Profile 1
John Grimwade
(Condé Nast Traveler magazine)

The Infographics Gentleman

John Grimwade is graphics director of Condé Nast Traveler magazine (based in New York) and has his own information graphics business (www.johngrimwade.com). He has produced infographics for more than 30 major magazines and several books. Before moving to the United States, he worked for 14 years in newspapers in London (including six years as head of graphics at The Times). He co-hosts the annual Malofiej “Show Don’t Tell” infographics workshop in Pamplona, Spain, and teaches information graphics at the School of Visual Arts in Manhattan.

The first time I crossed paths with John Grimwade’s work was when I was about to finish my B.A. in Journalism, in the summer of 1997. I had been offered an internship in the information graphics desk of La Voz de Galicia, the biggest regional newspaper in northwestern Spain. As my knowledge of the discipline was minimal, Manuela Mariño and Xoan González (father of Xaquín G.V. [González Veira], who you will meet in Profile 3), who led the department at the time, recommended that I take a look at some Malofiej publications. Malofiej is the International

Infographics Summit, organized every year by the Spanish chapter of the Society for News Design. The event includes the most important competition in this field, which receives submissions from newspapers and magazines from all over the world. The winners are showcased in a series of large-format books.

While browsing several of these books, one graphic caught my eye. It was titled “The Transatlantic Superhighway,” and it explained the busy flow of flights over the Northern Atlantic (Figure 10.1). I was enthralled by its elegance and deceptive simplicity. My colleagues told me that the piece—which had won a Silver Medal at Malofiej—had been designed by a certain British maestro named John Grimwade. “Along with Nigel Holmes, Grimwade is the best in this business,” they added with a tone of reverence.

Years later, John and I became friends. He is a true gentleman, one of those professionals who are always willing to help rookies (as I was when I met him) with inexhaustible patience. He has also been a constant source of inspiration for me and for many others in this industry. In the current era of big data, complex programming, and information overload, his visual style—stripped down, precise, and graceful—is a reminder that good design is not about mastering technology, but about facilitating clear communication and the understanding of relevant issues.

Q Is it true that the way you produce graphics has not changed much in the 40 years that you have worked as an information graphics designer?

John Grimwade It is. I started doing information graphics many years before computers entered newsrooms. When they did, many colleagues said it was a huge change, but not for me. Maybe our methods of work have shifted a bit but the core principles are exactly the same.

Q What are those core principles?

JG Our main goal should be to tell a story clearly by achieving order and having some sort of narrative through each graphic. Any project should start by analyzing what your story is about and then finding the best way to tell it by splitting it up into easily digestible chunks, without losing depth.

When I design a graphic, I try to establish a hierarchy, too. In the planning stage, one of the first things I do is to identify the main components of the story and define how they are going to be sequenced on the page or on screen.
Figure 10.1 “The Transatlantic Superhighway.” Condé Nast Traveler, 1996, by John Grimwade, who explains the graphics: “This is an explanation of the system that controls flights over the Northern Atlantic. A reporter had a map of air traffic control [see Figure 10.2], but it was difficult to read. I wanted to understand the system more thoroughly, so I made contact with the head of Oceanic Control in Gander, Newfoundland. Amazingly, there were no visualizations available of the system as a dimensional diagram. So I thought, why not make one? Rough versions went back and forth until we were both happy with the graphic.”
EVERY DAY, ABOUT 900 AIRCRAFT FLY THE TRANSATLANTIC SUPERHIGHWAY ENTERING THE SYSTEM ON TRACK V. THIS FLIGHT IS APPROACHING FROM DIFFERENT DIRECTIONS INTO POSITION FOR THE NEWFOUNDLAND, ORGANIZE AIRCRAFT CONTROLLERS AT GANDER, PREFERRED ROUTES, OCEANIC.

Some flight levels are reserved for aircraft flying in the direction opposite the peak flow. Aircraft crossing the main traffic flow (for example, Madrid to Los Angeles) are routed above or below the track system.

The Concorde flies between 50,000 and 60,000 feet, far above the main traffic flow. As a result of passenger demand, time zone differences, and airport noise restrictions, North Atlantic air traffic has two peak flows: eastbound, leaving North America in the evening, and westbound, leaving Europe in the morning. Every 12 hours a new track system is prepared, to allow as many aircraft as possible to follow the most economical flight paths. Because of changing weather conditions, the track positions are rarely identical.

Aircraft in oceanic airspace are out of radar contact for about four hours. Position reports are made by radio at every 10 degrees of longitude, and the information is used to update displays at the oceanic control centers.

Profile 1 • the infographics gentleman

That sounds like Journalism 101 to me. When you write a story, the best thing to start with is a structure for your writing.

