109-116, August, 1997.

Interrante, V. and Grosch, C. (1997). Strategies for effectively visualizing 3D flow with volume LIC. *Proceedings of IEEE Visualization 1997*, pp. 421-424, 1997.

IPCC. (2003). Intergovernmental Panel on Climate Change: http://www.ipcc.ch; http://ipcc-ddc.cru.uea.ac.uk

Julesz, B. (1981). A theory of preattentive texture discrimination based on first-order statistics of textons. *Biological Cybernetics,* 41, pp. 131-138, 1981.

Julesz, B. (1981). Textons, the elements of texture perception, and their interactions. *Nature*, 290, pp. 91-97, 1981.

Julesz, B. and Krose, B. (1988). Features and spatial filters. *Nature*, 333 (26) pp.302-303, May, 1988.

Julesz, B., Gilbert, E. N., and Victor, J. D. (1978). Visual discrimination of textures with identical third-order statistics. *Biological Cybernetics*, 31, pp. 137-140, 1978.

Julesz, B., Glibert, E. N., and Shepp, L. A. (1973). Inalility of humans to discriminate between visual textures that agree in second-order statistics. *Perception*, 2, pp. 391-405, 1973.

Kawai, M. Uchikawa, K., and Ujike, H. (1995). Influence of color category on visual search. *Annual Meeting of the Association for Research in Vision and Opthalmology,* Fort Lauderdale, Florida. pp. 2991, 1995.

Kempf and Frazier, editors (1997). *OpenGL Reference Manual, 2nd Edition*. Addison-Wesley Developers Press, 1997.

Kennedy and Ware (1978). Illusory contours can arise in dot figures. *Perception*, Vol 7(2): pp. 191-194, 1978.

Kirby, R. M., Maramanis, H., and Laidlaw, M. (1999). Visualizing multivalued data from 2D incompressible flows using concepts from painting. *Proceedings of IEEE Visualization 1999,* pp. 333-340, 1999.

Kleinbaum, D.G., Kupper, L.L., Muller, K.E., and Nizam, A. (1998). *Applied Regression Analysis and Other Multivariate Methods, 3rd Edition*. Brooks/Cole Publishing Company A Division of International Thomson Publishing Inc. Pacific Grove, CA, 1998.

Koenderink, J.J. (1990). *Solid Shape*. MIT Press; March 21, 1990.

Laidlaw, D.H., Ahrens, E.T., Kremers, D., Avalos, M.J., Jacobs, R.E., Readhead, C. (1998). Visualizing diffusion tensor images of the mouse spinal cord. *Proceedings of the IEEE Computer Society Visualization 1998*, pp. 127-134, 1998.

Levkowitz, H. (1991). Color icons: Merging color and texture perception for integrated visualization of multiple parameters. *Proceedings of IEEE Visualization 1991,* pp. 164-170, 1991.

Liu, F. and Picard, R.W. (1994). Periodicity, directionality, and randomness: Wold features for perceptual pattern recognition. *Proceedings of the 12th International Conference on Pattern Recognition,* pp.184-189, October, 1994.

Livingstone, M. and Hubel, D. (1988). Segregation of form, color, movement, and depth: Anatomy, physiology, and perception. *Science*, 240, pp. 740-749, May 1988.

Maxwell, S.E., and Delaney, H.D. (1990). *Designing Experiments and Analyzing Data A Model Comparison Perspective*. Wadsworth Publishing Company, Belmont, CA, 1990.

National Atlas of the United States. (2003). http://nationalatlas.gov; http://nationalatlas.gov/disclaimers.html

NOAA. (2003). National Oceanic and Atmospheric Administration: http://www.noaa.gov http://www.nws.noaa.gov/disclaimer.html

Nothdurft, H.C. (1993). The role of features in preattentive vision: Comparison of orientation, motion and color cues. *Vision Research,* 33 (14), pp. 1937-1958, 1993.

Olano, M., and Lastra, A. (1998). A shading language on graphics hardware: The PixelFlow shading system. *Proceedings of the 25th annual conference on Computer graphics and interactive techniques, ACM SIGGTAPH Computer Graphics,* Orlando, Florida, pp. 159-168, July 19-24, 1998.

Phong, B.T. (1975). Illumination for computer generated pictures. *Graphics and Image Processing*, 18(6), pp. 311-317, 1975.

Pickett, R.M. and Grinstein, G.G. (1988). Iconographic displays for visualizing multidimensional data. *Proceedings of the IEEE Conference on Systems, Man, and Cybernetics*, 1998.

Pizer, S.M. (1985). Psychovisual issues in the display of medical images. *Proceedings of the NATO Advanced Study Institute (NATO ASI Series) on Pictorial information systems in medicine*, pp. 211-233, February 1986.

