The Second
Photoshop User Report
(covers Version 2.5.1)

by Lawrence San

I. Introduction

To people who read the "Photoshop 2.01 User Report" which I sent out a couple of years ago, a few parts of this report will seem similar or even identical. Most of this report is new, however. I've removed those suggestions which were in my first report and have since been adopted by Adobe. Those of my earlier suggestions which haven't appeared in Photoshop, to the extent that they remain relevant, are still in this report, along with many new suggestions. You could look at this negatively and say that I'm never satisfied, but I prefer to look at it positively: I haven't published a report this extensive for any other program, and it's a mark of my love of Photoshop (and Adobe's positive attitude towards my advice) that drives me to the considerable work of compiling this report.

As for the Bugs section, I'm pleased to report that every bug I reported earlier was fixed; so these are all new bugs I've discovered in version 2.5.1. I tried to only include bugs that are more-or-less reproducible. Please note that I don't claim that this bug listing is exhaustive or complete; it's just some things I've noticed.

This report is divided into five main parts: this Introduction; Bugs (mercifully the bugs section is brief); Design Bugs; Suggestions (the bulk of the report); and Report Info (who I am, what equipment I was using when I wrote this; how to contact me; etc.).

II. Bugs

Dot-Gain Bugs

In my opinion, the worst bugs currently in Photoshop all concern dot gain (the effect of the settings in the Preferences: Printing Inks Setup dialog box). It is especially flaky in Grayscale mode. For example, logically if you check Use Dot Gain for Grayscale Images but enter zero (0) as the amount, that should be the same as unchecking Use Dot Gain for Grayscale Images. But it isn't—try it! It's not just a problem with zero, either—it doesn't work right with any low number entered for dot gain. What this means, of course, is that none of the dot gain numbers for Grayscale images in Photoshop can be trusted.

In general, the dot gain compensation in Photoshop is so strangely implemented (to put it kindly), that there's no room here for all my comments. I'm working on a separate document filled with dot gain questions, to be released later.

CLUTs with False Names

After the dot gain problems, this is the worst bug I've found: when you ask to see the Color Table (CLUT) of an Indexed Color image, the name that appears as the title over the CLUT is not necessarily the name of the CLUT that you're looking at! It seems to be the name of the previous CLUT that was actually applied, possibly to some entirely unrelated image—which may not be the same as the currently loaded CLUT. It's as though Photoshop knew what colors were in the current CLUT but had forgotten its name but still displayed the name without being able to read it. Don't ask; it makes no sense to me either. In some circumstances, if you click on a custom name (which is actually the top item in a pop-up menu of standard CLUTs) and then release, the custom name (which wasn't really in the pop-up list at all) may disappear from the list and be replaced with "Custom." This is not very descriptive. There appears to be absolutely no way of finding out what named custom CLUT you're actually looking at, short of loading every CLUT in your collection and watching for changes in the palette colors. This is crazy. Frequently used CLUTs should be added to the pop-up list for real, and the name that's displayed (when you're not pulling down the list) should always reflect the current colors that are displayed in the CLUT dialog, provided the CLUT was saved with a name or loaded from a named file. Also, Photoshop should always be able to save an Indexed file with that CLUT's name (as well as its colors) inside the file.

This last point is sort of a related bug and requires some further comment: there are some occasions when the CLUT name displayed will seem to match the CLUT colors you see, and will apply correctly to an image within Photoshop, and you think everything's hunkey-dorey. But then you save that image and import it into another program that understands how to import palettes as separate items (for example, Director), and the CLUT doesn't show up. I'm not sure under exactly what circumstances this happens, and I know it sounds like a Director problem, but it isn't: it's a Photoshop problem. I know this because it never happens if you load or re-load a custom CLUT by name into Photoshop, and apply or reapply it to an image, and then immediately Save the final image, and then import it into Director. There's never a problem under those circumstances. The problem only occurs sometimes if the CLUT has been applied within Photoshop and then you perform other operations before Saving the file. (Don't ask me which operations; I don't know, but obviously I don't mean changing the file mode.) This indicates to me that when the problem occurs, it's clearly Photoshop's fault.

Another CLUT Bug

This one is nowhere near as serious as the previous bug. If you call up the "Indexed Color" dialog from the Mode menu (to convert a 24-bit file to 8-bit), and it suggests an exact CLUT (fewer than 257 colors) but you click on the "Previous" radio button instead, and then hit the Return key, nothing happens. The OK button is not pressed automatically as it should be. This is an extremely minor bug, but it does prevent one of my main macros from running properly.

Wacom Brush Bug

First, I'd like to thank Adobe for implementing so many of the Wacom-related suggestions that were in my first report. There are still a few problems, however...

