

This illustration by Louis Fishauf was created for an invitation-only design conference sponsored by Adobe Systems. Deke McClelland presents an in-depth, step-by-step analysis of this and other projects in his book *Design Invitational*, published by Adobe Press.





I've been using Adobe Illustrator since 1987 when version 1 was released. Even then, its capabilities represented a quantum leap over MacPaint, MacDraw and PageMaker, the state-of-the-art graphics programs available to early Mac users. The smooth Bezier curves and perfect hairline rules were beautiful onscreen, but when I first saw the quality of the high-resolution Linotronic output it could produce, my mind was truly blown!

In those days I thought of myself as a graphic designer, an art director, a typographer—but not an illustrator. In fact even though illustration work today accounts for about twenty percent of my time, I still don't really consider myself an illustrator—more a graphic designer whose work sometimes ventures into a pictorial mode of expression. The tools I use allow me to easily move back and forth between what used to be two very different disciplines.



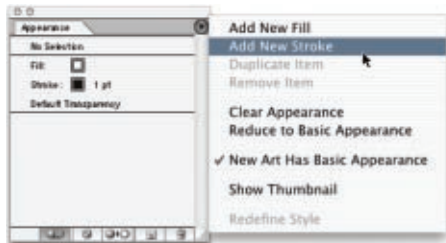
CREATING LIVE TYPE EFFECTS WITH THE APPEARANCE PALETTE & STYLES

Prior to Illustrator 9, objects could only have one fill and one stroke, and strokes on objects always sat ABOVE fills. Using the Appearance palette, it's now possible to change the layer order of strokes and fills on vector objects. Select an object, go to the Appearance palette, and drag the Stroke attribute below the Fill in the palette's list.

However, at first glance, this trick doesn't seem to work with text, the one type of object for which it would be most useful. If you select a text object with the Selection tool and apply a stroke to it in the Tool palette as you normally would, the Appearance palette doesn't list fill and stroke at all. If you select text characters with the Type tool, character fill and stroke attributes do appear in the palette, but you won't be able to drag the Stroke below the Fill.

Here's a foolproof method for getting a stroke to go behind the fill on a fully editable text object:

1. First, clear any prior color formatting the text may have by selecting all characters with the Type tool (place an insertion point, then command-A to select all text). Then make sure the fill and stroke are both set to None in the tool palette. With the text selected, switch to the Selection tool. This will deselect the characters, and select the entire type object. Again, set stroke and fill to None if necessary.
2. With the type object (now invisible) still selected, choose "Add New Stroke" from the Appearance palette. By default, fill and stroke icons appear in the Appearance list, and a 1pt. black stroke is added. But now you CAN drag the stroke icon below the fill in the list.



A. APPEARANCE PALETTE FLYOUT MENU. Adding multiple fills and strokes is easy with this palette.

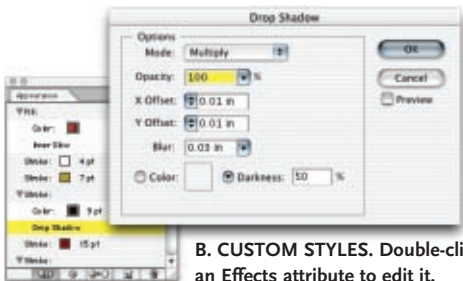
Once you've established the object's layering order, you can apply fill and stroke colors in the Tool palette, and change stroke weight as you normally would. The stroke will always remain BELOW the fill. But remember that, because half the stroke's width is covered by the fill, you'll have to double the stroke's weight to achieve a similar outline appearance. The ability to put a stroke behind text is just the beginning of what can be achieved with type and the Appearance palette. Illustrator objects can now have multiple strokes and fills. Use the "Add New Fill" and "Add New Stroke" commands in the Appearance palette's flyout menu (A) to add as

many as you like. Since each stroke and fill can also have transparency, blending modes, and live vector effects (such as distortions, offsets, blurs), the possible combinations are mindboggling.

The "V" in our headline example (Figure 2) has two fills (one pattern fill and one gradient), four strokes, three vector effects, and a number of transparency levels and blend modes. And of course, it's still fully editable text!

