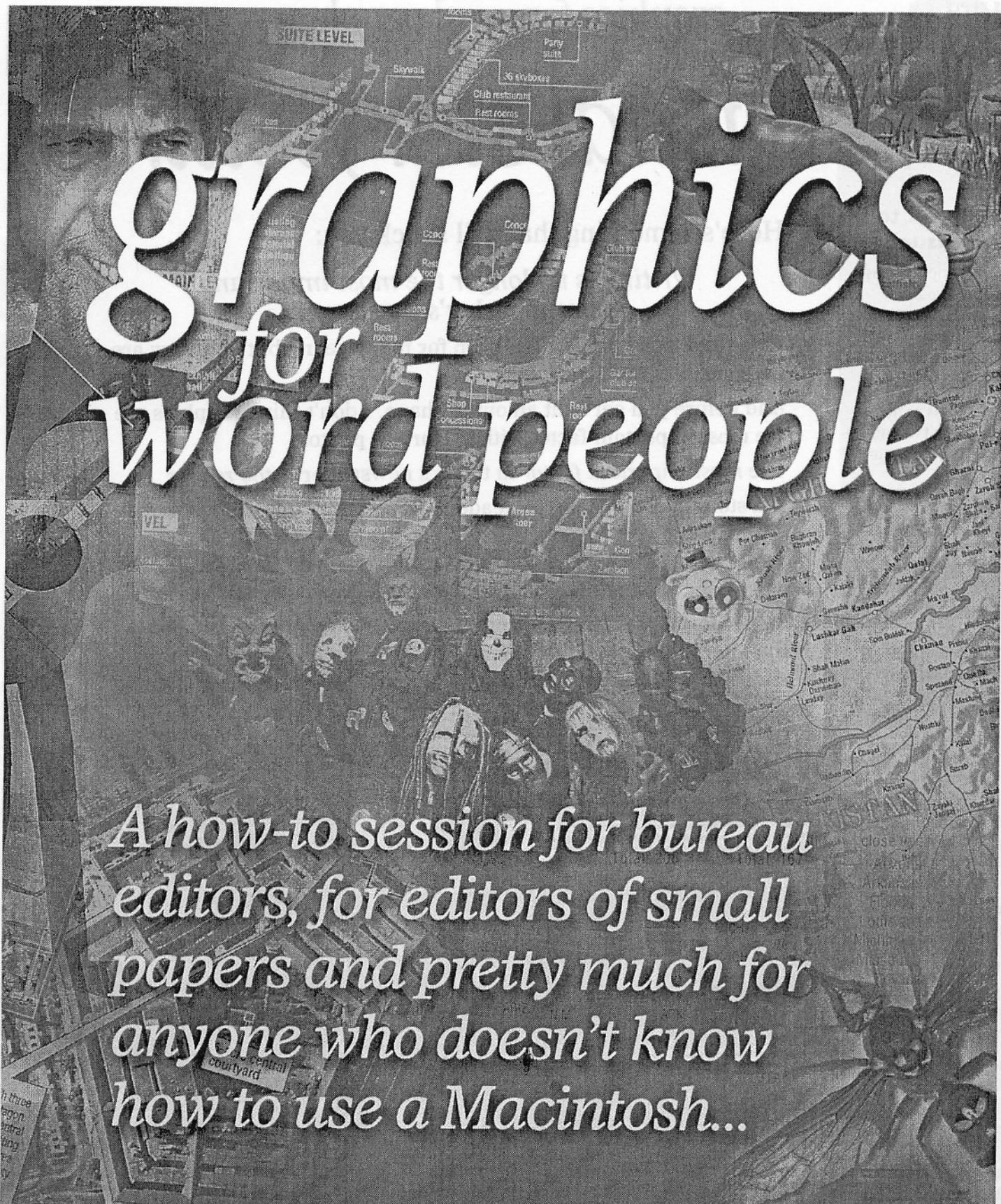


# graphics for word people



*A how-to session for bureau editors, for editors of small papers and pretty much for anyone who doesn't know how to use a Macintosh...*

A CHANCE TO SLEEP THROUGH A PRESENTATION BY

**CHARLES APPLE** GRAPHICS DIRECTOR  
THE VIRGINIAN-PILOT

AMERICAN PRESS INSTITUTE Nov. 13, 2003

# visual storytelling

## How not to use visuals

Every bit as important as how you and your newspaper use visuals is how you don't use visuals. Some common mistakes:

**Using visuals as filler.** If a story doesn't fit, use a house ad or a pull quote to fill the space.

**Using visuals to break up gray space.** A graphic exists to help tell a story. For that matter, so does a photo. If you constantly find yourself scraping together some sort of graphic doo-dad solely to break up gray space, then you're drawing the reader's attention to...

**nothing.** Don't "cry wolf" with a meaningless icon. Break up your gray text sticks with extra gutters, wide margins and subheads. Or simply write shorter.

**Using visuals to carry a story that's not a visual story.** If your story doesn't need a visual, then

don't whip up one. Unless your paper has unlimited resources — yeah, right — your designers have better things to do than pursue wild geese.

CONTINUED ON PAGE 3

Here's something that will shock you:

*Writing is no longer the most important factor in today's newspaper.*

Actually, I don't think it has been for many years, but only now are we, as an industry, realizing it.

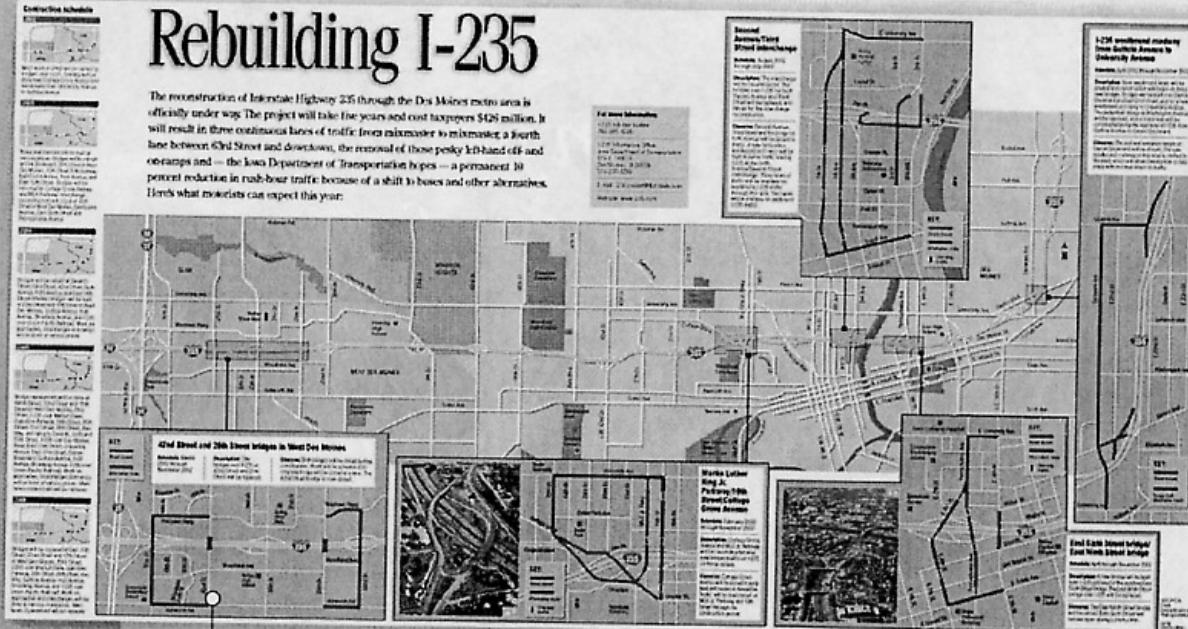
And before you get bent all out of shape, I don't think graphics are the most important factor, either. Nor are photos.

The *most important factor* in today's newspaper is *the reader*.

If a story doesn't catch the reader's imagination, then it's a waste of time... at least to *that reader*. The same for a graphic: If it doesn't read well, if it doesn't make sense or can't be read quickly and understood easily... well, then the graphic journalist has *failed*.

Some stories, though, can be told *more effectively* in a visual way than in the traditional text-only way. The graphics you saw in my slide show — and are seeing in this handout — are good examples.

## Rebuilding I-235



You can write until you're blue in the face about the major construction work going on Des Moines' downtown interstate highway, but words simply can't tell the story nearly as effectively as can a graphic. Register artist Katie VanDalsem worked with our transportation reporter to research and to construct this piece, which explained which parts of the highway needed to be replaced, in what order the road would be rebuilt and which parts would be done this year. She also showed detours and alternate routes and used aerial photos of some of the key intersections under construction.

## Readers are visual animals. And they like graphics.

I've been told by some professionals that readers feel intimidated by large, full-page megographics. That people won't read all that stuff.

For some reason, though, these same professionals think that readers don't mind reading 130 inches of gray prose with no photos, subheads, breakouts or any other visual elements.

The fact is, some stories *need* 130 inches. Some need only 8 inches.

The same applies to visuals: Some graphics need to be only one-by-eight. Some really need to be four-by-twelve or a full page—or more. And some graphics tell their stories better than words alone can.

If all this freaks out the old-school types, then *tough noogies*. Hey, this is journalism. It's not rocket science. We're telling a story here, making the complex simple and showing how the unworkable works.

Graphics are journalism in its purest and simplest form.

*What could be more fun?*

Sometimes, a good graphic can be amazingly simple.

Three ago, we at the *Register* wanted to give our readers a preview of the five NFL teams we consider to be our "Midwest" teams. The sports department was tied up with other projects: namely, our two local major-college football teams, the baseball pennant races and the Olympics. So we elected to do it as a graphic.

Yours truly compiled the entire page: There's not a thing on it that wasn't available from NFL.COM or from the individual team Web sites. Sure, those sites contain quite a bit of advertising, but they also include links to official press releases, depth charts, statistics and a bunch of other stuff.

There's quite a bit of stuff packed onto this page. This doesn't take the place of well-written season previews, but it sure as heck works as a quick overview for the fan/reader.

It worked out so well, we did it every year after. This one was our third swing at it.



CONTINUED FROM PAGE 2

That's why quotas — "We'll put two graphics into every section!" — aren't a good idea. Don't contrive things for your reader to stumble upon. Spend your time telling stories that are worth telling.

■ **Keeping graphics separate from stories and photos.** The lines are blurring between page design, graphics, photography and written journalism. If your story needs a combination of disciplines, don't stand in the way of innovation simply because "that's not how we've always done it." Life goes on. Better move along with it.

Photos were available via our photo archive or fresh from AP

Team stats in bar charts and individual stats leaders in tabular format

Starting lineups for offense and defense

Last year's results	This year's schedule



## 4 Graphic ideas

If your paper is just now getting its collective feet wet with infographics, then you might be wondering when to produce a graphic and when not to.

Don't fret. Truth is, there is no right or wrong answer to that question. Each paper does it differently.

The two biggest concerns of a graphics operation are what I sometimes refer to as the Einstein factors: *Time* and *Space*. It's easy for an artist to offer a graphic to her editor — or, worse yet, it's easy for an editor to "order up" a graphic — but, hey, man, these things don't grow on trees. A complicated graphic can take a while to pull off.