Pizer, S.M., and Zimmerman, J.B. (1983). Color display in ultrasonography. *Ultrasound in Medicine and Biology*, 9 (4): pp. 331-345, 1983.

Pizer, S.M., Hemminger, B.M., and Johnston, R.E. (2002). Display, including enhancement, of two-dimensional images. *Image-Processing Techniques for Tumor Detection,* Robin N. Strickland, editor. Marcel Dekker, April 2002.

Ramachandran, V.S. (1988). Perception of shape from shading. *Nature,* 331 (14), pp. 163-166, January, 1988.

Rao, A.R., and Lohse, G.L. (1992). Identifying high level features of texture perception. *CVGIP: Graphics Models and Image Processing,* 55(3), pp. 218-233, 1993.

Rao, A.R., and Lohse, G.L. (1993). Towards a texture naming system: Identifying relevant dimensions of texture. *Proceedings IEEE Visualization 1993,* pp. 220-227, 1993.

Rheingans, P. (1992). Color, change, and control for quantitative data display. *Proceedings of the IEEE Computer Society Visualization 1992*, pp. 252-259, 1992.

Rheingans, P. (1993). *Dynamic Explorations of Multiple Variables in a 2D Space*. Ph.D. Dissertation, University of North Carolina, Chapel Hill, Computer Science, 1993.

Rogowitz, B.E., and Treinish, L.A. (1998). Data visualization: The end of the rainbow. *IEEE Spectrum*, pp. 52-59, 1998.

SAS (2002). http://www.sas.com

Sims, K. (1991). Artificial evolution for computer graphics. *Proceedings of the 18th annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH Computer Graphics,* pp. 319-328, July 1991.

Smith, S., Grinstein, G., and Bergeron, R.D. (1991). Interactive data exploration with a supercomputer. *Proceedings of the IEEE Computer Society Visualization 1991,* pp. 248-254, 1991.

Snowden, R.J. (1998). Texture segregation and visual search: A comparison of the effects of random variations along irrelevant dimensions. *Journal of Experimental Psychology: Human Perception and Performance,* 24(5), pp. 1354-1367, 1998.

SPSS (2001). http://www.spss.com

Stevens, S.S. (1946). On the theory of scales of measurement. *Science,* 103, 2684, pp. 677-680, 1946.

Sun, J. and Perona, P. (1997). Shading and stereo in early perception of shape and reflectance. *Perception*, Vol 26(4): pp. 519-529, 1997.

Tamura, H. Mori, S. and Yamawaki, T. (1978). Tectural features corresponding to visual perception. *IEEE Transatcions on Systems, Man, and Cybernetics,* 8 (6), pp. 460-473, June, 1978.

Treisman, A., and Gelade, G. (1980). A feature-integration theory of attention. *Cognitive Psychology*, 12, pp. 97-136, 1980.

Tufte, E.R. (1983). *Visual Display of Quantitative Information*. Graphics Press, Cheshire CT, 1983.

Turing, A. (1952). The chemical basis of morphogenesis. *Philosophical Transactions of the Royal Society B*, Vol. 237, pp. 37-72, August 14, 1952.

Turk, G. (1991). Generating textures on arbitrary surfaces using reaction-diffusion. *Proceedings of the 18th annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH Computer Graphics,* 25 (4). pp. 289-298, July *1991*.

Turk, G., and Banks, D. (1996). Image-guided streamline placement. *Proceedings of the 23rd annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH Computer Graphics*, pp. 453-460, 1996.

U.S. Census Bureau. (2003). http://www.census.gov

van Wijk, J.J. (1991). Spot noise texture synthesis for data visualization. *Proceedings of the 18th annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH Computer Graphics*, 25(4), pp. 309-318, 1991.

Ware, C. (2000). *Information Visualization: Perception for Design*. Morgan Kaufmann Publishers; 1st edition (January 2000).

Ware, C., and Goss, T. (1992). Texture tool for the display of multivariate maps. *Proceedings Graphics Interface*, pp. 33-63, 1992.

Ware, C., and Knight, W. (1992). Orderable dimensions of visual texture for data display: Orientation, size and contrast. *Proceedings CHI*, pp. 203-209, 1992.

Ware, C., and Knight, W. (1995). Using visual texture for information display. *ACM Transactions on Graphics,* 14, 1, pp. 3-20, 1995.

Weigle, C., Emigh, W.G., Liu, G., Taylor, R.M., Enns, J.T., and Healey, C.G. (2000). Oriented texture slivers: A technique for local value estimation of multiple scalar fields. *Proceedings Graphics Interface 2000,* Montreal, Canada, pp. 163-170, 2000.

Witken, A. and Kass, M. (1991). Reaction-diffusion textures. *Proceedings of the 18th annual conference on Computer graphics and interactive techniques, ACM SIGGRAPH Computer Graphics*, 25(4), pp. 299-308, July, 1991.