JG That’s because it is! The only difference between a traditional journalist and us is the language. Journalists use words; we use pictures, charts, graphs, maps, diagrams, and illustrations.

I think one of the reasons why some people of my generation were very successful is because we were designers, but we got embedded in journalistic environments. We worked with reporters and editors. That taught us that we should strive for clarity because we are an interface between a chaotic world of information and the user who wants to understand something. If we can’t bring users clarity, I think we have kind of failed, actually.

When I see a graphic I am interested in, I try to read it critically, and one question I ask over and over again is “What’s the point? What’s the story?” That’s what you have to do when you work on a project. It’s not enough to do good research.
and then present your information to your readers. You have to edit that information. We, infographics designers, must work as reporters but, above all, as editors.

Q Is that why you have expressed reservations about the emerging field of data visualization? Many infographics designers in newspapers and magazines seem to be embracing it with enthusiasm, but you have said that sometimes it feels that visualization designers seem to just throw data at their users, without worrying about presenting coherent stories.

JG Embracing a new technique or a new technology is great. Data visualization can be really powerful and useful. I can see a lot of potential in it. Nonetheless, I also feel that many visualization designers try to transform the user into an editor. They create these amazing interactive tools with tons of bubbles, lines, bars, filters, and scrubber bars, and expect readers to figure the story out by themselves, and draw conclusions from the data. That’s not an approach to information graphics I like. Not all readers are data analysts!
Maybe I am old-school, but I don’t believe I am alone in that concern. Think of Hans Rosling2 and the way he interacts with his wonderful bubble visualizations. He doesn’t just show stuff; he explains the main points, focusing the reader’s attention on the most interesting parts of the information. After that, if readers want to navigate deeper into other possible stories, they can do it. But first, they are exposed to a traditional, linear narrative that lays out the basic facts.

Q Is it possible to find a synthesis between what information graphics designers have been doing for the past 30 or 40 years and what data visualizers are trying to achieve nowadays?

JG I am convinced that we will see that in the future. The New York Times3 is exploring that path at this point. For instance, in many of their interactive graphics, they present complex sets of data, and they let you go really deep into the figures and their connections. But beforehand, they give you some context, some pointers as to what you can do with those data. If you don’t do this, if you don’t include this layer of information, which the designers call the “annotation layer,” you will end up with a visualization that may look really beautiful and intricate, but that will leave readers wondering, “What has this thing really told me? What is this useful for?”

It’s like a visualization I saw the other day that plotted the flow of taxis in New York City, as well as their positions at every time of the day and night. It looked really cool but, after a minute, I asked myself: What is this about? What am I supposed to see here? Is it really that surprising that the flow of taxis is really heavy between La Guardia and JFK, or that there are fewer taxis during the night than during the day? That’s not a very revealing insight, is it?

Or take some gorgeous recent maps that show people tweeting all over Europe in the languages of the countries they live in. All right, that’s really interesting [said tongue-in-cheek]: The Germans are tweeting in German! The map certainly looks beautiful with all those little color dots shining here and there, but it’s not that enlightening. It doesn’t convey much, and that’s a problem. You need to orient readers into the story before they can navigate your graphics on their own.

Q Let’s talk a bit about your own design process. How do you get started?

JG When we do a story for Condé Nast Traveler magazine, I try to be involved in it as early as possible. Sometimes it happens that reporters don’t realize they

2 See Profile 8: Hans Rosling.
3 See Profile 3: Steve Duenes and Xaquín G.V.
will need infographics in their pieces until they get back from trips, so I prefer to meet with them before they depart. It helps me get a clear idea of what shape the story is going to take, of its focus, and it helps reporters understand how the copy and the visual elements on the pages are going to complement each other.

I bring paper and pencils to those meetings. While we talk, I keep scribbling. I do very rough sketches and take notes about the key elements. It’s in these meetings when I decide what we need to show with the graphic so its content doesn’t overlap too much with what the copy will tell or the photographs will show.

Q It seems that you put a lot of work in the planning stage of your projects, judging by the detailed sketches and roughs you produce. (See Figure 10.3 and Figure 10.5.)

JG They are part of my thinking process. After the preliminary meetings are over, I go to my studio and work out the structure of the graphic in a rough form. I find that in pencil I can just do a rough version, arrange the elements as I wish, and throw away whatever I feel is not related to the points I want to get across. There’s virtually nothing invested in those sketches.

If you try to do something like that in a computer, you will somehow feel committed to your first ideas. Sketching out using design software requires a lot of effort. Later, when you go over your plans with editors, everything may need to change for some reason, maybe because the focus of the story has switched. If you are enamored with your own computer graphics, those that took so much time to develop, you may feel resistant to change them down the road.