Likewise, I've often been caught in a bind in which I pulled together a nice little graphic, only to find there is no space to run it. Bummer!

Therefore, before you embark on that graphic, make sure to check your deadlines and space requirements. The best infographic in the world ain't worth squat if you can't get it into the paper.

The real secret to producing a visual newspaper, though, is training everyone — not just your artist — to think visually.

CONTINUED ON PAGE 5

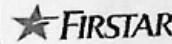
# types of graphics

**Graphics are what we call** anything that sort of lends an additional nugget of information to your story. A graphic can be a map or a pie chart or a diagram or a 50-year-old battleship... or anything in between. You can pull a quote out of a story, make it larger and in a different font and it becomes a nice graphic element. Or a quick list—even a small paragraph can be a graphic if you treat it right.

A very simple graphic is the fact, or "bio," box. We call 'em "double edits" at the *Pilot*. Compile the data, scan the logos and boom, you're in business. Any given day, we may use several of these.

### Merger

Firstar Corp. agreed to by U.S. Bancorp for about \$19 billion to create the eighth-largest U.S. bank.



CEO: Jerry Grundholter

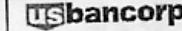
Headquarters: Milwaukee

Assets: \$74 billion

Employees: 12,700

Locations: Operates nearly 1,200 banking offices in Iowa, Ohio, Wisconsin and 10 other states.

Wednesday stock close: \$20, down \$2.25



CEO: John F. Grundholter

Headquarters: Minneapolis

Assets: \$86 billion

Employees: 26,900

Locations: Operates approximately 1,000 banking offices in Iowa, the Midwest and West.

Wednesday stock close: \$25, down \$1.81

THE REGISTER

Also easy are small bar charts and maps. Sometimes it can be a challenge to boil down information so it can be used in one column.

### Polk county Sheriff's Department overtime

Fifty-two employees earned more than \$10,000 each in overtime pay during the last fiscal year.

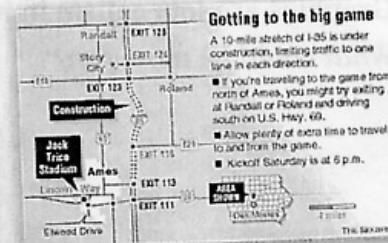
	\$1.0 million
1995	\$1.0 million
1996	\$1.3 million
1997	\$1.2 million
1998	\$1.4 million
1999	\$2.2 million
2000	\$1.7 million

Source: Polk County

THE REGISTER



This map is even more helpful to the reader—it tells how to avoid traffic, exit numbers and game time.



### Getting to the big game

A 10-mile stretch of I-35 is under construction, limiting traffic to one lane in each direction.

- If you're traveling to the game from north of Ames, you might try exiting at Plunkett or Roland and driving south on U.S. Hwy. 69.
- Allow plenty of extra time to travel to and from the game.
- Kickoff Saturday is at 6 p.m.



### Numbers game

Football participation at Des Moines city schools compares poorly to the rest of the Central Iowa Metropolitan League.

	Total enrollment	Junior and senior males	Junior and senior players	Participation
1. Newton	812	274	57	15.5%
2. Dowling	924	301	59	13.0%
3. Ames	1,216	406	73	11.5%
4. Mason City	973	314	53	10.6%
5. Ankeny	1,254	392	64	16.8%
6. Johnston	876	294	49	16.7%
7. Fort Dodge	981	339	58	16.5%
8. Indianola	773	250	39	15.8%
9. North	857	239	37	15.5%
10. Urbandale	837	320	44	13.2%
11. Ottumwa	1,010	376	60	12.3%
12. Southeast Polk	1,042	352	44	12.9%
13. Hoover	964	301	33	11.0%
14. East	1,430	414	45	19.9%
15. Marshalltown	1,210	414	45	10.9%
16. Valley	1,787	616	64	16.9%
17. Roosevelt	1,257	377	38	10.7%
18. Lincoln	1,628	480	33	6.9%

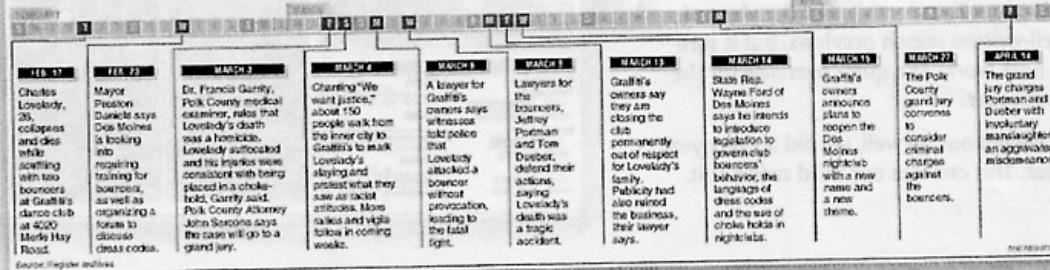
Player numbers based on juniors and seniors listed on opening night rosters. Enrollment based on last year's Department of Education survey for the classes of 2001 and 2002.

THE REGISTER

This chart is like the bar chart above—but much more complex. There is a list of schools, their enrollments and then a bar chart of the percentage of boys playing football. Combining chart info into a larger piece like this can be tricky. Try to stick with what can be read easily.

**Timelines** are great for showing a sequence of events over time. It can be difficult, however, to keep a timeline simple enough to be readable. If you try one of these, make sure you stick with the basics and write short.

### Events in the Lovelady case

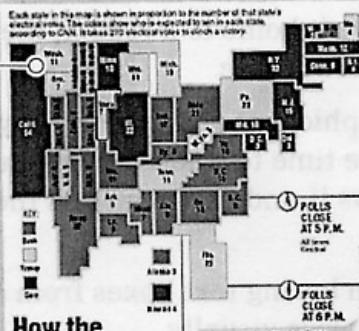


THE REGISTER

## Guiding the reader through a complex story

*Most of the information on this Electoral College page was available from the Federal Elections Commission, the Associated Press and other wires. We pitched it several weeks before the election and worked on it off-and-on throughout October. It ran on Election Day. As it turned out, of course,*

Map shows the size of each state in proportion to the number of electoral votes it wields.



States listed in order of when their polls close.

### How the college works

**W**HAT does it take to win? The answer is to win the electoral votes of at least 270 electors. So how many electoral votes does each state have? It depends on when the election was held. In 2000, Gore won the electoral votes of 25 states, while Bush won those of 26. The result of the electoral vote went to the Supreme Court, which ruled in a 5-4 decision for Bush.

What's the lesson in that? Today isn't about who's ahead in the electoral vote count. It's about who's ahead in the electoral vote count.

It takes a certain number of electoral votes to win the election. This is the basic principle of the electoral college. How many electoral votes does each state have?

It depends on when the election was held. In 2000, Gore won the electoral votes of 25 states, while Bush won those of 26. The result of the electoral vote went to the Supreme Court, which ruled in a 5-4 decision for Bush.

That's the lesson in that?

Today isn't about who's ahead in the electoral vote count. It's about who's ahead in the electoral vote count.

Explains how the Electoral College works.



The same map as above, but drawn in normal proportions.

This map and the one at the top of the page show each state as proportional to the number of electoral votes according to CNN. However, here's another way to look at it.

Shows which candidate is expected to win in each state, according to six major news agencies: CNN, AP, USA TODAY, ABC, CBS and NBC.

In most states, the candidates are neck-and-neck in the race for electoral votes. But in some states, one candidate is clearly ahead of the others. Michigan and Minnesota, for example, are projected to go to Gore.

It's also possible for a candidate to win in a state, but still end up second in the national popular vote. That's what happened in Florida in 2000.

Gore didn't receive enough electoral votes to win the election. Bush had more electoral votes than Gore.

Not only can't happen. It can happen. Because it can happen.

That's something interesting in what's happening. Whether Gore or Bush wins a majority of 270 electoral votes will depend on whether they can win the electoral vote count.

That's something interesting in what's happening. Whether Gore or Bush wins a majority of 270 electoral votes will depend on whether they can win the electoral vote count.

That's something interesting in what's happening. Whether Gore or Bush wins a majority of 270 electoral votes will depend on whether they can win the electoral vote count.

That's something interesting in what's happening. Whether Gore or Bush wins a majority of 270 electoral votes will depend on whether they can win the electoral vote count.

That's something interesting in what's happening. Whether Gore or Bush wins a majority of 270 electoral votes will depend on whether they can win the electoral vote count.

That's something interesting in what's happening. Whether Gore or Bush wins a majority of 270 electoral votes will depend on whether they can win the electoral vote count.

Call-out boxes point to key battleground states and give additional information on how those states will affect the outcome of the entire election.

Hoping that readers would pull the page and follow along with election night TV coverage, we gave them a spot to write in which candidate won each state.

Shows who carried that state in each of the last three elections.

## Your guide to the Electoral College

You can keep your own count of which candidates expect to win all three elections running in. The results may not be finalized until after the election. Keep in mind that some news organizations declare winners in states much later than the polls close — generally speaking, the closer a race the longer it takes the experts to predict a winner.

STATE	ELECTORAL VOTES	WINNER	AP	ABC	CNN	NBC	USA TODAY	FOX	FNC
Alabama	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Arkansas	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Colorado	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Connecticut	4	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Delaware	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Florida	25	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Georgia	10	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Hawaii	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Idaho	4	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Illinois	21	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Indiana	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Kansas	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Louisiana	8	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Maine	3	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Maryland	8	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Massachusetts	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Michigan	25	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Minnesota	10	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Mississippi	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Missouri	10	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Montana	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Nebraska	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Nevada	5	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
New Hampshire	4	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New Jersey	15	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New Mexico	5	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New York	30	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
North Carolina	12	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
North Dakota	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Ohio	21	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Oklahoma	6	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Oregon	7	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Pennsylvania	23	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Rhode Island	3	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
South Carolina	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Tennessee	15	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Texas	31	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Utah	5	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Vermont	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Virginia	13	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Washington	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
West Virginia	3	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Wisconsin	10	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Wyoming	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore

STATE	ELECTORAL VOTES	WINNER	AP	ABC	CNN	NBC	USA TODAY	FOX	FNC
Alabama	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Arkansas	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Colorado	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Connecticut	4	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Delaware	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Florida	25	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Georgia	10	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Hawaii	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Idaho	4	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Illinois	21	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Indiana	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Iowa	6	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Kansas	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Louisiana	8	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Maine	3	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Maryland	8	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Massachusetts	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Michigan	25	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Minnesota	10	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Mississippi	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Missouri	10	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Montana	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Nebraska	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
New Hampshire	4	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New Jersey	15	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New Mexico	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New York	30	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
North Carolina	12	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
North Dakota	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Ohio	21	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Oklahoma	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Oregon	7	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Pennsylvania	23	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Rhode Island	3	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
South Carolina	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Tennessee	15	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Texas	31	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Utah	5	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Vermont	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Virginia	13	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Washington	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
West Virginia	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Wisconsin	10	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Wyoming	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore

STATE	ELECTORAL VOTES	WINNER	AP	ABC	CNN	NBC	USA TODAY	FOX	FNC
Alabama	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Arkansas	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Colorado	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Connecticut	4	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Delaware	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Florida	25	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Georgia	10	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Hawaii	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Idaho	4	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Illinois	21	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Indiana	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Iowa	6	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Kansas	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Louisiana	8	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Maine	3	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Massachusetts	11	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Michigan	25	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Minnesota	10	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Mississippi	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Missouri	10	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Montana	0	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Nebraska	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
New Hampshire	4	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New Jersey	15	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New Mexico	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
New York	30	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
North Carolina	12	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
North Dakota	3	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Ohio	21	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Oklahoma	6	Bush	Bush	Bush	Bush	Bush	Bush	Bush	Bush
Oregon	7	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Pennsylvania	23	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Rhode Island	3	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
South Carolina	9	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Tennessee	15	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Texas	31	Gore	Gore	Gore	Gore	Gore	Gore	Gore	Gore
Utah	5	Bush	Bush</						

# 6

## Zeroing in on the readers

One of the best ways to come up with ideas for great graphics is to stop and ask yourself, "What does the reader *really* want to know about this story?"... and then answer that question with a graphic.

