A Pair of Fifties

Topic: The pace of change in the graphic arts in the last ten years as opposed to the ones before that, and comments on how our knowledge increases

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Source of this file: The author's draft as submitted to the magazine.

This archive, to be released over several years, collects the columns that Dan Margulis wrote under the *Makeready* title between 1993 and 2006. In some cases the columns appear as written; in others the archive contains revised versions that appeared in later books.

Makeready in principle could cover anything related to graphic arts production, but it is best known for its contributions to Photoshop technique, particularly in the field of color correction. In its final years, the column was appearing in six different magazines worldwide (two in the United States).

Dan Margulis teaches small-group master classes in color correction. Information is available at http://www.ledet.com/margulis, which also has a selection of other articles and chapters from Dan's books, and more than a hundred edited threads from Dan's Applied Color Theory e-mail list.
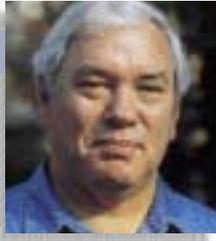
A Pair of Fifties

When a fiftieth anniversary arrives, reflection on the past is in order. In graphic arts, as in life, the more things change, the more they stay the same.

In December, I took two weeks off to do some serious swimming, suntanning, and elbow-bending in a remote but lovely spot in the Caribbean. This seemed a highly desirable way to forget the woes of the most damnable of years.

While I continue to think very young, the fact is that the occasion was my 50th birthday, which was celebrated in the appropriate way by sharing it with friends and family.

A second and more unlikely 50th crept up in December, when *Electronic Publishing* featured the 50th column to appear under the *Makeready* name since the series began in August 1993.

Reaching 50 years of age, in spite of years of medical advice that unless I cleaned up my act I wouldn't, is nice but hardly impressive. In the current environment, running a bimonthly column for 50 installments is quite a feat of journalistic geriatrics, even in the absence of dangerous lifestyle choices that tend to shorten the lifespan, such as calling a spade a spade.

Both occasions suggest that it may be time to consider the question of what to do when I grow up. That assignment calls for thinking not just about the future, but about where one has been.

This column began its run during economic hard times, and times are hard now. It's not as if nothing happened in between, but in many ways it seems that the clock stood still, contrary to the prevailing wisdom that we live in a time of unbelievably swift technological change.

It's true that the first columns were prepared on a platform that was high-end at the time but would scarcely serve today: an FX with 8 mb of RAM (since System 7.0, which would have permitted more, was of questionable stability, and an extra 32 mb was $1,000). Yet it was a Macintosh, and it ran QuarkXPress, Illustrator, and Photoshop.

If a person working in a trade shop at that time had pulled a Rip Van Winkle and awoken in 2002, how hard would it be to grasp what had changed?

Retraining in Quark would take around 15 minutes. Illustrator and FreeHand would require a bit longer, and Photoshop even longer until one got the hang of layers. PDF and Web programs would be no problem.

Our equipment would also be perfectly logical to a refugee from that time. The output device might be burning plates, or composite color, rather than negative film, but they all look the same in the Chooser. The image files might come from a digital camera rather than a drum scanner, but pixels are pixels.

In short, this person could probably walk into a trade shop today and not just talk his way into a job but probably fake his way through the first few days until getting the hang of the new reality.

By contrast, go back nine years more, pluck a person from a 1984 trade shop and deposit him in a similar establishment in 1993, that person would not have had the beginning of a glimmer of a scintilla of a ghost of a clue as to what in blazes was going on.

W hen a compatible and user–friendly better way emerges, though, those in the way of the locomotive had best watch out. That is the position of photographers today. They stand on the tracks, and the train of the digital revolution is headed right at them.

—"What Goes Around," 1996

The changes may be hard for the uninitiated to see, but they're significant. In 1993, a scanner operator would spend ten minutes analyzing each transparency under a loupe, plotting a strategy, before spinning the drum. This procedure made eminent sense when even small changes in medium size files took long enough for Photoshop to execute that one could go out for a beer while the progress bar was chugging along. In 2002, when curves act on 100 mb files in real time, that workflow makes no sense at all.

Shortly before *Makeready* began its run, I bit the bullet and shelled out $1,400 for a one-gigabyte hard drive, thinking that this would end my storage woes forever, which turned out to be around six months.