It may take some effort to fine-tune a custom appearance, but once you've spent the time to create one of these combinations, you can save it as a style just by dragging the text or object with the desired appearance into the styles palette, and giving it a name; then you may apply that style to other text or vector objects. If you're not used to working with the Appearance palette, this may seem like a complex style, but it's fairly simple compared to some that ship with Illustrator. As well as default RGB and CMYK styles, there are three additional sets of pre-defined Styles (Strokes, Fills, and Strokes and Fills) that you can access (Window>Style Libraries).

If you want to create your own custom styles or just get a better insight into what can be done with multiple strokes and fills, these pre-defined styles are a good place to start. Apply one of these to a simple object, then examine its layers in the Appearance palette to see how it's constructed. You can select any fill or stroke color in the Appearance palette to edit it. Double-click on any of the style's Effects attributes to bring up a dialog box (B) that will allow you to edit that attribute. You can also create a custom Styles library (your own styles, or just a collection of favorites) by saving an Illustrator file containing the desired styles. If you save this file into the Styles folder (Presets> Styles) it will always be available under the Window menu.



B. CUSTOM STYLES. Double-click an Effects attribute to edit it.



Fig. 2

Before the Apple Macintosh launched the digital revolution in graphic design and imaging, designers generally didn't do art and artists didn't do design. That was largely because they employed two different toolsets, and there wasn't a lot of overlap between them. As a designer I lived in the world of T-squares, photostats, galley type, x-acto knives, Rapidograph pens and rubylith overlays, while the illustrators whose work I regularly commissioned for magazines like *T.O.* and *Saturday Night* were in their studios surrounded by chalks, pastels, brushes, paints and canvas.

But once the digital equivalents of all these tools were available on the desktop, it suddenly became just as easy to pick up a brush tool as a pen tool. The great divide that had existed for over half a century gradually began to close.

The separation between the disciplines of design and illustration had been mainly brought about by an earlier technological revolution, the rise of photography and modern offset printing. In the 19th and early 20th centuries, artist-designers like Toulouse-Lautrec, Alphonse Mucha, A.M. Cassandre and Alexander Rodchenko were often single-handedly responsible for concept, imagery, layout and typography, collaborating closely with the craftsmen who printed their work. They and others like them had raised early advertising and poster design to artistic heights that rivaled the galleries and salons of their day. Some of



SING ILLUSTRATOR 10'S NEW ENVELOPE DISTORTION TOOLS

At long last Adobe has introduced Envelope Distortion in Illustrator 10. The ability to distort type and objects inside a "container" has previously been available in other products and third-party plug-ins, but until now text could only be en-

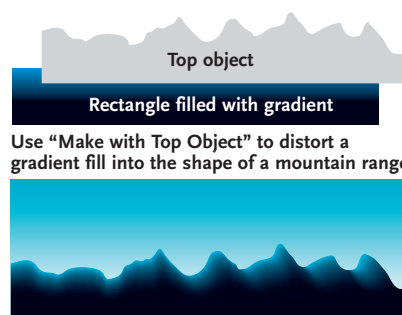
veloped in Illustrator if it was first converted to outlines. But Illustrator 10's envelopes can handle just about anything you can throw at them—live text, gradient blends, patterns, symbols, symbol sets, brushstrokes, meshes and bitmap images. Almost any object that can exist in an Illustrator file can be distorted. The one caveat is that linked files (EPS or image files) will not go into envelopes—they must first be embedded into the Illustrator document using the "Embed Image" command in the Links palette flyout menu.

There are three types of Envelope Distortions: Make with Warp, Make with Mesh, and Make

with Top Object, all available under the Object menu (Object>Envelope Distort> Make with). "Make with Warp" works very much like the "Warp Text" function in Photoshop 7. There are 15 pre-defined envelope types, which can be infinitely customized using a simple set of sliders.

Just select the text or object you want to distort, choose "Make with Warp", then select a warp style in the Warp Options dialog box and adjust the sliders until you're happy with the result (check the Preview option to interactively view the distortion as you move the sliders). With surprisingly little effort, some cool results can be achieved.