*Think of graphics as sidebars.* To some extent, graphics need to stand alone — some folks out there will read a headline, a cutline and a graphic but not a story — but you can use a graphic to download all that stuff that really weighs down prose.

If you find yourself reading a boring list, for example, that may be material that could be pulled out into a graphic. Or, rather than blow two grafis telling where a particular building is located, delete all but a passing reference to location and request a map.

The examples in this handout show this logic taken to an extreme. These pieces represent complex stories told at-a-glance: times, tips, what to watch for, Web sites to visit... We aimed to print something our readers might rip from the paper and refer to from time to time.

*Find ways to serve your readers well and they'll keep coming back.*

# content is king

*Our visual work must be content-driven rather than design-driven.*

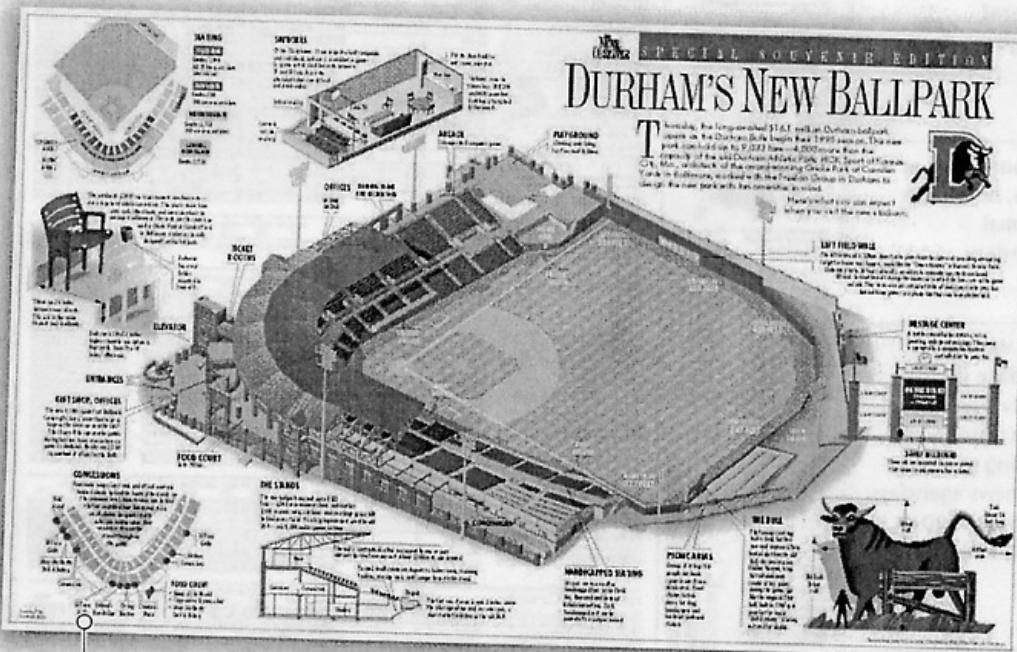
If a story needs a graphic to drive it home to a reader, then we do a graphic. If it doesn't, *then we don't do one.*

The days of the large, pretty graphic that really didn't say much are long gone. Our readers no longer have time to wade through cute little icons. They want to know what the news is and how it affects them. And they want to know it *now*.

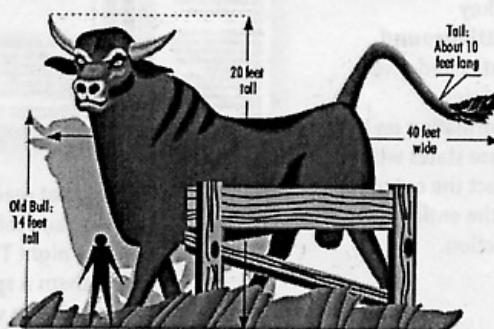
Does that mean we're only to run boring text boxes from now on? Hardly. There are still ways to tell our stories visually.

But the content must be absolutely clear. It must read cleanly and quickly. It must add value to the page on which it resides.

If our graphic doesn't meet all these criteria, we need to put it out of its misery. And *fast*.



This project featuring the Durham Bulls' ballpark required quite a bit of graphics reporting. When the deadline for the piece rolled around, the seats hadn't even been installed yet, nor had the outfield wall been completed. Yours truly interviewed the architects and the team owners and pored over mountains of blueprints and working drawings. Despite all the work I put into it, do you know what folks like the most about this piece? Yep: The little fellow at right. Go figure.



## Has your graphic artist taken a newswriting course lately?

It might be a good idea, y'know.

Sometimes it can be difficult for a reporter out in the field to be the eyes and ears for a graphic journalist. I've often found it helpful to go check out a crime or accident scene myself.

Here are some of the things I teach my graphics reporters...

- Learn how to take quotes, just like a reporter. Learn to get the name, correct spelling of name, title, address, phone number and the age of everyone you talk to, just like your usual reporters do.

- Don't be afraid to ask tough questions. Don't be afraid to be skeptical of any information that doesn't seem right. Don't be afraid to rephrase a question and ask it again.

- Don't be afraid to admit you're ignorant and ask your source to speak in simple terms. *Never be afraid of looking stupid.*

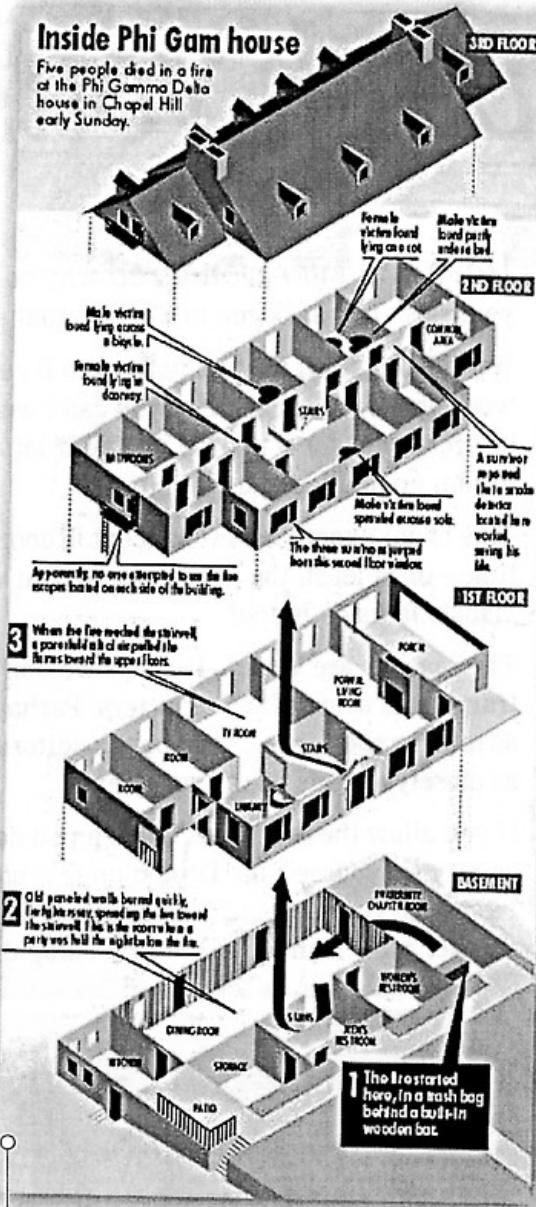
- Take a business card from everyone you meet. Give everyone you meet one of your cards.

- Borrow, photocopy, or copy by hand anything you think you might possibly need.

- Either bring along a good photog who will take the reference shots you need or take your own photos. If you don't know how, then learn. *This is important.*

- Pick up every book, brochure and file story you can find on your subject. Know them inside and out before you go to the scene or conduct any interviews.

- Keep all your notes. You'll need to provide your editors with enough info for them to use when checking behind your bad self.



When a fraternity house burned down the night before graduation in Chapel Hill, we had to use nearly every reporting technique we had ever learned to construct this diagram. Yours truly interviewed former frat brothers to construct a rough floorplan. The fire chief's press conference revealed where the victims were killed. The folks who escaped told our reporters from which windows they had jumped. The result was a huge 1A piece that told the story in a compelling way.

## ☞ Visual reporting

Okay, so you're a reporter. Don't think for a minute that life's gonna be easy.

You've still got to learn to report visually, as well as verbally.

What does that mean? It means paying attention to the spatial relationships between places and objects. Noticing which way's north. Looking for local landmarks while at the scene of a crime or an accident. Trying to get a source to draw you a floor plan.

Most reporters — and most editors — don't think about stuff like that. But that sort of data can be extremely valuable to a graphic artist.

Be observant. Make visual notes. Doodle. Whatever.

It may sound silly, but it'll pay off later. Trust me.

## ☞ How to write a good graphic

- Keep it short.

- Make it fun to read.

- Make sure the type is large enough to read easily.

- Make sure the text is helpful or interesting—make sure it has "meat."

- Make it absolutely, 100 percent accurate. *If it's not accurate, it's just a good lookin' piece of \$&\*!@!*

- Make sure it matches the info in the story. *This is a common mistake.*

# pitch your idea

## Prioritize

When I arrived at *The Des Moines Register* five years ago, our artists were doing way too many daily assignments, most of them running on black-and-white inside pages and in zoned editions where only a fraction of our readers were seeing them.

But our goal was to reposition the graphics department so that we'd play a bigger role in the newsroom and to maximize the impact we had on each day's product.

So we reprioritized our work. We cut back on the little locator maps.

CONTINUED ON PAGE 9

*Have you ever wondered why no one ever drops by your desk and asks you to work on that dream assignment?*

We did, too, until we finally figured it out: If you want to work on a cool assignment, you can't wait around your entire career for it to drop into your lap. You have to dream up an idea and pitch it!

This is not exactly a new concept. Reporters do it all the time—or at least, the good ones do. But why don't we visuals folks do it, too?

The reasons are varied. Perhaps we don't have as much training as some of the reporters. Perhaps we don't have as much experience. Perhaps the editors don't listen to us as closely as they do the reporters.

If you allow these reasons to keep you down, then you'll never pull yourself up. Dream up that cool assignment. Pitch it to your editor. If she shoots it down, then pitch another idea. Don't give up. Don't stop dreaming.