In other words: at first, don’t just draw a box in Adobe Illustrator and start working inside it. That’s a very bad way to start: You make a lot of art decisions and then trap yourself into them. I constantly see graphics that have been done like that. A big image or illustration was put in the middle first and then the designer tried to make all the other elements in the composition work around it, instead of coming up with a solid structure that would help tell the story you need to tell. This doesn’t happen when you work with pen and paper before you proceed to the artwork phase.

I try to encourage my students at the School of Visual Arts to draw as many sketches as possible, due to this attachment factor that everybody experiences every now and then. Sometimes they feel intimidated by hand drawing, but I tell them that they don’t need to be Leonardo da Vinci. What they need to come up with is not art; they don’t need to worry about aesthetics at this point, but about the structure. In many cases, just a bunch of very simple, rough, and badly drawn sketches made with cheap pencils or crayons will suffice to help you understand
More than just a gateway to a great city, Grand Central Terminal has been reborn as a destination in its own right, replete with upscale shopping, restaurants, and, soon, even a green market. Don’t let the commuter crush deter you: Begin your tour at the entrance on 42nd Street at Park Avenue, checking your train time on the 13-foot-tall, gilt-edged clock beneath Coutan’s sculpture group Transportation. Proceed down the entrance ramp, whose tilt is designed to propel you, heart pounding, to the Main Waiting Room, temporarily home to vendors of every stripe but soon to host functions and public exhibitions. Directly ahead, over a short bridge with freshly quarried balustrades, lies the terminal’s pièce de résistance, the Main Concourse—dubbed “the best big room in America” by the architectural press, its ceiling, at 122 feet, higher than the nave of Notre-Dame Cathedral in Paris. At the center of the concourse sits the information booth with its four-sided brass clock, kept perpetually in sync with the atomic clock at the U.S. Naval Observatory in Washington, D.C. Overhead is the Sky Ceiling, whose autumn-night constellations were originally painted backward and never corrected. Daylight brightens the concourse from four-story windows at either end. Concealed between the windows’ inner and outer panes is a series of skywalks, or glass-floored corridors, designed to access a skyscraper that was never built; tours sponsored by the Grand Central Partnership permit access (212-818-1777). Head for the Lower Concourse via the newly excavated Oyster Bar ramps, open for the first time since 1927 and illuminated by five gold-and-nickel-plated chandeliers, with 144 lightbulbs each (an identical set graces the terminal’s north balcony). Pause here for a new view of the Sky Ceiling through the concourse’s massive piers. At the base of the ramps, the vaulted tile ceiling allows you to face the wall in any corner and whisper to someone standing in the opposite corner. Reward your exertions at the Oyster Bar restaurant, whose classic oyster stews and pan roasts are themselves deserving of landmark status—or at one of some 20 new restaurants on the Lower Concourse. Return to the Main Concourse level via the West Staircase.

Figure 10.4 “Grand Central Terminal,” 1998. Condé Nast Traveler, by John Grimwade. “This infographic is part of a feature that reported the completion of the Grand Central Terminal restoration. At the time, I was walking through the building every day on my way to work, so the reference was right in front of me. I used the simple approach of taking a cross-section and manually projecting it backward. John Tomanio, who worked with me at Condé Nast Traveler, solved my problems in getting the ceiling exactly right. He photographed it looking straight up, and then projected the image onto the inside of a cylinder using a 3-D program.”
Figure 10.5 Sketches for the “Grand Central Terminal” infographic.
how to organize a story, how to create a good sequence of steps, and a good hierarchy in your layout.

Q Speaking of students, you are well known for your openness to give advice to beginners and help them develop their own styles. What would you recommend to someone who is planning to pursue a career in information graphics and visualization? What should that person study?

JG That’s very difficult question. I guess the challenge is that you are asking me to think backward. I learned to design infographics by working in a newsroom. Decades ago, I landed in a news publication and learned the craft on the job.

I would say, however, that the first skill you need to master is to look at graphics with a critical eye. Read newspapers, magazines, and textbooks; visit websites that showcase infographics and visualizations; and analyze if they help you understand important matters. If they don’t, they are not good. The next thing would be to reflect on the changes that would make those presentations tell clearer messages. And, if you have the time, you can maybe even make those changes.

You also have to ponder if you have the passion to enter this field. Infographics is not the easiest task. It might look like it is but it sure as hell isn’t. You need years of self-teaching and trial-and-error to master the techniques and tools. If you don’t feel the drive to be absolutely meticulous about research and coming to grips with the story, you just can’t produce a good information graphic. If you think you are going to skim across the top and treat it like some kind of art job, it’s very unlikely that you are going to be much of a success. I don’t know how to find or fuel that kind of passion, though.