Of course you're not limited to just the pre-defined warp distortions. "Make with Top Object" allows you to pour content into any shape you can create (as long as it's a single path and not a compound). In practice, you'll probably get the best results with this method if you keep your envelopes fairly simple. Using complex shapes with lots of anchor points will often yield unexpected and undesirable results.



Use "Make with Top Object" to distort a gradient fill into the shape of a mountain range.

"Make with Mesh" allows you to control the distortion using a grid with multiple user-defined interior points that you can push and pull. When you first define a Mesh distortion you can specify the number of rows and columns, or add them manually with the Mesh tool. You can also use the Mesh tool to convert a Warp or Top Object envelope into a Mesh at any time. Since Illustrator's envelopes can accept embedded bitmap images, this raises some intriguing possibilities. For instance, you can apply a mesh to a photograph to perform Photoshop-like distortions. One advantage of doing this in Illustrator is that the distortions are non-destructive, and the original undistorted image can be retrieved at any time.

DISTORT PHOTOS WITH ENVELOPE MESH



Original photo Mesh grid Mesh distortion

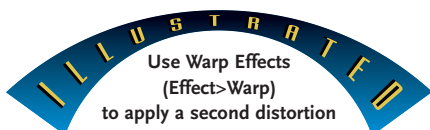
MAKING MULTIPLE WARPS



Original



Use Make with Warp to apply first distortion.



Use Warp Effects (Effect>Warp) to apply a second distortion over the first.



CREATE A BRUSH FROM AN ENVELOPE DISTORTION

Envelope distortions can also be used as brushes. Here the distorted banner has been turned into a pattern brush and applied to a circular path to create this unique typographic border.

SOLVING SOME COMMON WARPING PROBLEMS

Changing the Warp orientation from the default Horizontal to Vertical creates a completely different effect.

A couple of problems arise. The extreme elongation of the letters hampers legibility, and unwanted irregularities appear in some characters.

To compensate for the elongation of the letters, I changed the Horizontal scale of each letter to the right of the W. The width of the A is 110%, the R is 120%, P is 130%, and so on.

To eliminate the irregularities that were introduced by the distortion, I opened the Envelope Options dialog (Object>Envelope Distort>Envelope Options), and moved the Fidelity slider from the default value of 50 up to 90. Raising this value will result in slower but better distortions.

WARP SPEED

Original Text

WARP SPEED

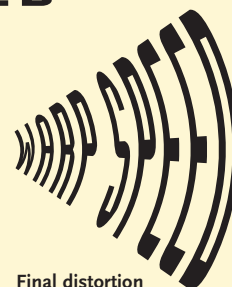
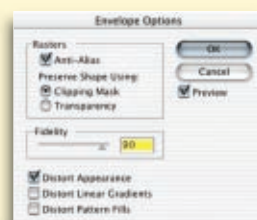
Make with Warp
Horizontal Arc



Vertical Arc

WARP SPEED

Adjusted character widths

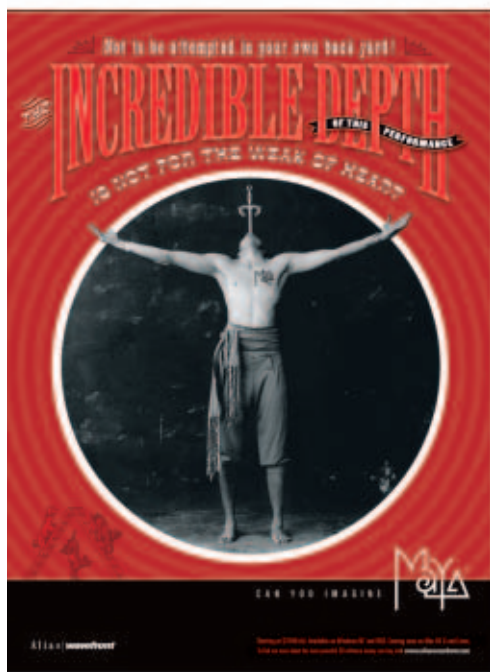


Final distortion

Over the years Louis Fishauf has designed dozens of corporate logos, including Canadian icons like the Roots Athletics logo, and the Molson Canadian maple leaf. Four recent Fishauf logos (clockwise from top left): Intuitive I.N.K., a New York-based multimedia content developer, OZZ Corporation, a Canadian electrical systems contractor, Primitive Entertainment, a Toronto documentary film producer, and Eternal Systems, a Santa Barbara fault-tolerance software developer.