**This bad boy** remains the largest research project I've ever done. It cost at least 200 hours of my time, 13 rolls of film and three trips to the *USS North Carolina* museum in Wilmington, N.C.

The results weren't bad.

This piece demonstrates, in a powerful way, how graphics can go places where written prose cannot.

It also is an example of a project pitched by an artist.

I saw a story in the paper about the new paint job and realized it would make a great peg for a Memorial Day package, so I sketched something out, and the graphics editor took it to the editor. It was an ambitious pitch for an ambitious project, and our bosses loved it.

The lesson:  
*If ya wanna draw it, first ya gotta sell it.*

I teach my artists that in journalism, you don't have good luck. You make your luck good.

Want a big juicy project? An artist might have to go and scare one up herself. I tell the artist to look around. What kinds of things interest them? Chances are they'll interest someone else as well.

When artists pitch their ideas, I tell them to pitch a whole plan...

■ When would this big sucker run? Would it coincide with an event, or an anniversary, or some big news? (Many artists have no j-school training and aren't familiar with the concept of a peg.)

■ How much would it cost to do this big project? How many hours (or weeks, or days)? How many trips? How many rolls of film?

■ Is there a reporter willing to do a story to go with the package?

■ Would the paper benefit from doing, say, a special section in which to feature the idea?

The idea was to draw a centerpiece to kick off a series of weekly CD reviews by the *Register's* own music writer, Kyle Munson. Artist Scott Kaven zipped out some sketches — so many, in fact, that we decided to pitch the idea of turning Kyle's column into a weekly illustrated column. We called it "Stick It In Your Ear."



Scott and Kyle talked constantly to make sure each knew what the other was up to. Kyle intentionally wrote his stuff with an "edge." And, obviously, the art had a bit of a bite as well.

CONTINUED FROM PAGE 8

We gave up the routine text boxes to our copy desk, which preferred to do them anyway. And we slashed the time we spent on zoned editions.

We spent that time instead on business fronts. And sports fronts. And metro fronts. And on 1A.

Was it a painful process? You bet. The editors of those inside pages and our zoned editions were very disappointed that they received less attention. But the top brass was impressed with the centerpieces. And—more importantly—so were our readers.

As an editor, it's your job to help your graphics department prioritize their work differently in order to build bold, dynamic, clear graphics that will play on section fronts.

Quite frankly, some editors out there never really "get it." Yet this is what we've got to strive for. Get your boss to buy in, and the rest will begin to fall into place.

An amusing touch: Scott messed around with Kyle's mug from time to time. From left to right: The real Kyle, as Edgar Allan Poe, as a superhero, as one of the Ramones.



## Answers to your burning questions

**Q:** Why are artists so anal about getting assignments on time?

**A:** When I worked in Rock Hill, fifteen years ago, I was asked to work a ten-to-six shift. Yet, the city editor used to drop by on her way out the door at 5 p.m. each night and drop off two or three map requests. Maps take about 45 minutes to an hour each to draw. You do the math.

**Q:** Why does my artist need so much time to draw a simple map? Can't she just hit a button and – boom – a map comes out?

**A:** Yes, your artist *does* know how to use Mapquest. But it takes a while to redraw a map, put it into style, double-check the names of all the roads and to take it to the copy desk.

**Q:** Why do I need to put a headline and a source on every assignment?

**A:** Because every graphic needs to have a headline and a source line. If you're the one who compiled the info, then you should attribute the source.

**Q:** Why are artists so moody?

**A:** I've met some editors who are real bears. I don't believe artists are any more temperamental than editors.

CONTINUED ON PAGE 11

**Proactivity is important** to a thriving graphics department. A proactive department is one that's using its brain to cook up ideas and using its research and design muscles.

If you want your department to be on top of their game for breaking news and for those cool features assignments, enable them to be proactive. Get your routine assignments in on time so the artists aren't always playing catch-up. Make sure assignments are complete and the data is correct. Surprise everyone — including yourself — by saying "yes" to an artist every now and then.

**This look at Iowa history** was originally scheduled as a stand-alone one-shot doubletruck map, below. We invited our Newspapers in Education folks to get involved. They suggested we also produce a 12-page tab, right, which was distributed to participating schools the same day the doubletruck ran. We also produced a brief teachers' guide with sample questions and projects. The project sold the *Register* an additional 150,000 newspapers that day and won us a national *Clarion* award this summer.



Iowa Patchwork  
FACES AND PLACES OF IOWA

*Iowa Patchwork*

Iowa is a patchwork of people, places and things. People of note come from Iowa. Places of note are in Iowa.

Map of Iowa showing various locations and historical figures. The map includes labels such as Sioux City, Ames, Cedar Rapids, Waterloo, Dubuque, Fort Dodge, Iowa City, Johnston, La Crosse, Marion, Ottumwa, Perry, Sioux City, Urbandale, West Des Moines, and Yankton. It also shows the Missouri River, Mississippi River, and various state boundaries.

Some noteworthy events in Iowa history:

- 1846: First permanent settlement established at Burlington.
- 1851: First permanent settlement established at Davenport.
- 1854: First permanent settlement established at Cedar Rapids.
- 1858: First permanent settlement established at Iowa City.
- 1860: First permanent settlement established at Des Moines.
- 1862: First permanent settlement established at Cedar Rapids.
- 1863: First permanent settlement established at Davenport.
- 1865: First permanent settlement established at Iowa City.
- 1867: First permanent settlement established at Cedar Rapids.
- 1868: First permanent settlement established at Davenport.
- 1870: First permanent settlement established at Cedar Rapids.
- 1872: First permanent settlement established at Davenport.
- 1873: First permanent settlement established at Iowa City.
- 1875: First permanent settlement established at Cedar Rapids.
- 1877: First permanent settlement established at Davenport.
- 1879: First permanent settlement established at Cedar Rapids.
- 1881: First permanent settlement established at Davenport.
- 1883: First permanent settlement established at Cedar Rapids.
- 1885: First permanent settlement established at Davenport.
- 1887: First permanent settlement established at Cedar Rapids.
- 1889: First permanent settlement established at Davenport.
- 1891: First permanent settlement established at Cedar Rapids.
- 1893: First permanent settlement established at Davenport.
- 1895: First permanent settlement established at Cedar Rapids.
- 1897: First permanent settlement established at Davenport.
- 1899: First permanent settlement established at Cedar Rapids.
- 1901: First permanent settlement established at Davenport.
- 1903: First permanent settlement established at Cedar Rapids.
- 1905: First permanent settlement established at Davenport.
- 1907: First permanent settlement established at Cedar Rapids.
- 1909: First permanent settlement established at Davenport.
- 1911: First permanent settlement established at Cedar Rapids.
- 1913: First permanent settlement established at Davenport.
- 1915: First permanent settlement established at Cedar Rapids.
- 1917: First permanent settlement established at Davenport.
- 1919: First permanent settlement established at Cedar Rapids.
- 1921: First permanent settlement established at Davenport.
- 1923: First permanent settlement established at Cedar Rapids.
- 1925: First permanent settlement established at Davenport.
- 1927: First permanent settlement established at Cedar Rapids.
- 1929: First permanent settlement established at Davenport.
- 1931: First permanent settlement established at Cedar Rapids.
- 1933: First permanent settlement established at Davenport.
- 1935: First permanent settlement established at Cedar Rapids.
- 1937: First permanent settlement established at Davenport.
- 1939: First permanent settlement established at Cedar Rapids.
- 1941: First permanent settlement established at Davenport.
- 1943: First permanent settlement established at Cedar Rapids.
- 1945: First permanent settlement established at Davenport.
- 1947: First permanent settlement established at Cedar Rapids.
- 1949: First permanent settlement established at Davenport.
- 1951: First permanent settlement established at Cedar Rapids.
- 1953: First permanent settlement established at Davenport.
- 1955: First permanent settlement established at Cedar Rapids.
- 1957: First permanent settlement established at Davenport.
- 1959: First permanent settlement established at Cedar Rapids.
- 1961: First permanent settlement established at Davenport.
- 1963: First permanent settlement established at Cedar Rapids.
- 1965: First permanent settlement established at Davenport.
- 1967: First permanent settlement established at Cedar Rapids.
- 1969: First permanent settlement established at Davenport.
- 1971: First permanent settlement established at Cedar Rapids.
- 1973: First permanent settlement established at Davenport.
- 1975: First permanent settlement established at Cedar Rapids.
- 1977: First permanent settlement established at Davenport.
- 1979: First permanent settlement established at Cedar Rapids.
- 1981: First permanent settlement established at Davenport.
- 1983: First permanent settlement established at Cedar Rapids.
- 1985: First permanent settlement established at Davenport.
- 1987: First permanent settlement established at Cedar Rapids.
- 1989: First permanent settlement established at Davenport.
- 1991: First permanent settlement established at Cedar Rapids.
- 1993: First permanent settlement established at Davenport.
- 1995: First permanent settlement established at Cedar Rapids.
- 1997: First permanent settlement established at Davenport.
- 1999: First permanent settlement established at Cedar Rapids.
- 2001: First permanent settlement established at Davenport.
- 2003: First permanent settlement established at Cedar Rapids.

Here's how Grand View College student journalists Katie VanDalsem and Jeff Bash brought a strong local flavor to a story about students killed in a fire at Seton Hall College a couple of years ago:

**A big headline pulled everything together and set the stage for the rest of the page.**

**The story on the left told about student deaths at other colleges—that's the peg, or the reason we're telling you this story right now.**

**Reporters asked students what they'd do in case of fire. Their answers proved they weren't aware of fire safety.**

**The package included basic fire prevention and safety tips.**

**A second story focused on the local angle: fire safety issues in the Grand View dorms.**

**Gray space was broken up by quotes.**

**Every graphic needs a headline and some text to explain how it relates to the story.**

**Grand View's fire procedures went here.**

**Small photos gave examples of the types of data Jeff and Katie were including.**

**Diagrams of each dorm showed where the fire safety features were located on each floor.**

**Katie wrote and designed and Jeff drew the art. I was so impressed with their teamwork that I hired 'em both to work for me at the Register in 2000.**

JEFF BASH AND  
KATIE VANDALSEM  
/THE GRANDVIEW

CONTINUED FROM PAGE 10

**Q: Why can't artists spell or type?**

**A: That's another misconception. There are an awful lot of reporters who can't type or spell, either. I suspect we all owe our jobs to our friends on the copy desk.**

**Q: Why do designers all dress in black?**

**A: Why do editors make sweeping generalizations about visual folks? When I can get away with it, I dress in Hawaiian shirts.**

**Q: We need biz charts and locator maps. All our artist wants to do is draw dungeons and dragons and cartoons. Whassup with that?**

**A: There are different kinds of writers, right? Some are good at hard news and some are better at features. The same applies to artists: Some are illustrators, some are cartoonists, some are passive types... and some are detail-oriented, task-intensive, quick-thinking processors of information. Guess which kind you didn't hire?**

**Q: My nephew designs T-shirts for his youth group. Should he apply for the next opening in the graphics department?**

**A: My ten-year-old daughter writes post cards when we go on vacation. Should she apply to be your next state house reporter?**

12

## Reversed text

One way to suck in readers' eyeballs is to use reversed copy. However, this can be a dangerous ploy, especially on a color page.