If, with the Wacom pressure-sensitive tablet active, you set Photoshop's brush tool to change size but *not* opacity, it still changes both. This means that there's no way to draw thin-and-thick brush strokes in a solid color. More specifically, if it's a soft brush, it always changes both variables so that thin opaque lines are impossible; and if it's a hard brush, and you set it to vary in size but not opacity, it does the exact *opposite* of what it's supposed to do: it varies in opacity but not in size. This seems to me a very serious bug, unless I'm missing something.

Wacom Pencil & Airbrush Bug

When the pencil is used with the pressure-sensitive Wacom tablet, and the tool is set to vary both color (or opacity) as well as size, for the purpose of sketching with thin gray lines and thicker black ones, it refuses to go all the way to black no matter how hard you press. It only darkens to a dark gray unless *only* the "Size" box is checked.

A related bug is found when you set the Airbrush to change colors with pressure; no matter how hard you press, it never goes all the way to the second color; it ranges between the first color and a muddy mix of the two colors.

I would guess that a similar Wacom/pressure problem may be found with other Photoshop tools as well.

(See also "Stuck Wacom Pencil" in the Design Bugs section, below.)

III. Design Bugs

A "Design Bug" is really just a suggestion, but unlike the Suggestions section which follows, I don't consider these to be wish-list items. These are more like "this is annoying, can you fix it?" items. They're sort of like conceptual bugs, not coding errors.

Stuck Wacom Pencil

At first I thought the pencil tool in version 2.5, when used with the pressure-sensitive Wacom tablet (for dynamic size changes), was less responsive than in earlier versions of the program. Actually, that's something of an understatement: I couldn't get the pencil to respond to pressure at all. Eventually I discovered by accident that you have to lower the "hardness" of the brush tip assigned to the pencil. The best results are with a brush tip with a hardness setting of 0% (zero). There are three problems with this:

1. There's nothing intuitive about this (since softness has no meaning with the pencil, which by definition is totally hard-edged).

2. When you choose the pencil tool, all visual difference between the soft and hard brush tips in the Brushes palette disappears. You just have to remember which are which by position.

3. As far as I can tell, none of this is even mentioned in the manual.

(This is basically an interface bug. See also "Wacom Pencil & Airbrush Bug" in the true Bugs section, above.)

Isolation Please

Right now, selecting an area for painting-protection purposes (masking) is a one-way street; the masked area is protected against having any changes made to it, but is not isolated as a potential source of change. A protected (non-selected) area should be optionally protectible against having pixels smeared *from* it with the smudge and blur tools, or picked up from it with the rubber stamp tool. For example, let's say you're using the blur tool to blend a light gray tone into an adjacent white area, but there happens to be an (irrelevant) black object nearby. You can protect the black area from being changed by selecting everything except the black area. But the black area is not truly isolated; it will still bleed dark pixels into the white/light-gray zone you're trying to blend. Using "Lighten" mode won't work because you are trying to darken the white area with the light gray area. At present there is no good solution to this problem.

In case this is confusing, let me give a related example. When using the rubber stamp tool to clone between two images, you can limit the area you'll clone *to* with a selection (lasso) area; but you can't limit the area you'll clone *from*. The rubber stamp ignores any lasso'd area in the source document and picks up everything. It would be much more useful if the stamp respected a mask at both ends.

Misleading Grayscale Color Picker

The color picker is designed for color images, but since it's not disabled under grayscale mode, I think we're entitled to assume it works properly. Let's say you decide to use the color picker to define a gray of 36%. So you call up the color picker. There is no place for grayscale settings, so you enter the settings into the CMYK area as shown in Figure 1: zero for Cyan, Magenta, and Yellow, and 36% for black. Doesn't this seem like a reasonable way to get a 36% black tone?

The problem is that when you go back to your document and fill it with this new foreground color, and then place the pointer over it while looking at the Info palette (onscreen densitometer), the Info palette reports a value of 16% for gray, not 36% (this is true regardless of whether you set it to display "Grayscale" or "Actual color," which in this case are the same thing). Under the CMYK section of the Info palette (if you have it active), you'd expect to see the same CMYK numbers you just entered a moment before in the color picker (0%, 0%, 0%, 36%), but you don't. The numbers I actually got are shown in Figure 2 below.

Weird, huh? Actually, I figured out that there is a logic to it, but not one that would make much sense to a typical user working in grayscale for reproduction on a black-and-white print job (which is most commonly when you use grayscale). The logic in Photoshop 2.5.1 seems to be that you're going to reproduce this grayscale image as part of a full-color print job, and that you're planning to use a four-color-process mix to reproduce the neutral gray (which would be a very risky thing to do in real life) rather than use a screen of black. Therefore, the CMYK Info relates to the separation settings currently in effect.[1]

Yes, I know this isn't a real "bug," and that you can avoid the problem by using the slider in the Colors palette to set the gray percentage you want. But I think the relationship of the current color picker to a Grayscale document is confusing enough to warrant calling this a design bug, and I'm willing to bet that some people went to press with a completely different shade of gray than they expected because of it.

