

The “Body Graphic”

A Metaphor for Print in the Twenty-First Century

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When I was being taught how to run a web press, in the not so far distant past, I quickly learned how to play the insidious “blame game.” Chances are you also learned to play it and know the rules. Here are some examples of the games we played: If the job on press didn’t register or fit, we blamed the stripper or the platemaker. If the color was wrong, we blamed the scanner operator or retoucher. In addition, bindery workers routinely blamed the press operator; strippers blamed the process camera operator, separator, or pasteup artist; and so on. This in-house pass-the-buck routine was not only expensive, in terms of time, but also demoralizing.

The “blame game” is dangerous nowadays because many of the technicians I mentioned are just a memory. Indeed, in major printing companies today, the entire prepress department may consist of only a half dozen or fewer people who do highly focused tasks such as preflighting, imposing, trapping, and platesetting. Scanning, color separation, color correction, and page layout are rarely performed in-house. So, who gets the blame? All too often, in private conversations and in public forums, I hear the graphic designer blamed for all sorts of atrocities. In essence, the blame is being shifted elsewhere—away from our own employees and onto outsiders. That’s dangerous for those of us in the printing industry because the “dreaded” designer is often our customer or an employee of our customer. Dare we bite the hand that feeds us? Or, do we need to think differently?

During the 2004 International Graphic Arts Education Association Conference, Dr. Charles Weiss presented a breakout session entitled *Crossing the Boundaries of the Graphic Art and the Fine Arts Departments*. His intent was to persuade teachers and professors of print technology and graphic design to collaborate at the school level so that graduates from both types of programs can be properly prepared to eliminate the “blame game.” Because my Fine Arts Department colleague, Professor Beckham Dossett, and I have been quite successful in integrating our university’s graphic design and graphic technology programs, we were selected to serve on the panel for Dr. Weiss’ presentation. While I was preparing for my part in the panel, I was reminded of a story I once read.

A Parable

Long ago, when the human body was a quite new device, its parts began to argue among themselves to determine which was the most important. “Of course I’m the most essential,” boasted the brain, “because I control the rest of you.” “Well,” argued the heart, “without me you would run out of blood and you’d die. So, I’m more important than you.” “Ha!” shouted the lungs. “Without me you wouldn’t have any oxygen to deliver to

the brain so both you and the brain would die.” On and on it went, each body part arguing for its supremacy. In due course, the anus had its say. “I’m truly the most vital of all the body’s parts.” After an incredible amount of laughter subsided, the rest of the body’s parts agreed that the anus was the *least* important part. Furious, the offended anus scolded, “I’ll show you!” and went on strike. As you can well imagine, within three days all of the body parts simultaneously came to the same conclusion: “Yes, anus. You are the most important.” Peace broke out among all the warring factions and, to this day, all the parts of the body work in harmony.

Some Observations

Several observations are evident in the parable: First, the parts of the body work in harmony (unless, of course, disease mars their functions). Second, no part of the body tries to accomplish the task of another part. Do the eyes try to exchange oxygen for carbon dioxide? Of course not! Third, although not every part of the body is essential to its survival (one can exist and excel without an arm), the loss or damage of any part does, at least, diminish the functioning of the body. However, *the human body is remarkably able to compensate when one or more of its parts is compromised*. For example, if one loses the ability to see, other senses, over time and with training, will begin to compensate for this deficiency.

Like all good parables, this story has applications for you and me. In particular, let me propose that we begin to think of the graphic communications field, representing designers, managers, buyers, vendors, and salespeople, as well as print, web, and media production personnel, as the “Body Graphic.” Every person involved in the production of a graphic communications product is a member of the “Body Graphic.” Each person is important to the overall project, no person should, without planning and training, take over the responsibility of another, and harmony among all is the objective so that the project will successfully meet its communicative goal, appeals to the end user, is produced on time, and is produced at or under budget.

