Power of vision in art

David Stork’s article in the October issue of *Vision Systems Design* (p. 69) is notable for failing to mention that the artist David Hockney and I have published a half-dozen papers and one book on this subject since 2000. Our work is widely acknowledged as having established the power of an artist’s visual skills for making discoveries in art history, and the computer techniques we developed could significantly aid the analysis of images in paintings. As a result, this has now developed into a field in its own right, with the scientists who Stork did mention subsequently applying their own computer techniques to analyze aspects of paintings.

Unfortunately, some of the work in this field has been misguided. As has been known for more than a half-century, results from a computer are no better than the input data and underlying assumptions. An article written at the request of the editor (*IEEE MultiMedia* 14 (2), 8 (2007)) details the false conclusions in three papers written by David Stork, all due to errors in his data and assumptions, and references in that article detail the flawed conclusions in a number of his other papers on this topic.

Since the mind and hand of the artist are intimately involved in the creation process, even when portions of a particular painting are based on optical projections, these images are much more complex to analyze than are photographs. However, as our results of the past eight years show, a fundamentally new approach to image analysis can be developed when an optical scientist works closely with a highly skilled artist.

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