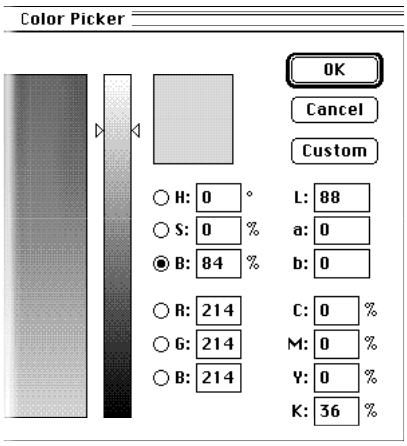

Figure 1: Isn't this how someone might reasonably ask for a 36% gray?

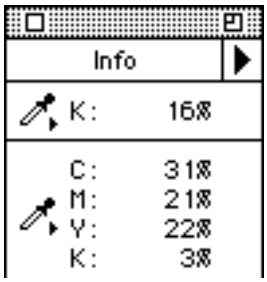

Figure 2: Set the gray as shown if Figure 1, and you'll get a nasty surprise.

[1] In fact, if you boost GCR to Maximum in the Separation Setup dialog, you can get the Info palette to display what you expected to see in the first place (0%, 0%, 0%, 36%).

Lost Color Choices

The foreground and background color choices you've made are lost when you switch to QuickMask mode. While it makes sense that there are only black & white (and shades of gray) while modifying the mask, when you switch back out of QuickMask mode, you ought to get your original color choices back, not black and white.

Resampling

Changing resolution by interpolating with "Image Size" works as well as could be expected for gray-scale and color images. However, it should be possible to resample a line-art (black & white) image, or a grayscale/color image with b&w (hard-edged) elements, without the b&w elements being blurred into antialiased grays. There are only a few ways a user can accomplish this now, none of them good:

1. For a strictly bilevel image, make a trip to the Preferences dialog, and use "Nearest Neighbor" interpolation, which doesn't blur the b&w but tends to chew up the b&w areas somewhat. Then go back to Preferences and reset to Bicubic. This is a pain, and doesn't work at all for color/gray images with b&w areas in them.

2. Alternatively, you can allow the images to blur into grays and then Threshold them back into line art, but this also chews up the images.

3. Or, you can separate out the hard-edged elements, resample them in a separate document, and then recombine them with the resampled soft-edged elements later. A real pain.

Photoshop should be smart enough to automatically use a different resampling algorithm on the strictly b&w areas of an image, so as to keep them crisply b&w, while still doing Bicubic interpolation on the grayscale or color areas. If this is not possible, then at least the Preferences item for setting the resampling algorithm should let you set different algorithms that would automatically be implemented for different image-file types, so you don't have to keep going back to the Preferences dialog every time you open a different kind of file.

Rotation

The Command and Option keys can be held down to move a selection marquee without moving the contents of the selection. Logically, if you hold down the Command and Option keys while rotating a selection area, the program should rotate the selection marquee without rotating the contents; but it rotates the contents as well.

Too Much Saving Goin' On

When you do a Save in Photoshop, the program mindlessly rewrites the entire file to disk (which can be very slow with a large file) even if you haven't made any changes since the last Save. Realistically, sometimes you can't remember whether you've made changes since you last saved. In most programs, the application is smart enough to remember this for you, so that the Save command is grayed out if there have been no changes. In that case, issuing a Command-S does nothing and doesn't waste your time. Photoshop should be smart about this too.

Invisible Cross Hair

When in RGB mode, the precision cross-hair pointer (the pointer most tools give you when the caps lock key is engaged) is 'smart.' That is, the cross hair varies in color or value depending on the background so that it's always visible. However, in Grayscale mode, the cross hair is drawn in an unvarying 50% gray shade.[2]

I suppose the logic is that this middle gray will be visible across a wide range of darker and lighter shades; but when I was working on a project where the background was itself 50% gray, the cross hair pointer was totally invisible on screen. Since I had hundreds of such images to work on, the precision cursors were essentially unusable. They should be as 'smart' in Grayscale mode as they are in color, changing value so as always to be visible on any background. (See also "Tool Pointers While Working," below.)