Figure 10.6 One of the discarded illustrations made for the “Seven Ages of the 747” project.
Q I would say this passion you talk about reminds me of the passion good educators nourish. It’s the need to be curious, to learn, and to tell others about what you have learned. Journalists feel that kind of passion as well.

JG It’s really a journalistic passion, yes. In fact, some of the best people I have worked with used to be traditional journalists until they realized the power of visual storytelling. When you think about it, infographics and visualization are really amazing tools for telling stories when used correctly, aren’t they?
The Five Ages of the 747

Since it began flying passengers in 1970, the Boeing 747 has stayed on top of its game.

Figure 10.8 “Five Ages of the 747.” Condé Nast Traveler, 2011, by John Grimwade. “Projects often take big shifts along the way. I was originally thinking of a fly-past of 747s to show the history, but every angle we tried did not clearly show the key features of the new 747 aircraft that had been announced. The new model is much longer than the previous ones, and it has dramatically upswept wings. So I moved to a more conventional plan-like display.”

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by adopting new technologies. The latest is the most radical step in its decades-long evolution.

**CLean Power**
Jet engine design used to be all about brute power—fuel consumption and emissions were lesser priorities. The goal now is to reduce the size and reduce exhaust gas. The 747-8’s General Electric engines achieve both.

**Hushing it Up at the Airport**
Scallop-edged: It has a 30 percent quieter on takeoff than its forerunner, the 747-400.

**The Story Behind the Bulge**
When the 747 was conceived, the cockpit was put above the main deck because it was believed that the airplane would end its days carrying only cargo, while passengers flew in supersonic jets. The cargo would be loaded through a door in the nose. Supersonic flight proved unviable, and the 747’s hump was able to stretch into a top deck.

**Giants Compared**
The new 747 is 12 feet longer than the A380.
Then we see who did GDP of the country? Grimwade: “This is an covering the Olympics games. We’re all used to conventional medals winner. The U.S. and Japan are way down the list.”

Figure 10.9 “Medal Exchange.” Condé Nast Portfolio, 2008, by John Grimwade: “This is an interesting approach to covering the Olympics in a business magazine just before the Beijing games. We’re all used to the conventional medals table, but what happens if the Athens medals total is divided by the GDP of the country? Then we see who did the most with the least resources. Ethiopia is the winner. The U.S. and Japan are way down the list.”
Do wealthier countries take home more Olympic medals? Conventional wisdom suggests that they would. It’s no secret that having the financial resources to invest in human potential leads to success: The U.S. is the richest country in the world and has won more Olympic medals than any other nation. But if you introduce some elementary math and divide a country’s medals tally by its gross domestic product, the numbers rearrange themselves dramatically. Ethiopia’s track-and-field victories lift the poverty-stricken state to the top of the pile, while economic powerhouses like Japan, France, and the U.S. finish near the bottom. Here’s a look at our surprising results, based on medal counts from the 2004 Summer Games in Athens and G.D.P. data from the same year.

**Demystifier**

**Medal Exchange**

Sure, the world’s economic powerhouses dominate the Olympics. Or do they?

by Jessica Liebman

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Memorial Park
Likely to leave tower footprints uncovered.

West Street
In new tunnel.

Pedestrian concourse
Underground link between World Financial Center and Transit Center.

Street grid restored
Greenwich Street probable, others possible.

Transit Center
Could be above and below ground.

Buildings
Sites and sizes are the subject of considerable debate.

Rebuilding Ground Zero
The six preliminary plans submitted in July share six common elements, illustrated above. The final design will likely include them, along with a cultural venue.

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The Manhattan Project

All eyes are trained, these days, on New York’s downtown—and there’s no better time to be there. From TriBeCa to Battery Park, from the Hudson River to the East River, here are the don’t-miss classics—plus everything new and coming.

Figure 10.10 “The Manhattan Project,” Condé Nast Traveler, 2002, by John Grimwade. “One year after the September 11 attacks, we ran a feature reminding our readers that the downtown area of Manhattan still had a lot to offer. It has stylized buildings, where I tried to capture the essence of the building rather than aerial-photograph accuracy, and a clear street grid. This is very much my graphic approach to making maps: Remove the unnecessary detail, and focus on the story. In 2003, I reworked the map into a different format for a handout at the Society of Publication Designers conference.” (See Figure 10.11 to see the second map.)
Figure 10.11 A redesign of “The Manhattan Project” for the Society of Publication Designers’ conference, in 2003.