The “Body Graphic”

Although, like all metaphors, the “Body Graphic” is subject to interpretation, here is my way of assigning roles to its members. The eyes and ears are the graphic designer. Designers hear the needs of the client and envision a visual solution to those needs that takes into account the characteristics of the end user as well as the attributes of the reproduction process. The muscles are the technicians who do the work necessary to produce the product. The skeleton, which provides structure to the body, represents the tools and equipment used to produce the project. The muscles use these tools to do their jobs. The skin contains the skeleton, muscles, and all other body parts. So, it is analogous to the company’s building. Power to fuel the system is provided by the digestive system while the lungs are the vendors of materials such as ink, paper, and plates. Logistics are provided by the circulatory system to ensure that every part of the “Body Graphic” has the materials it needs when it needs them. Along the way, the kidney and spleen function as quality control specialists. The brain, of course, is the client, without whom nothing

else could work. And, how does the client get needed information? From the nervous system, represented by the entire management, sales, and purchasing staffs of both buyer and vendor supported with effective and timely information. What about the soul, the spark of life, the passion for excellence? As a professor I, of course, am biased, but I believe that the soul represents education and, thus, knowledge. Finally, in case you're wondering about the anus: waste management and recycling, of course!

An Application

Since many, if not most, of the problems that occur in today's printing world focus on color and color management, let's apply the "Body Graphic" to color printing. Does your company practice the blame game? Or, do you consider graphic designers to be a part of the "Body Graphic?" Do your people curse your clients and/or their designers or work with them to make their visions come true? Is it "us vs. them" or "we're all in this together?"

We all know the song: its verses are many and oh-so-repetitive:

- The resolution is too low.
- The colors are in the wrong color space.
- The colors are out of gamut.
- The wrong color separation choices were used.
- The wrong software was used.
- The image is too soft.
- The image was sharpened too much.
- The image was scanned with a low-quality device.

Graphic designers, too, sing their song of woe:

- My printed project doesn't look like my screen. Isn't it supposed to be WYSIWYG (what you see is what you get)?
- My printer doesn't tell me what they need. (I've personally talked with printing company sales people who don't *know*—and oftentimes don't care—what their technicians need!)
- My scanner scans in RGB; what's the matter with that?
- Why doesn't my printer *understand* what I want?
- Why *can't* my vision come true?
- There are so many choices: what's the right way to set Photoshop?
- How can I know what press my printer is going to use so I can make correct separations?
- It's called *Publisher*, so why shouldn't I use it?
- *PowerPoint* makes such good-looking graphics and I can print them on my color laser printer. Why can't my printer use *PowerPoint* files?

Yes, we know the songs—all these verses, and more. And, we objectively know how to solve the problems—by producing correct files from the outset! The question is more subjective: how do we respond? I've seen printers react with loud and strong refrains of the "blame game" while other printers consider designers and clients as part of the "Body

Graphic.” Those in the former category establish demanding preflighting routines and charge for more than minimal file intervention. “We’re printing with 150 LPI screens and they only gave us a 266 PPI file.” “Don’t they know we print using CMYK?” “It’s awful! The separations are so flat. They must have used the SWOP setting in Photoshop (which is, of course, the default setting in an obscure dialog box!).” Such companies may suffer the consequences when clients become frustrated with delays and additional costs. On the other hand, I’ve seen companies launch extensive training programs for their clients and their designers only to see the entire effort come to naught when employees and/or technologies change. And, sometimes it seems that “they just don’t get it.” In “Body Graphic” terms, the eyes and ears (designers) appear to want the muscles (technicians) to do their work for them.

Can the expectation, on the part of some graphic designers, that technicians will (and should) simply fix any technical problems be justified? Yes, especially for those designers who have been around for a while. Such individuals started their careers in a world in which printers employed lots of expert prepress personnel who had specialized skills and knowledge in the technologies required to reproduce images. Those technicians handled virtually all the technological requirements of printing. However, their skills have been supplanted by increasingly robust software so that it is *possible* for a single individual to perform the tasks formerly completed by several people. In our rush to take advantage of the efficiencies of powerful software, the “Body Graphic,” in effect, has forced the processes that printers used to perform up stream to the desktop of the graphic designer *who may not have the knowledge or inclination to embrace every aspect of technology*. Remember, graphic designers have traditionally been valued for their eyes and ears, not for their muscles. It is their ability to envision solutions to communications needs that determines their worth. It is my opinion that the wholesale movement of technological tasks from the purview of printing company employees to graphic designers is *not* an appropriate use of the “Body Graphic” because different people, like different body parts, have different gifts and talents. However, since the trend to require artists to, in essence, become technicians is undeniable and may be inescapable, then printers must, at the very least, provide designers with the tools that they need along with instructions they can follow. In the same way that the human body compensates, over time and with training, when one of its parts becomes inoperable, graphic designers *can* take on *at least some* of the roles traditionally accomplished by technologists.