[2] It's true that if you keep your monitor in color mode while working on a grayscale document, the crosshair changes colors and is almost always visible (although the light green it changes to when over a gray in the 11% range is almost indistinguishable from the 11% gray on my monitor). However, many people would work on grayscale documents on a grayscale monitor (or with a color monitor set to grayscale mode), and in that case the cursor is still 'dumb' as described above. In any event, even with the monitor in color mode, Photoshop usually switches the monitor temporarily to grayscale if you perform an action such as clicking on the window's title bar, etc.

Duotones

The present system of implementing duotones strictly through a transfer function, with the capability of switching to Multichannel mode to temporarily view (but not edit) the individual plates, is awkward. It would be better if Photoshop adhered to its usual interface of having an editable channel for each printing plate, plus a composite channel for both editing and viewing purposes.

CMYK Editing

Most of my complaints about the relationship between CMYK editing and the screen image provided by video-LUT animation were fixed by version 2.5.1. Only one slight annoyance remains: if you have multiple channel windows open simultaneously (for example, the CMYK composite and the Magenta channel), and you're painting in the Magenta channel, you can't see the result in the composite channel until you release the mouse button, that is, a moment after the paint stroke. It would be much more useful if the composite window updated in real time.

Video-LUT Limitation

Sometimes I'd like to open two duplicates of a CMYK document side-by-side on my monitor (that is, two separate but identical files) so as to see the effect of different amounts of certain factors (e.g., dot gain) on the composite image and process channels of the two clones. Unfortunately, this doesn't work. Any change to the dot gain of one document will affect the appearance of both documents on screen. The reason, I suppose, is that the video-LUT animation isn't doing anything to the documents themselves, but is merely altering the monitor's characterization.[3]

Yes, I realize you only want to permanently alter the file data if the dot-gain is applied prior to separation. What I'm suggesting is that Photoshop should *temporarily* do something to each CMYK image separately, just for on-screen comparison and evaluation. In general Adobe has made good progress in uncoupling the screen images from each other and from the overall monitor state; I hope they can go further in this regard.

QuickMask Bug?

I'm not sure if this one is a bug, a design bug, or if I just don't understand something, but here it is: normally, painting with black paint within an alpha channel adds to the black area, as you'd expect. However, let's say you have a 4-channel document, that is to say a regular RGB image and one alpha channel (the alpha channel should have a large black area in it). Let's say you have the regular RGB channels and the alpha channel all visible and editable simultaneously. In this instance the image in the alpha channel appears as a 'rubylith' over the composite image even though you're not in QuickMask mode (by the way, nothing is selected, that is there are no marching ants). Now if you go ahead and paint with black paint to edit both the image and the alpha channel simultaneously (which admittedly you wouldn't ordinarily do), and then go back to view the alpha channel only, you'll find that the black paint had the effect of white paint in the alpha channel! (White paint also has the effect of white paint.)

Of course, this may fall in the category of "Doctor, it hurts when I do this" … "So don't do it."

IV. Suggestions

What follows is a wish list. I realize that it's easier for me to list these things than it is for Adobe to program them. Some of these suggestions are oriented towards making Photoshop more of a full-featured painting program, not just an image-processing/prepress program, since many artists use Photoshop both ways.

Slip the Lasso

• The lasso should be able to automatically tighten itself around an area, by slipping over (ignoring) pixels of the type it has been drawn through! Or it could slip over the background color! Even a low-end desk accessory like DeskPaint can do this! (I'm running out of exclamation points.) Director's toy paint program can do this. EVERYBODY can do this. Why can't Photoshop? An excellent implementation of this feature can be found in Studio 32, where it's highly customizable (they even have a separate "Slip Colors" dialog where you can define ignorable colors, although most users just use the simpler options of

[3] I'm not as sure of this explanation as I used to be, since it used to be obvious (most operations would shift the whole monitor image); in the current version it seems more common for only the Photoshop image-window contents to change (not surrounding palettes, other programs' windows, or the desktop), but the central problem is that both images still change where only one should change.

People with small monitors probably don't know what I'm talking about in the above section.

slipping what you pass through or slipping the background). Some kind of slip lasso is essential in the twentieth century. Animators weep without this feature.[4]

Name the Colors Palette

The ability of the Colors palette to load different saved color sets (like Toyo, TruMatch, etc.) is nice, but it would be much more useful if it displayed the name of the current palette in the title bar of the floating window. Right now all the title bar says is "Colors." Thanks, we know they're colors, but which ones?

Note that this is similar to, but not as bad as, the situation with the Color Table palette—which actually shows you the wrong name in many cases (listed in the Bugs section).

"Bitmap" Tools & Commands

• A lot of progress has been made, as many tools are now operable in Bitmap mode, but more needs to be done. *All* tools and commands should be functional in Bitmap mode except those logically inconsistent with this mode. The inability while in Bitmap mode to scale a selection's size, or to do free rotation, limits the use of Photoshop as a cartooning program.