Alias|Wavefront has been a client of Fishauf's for many years. He has worked on a wide variety of projects for the Toronto-based 3D software developer, including branding, marketing, packaging, advertising and interactive assignments. At right, one of the ads from the current circus-themed campaign for Maya, A|W's high-end 3D modeling and animation software.



In his current role as consulting creative director for Adbeast Inc (www.adbeast.com), a Toronto company providing web-based services, Fishauf has designed the company's brand identity, website and user interface, as well as websites for Adbeast's clients.



us in the first generation of digital designers began to realize that we might be able to use this new revolution to expand our creative horizons and reclaim some of the lost glories of our profession.

I immediately took to Illustrator because it was ideal for the geometric, hard-edge style that I was already inclined towards. Of course, in the beginning the program was a great deal more limited than it is today, and the learning curve was nowhere near as steep. Many of the basic tools and functions we now take for granted were absent. There were no color capabilities of course, because Macs were black-and-white only. All editing had to be done in wire-frame "artwork" mode, then you'd switch to "Preview" to see the results. Onscreen type was bitmapped and unevenly spaced, because there was no ATM font-smoothing. Even though the Lino output was lovely, the maximum size you could get was 11" x 17".

Three years later, it was a major milestone when I was able to produce a full-color 24" x 36" poster for the 1990 Toronto Film Festival, going directly

to film from my Illustrator file. It was a complex process that involved converting the Mac file to Scitex format for output on a high-end imagesetter.

Over the years, I've looked forward to each new release of the program, knowing that there would be some new feature that would become indispensable. Some new tools have taken months—even years—before they revealed their full potential and took their place in my creative arsenal. Other tools never made it.

Version 9, released two years ago, represented a major paradigm shift, introducing transparency, the Effects menu and the Appearance palette in one fell swoop. While v10 may not be quite as dramatic an upgrade, its OS X compatibility, distortion envelopes, liquefy and symbolism tools are all worthy additions to the program. Those of you still using Illustrator 8 or 9 (and I know there are quite a few of you out there), should go directly to www.adobe.com and download the free tryout. I guarantee you won't be disappointed.

Sure, there are things on my wish list that haven't made

Louis Fishauf is one of Canada's most respected digital artists. An early convert to the Apple Macintosh, Louis began his career as an editorial designer and art director following graduation from the Ontario College of Art in 1972. After a decade at a succession of Canadian consumer and special interest publications, he co-founded Reactor Art+Design in Toronto in 1982, where he was creative director for twelve years. Since 1994 he has

worked on his own, dividing his time between design, illustration and corporate consulting, and his work has been featured in numerous books and international design publications. In 1991, Louis received the ADCT's Les Usherwood Award, and in 1997 he was invited by Apple Computer to become one of the first 40 Apple Masters, an international group of recognized visionaries from various fields. Among other design and illustration projects, he currently acts as consulting creative director for Adbeast Inc, an Internet service for the advertising and commercial production industry.

FISHAUF'S QUICK TIPS

it yet. I've been asking for multiple pages and text style sheets for years. Basic 3D capabilities like extrusions, perspective and lighting (a la the now-defunct Adobe Dimensions program) are long overdue. And the ability to create animation and web rollover effects right in Illustrator would be welcome. But, hey—there's always the next release to look forward to.

Illustrator has become such a deep application, its uses and users so varied, that everyone develops their own approach to the program, using the tools and techniques they need to get their jobs done. So presented here are a few of my own favorite Illustrator tips, some hard-won insights about using v10 in OS X, and some discussion of the powerful tools from the last couple of versions that may not be fully appreciated by the majority of users. By the time Illustrator 11 ships, I'll probably just be figuring out some great uses for the Symbolism tools! 🌐

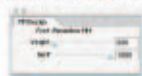
Louis Fishauf (fishauf@reactor.ca) is a Canadian digital artist who lives and works in Kettleby, Ontario. For more info visit www.fishauf.com.