Why?

Often, just the slightest amount of press problems will cause the inks to print "out of registration," which can make all the little reversed text unreadable.

**Hint No. 1:** Don't use this trick very often.

**Hint No. 2:** When you do, use Photoshop to reduce the black background to black only with no magenta, yellow or cyan ink. That way, you're reversing out of only one color and not four. That reduces your chance of foul-ups to 25 percent and your chance of misregistered color to zero percent.

# visual impact

Once content issues have been addressed, the visual journalist is looking to make visual impact on the page.

There are a number of ways she can accomplish this.

One way is to make the lead art quite large. Nothing catches the eye, really, like a good photo, played large. A good designer knows how to use a photo and then get the heck out of its way.

Another way of creating visual impact is the use of unusual shapes. A good designer can use an odd shape to move the reader's eye around the page almost as if there were little funnels on the paper.

I ask my artists to keep designers informed as to the size and shape of their work. I ask reporters to get their photo and graphics requests in as early as possible and to drop by the graphics department anytime to discuss possibilities.

Here's a good example of when 3-D graphics can show the reader what a photo cannot. The information came from state wildlife sources, the Audubon fish guide and a local bait and tackle shop. The main art was drawn by artist Scott Kaven using Lightwave, a 3-D program. The smaller fish down the side were painted in watercolor by Matt Chatterley. We started work on this fishing page in the spring of 2000, but by the time we finished it, we realized we had missed the start of fishing season. So we held it until April 2001.

## Remember 'He Hate Me'?

Register artist Jeff Bash thought our readers might be interested in the XFL (snicker) and sold the project to our sports editor. Jeff researched and wrote this piece himself, using mostly press releases, wire stories and information from the XFL Web site.

**Major impact was made by all the reversed text. Black is—or was—one of the primary colors of the XFL, so playing off the colors of the logo and the ball was a snap (please note the pun).**

**This large grid** (another pun) detailed the eight XFL teams, listed their Web pages and named three or four players from each: Folks who were either college or NFL stars or who had Iowa ties.

## Now that's impact

Our features editor suggested we do something for bug season and Register artist Katie VanDalsem responded in a big way.

**Katie found a high-resolution photo of a hornet and decided to use it large... very large. The color scheme played off the natural colors of the bugs.**

**She listed major summer insects, what attracts them, how to discourage them and how to kill them.**

**She also showed Web sites where readers can go for more information.**

**Katie put special emphasis on an Iowa pest: the carpenter ant.**

**A football fan's guide to the XFL**

The February expansion that normally follows the Super Bowl will be a little different this year. A new football league—the XFL—will kick off its inaugural season Saturday, Feb. 8, 2003, in Miami, Fla., by a coin toss between the WWA & NBC, will play a 10-game regular season, with a five-game post-season, plus a one-game championship. It's a rough, fast-paced football with a unique style of officials—but most closely scripted to the traditions of professional wrestling. The logos also take you far beyond the gridiron, having comeos on the locker room floor, and on the field and sitting on field interviews. Fans will be able to get in touch with the XFL office to go to a final date on fourth-and-inches, and he'll want to watch the XFL on television and stadium audiences, the longer says. From cheerleaders will get introduced. They'll offer their own commentary player interviews and what the league calls "spicy XFL stories." Here's a look at the new league and some of the differences between it and NFL rules.

—Jeff Bash

**The rules**

- Home team takes first kick-off.
- At kickoff, the XFL league official holds the ball in his hands. He does not blow the whistle, and the ball is not in a kick or pass play.
- Opposing players run up during the pre-kick-off. From the referee's signal, each team will get four down. If a team reaches the end zone, they score a touchdown.
- Off-side foul results in a free kick to the other team.
- 20-second play clock and 10-second half-time.
- Playoff games will be held every four weeks.
- Lots more talk about the kick-off and running vs. field position.

**The ball**

The XFL uses the old Manning-Schoen ball, except the league went with black and purple black and purple black, and purple black, white, and red colors. Antennae: 21 inches. Color: black with orange and silver stripes. Ball size: 10 inches. Price: Around \$10. Weight: 14.5 ounces. Made in China.

**THE GRID**

Here is a look at the eight teams that will participate in the inaugural season of the XFL:

Team	City	Stadium	Owner	Head Coach	Players to Watch	College	Last Year
Baltimore Gladiators	Baltimore, Md.	Landover, Md.	John Calipari	Mike Shula	QB Matt Schaub, TE John David Booty	USF	W
Chicago Enforcers	Chicago, Ill.	Milwaukee, Wisc.	Terry Bradshaw	Mike Martz	QB Steve McNair, RB Fred Taylor	Florida	W
City Liners	St. Louis, Mo.	Saint Louis, Mo.	Mike Martz	Ron Turner	RB Larry Johnson, QB Kurt Warner, WR Kevin Jones	Florida	W
Las Vegas Outlaws	Las Vegas, Nev.	Las Vegas, Nev.	Mike Martz	Mike Tice	QB Matt Schaub, TE John David Booty	USF	W
Los Angeles Kestrels	Los Angeles, Calif.	Los Angeles, Calif.	Mike Martz	Mike Tice	QB Matt Schaub, RB Marshall Faulk, WR Mike Anderson	USF	W
Memphis Warlords	Memphis, Tenn.	Midwest City, Okla.	Mike Martz	Mike Tice	QB Matt Schaub, RB Mike Anderson, WR Kevin Jones	USF	W
New Jersey Hitmen	Newark, N.J.	Newark, N.J.	Mike Martz	Mike Tice	QB Matt Schaub, RB Mike Anderson, WR Kevin Jones	USF	W
Orlando Rage	Orlando, Fla.	Orlando, Fla.	Mike Martz	Mike Tice	QB Matt Schaub, RB Mike Anderson, WR Kevin Jones	USF	W
St. Paul Ironheads	St. Paul, Minn.	St. Paul, Minn.	Mike Martz	Mike Tice	QB Matt Schaub, RB Mike Anderson, WR Kevin Jones	USF	W

**The big play**

If this is the first time you've ever seen a football play, don't worry. XFL rules could make the game return the most exciting part of the sport. These are some of the differences in the playing rules between the XFL and the NFL:

1. Kick-off must travel 10 yards in the XFL. There's a 25-yard line in the NFL. There's a 20-yard line in the XFL.
2. After 20 yards, the ball is live again. For example, if the ball is fumbled after a 10-yard run, it's live again at the 10-yard line.
3. The ball is live again after an incompletion if the ball is fumbled after a 10-yard run, it's live again at the 10-yard line.
4. All catches are allowed.
5. No punt protection rule.

**BUGS**

Keep pests from invading your home

INSECTS CAN BE A menace this time of year. Here's why they're invading your home now & how to stop them.

**CARPENTER ANTS**

• Carpenter ants are looking for moist wood to live in. • They can damage insulation and electrical wiring. • They can eat through wood, metal, plastic, fabrics, paper, wood products, and drywall. • They can damage plants, trees, shrubs, and lawns.

**WASPS/BEES**

• Wasps and bees are social insects. Most colonies have 300-500 individuals. Some can have over 10,000 individuals. • Wasps hunt living insects and eat dead insects. Bees eat pollen and nectar.

**CHEMICAL SOLUTION**

• Most insecticides work best when applied to the ground, under debris, and around the base of plants.

**NON-CHEMICAL SOLUTIONS**

• Pesticides would probably do more damage than good. Instead, try to remove excess food and water sources. • Where to spray: Spray outside the front door of your house. Don't spray near windows and doors. Spray near the base of the house, where carpenter ants are most active.

**SPIDERS**

• Spiders are beneficial because they eat other insects. • They eat many different types of insects, including those that damage your house and garden.

**MOSQUITOES**

• Mosquitoes like standing water. • To keep them out: Get rid of standing water. • Use a mosquito coil, citronella candles, or repellent.

**FLIES**

• House flies feed on garbage and dead animal tissue. • To keep them out: Get rid of trash, don't leave meat out, and clean up after pets.

**MOTH**

• Moths are attracted to bright lights. • To keep them out: Turn off lights when you're not in the room. • Use moth traps.

**WHAT THEY EAT**

• Carpenter ants eat wood, meat, and drywall. • Wasps eat living insects and meat.

**TO KEEP THEM OUT**

• Carpenter ants are attracted to moisture and warm temperatures. • To keep them out: Get rid of moisture and heat.

**NON-CHEMICAL**

• Avoid storing food in containers with holes in them. • Store food in sealed containers.

**CHEMICAL**

• Use a residual insecticide. • Use a granular insecticide.

**DANGER!**

• Carpenter ants are considered a pest because they damage homes.

**OTHER OPTIONS**

• Carpenter ants are attracted to moisture and warm temperatures. • To keep them out: Get rid of moisture and heat.

**LOG ON**

[www.apia.com](http://www.apia.com) [www.apia.org](http://www.apia.org) [www.apia.com](http://www.apia.com)

## Unusual shapes make unusual pages

In these thumbnails, we've reduced the page to its basic elements.

Look at how the shapes relate to each other. When the shapes are too similar, the reader's eye can easily pass over the entire page.

In order to snag those eyeballs, vary shapes and try to introduce some drama onto the page. The more unusual the shape, the more spectacular your results will be.

But notice that even the best examples are still quite basic.

### NOT GOOD

Headline goes here

### NOT GOOD

Headline goes here

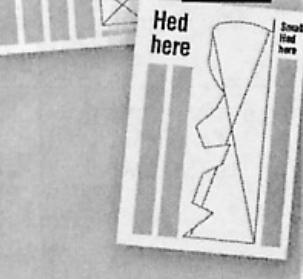
Headline goes here

### BETTER

Headline goes here

Smaller headline goes here

### GREAT!



14

# tag-teaming it

## Tag-teaming on a tight deadline

We at the *Register* often used teamwork to crank out full-page preseason sports previews on very short deadlines. Here's how we split up the work on one particular assignment:

**Text and stats**  
Sports reporter  
Randy Peterson

**Photograph**  
Courtesy Chicago  
Cubs via e-mail

**Photograph**  
Photo: Bill Neiburgall

**Calendar schedule**  
Graphics Editor  
Charles Apple

**Photoshop work**  
Graphics Editor  
Charles Apple

**By the numbers factoids**  
Graphic artist Jeff Bash

**Tickets and seating info**  
Graphic artist  
Matt Chatterley

**Starting lineup diagram**  
Graphic artist  
Mark Marturello

*Chances are that many graphic ideas in your paper come from reporters who, while researching their stories, come upon facts or numbers that they feel might make a decent graphic and they pass them along to the artists.*

So obviously, to some extent, your folks teaming up every day. That's good. It's time, however, to take it to the next level.