• In addition to scale, free rotate, etc., the magic wand tool should work in Bitmap mode (needed to select/deselect solid black or white areas). Since the magic wand still doesn't work in Bitmap mode, there's no way to "slip" the lasso—i.e., tighten it around an image by deselecting the background. Of course a real slip lasso should be available in any case (see above).

• It might even be possible to have anti-aliased tools like the paintbrush and airbrush active in Bitmap mode, in the sense of smoothly distributing or retouching halftone dots in pre-halftoned images. This would be analogous to "dot etching" in the traditional prepress world, where an image's density can be altered in selective areas after the image has been screened into a halftone.

• Also, I have a problem with Adobe's calling the 1-bit mode the "Bitmap" mode. Everything Photoshop does is a bitmap.[5]

Color Management Systems

The main reason I tell most people not to do important photographic prepress work in Photoshop is the lack of adequate color management. With illustrations, most viewers won't know if a color looks 'right' or not; but in a photograph, it doesn't take much extra green to make a person's face look like one of my deranged cartoon illustrations. There's so much contradictory advice floating around that nobody really knows what to think (e.g. some people say stick to RGB and let the service bureau or printer make the separations; others say to work in CMYK all along so you aren't dishing out illegal colors; etc.).

(There *are* two cases when people may currently get good results without color management: [1] scanning in from a high-end scanner, and not altering color balance on screen no matter what it looks like; or [2] illustrations with no definite "correct" colors to judge by—although even in the latter case images often print too dark or washed out. There are many more cases where it's a serious problem.)

Since nobody knows *which* color management system is going to win, Adobe should support as many of them as possible until the dust settles, such as EFI, Kodak, Agfa, POCE, etc. Too many developers are picking just one system to support, which would only work if they all picked the same one. So far Adobe has picked none.

Also, since few artists will pay for a system that isn't a standard and may be obsolete next week, and maybe doesn't work anyway, the support should be free. If Quark can bundle EFI support with XPress, then Adobe can certainly bundle it with Photoshop.

More Efficient Selection Loading

It should be possible to load any saved selection into the composite color image by performing some kind of action within the Channels floating palette itself. The marching ants that were loaded would correspond to the particular alpha channel you had selected in the Channels palette; for example, you might load a selection by command-clicking on the channel. This would be more convenient than the present method of going up to a separate menu to load the selection; and more logical, since one naturally associates an alpha channel with the ability to load its corresponding selection area into the image.

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[4] Yes, I know the workaround. It's too many steps and too slow for such a simple function.

[5] Okay, I know some wiseguy programmer out there will tell me that multi-bit-depth images are pixmaps, not bitmaps; but only programmers use that term. To artists everything is either a bitmap or an object; and *everything* Photoshop does is a bitmap (except the pen paths). I have a hard enough time explaining bitmaps vs. objects to students as it is; Photoshop's "Bitmap" mode makes this much harder. I think this mode should be called "Line Art." Of course that might confuse some people too, since this mode can also contain halftones, and few people understand that a halftone is really line art. But I doubt if many people pre-halftone (pre-screen) images in Photoshop anyway.

Currently, shift-clicking on the alpha channel in the floating palette does something that might seem similar to what I'm requesting: it loads the 'rubylith' over the main image. However, this is very different from loading the marching ants version of the selection. In fact, it doesn't even load the rubylith in the real QuickMask way; rather, it puts you into the dysfunctional state I described under "QuickMask Bug?" in the Design Bugs section, above. You can't toggle to the marching ants from this state, and even if you could it would be an extra (and confusing) step.

Bring 'em Back

Here are some important features that were in Photoshop 2.01 that Adobe removed from version 2.5.1:

• The ability to export the clipboard at specified bit depths distinct from the document's own bit depth (the only workaround is to change the entire image to an alternate depth, select, copy, then undo or revert the depth change).

• The Zoom Factor command is gone; there's no longer any way to numerically enter the magnification level you want. This makes it much harder to write some external macros. This is a very unfortunate and (to me) inexplicable decision on Adobe's part.

• HSB and HSL modes are gone. This is partially offset by the new [CIE]LAB mode, which has a lightness channel. But there's no saturation channel, which is useful in many cases. I know all of the original functionality is still there, but some of it is harder to get at now.

• This is such a big issue it may be foolish to even raise it: but the program appears to be written in MacApp now. I'm not sure, but if that's true it may explain why macro programs have such a hard time recognizing Photoshop's hierarchical submenus and the buttons in its dialog boxes. Perhaps Adobe could cooperate a little more closely with macro-program developers so their programs can talk to each other properly. I spoke to one such company and to Adobe at a trade show, and each said it was the other's fault. (When the fingers start pointing the user always loses.) I guess Photoshop's macro-future is related to the question of its AppleScriptability, a subject I know nothing about (and can't even spell).

