

# APPLIED COLOR THEORY

An intensive, small group hands-on, three-day color correction tutorial

*Instructor:* Dan Margulis

This is a demanding, sharply-focused seminar for those who are serious about improving the way their color images appear in print. The class is image enhancement/color correction only. There is no coverage of special effects. The emphasis is on the use of input-output curves to improve quality. THIS IS THE CLASS MANY PROFESSIONAL PHOTOSHOP INSTRUCTORS TAKE. The majority of students are not from the geographic locale of the classes but fly in from out-of-state or from other countries.

Classes usually run from Thursday through Saturday. Sessions begin early in the morning and continue well into the evening. The goal is to pack five days worth of content into three long sessions. Each student is assigned a fully-equipped Macintosh in a networked environment. Lecture/discussions are followed by sessions in which each class member works on improving the same images. The results are compared against one another and critiqued. The images—around 20 in all, depending upon class speed—are typical of those encountered in professional work and present a variety of technical challenges.

In addition to professional retouchers, this class appeals to photographers, art directors, technical support personnel, and anyone involved with image manipulation. Familiarity with Photoshop is a prerequisite, but, as this is a concept-based course, expertise in the program is not.

*Locations:*

Sterling Ledet & Associates, Tucker, GA  
(30 minutes from **Atlanta** airport)  
Sterling Ledet & Associates, Des Plaines, IL  
(5 minutes from **Chicago** O'Hare airport)  
PrePress Solutions, Fort Collins, CO  
(90 minutes from **Denver** airport)  
Sterling Ledet & Associates, Mission Valley district, **San Diego**  
DPA Communications, downtown **Toronto**



*Properly corrected images seem to gain depth. Which of these two pictures seems more three-dimensional?*

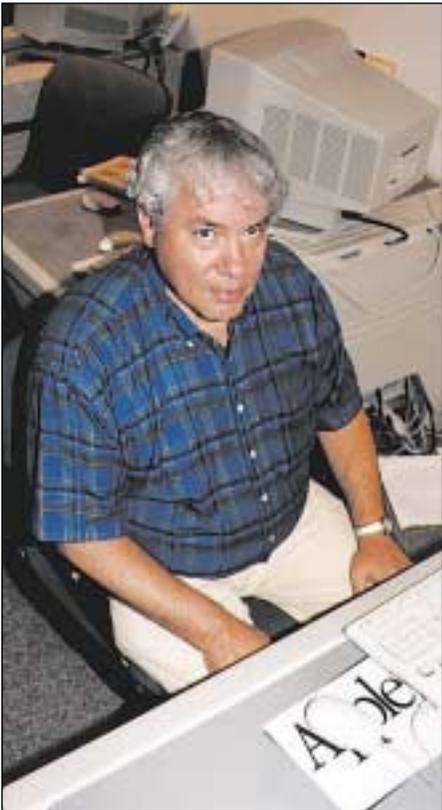




*Images that are dominated by a single color are best handled by manipulating the channel of its opponent—the so-called “unwanted color.” Here, with red dominating the image, the role of cyan is paramount. If an adequate cyan plate doesn’t exist in the original, the operator has to create one, by channel blending if necessary.*



*About the instructor:* Dan Margulis is considered the world’s leading authority on color correction for print. He is author of the bestselling *Photoshop LAB Color* (Peachpit Press, 2005) and *Professional Photoshop Fourth Edition* (John Wiley & Sons, 2002). His column, “Makeready,” focusing on production issues, appears in *Electronic Publishing* and *Photoshop User* magazines.



# AGENDA

## DAY 1: Concepts and Curves

Objectives of color correction

How humans perceive color

Differences between what a human being perceives and what a camera does.

Limitations of the printing process

Introduction to Input-Output curves

Setting proper numbers for highlight, shadow, neutrals, fleshtones

Identifying the main interest area of an image

Enhancing contrast in local areas

Finding areas of colorspace that are not used efficiently

Influence of curve shape on reproduction

Unsharp masking defined

Photoshop method of USM and its variables

Application of USM in selected channels, or locally

Relation of resolution to unsharp masking

## DAY 2: CMYK and other colorspaces

Role of black ink and GCR

GCR and UCR differentiated

When is GCR appropriate?

Anticipating press problems

Role of the unwanted color

How to generate a stronger unwanted color

Channel blending to enhance detail

RGB, HSB, and LAB: their strengths and weaknesses

Retouching advantages of LAB

Creation of masks with LAB

Use of curves in LAB

## DAY 3: Putting it All Together

The majority of the day is spent working on images that illustrate the points covered by the course.