Often, the very best graphics are the results of enormous team efforts — that team including folks who aren't necessarily "graphic artists." I teach my artists to not

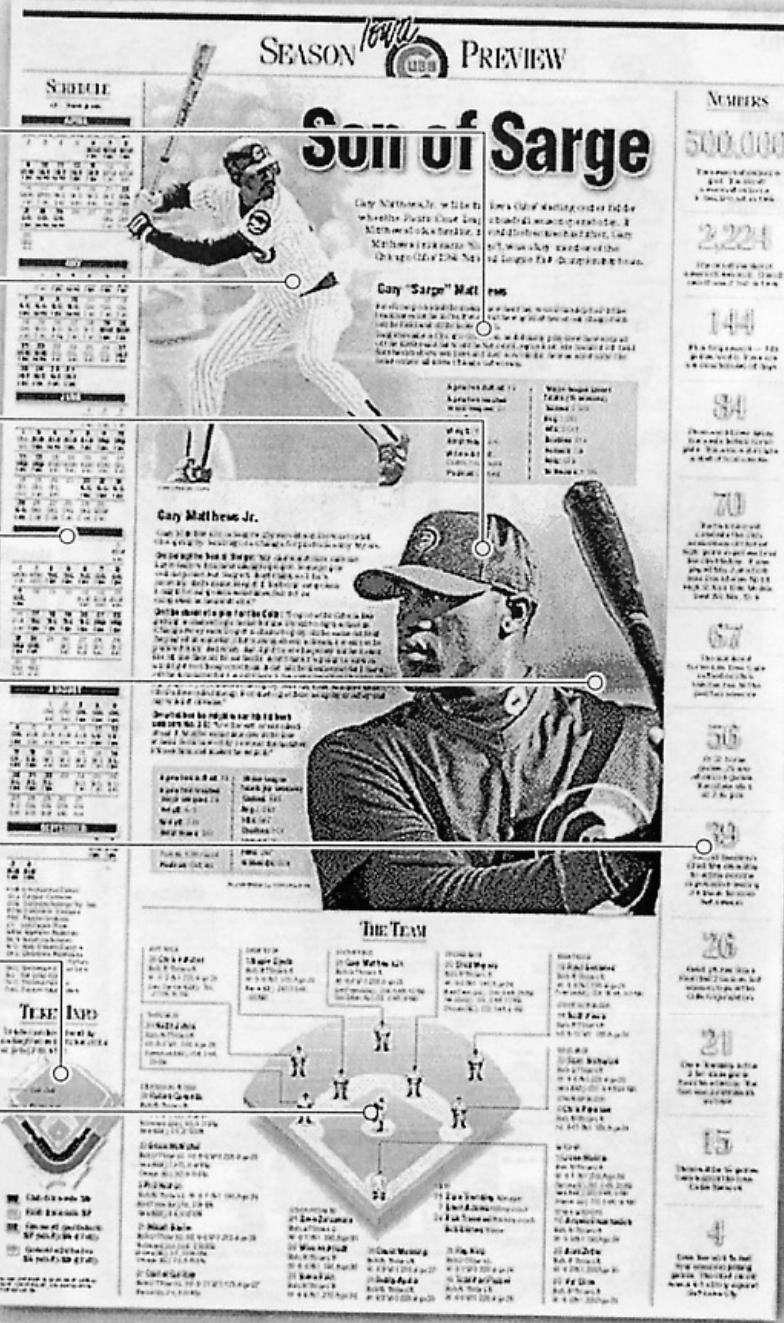
hesitate to ask others to join efforts on their assignments.

For example, say an artist is producing the main visual for a centerpiece.

Get a second artist to produce two other parts of the page. Recruit a reporter to help research and write copy for the project. Find a designer to work with the text and set up a rail of facts down the side.

*Boom! — right there, you've split up the work four ways, made life easier for everyone — and exercised some leadership skills.*

Graphics staffs at larger papers do this all the time. It can work at small papers, too.



## Team efforts make unmanagable projects managable...

This wrestling page commemorated 75 years of high school wrestling in Iowa. Pictured were former champions and notable Iowa wrestlers.

The text—including the timeline down the left side—was carefully researched by sports reporter Dan McCool.

The photos were pulled from the Register's enormous archives and then Photoshopped into a colorful montage by artist Mark Marturello.

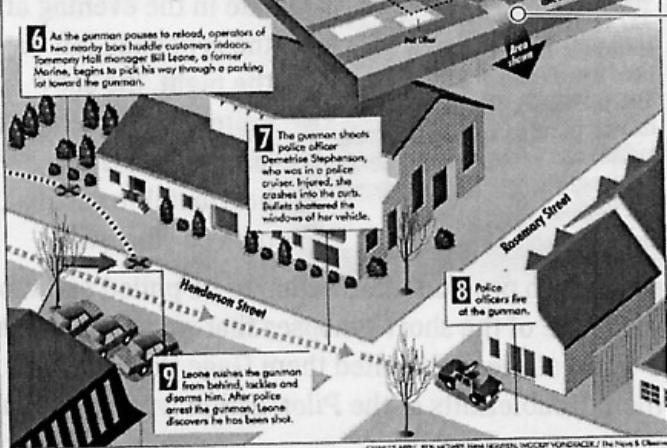
We started planning this piece a good month or so before it ran. The reporter and the artist had several conversations and checked each other's work constantly. They both did other work in the meantime, of course.

We sank a lot of time into this piece, but we felt, in the end, the effort was worth it.



### Afternoon of terror

A lone gunman, identified as Wendell Williamson, 26, walked up Henderson Street near downtown Chapel Hill Tuesday, shooting at passers-by and motorists. When the shooting ended, two lay dead and two more were injured. Here's what officials and witnesses say happened:



### ...and it's great for breaking news, too

Here's a piece from my graphic reporting days in Raleigh. We used a graphics team to cover this breaking news story.

I went out to the site, reported the story, drew a sketch that I faxed back to the department. Two other artists drew the map and the buildings while I returned to the office. Then, I wrote the final text in time for deadline.

### How not to run a team

■ **Don't bother** to start a project team early. Hey, if we were starting early, we could do the job ourselves and we wouldn't need a team, right?

■ **Make sure** all the ideas that come out of a team are your ideas, whether this means squashing input from others or downright stealing their ideas.

■ **Don't sketch out** your ideas so others can see where you're taking an idea. Keep it all to yourself.

■ **Make sure** you complain loudly about the decisions made in a team setting.

■ **If the team** realizes it needs input from folks not on the team, don't allow the team to add new members. Hey, the team roster was already set. What do they want you to do, let everyone join the team?

■ **Don't bother** to keep everyone informed as the game plan changes. Hey, keeping up with you is their problem, right?

■ **Don't give** anyone credit for work they do as a team.

■ **Tell the boss** what a bunch of morons he appointed to the team. Make sure he knows how you saved their collective asses with your savvy and your tact.

## Control your color palette

A colorful graphic can be very pretty. But it can be a distraction, as well.

Look carefully at the next bright, colorful graphic you see. Where does your eye go to first? Normally, it'll go to the brightest color in the graphic. That may be a big red bullet list on the side or to a bright blue ocean around the edges of the map or to some other portion of the piece.

But where we want the reader's eye to go to first is to the *information* in the graphic. That would be where that new building is to be constructed. Or to where they're annexing land into the city. Or to where the big 12-car pileup occurred.

The way to do this is to have your artists use what we call a "controlled"—basically, a "muted"—color palette in most of their work and use the brightest colors for only the *most important parts* of their diagram or map.

This is the visual equivalent of putting the lead of a story in the first paragraph.

Sounds elementary, right? So why, then, do we do it so rarely? Okay, point made. So here's what you do about it...

CONTINUED ON PAGE 17

# Three big time-savers for

## 1. 'GAGE BOXES'

### High water

Here's a look at where the water topped out in 1993 and 1997 in some Iowa cities along the Mississippi River:

	1993	1997
LANSING	18.2 feet	18.4 feet
MCGREGOR	22 feet	21.4 feet
DAVENPORT	22.63 feet	19.7 feet

### Mutual support

Financial tips for parents and kids:

**MODEL:** Parents need a solid "financial philosophy" that children can model.

**EVALUATION:** Look at and evaluate spending by defining "needs" and "wants."

**COMMUNICATION:** Parents and kids need to have frequent and intentional talks about money and spending. **SAVINGS:** Teach kids to save money for goals. **CHARITIES:** Introduce kids to donating money to charities.

### Electoral tally

**BUSH GAINS:** Although still lagging in most national public opinion polls, George W. Bush has gained some ground on Al Gore in projections of electoral votes, according to a survey completed Friday.

**GORE LEADS:** The present totals are 149 electoral votes for Gore, 127 for Bush. A week ago, Gore led 160 to 120. The winner will need a minimum of 270.

**THE CHANGES:** The new tally reflects gains by Bush in Colorado, Indiana and Tennessee, and Gore's increased strength in Pennsylvania and Virginia.

*Our copy desk handled many of our text and "breakout" boxes, freeing up our artists to work on actual graphic work.*

Our news editor at the time, Gage Church — he's now an A.M.E. — came up with a format that closely paralleled the style we were using in graphics. This meant that the copy desk could produce a text box that looked virtually identical to the work our artists did.

Over Gage's objections, we called this device a "Gage box." Note in these examples that the desk used the same headline and body copy fonts as did our artists.

Occasionally, a copy editor may have needed a graphic element for a Gage box and would ask an artist for a locator map. But the artist only built the map, which was quicker than building the entire map plus a text box.

Another reason our desk liked Gage boxes was that if a page changed configuration late in the evening after the artist had left for the night, the copy editor could change the size, switch from horizontal to vertical, trim or whatever.

We often asked our reporters to provide information to be pulled out into Gage boxes. We also made use of the short synopses that we found on the wires for national and world stories. We called them Gage Boxes at the Register and we call them DoubleEdits at the Pilot. Either way, you should make use of them.

# copy-desk produced visuals

## 2. SPORTS ICONS

The Des Moines Register sports copy desk made a fine art of the copy desk-produced infographic. They'd pull info out of a wire sidebar or from a media guide and package it using the same fonts

we used for graphics. When it was done well — and it usually was — you'd swear the graphic had been generated by a staff artist.

To help make this possible, we developed an extensive library of sports icons.

These sets take some work to compile and keep up to date. But they add a lot of energy to sports pages, so we considered them worth the time.

One tip: Don't use sports logos merely for decoration — use them with game previews or game results as a way of telling your reader, "Hey, I gotcher game story, right here!"

## 3. 'HALFMAPS'

Here's another little timesaver: We called them "half maps" because they were designed to run a half-column wide. Our copy desk would drop these puppies into a leg of copy and skew around them. For these to be truly helpful, they have to be already made up and in your editorial system, ready to be placed on the page.

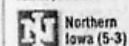
### At the break

A closer look at how the big four women's teams have fared so far this season:



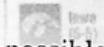
Drake (5-3)

WHAT'S RIGHT: Carla Bennett is strong inside, and Kristen Santa, Erin Richards and Stephanie Schmitz are excellent from the perimeter.



Northern Iowa (5-3)

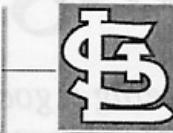
WHAT'S RIGHT: The Purple Knights are shooting fine and rebounding well. Guidance has been stellar as a resource.



Iowa State (5-3)

WHAT'S RIGHT: The Cyclones are shooting fine and rebounding well. Guidance has been stellar as a resource.

**Our artists put the logos in a square so that a) they'd all look similar, and b) it'd be easier for the desk to skew copy around them. Below is the set for the entire NCAA tournament field that we distributed via the Gannett News Service.**



This is the actual size of the logos in our sports icon library. Most of the time, we use them slightly smaller than this. Each file consists of color logo and black-and-white versions (not that you can tell here).