• By the way, I don't mind that the Arbitrary Map is gone, since most (or all?) of its features seem to have been added to the Curves dialog box. Probably a welcome simplification.

The Big Ones

I guess I have to get this out of the way: everybody's waiting for layers, subsampling, and related object-type features. *MacWeek's* latest rumor is that the next Photoshop will have layers but no subsampling. Let's look at these in turn:

At a minimum, the layers should allow you to have separate silhouetted 'objects' (actually enveloped bitmaps), each with its own editable mask and automatically featherable edge, that can be dragged around while maintaining their silhouetted quality (that is, you shouldn't see a filled white bound box while dragging an 'object'). Photoshop should be able to at least equal Painter in this area. Presumably the Layers palette will look like Illustrator's, which is fine.

Even better would be to utilize OpenDoc, or maybe some other document-centered proprietary technology as a temporary measure, to integrate Photoshop with Illustrator. The layers could seem like "Illustrator" layers even if the "objects" are Photoshop bitmaps. This would simultaneously solve problems that Illustrator has (like the inability to import TIFFs and PICTs), and would add an enormous range of new features to Photoshop. For example, one multimedia artist told me she wants guides in Photoshop to align objects for screen displays. An Illustrator layer would automatically provide this.[6]

Also, if we're giving Photoshop a PostScript drawing and type layer, like ColorStudio's Shapes annex, we ought to give it ColorStudio's ability to save an EPS file in multiple resolutions (different for each layer).

As for *subsampling* or other means of quickly editing huge files, there are several different approaches floating around (pun intended), such as:

• Low-resolution proxies (Specular Collage)

• Algorithmic painting (FITS / Hsc Live Picture)

• Partial-picture editing (Micrografx Picture Publisher, and Aldus PhotoStyler)

According to *MacWeek,* Photoshop 3 is going to have none of these. If that's true then Photoshop 3 is going to be in trouble.

[6] By the way, as long as I'm talking about Illustrator layering, I should mention that Illustrator's method for grouping and ungrouping objects that started out on multiple layers is distinctly inferior to FreeHand's.

Steal the Good Stuff

Here are some other features currently in Fractal Painter that I'd like to see in Photoshop:

An interactively, retroactively adjustable magic wand (although actually I much prefer Photoshop's current selection tools to Painter's).

Cartoon Cel fill (fill under an antialiased black outline). Setting the paint bucket to a high tolerance is not really an adequate substitute for this.

A command to automatically create a new document out of a selected area of the current document. Painter calls this "Paste Into New Picture." Actually it's not hard to create a macro to do this now in Photoshop, but it would be faster if it were built in. (A future version of the Mac system software may include the ability to drag-and-drop a selection area to the desktop, which would make this feature less important.)

A lightbox feature (also known as onionskinning).

Natural-media painting tools.

A way to dynamically adjust the curve for pressure-sensitive tablet interaction.

Tagging (annotating) colors.

Saving

Adobe fixed the major problem with Saving that I wrote about last time (it now does a true Save, not a Save As, regardless of file type). As a further enhancement, it would be nice if they could add Save a Copy As... and Duplicate a Copy As... commands (the latter would keep both copies onscreen). These and other multiple-image-handling enhancements would be especially welcome to people doing character animation on the Mac...like me.

Feathering

• At present, feathering works simultaneously in and out from the selection line. The user should be able to feather in and out, in only, or out only.

• At present, feathering is limited to a linear-blend effect. The user should be able to feather non-linearly (logarithmically) when desired, and to set the degree of nonlinearity. (This feature alone would have saved me several day's time in a project I once did for Sun Microsystems.)

Blend Tool

Currently, the choices offered by the blend tool are too limited. Photoshop should be able to automatically blend between several predefined colors. In other words, some of the functionality of Kai's Power Tools (Gradient Designer) or Illustrator 5's graded fill should be built in.

Variable Eraser

A variable-sized eraser would be desirable for Wacom tablet users. For that matter, all users should be able to customize the size and shape of the eraser by choosing a 'brush' tip for it. This would be consistent with the interface for the other tools.

(True, you can get the same effect now by using the pencil tool with white paint, but that requires you to keep switching the foreground and background colors, and it also doesn't give you the option of the magic eraser.)

(See also the other Wacom items in the Bugs and Design Bugs sections, above.)

Tool Pointers While Working

• Tool pointers (cursors) could change size, and maybe even shape, to reveal the choices selected. For example, the brush tip could change size and shape to show what kind of brush has been selected from the brush palette. For tools like the airbrush and blur tools that affect an area beyond their actual tip, a faint dotted line could appear to show the radius of affectable area or 'bleed zone.'