In keeping with the spirit of the “Body Graphic,” I suggest that printers consider the following short-term suggestions to support veteran graphic designers:

- Create color profiles of your presses using your house inks and typical paper stocks. If you need help in this process, check the Resources at the end of this article. Make these profiles available to your graphic designers and *explain how to apply them using Photoshop*.
- Once you have scheduled a job to be printed on a given press, inform the designer so that the correct color profile may be employed when performing RGB to CMYK conversions.

- Schedule open houses and invite your clients and their designers to attend. Demonstrate how a single job progresses through production and *how it appears* at each stage.
- Provide your clients and their designers with copies of one or more extremely well written guides that are currently available for a minimal cost. While several items are listed in the Resources at the end of this article, the GRACoL Handbook, Bridg's Handbooks, and X-Rite's *The Color Guide and Glossary* are highly recommended because of their concise explanations and superb illustrations. A pricier guide, yet one that has received accolades from virtually all color gurus, is *CMYK Color: Visual & Digital References for Professionals*. It would be well worth your while to give your major clients a copy of this very informative and useful reference book.
- Task your customer services representatives with *explaining to your clients* how the theories and techniques explained in these guides *apply to your plant and to that customer's jobs*.

The New Generation

While more traditional graphic arts (printing) curriculums in schools and colleges are disappearing at an astounding rate throughout the United States, graphic design programs remain robust and plentiful. Although I cannot speak for every graphic design professor or student, it has been my experience, when working with University of Houston graphic design professors and students, that these individuals *yearn* for knowledge about graphic reproduction processes. They've seen what happens to their uncorrected design projects during the printing process, know that they are entering a highly competitive field in which increased skills will likely result in more opportunities, and are eager to learn. In fact, so many graphic design students began to take our graphic technology courses that the Art Department faculty put two technology courses on their students' degree plans! Does our collaboration pay off? Yes. Projects displayed by those seniors in the graphic design program who took graphic technology courses are "reproducible" and respect the limitations and attributes of commercial printing processes. In addition, graduates of the graphic design/graphic technology curriculum report increased earning potential and a higher demand for their skills in comparison to those who have not studied graphic technology.

We're lucky at University of Houston because we have programs emphasizing graphic design, graphic technology, and media within our curriculum. Other schools are not so lucky and may only have a graphic design or media program. I am willing to bet that students in those schools are also eager to learn about print reproduction technology. How can that learning be facilitated? To paraphrase the song, "it takes you!" Remembering that "an ounce of prevention is worth a pound of cure," here are some things you can do.

- Seek out schools in your vicinity that teach graphic design. Most colleges have some courses related to graphic design although they may not have a program called "Graphic Design," "Graphic Arts," or "Graphic Communications." Search

the school's website for courses in Photoshop, Web Design, Computer Graphics, and so on. You can also contact your local PIA affiliate to find out which schools in your neighborhood teach graphic design. You might also find the Graphic Comm Central website (<http://teched.vt.edu/gcc/>) and its Colleges/Univs/Schools link useful.

- Contact the instructors or professors who teach the graphic-design-related courses. You can generally find the names of instructors or professors on the school's on-line course schedule. Then, you can usually find the teacher's contact information on the school's on-line directory. Once you seek out those who are teaching the next generation of graphic designers, contact them and invite them to a reception at your plant. Provide tours and demonstrations. Show them how color is reproduced today.
- While the graphic design instructors are comfortable in your hospitality, ask them for permission for you or one of your staff members to be a guest speaker in their classes. It's very likely that you'll receive a positive response. Also, ask if their schools recommend or require internships. If so, offer paid or unpaid internships in your prepress department to their upper-level or graduating students.
- Ask to join the advisory committees of the programs operated by the teachers you host.
- When you speak to the design students about real-world color reproduction, give them copies of the GRACoL Handbook, Bridg's Handbooks, X-Rite's *The Color Guide and Glossary* or other inexpensive, yet informative, guides (see the Resources at the end of this article). Teach them how to use the color profiles your company has prepared.
- Offer the students with whom you speak an opportunity to intern in your prepress department. Give each intern a copy of *CMYK Color: Visual & Digital References for Professionals*. In addition, ask them to peruse www.gain.net and www.makeyourmark.org. During the internship, provide students with hands-on experience in preflighting, file intervention, color correction, color management, color reproduction, imposition, trapping, RIPping, and platemaking. Designers who have experienced these tasks are not likely to provide less-than-adequate files to you in the future.
- Convince your clients (graphic designers, ad agencies, and end users) to hire the designers who have completed your internship program. Could there be a better way to insure that files produced by your designer clients will be correct?