Please note that my alma mater, Winthrop University, made its third consecutive appearance in the NCAA Tourney. Goooo Eagles!



Register half map, actual size

11

CONTINUED FROM PAGE 16

First, you set up a small color guide. It doesn't have to be anything fancy — a page of easy-to-read notes will be fine. Set up what colors you'll use for tint boxes, for bar charts, for multi-part pie charts. Limit the colors to just a few, but make sure you have enough to get the job done — remember, some graphics may need more than one pie chart. When you're done, show the list to a couple of other visual folks to make sure you haven't left something out.

Then, print out a batch of 'em and pass 'em out to your artists and designers. That way, you'll all be using the same colors. And you'll have taken your first steps toward a style guide.

Another tip: Although we have a pretty good color palette, we allow artists to depart from it occasionally. For example, if the artist is building a bar chart as part of a 1A package, instead of using our usual deep blue, she may choose to take the lead photo into Photoshop, use the eyedropper tool to sample a color from the photo, and use that instead.

This sure helps a package hold together visually. Give it a shot in your shop and see what you think.

THE VIRGINIAN-PILOT

## Essential reference tools you should have in your newsroom

**■ Merriam Webster's Geographical Dictionary**, third edition (\$29.95, ISBN: 0-87779-546-0) Every now and then, someone asks to map something that simply can't be found. When that happens, this book can help.

**National Geographic  
Atlas of the World,  
seventh edition (\$125,  
ISBN: 0-7922-7528-4)**  
Simply the best world  
atlas ever published. The  
*Chicago Tribune* puts one  
of these on the desk of  
every artist. I can't  
recommend it highly  
enough.

**National Geographic Road Atlas** (\$10.95, or available at Target for \$4.49; ISBN 1-57262-413-2) One of the better street maps I've ever had the pleasure to work with. Better drawn and more accurate than Rand McNally.

**■ DeLorme Atlas & Gazetteer (\$16.95, available for most states)** An absolute must for those county-level assignments that don't show up on the national atlas but are too large for your local street maps.

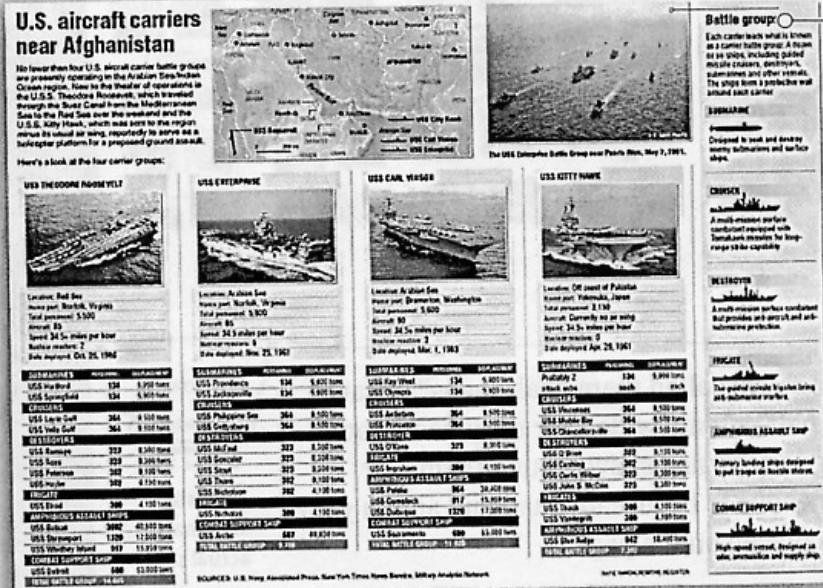
*Part of being a good visual journalist is learning how to be resourceful.*

Often, graphic journalists are called upon to pull a centerpiece or a graphic practically out of thin air. The best graphics folks almost make it look easy.

What's their secret? They know where to go for good information and visuals that they can use in their work. And they know how to find it *quickly*.

It's something that can't really be taught easily. We can show artists places to start and how to search, but either they've got that element of creative thinking or they don't.

Make it easy on your graphics folks. Surround them with top-notch reference material on subjects both local and global. Familiarize them on what's available... and what's not. Bookmark critical Web sites now so they won't be groping around on deadline.



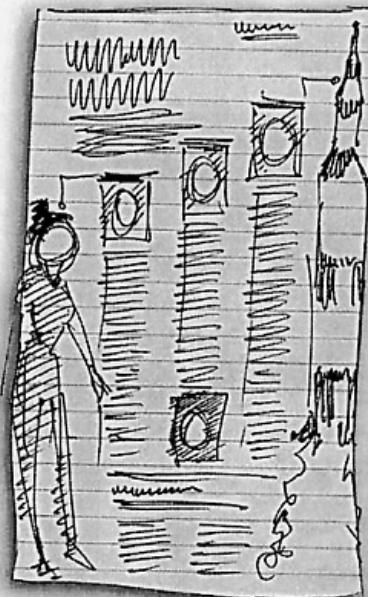
CONTINUED ON PAGE 19

## Working with nothing

When a *Star Trek* convention came to Des Moines a while back, our managing editor asked us to whip something up for our features section. "And have some fun with it," he said. But all we had was a photocopied press release and some very blurry publicity photos. Here's how we pulled it off:

**Aaron "Nog" Eisenberg** was difficult to track down. Finally, I stumbled over a nice article about him in *USA Today*. Ah, it was nice to work at a Gannett paper...

We visited Marina Sirtis' official Web site to find a much better mug shot. I happen to collect *Star Trek* action figures and I own this one of Sirtis. On a lark, we decided we'd use it as main art.



Once we had pulled all the elements together, I sketched out what I had in mind. Not only did this help me sell the idea to the editor, it also gave our photo department an idea of just the angle I needed for the photo of the action figure.



**How to speak Klingon**  
Hey, you can't go to a *Star Trek* convention without knowing the language, can you? Fear not, this should be enough to get you through the evening:  
**ENGLISH**  
**KLINGON**  
"What do you want?" (This is how Klingons say "Hello.")  
KOR-DEK oh-pooch-PA-a  
M-JAI L-a y-MEV  
Khop-LA  
TACH-kaH m-a-QHOM  
"We will meet you in the cocktail lounge."  
"No problem!"

Source: *The Klingon Dictionary* by Marc Okrand



I hit the NASA Web site's bio page for more information about astronaut Richard Gordon. Then we found this color shot of the Nov. 1969 launch of Apollo 12 on NASA's online photo archive.

## Iowa: The final frontier?

Two pretend astronauts and one real one will visit the Polk County convention complex Wednesday as part of a traveling *Star Trek* convention making its way across the Midwest. Here's what fans of the science-fiction franchise can expect to see:

**WHO IS SHE?**  
Played Dr. Leah Teller, the ship's counselor in *Star Trek: The Next Generation* from 1987 to 1994. She also appeared in 10 episodes of *Star Trek: Voyager*.

**CLIQUE TO FAME:**  
Sirtis' character joined the crew of the *Trek* revival series.

**INTERESTING STORY:**  
Sirtis will probably be the only *Star Trek* star to make it to the *Conventicon* without a costume. The media representative says the actress has "the most comfortable costume." We'll believe it when we see it.

**LITTLE-KNOWN FACT:**  
Sirtis' character was the first to be killed in the series.

**WHO IS HE?**  
Played Ensign Nog, the chief of security on *Star Trek: Deep Space Nine* from 1993 to 1999.

**CLIQUE TO FAME:**  
Eisenberg's character now from the *Enterprise* had made his way into the first member of the *Federation* to enter Starfleet.

**INTERESTING STORY:**  
It's informative to remember that Eisenberg is part because of his role in *Enterprise*. "I was born with one kidney and was a detective," he told USA Today earlier this year. "It's a very present fact."

**LITTLE-KNOWN FACT:**  
Eisenberg is bald. He has a few hairs here and there, but he's taking drugs to prevent them from growing back.

**WHEN TO SEE HER:**  
Sirtis' character will be at the *Conventicon* on Saturday, Oct. 18.

**Want to go?**  
When: Wednesday, 4-9 p.m.  
Where: Polk County Convention Complex  
Cost: \$10 tickets, children \$2 and under free with an adult number of adults.  
Events: Stage presentations, autograph sessions, a memorabilia display, moon, costume contests.  
Autographs: Will cost extra. Signed photo will be free.  
Contact: Barbara Perea, Entertainment of Des Moines, Kinn, (913) 441-0425  
CHARLES APPLE/AMERICAN PRESS

Since I'm a *Star Trek* fan, I wrote all the text with a bit of an attitude. For fun, I added some Klingon language phrases that readers could use at the convention — stuff like "We will meet you in the cocktail lounge" and "Where is the bathroom?"

CONTINUED FROM PAGE 18

■ **MacMillan Visual Dictionary** (\$24.95, ISBN 0-02-860810-6) Pictures of nearly everything you can think of, clearly labeled and drawn by top-notch artists. A must.

■ **Timeline books.** One small but good one is *Pocket Factfile of 20th Century Events* (ISBN 0-681-21997-1). A larger and more detailed one would be Dorling Kindersley's *Chronicle of America* (\$59.95, ISBN 0-7894-2091-0).

■ **Sports reference book** for diagramming those interesting but archaic sports. The one we use is *Sports: The Complete Visual Reference* (\$39.95, ISBN: 1-55209-540-1).

■ **National Audubon Society Field Guides.** Some of the best nature guides available. Not only are the factoids interesting, the photos are lush and clear. Available on all sorts of topics—we have the weather and fish books—they usually cost under \$20.

■ **USA Today Weather Book**, second edition (\$19.95, ISBN: 0-679-77665-6) Still the best weather book ever written. I've even seen *The New York Times* cite this book as a source.

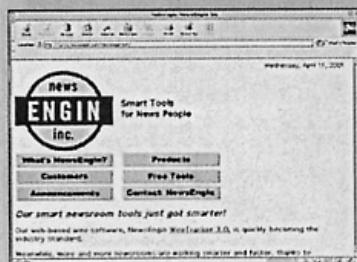
■ **AP Stylebook.** An absolute must for any serious journalist, including your artist.

■ **Dictionary.** Does your artist have a good one on his desk? Why not?

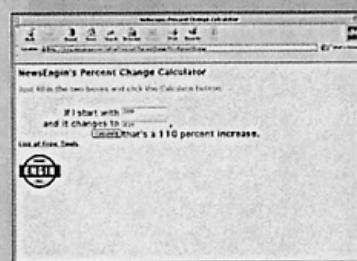
20

## NEWSENGIN'S FREE TOOLS

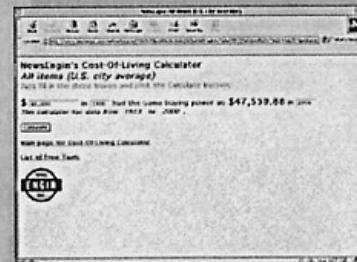
I use this one quite frequently:  
[www.newsengin.com](http://www.newsengin.com)



Among the "free tools" offered at NewsEngin is a percent change calculator. You key in the starting number and the new number and the Web site calculates the percent change. This can be extremely handy; percent change is a lot more tricky to calculate than you'd think.