Note that I'm not suggesting that the icon change in the tool bar—only that the working tool's pointer be variable.

• For Wacom owners, the pointer could change size dynamically in real time—showing both the momentary (pressure-induced) size and the maximum (brush palette) size. The working end of such a pointer could be in the form of two concentric icons: the central one varying in size with the Wacom pressure, and a thin outer outline showing the tool's maximum possible size at that setting.

• If a tool is set to Lighten, a small minus sign should appear somewhere in or next to the tool pointer. If set to Darken, a small plus sign should appear (Figure 3). Currently it's too easy to forget which tool settings are in

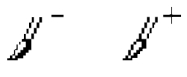

Figure 3: Brush cursors indicate that the tool is set to "Lighten" or "Darken" modes.

effect, when you're rapidly shifting tool settings. However, I have an alternate suggestion ("Mode Indicator" below) which would make this suggestion somewhat superfluous.

Also, there could be a keyboard toggle to cycle the current tool through its three major states: Normal, Darken, and Lighten.

•Ideally, when the caps lock is engaged the cross hair pointer should also show some indication of which tool is engaged (Figure 4).

Figure 4. The "B" tells us this is the brush cross hair.

Mode Indicator

Right now, the modes like "Lighten," "Multiply," etc. are used by various tools and commands within the program (and should be used by more). But they're implemented in a somewhat confusing way. For example, the current setting in the Modes pop-up on the Brushes palette affects some things that aren't brushes at all, and affects them even if the Brushes palette isn't open. Sometimes even experienced users can go nuts trying to figure out why something isn't working as expected, until they remember to bring up and check the Brushes palette.

In other cases, a menu command (like "Fill...") has its own version of a virtually identical Modes pop-up menu.

Instead of all this, there should be *one* pop-up for modes in the entire program, and it should affect every tool and command in the program that it can logically affect (and be partially or completely grayed out when it can't), and it should always be visible. One possibility is that it have its own menu in the regular Mac menu bar to the right of the "Window" menu (but see my discussion of the naming problem, below), and that the current choice appear in red letters right next to the menu's name in the menu bar. If that's too weird, maybe a pop-up could be located at the top of the Tool palette superimposed over part of its 'title' bar (see Figure 5). Actually, I don't care where the painting-mode pop-up goes, as long as there's only one of them in the whole program, and the name of the current mode is always visible to the user. (It's not unusual to hide the Brushes floating palette, but I suspect it's very unusual for most users to hide the tool palette.)

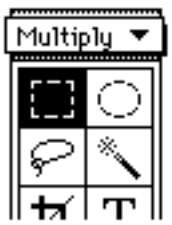

Figure 5. The pop-up for painting modes can go anywhere, so long as it's always visible and there's only one of them.

Note that this wouldn't prevent the painting modes menu from remembering different settings for different tools in the same way that it now does, but actually I think that should be a Preferences choice anyway ("Remember Painting Modes").

Also note that it's probably confusing to some people that the things I've been talking about like Lighten, Multiply, etc. are called "Modes," and the menu with choices like RGB Color, Grayscale, etc. is also called "Modes." Yes, I know the former are painting-and-fill-and-other-operations modes and the latter are document/file-type modes, but it would probably be better to rename one of those categories. I would avoid the temptation to rename the painting modes "Transfer" or "Inks," as that might conflict with the true QuickDraw transfer or ink modes if Photoshop ever becomes QuickDraw GX-aware. The best I can think of is to call the painting modes "Exposure," or maybe "Superimposition," since they are analogous to things you do by layering photographic films on top of each other.

Filter Choices

The blur tool responds to painting modes like "Lighten" or "Darken," but the Blur filter doesn't. Whenever possible, commands and filters should be given the same range of choices that comparable tools have.

Blur

• The Blur filters and the blur tool should have slider controls so that you can set what range of values you want it to affect, and what range you want it to ignore. This should be saved as a default of the tool or command. Such value-limiting would also be valuable for many of the other filters.

• If possible, the blur tool should be settable to either regular blur (as it is now) or to the more powerful Gaussian blur.

Smart Paste

It would be nice to have a smart paste feature, which simply means that something copied or cut from one channel would paste into another channel in the exact same position. In fact, I can see no particular reason why

paste shouldn't *always* work this way when moving between channels; unlike in an object-oriented program, you won't have the problem of users unknowingly building up multiple layers of identical objects.

An Elliptical Comment

The elliptical selection tool would be much more useful if it were possible to alter the roundness of the ends when dragging a long, thin oval. Right now the ends are relatively pointy, so there's no way to approximate a round-cornered rectangle or lozenge shape. Alternatively, this could be implemented in the rectangular selection tool, as a variable "round corners" attribute.