At that price, one could justify spending a lot of time eliminating superfluous files on the disk and verifying that all unnecessary areas of images were cropped out. Such diligence makes a lot less sense when, counting inflation, the cost of storage isn't even a thousandth of what it was then.

Other changes have crept up on us slowly. Back then, color publishing was far more expensive, and justified more use of high-quality originals, which were ordinarily the work of professional photographers. Today's shoestring budgets and amateurs playing with their digital cameras have gradually introduced more and more discouraging originals to work with.

Furthermore, clients are far more demanding than they used to be. They have heard that Photoshop can transform garbage into stuff that Ansel Adams would have been proud to have had in his portfolio. They don't like to hear the word *impossible.*

None of this may matter to you since, unlike most graphic arts professionals of ten years ago, you don't work in a trade shop.

That, in my opinion, is the biggest change of all. The industry has become decentralized. The trade shop is no longer the fount of knowledge. In 1993, the target audience for this column worked in service providers. Today, the reader is more likely to be a graphic arts generalist who has been thrust into a job for which she lacks technical qualification, or a professional photographer who is sick of hearing his clients told that obviously inadequate printing is, in actuality, bad photography.

How to screw up jobs, and columns

I had the idea of using this occasion to revisit the subject of the very first *Makeready,* which dealt with how designers and desktop practitioners can create jobs that are impossible to process.

It turned out to be a poor plan. Since I haven't worked in

Do You Remember the Top Ten?

Readers and I don't always see eye to eye on the merits of *Makeready,* but we both liked the following ten a whole lot. In order of appearance, they more or less represent the high points of the series. –DM

Colors, Curves, and Horse-Trading (August 1994) The science of gaining contrast in areas of the image we care about at the expense of contrast in areas of less importance.

Trapping and the Split Infinitive (August 1995) How people who don't know what trapping is buffalo others into thinking they are missing the point.

The Case of the Counterfeit Color (February 1996) A reader suspects a prepress house of sabotaging his work, and discovers the real culprit with the aid of Hercule Poirot, Ellery Queen, Sherlock Holmes, and Lord Peter Wimsey.

What Goes Around…(April 1996) Five years into the desktop revolution, how workflows were returning to the way they were before the revolution happened.

L*a*b* Meets the Matador (August 1996) Readers boldly go where no retoucher had gone before, with curves using the LAB colorspace.

Sharpening With a Stiletto (February 1998) The art of unsharp masking, with special attention to sharpening individual channels.

A Matter of Interpretation (June 1999) Eleven different retouchers try their hand at color-correcting the same interesting image of a rock climber.

The Age of the Enlightened (December 1999) On the eve of the millennium, a seven-page retrospective on its most important people and events in the graphic arts, with a list of the stupidest mistakes of the decade, century, and millennium.

When Things Can't Get Much Worse (August 2000) Comments on the tragically short life of *Electronic Publishing* editor Tom McMillan, wrapped around the correction of a single fiendishly difficult original image.

Fate and the False Profile (October 2001) What appears to be a shocking misuse of color management tools turns out to be a savior for certain types of image.

If these are the only choices, which seal is best? Is there any room for doubt? In 1995, Dan Margulis thought that there was a clearcut answer, and found out the hard way that readers of the column had a different view.

C urvewriting in LAB is just like navigating any other minefield, except that in this particular one our maps and compasses are taken away and we must sail by dead reckoning; and that the mines are more sensitive and more powerful than we have ever seen before.

—"LAB Meets the Matador," 1996

a trade shop for a while, I queried those on my mailing list who do, and got a scad of responses. These indicated that the reasons jobs wouldn't run in 2001 were exactly the same as they were in 1993, with the occasional new wrinkle such as throwing transparency effects into a print job or attempting to do something with a PDF file that was prepared with some other purpose in mind.

Other than that, it was the same old same old: jobs that couldn't be trapped, with fonts or other critical elements missing; images at the wrong resolution; small type called for as three-color tints; faulty overprints, and on and on. Accordingly, I could have taken the 1993 column out of mothballs and run the silly thing almost as is.

In reviewing all the columns over the years, this turned out to be the case more often than not. A couple referred to software now obsolete; a couple of others were, not to put too fine a point on it, duds that wouldn't be worth rerunning under any circumstances. Add a few new screen grabs to the others, adjust a reference here and there, insert a new joke or two, and they'd be fine. The basics don't change much.