It is my contention that treating all people who participate in the production of a graphic product as members of the "Body Graphic" will result in a more harmonious and effective workflow that minimizes errors and finger pointing. In particular, is it very important that veteran and aspiring graphic designers (the "eyes and ears") be taught how to take on the tasks previously associated with highly skilled printing technicians (the "muscles"). Let the "blame game" be relegated to the twentieth century while respect for every part of the "Body Graphic" becomes the norm for the twenty-first!

Resources

Color Management and Profiling Resources

Texts

Fraser, B., Bunting, F., Murphy, C. (2003). *Real World Color Management*. Berkeley, CA: Peachpit Press. ISBN 0201773406. Available in print at www.amazon.com

Green, P. (1999). *Understanding Digital Color, Second Edition*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883622335. Available in print at www.gain.net

Grey, T. (2004). *Color Confidence: The Digital Photographer's Guide to Color Management*. Alameda, CA: SYBEX, Inc. ISBN 0782143164. Available in print at www.amazon.com

Marin, J. (2004). *The Pain of Color Management*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883624958. Available in print or digital form at www.gain.net

Sharma, A. (2003). *Understanding Color Management*. Clifton Park, NY: Thomson Delmar Learning. ISBN 1401814476. Available in print at www.amazon.com

Tally, T. (2001). *Electronic Publishing: Avoiding the Color Management Blues*. Boston, MA: Prentice Hall. ISBN 0130194654. Available in print at phptr.com

Weisberg, J. (2004). *Apple Pro Training Series: Color Management in Mac OSX*. Berkeley, CA: Peachpit Press. ISBN 0321245768. Available in print at www.amazon.com

Websites (hardware and software information):

AGFA: http://graphics.agfa.com/commercial/color_management/

Basic Color: http://basiccolor.de/english/index_E.htm

Binuscan: <http://www.binuscan.com/us/cc/index.html>

Color Blind: <http://www.color.com/>

Fugifilm: <http://www.colorprofiling.com/>

GretagMacbeth: <http://www.gretagmacbeth.com/>

PictoColor Corporation: <http://www.picto.com/>

X-Rite: http://www.xrite.com/mkt_printing.aspx

Color Guides and Handbooks

Bridg's. (2000). *Color Handbook for the Graphic Arts*. Wheaton, IL: Author. Available on-line at www.bridgs.com/hb_order.html

Bridg's. (2000). *Color Proofing Handbook for the Graphic Arts*. Wheaton, IL: Author. Available on-line at www.bridgs.com/hb_order.html

Bridg's (2002). *Color Management Handbook*. Wheaton, IL: Author. Available on-line at www.bridgs.com/hb_order.html

Field, G. (2004). *Color and Its Reproduction, Third Edition*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883624079. Available in print at www.gain.net

Field, G. (2001). *Color Essentials, Volume 1: Color and Quality for the Graphic Arts and Sciences*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883623862. Available in print at www.gain.net

Field, G. (2004). *Color Essentials, Volume 2: Color and Quality for the Graphic Arts and Sciences*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883624869. Available in print at www.gain.net

Fields, G., Nichols, G, and Waite, J. (2003). *CMYK Color: Visual and Digital References for Professionals*. Houston, TX: Metro Publishers. ISBN: 0933745176. Available on-line at www.cmykcolor.org

Field, G. (2004). *The Field Guide to Color Reproduction*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883624478. Available in print at www.gain.net

Green, P. (1999). *Understanding Digital Color: Second Edition*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883622335. Available in print at www.gain.net

IDEAlliance. (2002) *GRACoL: Version 6.0*. Alexandria, VA: Author. Available on-line at <http://www.gracol.org/resources/>

Waldman, H. (2000). *Computer Color Graphics: Understanding Today's Visual Communications*. Sewickley, PA: Graphic Arts Technical Foundation. ISBN 0883622386. Available in print at www.gain.net

X-Rite. (2004). *The Color Guide and Glossary*. Grandville, MI: Author. Portable Document File (.pdf) version available on-line at www.xrite.com/support_literature.aspx