Fractional Zooms

The drag-zoom feature (dragging with the magnifying glass) would be even more useful if the program allowed fractional zooms, so that only the area that was marqueed showed on screen (except, of course, for an adjustment required by the aspect ratio of the monitor).

Lightbox

It would be extremely useful to animators and many other artists to have a "lightbox" feature like the one in Fractal Painter, so you could see one image while working on another one. I hope that the next Photoshop's rumored layers feature will implement this. As an interim measure, I wrote a macro that simulates this feature, but the macro has about 125 steps—so naturally it rarely works unless everything is in exactly the same state as when I scripted it in the first place.

Actually, the best lightbox feature I ever saw is in TypeAlign (a program I'm registered for but frankly never use). TypeAlign can make its window "transparent" so that you can see whatever's behind it—even windows from other programs—and then it takes a "snapshot" for use as a guide within TypeAlign. That would be great in Photoshop! And since Adobe bought TypeAlign from Emerald City Software, they presumably already own the code for this (of course what do I know about code portability?)

Primitives

The program should be able to draw simple shapes (rectangle, oval) directly, without having to first use a selection tool and then apply a stroke.

Variable Black Generation

Wouldn't it be nice if there were some way to apply different GCR or UCR settings to different parts of the same image? I can't think of any physical reason this couldn't be done on film, although in some instances it could create headaches on press. But if you know what you're doing, this could be really useful. For example, if you had a model standing in front of a neutral gray wall, you might be tempted to use high GCR to help keep the wall a neutral gray and avoid color shifts on press. But that would risk making the model's skin tones look unhealthy. There should be some way to adjust the GCR/UCR separately for the wall and the model. The only workarounds I can think of now would be to separate the image twice with different settings and then splice the results (a pain and slightly risky) or manually tweak Photoshop's four CMYK channels after separation (a bigger pain and very risky).

Manual

The manual needs to be much bigger and more comprehensive. The manual between Photoshop version 1 and 2 actually shrank by 156 pages, and that wasn't all fluff that was cut out! It's harder to judge what happened with the version 2.5 manuals, since they went to two-column format, but my impression is that they're still shrinking. The main manual often reads like a mere summary or overview, and some important topics aren't covered at all.

Moreover, a user should not be told to look in the tutorial manual for information that is not included in the main manual. Every piece of information should be in one main reference manual, whether it's also in some other guide or not; this is not redundancy. Experienced users shouldn't have to plow through the tutorial manual to obtain a point of reference.

But the main problem is that all of the reference material supplied by Adobe simply fails to go into the kind of depth that an advanced user would need to tap the prepress power of the program, or even to understand some fairly basic features without extensive experimentation.

V. About this Report

Author Info

I'm the moderator of the Photoshop conference on the Boston Computer Society's Macintosh bulletin board.

I've been a graphic designer/art director for thirteen years, about half of that time B.M. (Before Macintosh…I've been a Mac addict since 1987.) More recently, I've been evolving into a freelance creative director, as companies are increasingly hiring me to write as well as design their printed marketing materials.

I'm also an award-winning cartoonist, doing both commercial and purely artistic work, much of it created entirely in Photoshop with my Wacom tablet. I'm currently using Photoshop in conjunction with various animation programs to create cartoon animations on the Mac.

As a sideline, I occasionally lecture on various computer-related design and prepress topics, such as graphic design, digital typography, color theory, color reproduction, and scanning/retouching/halftoning. I've lectured at the Boston Computer Society, the BCS Summer Computer Institute, MIT, and the Wentworth Institute of Technology, as well as for a number of private companies. The Boston Computer Society has published a few articles I've written.

I've taught beginning, intermediate, and advanced Photoshop for a number of private companies and schools. For example, I trained the staff artists of the *Boston Globe* in Photoshop; and I helped Sun Microsystems both with Photoshop tutoring and by solving artistic and technical problems inherent in using Photoshop renderings for Sun software screens. (That project won an award from the Society for Technical Communication.) I occasionally tutor private students in Photoshop, or provide private telephone tech support for companies.

— Lawrence San

System Info

The system on which I currently do most of my work and testing is a Macintosh IIfx with 20 megabytes of RAM running System 7.1 and many inits, a 170-meg internal hard drive, a 520-meg external hard drive, a DAT(DDS) tape drive, a 21″ SuperMatch monitor, a SuperMac Thunder-24 video card with version 2.0 ROMs, and a 12″ electrostatic Wacom tablet equipped with both 'hard' and 'soft' pressure-sensitive styli and a 4-button tracing puck.

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- If you have an account on the Boston Computer Society Macintosh bulletin board, drop in to the Photoshop conference (inside the Graphics & Publishing area) and leave a message there.