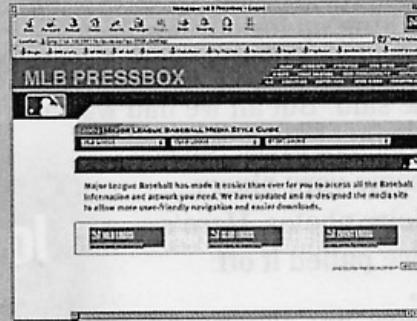
NewsEngin also adjusts numbers for inflation and can take into account regional rates as well as simply using the national numbers. Just plug in your numbers and run with the result.



### ASSIGNMENT EDITOR

A pay site, but the free section includes one of the more comprehensive link directories out there. You'll find links to media sites, official source sites and lots of others.

[www.assignmenteditor.com](http://www.assignmenteditor.com)



### MLB PRESSBOX

You'll have to sign up, but this site is worth it. Each year, logos for various Major League teams, World Series, the All-Star Game and preseasn events are available in EPS format.

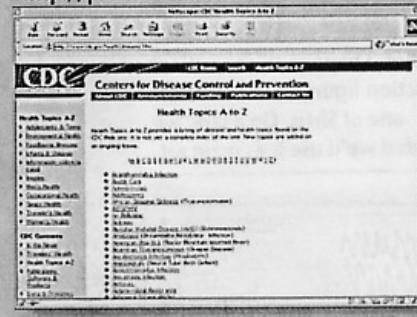
<http://pressbox.mlb.com>



### ONLINE MEASURE CONVERTER

Real-time conversion machine does the math while you type. Very handy and accurate — as far as we can tell — with very few pop-up ads... which can be a problem with free sites:

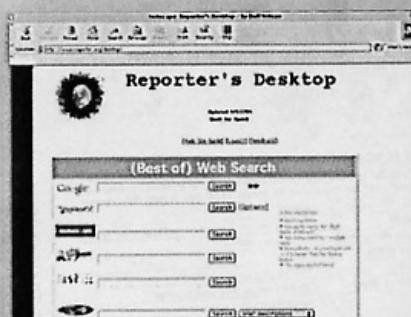
[www.onlineconversion.com](http://www.onlineconversion.com)



### CENTERS FOR DISEASE CONTROL

We used this site a while back when we were compiling information on a deadly adenovirus that swept through a local children's home and again during the anthrax scare:

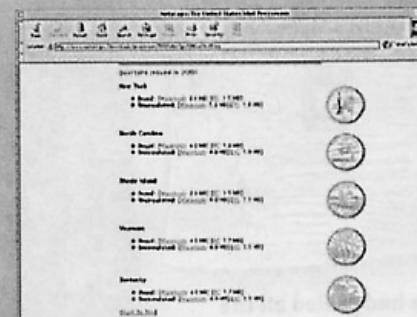
[www.cdc.gov](http://www.cdc.gov)



### THE REPORTER'S DESKTOP

Helpful tools, links, windows to search engines... a great place to use as a home page if you're always short of time:

[www.reporter.org/desktop](http://www.reporter.org/desktop)

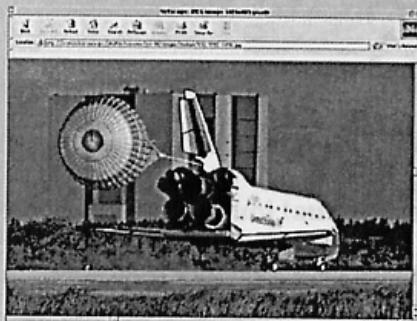


### THE U.S. MINT

Go here and click on "Image Library" to find high-resolution photos of U.S. coins, including the new quarters:

[www.usmint.gov/pressroom](http://www.usmint.gov/pressroom)

# should bookmark



## NASA PHOTO ARCHIVE

Thousands of shots of the shuttle, the space station, NASA installations and employees... all free to use with a NASA photo credit. Also available are archive shots of Apollo missions:

<http://spaceflight.nasa.gov/gallery/images/shuttle/index.html>



## INTERNET WEATHER INFORMATION NETWORK

Most of the National Weather Service's major nontropical severe weather links can be accessed from here:

<http://iwin.nws.noaa.gov/iwin/graphicsversion/rbigmain.html>



## MAPQUEST

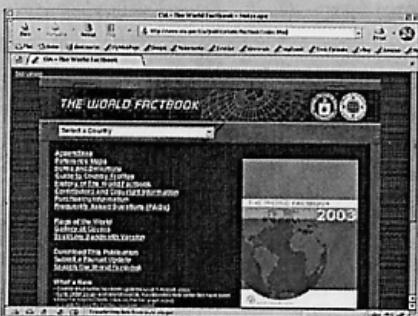
Can locate nearly any street address. Some of the actual roads aren't that accurate but, used with good reference material, this can be a lifesaver for your map drawin' artists. Also includes nice aerial photos of many areas:

<http://mapquest.com/>



## STORM PREDICTION CENTER

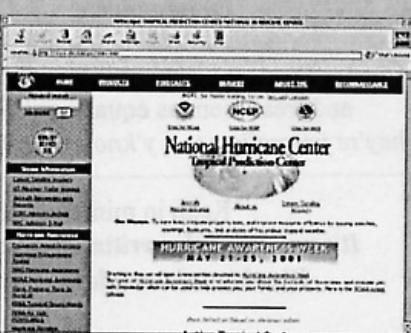
This site shows you where storm reports are being filed and allows you to see the raw data as they are entered into the national database:  
[www.spc.noaa.gov/climo/reports/today.html](http://www.spc.noaa.gov/climo/reports/today.html)



## CIA WORLD FACTBOOK

Up-to-date dope on virtually any country or conflict. Good for quick factoids as well. Lots of U.S. government issue reference maps—which means you can use them for free:

[www.cia.gov/cia/publications/factbook/index.html](http://www.cia.gov/cia/publications/factbook/index.html)



## NATIONAL HURRICANE CENTER

The best place to go for the latest hurricane information. Warnings, maps, predictions, probabilities, forecasts... it's all here. When a storm threatens a big town, this site can slow to a crawl, though:  
[www.nhc.noaa.gov](http://www.nhc.noaa.gov)

## OTHER COOL SITES

### JOURNALIST'S TOOLBOX

From the fine folks at the American Press Institute, a treasure chest of tips, articles, resources and links that will make you look like a freakin' genius. Bookmark this one and use it often:

[www.journaliststoolbox.com](http://www.journaliststoolbox.com)

### MEDIA NEWS

Keep up with the latest industry news and gossip:

[www.poynter.org/romenesko](http://www.poynter.org/romenesko)

### THE NEWSEUM

Check out today's front pages from around the nation. Also includes quite a few international pages, too:

[www.newseum.org/todaysfrontpages](http://www.newseum.org/todaysfrontpages)

### NEWS PAGE DESIGNER.COM

Check out what the best graphic journalists around the nation are up to. Updated constantly:  
[www.newspagedesigner.com](http://www.newspagedesigner.com)

### GOOGLE

Still the best search engine around. Hardly an hour goes by when I don't throw something to google:  
[www.google.com](http://www.google.com)

### OPEN SECRETS

All you could ever want to know about political fund raising:

[www.opensecrets.org/home/index.htm](http://www.opensecrets.org/home/index.htm)

### MILITARY AIRCRAFT

Info and photos of major military equipment, including tanks, bombs and planes:

[www.fas.org](http://www.fas.org)

### SATELLITE PHOTOS

Latest cool satellite photos of hurricanes, volcanoes and other cool stuff. Add 'em to your graphics and credit the NOAA:  
[http://www.osei.noaa.gov/](http://www.osei.noaa.gov)

### STREAMFLOW DATA

Data on water levels of many rivers and streams—ideal for flood coverage:  
<http://water.usgs.gov/dwc>

22

### The Big Secret

Okay, listen up: Here's where I'm gonna tell you The Big Secret...

There are two types of graphics folks in the news business: A) Those who sit there, take what's assigned to them and maybe even do pretty well with their work, and B) those who go out and *make graphics happen*.

In your role as a metro editor or the editor of a small paper, you should aim for empowering that *second type* of graphics person.

Artists see the big projects in my slide shows and come back to their papers wanting to put together projects of their own. I tell 'em to think of one and pitch it. If they get shot down, then I tell 'em to think of something *else* and pitch *that*.

Want breaking news graphics? I tell artists to take off the damn headphones and pay attention to what's going on in your newsroom — to be prepared to grab a sketch pad and dash out when that apartment fire strikes or when that plane goes down.

The word is:

**PROACTIVE**

It's the difference between a graphic *artist* and a graphic *journalist*.

Don't just sit there and wait for news to happen. Meet it head-on. That's the only way to kick its ass.

End of sermon.

# merging words and visuals

How "word people" and "visual people" can find common ground:

### Tips for word journalists

The graphics department is *not* a McDonald's. Don't feel entitled to get everything you ask for.

Always let the visual person read your story or series—even if you're still working on it.

Invite visual folks to be a part of your project or meeting.

Allow and encourage visual folks a chance to stretch out and be creative. They're your teammates. *Empower them.*

It can take a long time to build a good visual. Make sure you give them that time.

Take a visual person to lunch.

Understand that they're not word people and they're not as good with words as you are. But that doesn't mean they're not smart.

Communicate.

Respect visual people and treat them as equals. They're journalists too, y'know.

Keep in mind:  
*It's not about the writing.  
It's about the reader.*

### Tips for visual journalists

Give word folks *what they need*—not necessarily what they *ask for*. Sometimes you have to help them see the difference.

Always read the story or series—even if it's still a work in progress.

Insist that you be a part of every project and meeting.

Be proactive: Pitch your own projects. But also take part in other folks' projects. They're your teammates. *Support them.*

Plan for emergencies. Find shortcuts. Do all the things you can in advance so you can free up time on deadline for last-minute stuff.

Make an effort to hang with word people.

For cryin' out loud,  
*use your damn  
spellchecker.*

Communicate.

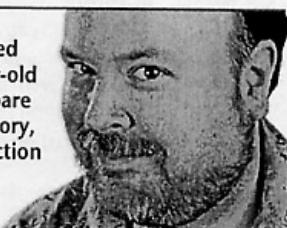
Respect word people—they know what they're doing—but insist they treat you as equals. You're a journalist too, y'know.

Keep in mind:  
*It's not about the graphic.  
It's about the reader.*

**Charles Apple** has been graphics director of *The Virginian-Pilot* for precisely 15 days. Previously, he was graphics editor of *The Des Moines Register* and an artist for the *Chicago Tribune*, *The (Raleigh, N.C.) News & Observer* and for small papers in Rock Hill, S.C., and Athens, Ga.

He's won numerous awards from the Society of News Design for graphics and graphics reporting, including a gold award in 1997.

Apple, 41, is married and has an 10-year-old daughter. In his spare time, he reads history, collects *Star Trek* action figures and writes about himself in the third person.



Contact him via e-mail at: [charles.apple@pilotonline.com](mailto:charles.apple@pilotonline.com) or at: [chuckapple@earthlink.net](mailto:chuckapple@earthlink.net)