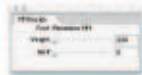
MULTIPLE MASTER FONTS

If you're an Illustrator user, chances are you've had occasion to use Adobe's Multiple Master fonts. For those of you who aren't familiar with them, Multiple Master fonts are special customizable Type 1 fonts whose typeface characteristics are described in terms of linear design axes such as weight, width, style, and optical size. Illustrator provides the MM Design palette especially for customizing these fonts. In the MM Design palette, sliders let you control one or more of these characteristics. One of my favorite Multiple Master fonts is Penumbra MM, which allows you to customize both its weight and also the amount of serif. When the serif value is turned down to zero, Penumbra resembles Futura, a long-time staple of mine, but with an infinite variety of weights available.

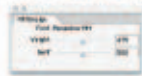
PENUMBRA



PENUMBRA



PENUMBRA



Unfortunately, Mac OS X doesn't yet support Multiple Master fonts. No matter which of OS X's numerous font folders you place them in, they won't appear in Illustrator's font list. There is a workaround, however. Buried deep in your OS X directory, there's an Adobe Application Support fonts folder (Macintosh HD/Library/Application Support/Adobe/Fonts). If you copy your MM fonts into that folder, they'll work with all Adobe applications in OS X.

FORMATTING TEXT

One of the biggest disappointments for me in Illustrator 10 is the continuing lack of Text Style Sheets. I'm so comfortable working in Illustrator that I'll go to ridiculous lengths not to have to switch to a page layout program. I'll admit to once having produced a 52-page exhibition catalog entirely in Illustrator, an experience I don't want to repeat any time soon.

Illustrator's type tools may not be quite up to InDesign's (a major overhaul of Illustrator's type engine is rumored to be coming in the next version), but they're perfectly adequate for most jobs. Formatting complex text, however, can be painful without the ability to define and save styles for repeated elements like heads, subheads, captions, etc. The eyedropper tool's ability to pick up type attributes and apply them to selected text is a welcome but inadequate solution.

Here's another approach, courtesy of our friends at Microsoft. Format your text in a word processor and import it into Illustrator. Importing text using the Place

command (File>Place) instead of copy/paste preserves any text formatting. The latest version of MS Word (Word X for Mac OS X) introduces the ability to select non-contiguous text blocks. You can zip through a manuscript, select all the subheads, and format them all at the same time. You'll still have to do some tweaking in Illustrator, but this could save a ton of time.

SAVE FOR WEB

The Save for Web dialog box (File>Save for Web) is a sophisticated environment designed for optimizing web graphics and creating complete web pages. But I regularly use it for a much simpler purpose—making quick low-res JPEGs of illustrations and page layouts that I can e-mail to clients for job presentations or approvals. For single-page files that will primarily be viewed on-

screen, I find that JPEGs are a more dependable format than PDFs. For starters, pretty much anyone can view a JPEG file, often right in their e-mail program. And vector graphics usually look much better in a JPEG than a PDF. That's because Acrobat Reader's "Smooth

Line Art" option is turned off by default. Unless your client has gone into the Acrobat Prefs and turned this option on, he or she will be viewing jagged, aliased line art, which is not the ideal way for your work to be seen. With a JPEG, you know that what you see on your screen is more or less the same as your client will see. If a layout contains small type that requires a higher resolution than Save for Web's default 72 dpi, you can increase the JPEG's size by clicking on the "Image Size" tab and entering a value of 200% or 300%. Set crop marks in the AI file to define the area of the image that will be saved.

SAVING CUSTOM WORKSPACES

Users of Photoshop 7 will appreciate the convenience of being able to save multiple workspace layouts. This would be even more useful in Illustrator, with its proliferation of palettes (27 at last count). Wouldn't it be nice to have themed palette arrangements—for instance, one for working with type, and another for creating styles—and be able to toggle instantly between them? Unfortunately this feature didn't make it into version 10. But developer Virtual Mirror (www.virtualmirror.com) has come to the rescue with a plug-in called Palette Shepherd. You can get it on its own or as part of the Vector Tools 2.0 suite of plug-ins which also contains a number of other very useful tools. None of your old Illustrator plug-ins will work in the newest version, so you'll have to check with your plug-in vendors for availability of v10-compatible upgrades.