The ones that didn't age so well, perplexingly enough, are the ones responsible for *Makeready's* reputation. If you're involved in correcting color images, and you use LAB, or limit unsharp masking to one or two channels, or use GCR as an adjunct to color correction, or blend channels to create extra contrast, you're doing something that was introduced right here, invariably in at least two consecutive columns.

While the treatment was substantially correct in each case, the problem with pioneering is that you don't always get it exactly right the first time. I make no apology, under the circumstances, that certain advice turned out to be second-best. I use these columns to some extent as stalking horses for my books. By the time they get expanded into book form, a lot of the inconsistencies and bum advice are gone. But even from edition to edition of the book, I continue to modify them, as

more uses suggest themselves or as better means show up.

Columns of this length, especially technical ones, take a preposterous amount of time to write. The biggest payback is that the author gets to learn as much, if not more, than the readers, different lessons perhaps, but just as significant.

The worst mistakes bring the most enlightenment. The seals on this page are about as enlightening an experience as it is possible for a misguided guru to blunder into.

A 1995 column called "The Curse of Trying Too Hard" pointed out that experts are capable of disasters well beyond the ken of novices. I offered examples in several fields. The Photoshop representative involved a horrible-looking original of which these two were, or so thought the persons who did them, corrected versions.

I asserted that no novice, however motivated, could produce anything as ugly as the bottom version, which looks like somebody poured bleach over the poor animal. I said that the top version was the normal way to handle the image and was as far superior to the bottom one as by-the-numbers is to trust-the-monitor-and-hope-for-the-best.

Why do we prefer what we do?

The commentary made up in venom for what it lacked in accuracy. No sooner did it appear than I was deluged by e-mail questioning my vision, which was and is fine, thank you, and my common sense, about which, in this case, the less said, the better.

This embarrassing episode prompted serious thinking about what makes people like some pictures and not others. I'd previously done research where I'd asked people to pick the best of three possible variants of a certain image. After this experience, I realized an important question had been omitted, namely, granted that you like a certain version, what percentage of the population do you expect will agree with you?

Having since asked this question of several hundred peo-

Fifty miles from Marrakech, 1969: the future columnist prepares for a life of bringing the battle to calibrationists and other forces of evil.

ple, I now know how atypical this seal is. Normally when people select one version as their favorite, if another one has merit they correctly divine that a percentage of the population may prefer it. Not here. About half the world picks each one of these pictures. And about half of those who pick either are so absolutely convinced that the other is a disaster that, like me, they predict that 100% of the population will agree that they are right.

How about you? Were you so certain that the version you picked is the right one that you can't believe that half of the world thinks the other is considerably better?

A word of caution. Our technological backbone is highly vulnerable to wars, plagues, and other catastrophes, especially those of the man-made variety. If our civilization fails to progress at the same rate as its technology, the entire structure may—perhaps deservedly—come tumbling down.

—"The Age of the Enlightened," 1999

Of color and contrast

This was the first salvo in a great battle that has occupied much of the space of this column over the years: the confrontation between color and contrast. No matter which seal you prefer, you'll have to admit that the lighter one is more correct for color, which can't be bad, but has a small fraction of the detail of the darker one, which can't be good.

The seal was, in fact, the missing link that provoked me to investigate the use of LAB in color correction. The advantage—and disadvantage—of this colorspace is that, unlike CMYK or RGB, it separates color from contrast, which is very convenient in working certain images. A whole lot of professionals would not be using LAB today if not for the readers who took the time to tell me I was an idiot for preferring the top seal on the previous page.

I'm not particularly proud of the seal column, but its offspring definitely deserves its place in the top ten. That type of learning has continued since. One of the all-time reader favorites was a commentary on Tom McMillan, the *Electronic Publishing* editor who tragically died young. It wrapped itself around a correction of a horrendously dark shot of Tom that had to be used because of its historical importance.

A year later, I realized with great disgust that, though satisfactory, the correction could have been better, and in last fall's "Fate and the False Profile," I explained why.

The readership occasionally disappoints. In 1999, two columns that were among the best I've written—one about how changing the background of an image could dramati-

cally bring outthe foreground; the second on how to format type for maximum legibility—got nothing but yawns.