These images are selected by the class from a variety of interesting choices. The lecture/presentation portion of the day is also programmed by the class: each student submits one topic or question, and these topics form the core of a two-hour presentation by the instructor.

*Right: When an image has critical detail in both highlights and shadows, and the original is taken under poor lighting conditions to boot, correction and sharpening in the LAB colorspace becomes desirable.*

*Further information:* For current information regarding dates, availability, and fees, contact Dan Margulis, dmargulis@aol.com. Or, pay a visit to [www.ledet.com/margulis](http://www.ledet.com/margulis), which contains PDFs of several of Dan's columns and has a discussion list for those interested in color correction issues.



**Comments from students:**

“Probably the best course of any sort I have ever taken. Great hands on experience from a teacher who seems to take a great deal of pleasure in teaching people the intricacies of color correction.”

—Jim Ray, President, McFeely’s Square Drive Screws,  
Lynchburg, VA

“Some of the most productive days I have ever spent. Anyone who wants to know how to fully control their digital images, this guy reveals all of the secrets. There is way more that I could take in during the set time, but to give you an idea, I came home after the first day and told my wife that if I learned nothing more, he had fully earned the course fee. The following two days were just as productive—he is truly the modern genius of making color correction understandable to the layman... Margulis made no attempt to make the material directly relate to what I do, but I think I learned more about the theory of image construction and control from him than any painting teacher I ever had.”

—David B. Mattingly, professional illustrator,  
Hoboken, NJ

“This new bag of tricks has changed my photo life in three significant ways. First is productivity. I get a lot more work done in a much shorter period of time. Clients love that. And second, I have a whole new income stream. I have billable days every week doing nothing but color. In these days of uncertainty in the photo business, more billable days are a very good thing. I’m making more money now than I have in my entire thirty years of shooting. And last but certainly not least, is the renewed awareness of how much I love my job. It’s been a while since I had this much interest in photography.”

—Dianne Woods, professional photographer, Berkeley, CA

“The most intense, in-depth and educating three days of my life so far.”

—Joshua Sowards, retoucher, Valvoline, Lexington KY

“Three VERY long days, with a great payoff. Dan’s course will dramatically change how we deal with color at our newspaper and I recommend it highly to anyone who is involved in dealing with color images on the desktop. Dan’s knowledge and understanding of correcting images challenges many accepted ‘facts’, changes the way many of us think/thought about color, and turns a number of sacred cows into great burgers!”

—Dave Balderstone, technical services manager  
Western Producer Publications, Saskatoon, SK

“Dan Margulis proved to be as excellent a teacher as he is a writer. His course far exceeded my expectations—handily beating anything available in New York City. Dan lifts the veil from the mysteries of color correction,

unleashing Photoshop’s power to bring even run-of-the-mill scans to life with vivid and realistic colors. He’s thorough and tough, and he brings good humor and high standards to a most mind-expanding class. I also believe that the small size of the class, and his balance between lectures and hands-on practice, help achieve a near ideal learning environment.”

—Kevin Gepford, digital mechanical artist  
MTV, New York City

“I thought I knew Photoshop—after all, I *teach* Photoshop. This class was like getting a Ph.D. in a subject I didn’t even know existed.”

—Ed Freeman, professional photographer, Los Angeles

“Dan Margulis is an exacting professional and a great teacher. This was exactly what I wanted.”

—Randy Mays, Washington Post

“Probably the best value and most comprehensive training I have been at—and I have been at lots! And presented at lots!”

—Stan Kohn, Professor of Photography  
Cuyahoga Community College, Cleveland

“As someone who has attended Dan’s three-day course I can say that it was the best investment I’ve ever made. I have great respect for Ansel Adams’ ‘Zone System of Photography’ and recognize that Margulis’ approach to Photoshop shares many similarities. It involves an understanding of CMYK values (zones) and how these will print. It’s a very simple and elegant approach to the problem. If put to the test I probably could (grudgingly) color correct an image with a B/W monitor.”

—Russell Proulx, professional photographer, Montréal

**Anonymous comments from course evaluations:**

“This has been by far the best workshop I have ever attended. This has opened my eyes to so many things. Though not gaining a firm grasp on everything fully, I feel better prepared to face the challenge of color correction.”

“It’s just flat out THE REAL THING. The best learning experience of my life. Great learning environment allows you to stay focused during long hours.”

“The course was intense, challenging and very satisfying. I enjoyed the camaraderie of the small group. Mr. Margulis conveys a wealth of information with clarity, brio, and great good humor.”

“Although I expected to pick up some tricks in Photoshop that would have helped me in graphic situations, I will never look at a color photo the same way again. Very strong course—well worth the time and effort.”

“By far the finest class on color I have ever participated in.”