"Fate and the False Profile," though, drew a response that was not only large but sophisticated. I had thought that the technique—using a deliberately incorrect RGB setup as a prelude to later correction—was mostly useful for grossly defective images, such as the one of Tom McMillan. Several professional photographers went further. Those using Adobe RGB as their RGB definition found that every now and then they would run across an image that was too colorful, lacking detail in the brightest areas. Their solution was to assign a profile of the less colorful sRGB, which is normally an object of scorn and derision in the photographic community.

The battle continues. Last fall, for a two-part series about blending modes in Photoshop, I was testing two somewhat similar modes—Soft Light and Overlay. My wife and neighbors were awakened at 3 a.m. by screams and horrible obscenities as I realized that a lot of portrait work I'd done over the years had not only been done inefficiently but stupidly.

When the sun or some other lighting is overhead, faces become annoyingly colorless. Photographers have lived with and cursed at this phenomenon since the time of George Eastman. No more. I now know the generalized solution to the problem and have shown it in a couple of classes and at Seybold, much to the befuddlement of those who didn't grasp its ramifications and the shock of those who did.

That method—another LAB trick, the use of the A and B channels as overlay blends—will have to wait for another two-part series.

Tampa, September 8, 2002. Dan Margulis becomes the only writer admitted to the National Association of Photoshop Professionals' Photoshop Hall of Fame, based largely on his Makeready columns.

*S*ometimes fate decides to intervene, opens our eyes to something deeper than what we thought we were looking at, leaves us blinking in wonder at how we could have been blind to the obvious.

—*"Fate and the False Profile," 2001*

The past, the present, and the future

Notwithstanding the delay in bringing the above to public attention, this column can't realistically be charged with failing to introduce new techniques. Similarly, its predictions about marketplace conditions, the lot of photographers, and regrettably, in the eerie quote shown on the facing page, our society—have generally been right on.

A little more than a year after the first *Makeready* appeared in *Computer Artist* magazine, I quit my full-time job, and in doing so, made one of my less accurate predictions. My new book was a success, and so were these columns, so there was no shortage of freelance gigs offered by those needing to exploit what I knew about color.

I erroneously believed that this happy state of affairs couldn't last. I knew much more than most about these subjects, true, but the reason was I had worked in large service providers and been constantly exposed not only to people who really knew what they were doing but quite a few who, often unintentionally, created jobs that were, shall we say, considerable creative challenges.

Without that stimulation, I felt, I would lose my technical edge, and would have to go back to the grind within a couple of years. It didn't happen.

It didn't happen because of the change that everyone overlooks, the only true revolution in our field in a decade. Instead of keeping sharp by trading information with the operator at the next Macintosh, we trade it with somebody from some other country, who posts questions or comments and provokes experimentation and discussion.

Many of these people have to deal with computer equipment that would barely have been professionally acceptable at the time of Makeready #1, and other technical obstacles, not to mention the need to learn passable English if they hope to access the enormous knowledge on the Web.

Yet the desire for quality images is universal. I'll admit to identifying more with those who labor under these disadvantages than I do with those from comparatively wealthy countries and circumstances.

I've already suggested that, in spite of the Web, our life as electronic publishers hasn't changed as much in the last nine years as in the nine before. Similarly, though the last fifty years have changed our lives almost beyond comprehension, in many ways there were changes even more drastic in the previous half-century.

We have that ready access to the world, the opening of our society to women and minorities, our digital technology, our incredible prosperity, all of which developed in my lifetime. But a half-century before that, they didn't have *cars*. Almost nobody worked in an office, or on an assembly line. Most people didn't live even to be as old as I am today. And if we have recently discovered that certain individuals, nominally human, are capable of wickednesses beyond all names of wickedness, this wasn't news to people living in 1952.

My birth certificate reveals that I was born 50 years ago in Albany, New York. My grandmother's, 50 years before that, says Grove, *Indian Territory*. Think about it.

This retrospective's own birth came on a laptop in a hotel room in Guadalajara, Mexico. As I celebrated my 50th birthday, so did this column mature, in the company of friends, albeit newer friends than were with me in the Caribbean. I was working at a printing plant there, showing how to correct color in much the same way that this column has done over the years.

I intend a lot more such travel in years to come, although not as much work, not as many classes, as before. Life has been a good run so far, but now it's time for a bit more literature, art, music, and other forms of relaxation.

As for *Makeready*, I must say I thought long and hard about making this one the last of the series, too.

Can't stop now. Some of us get older, some of us get better. I know which group I want to be in. How about you?