

Rochester Institute of Technology

RIT Digital Institutional Repository

Theses

5-17-1990

Illustrating type

Gilbert Sennett

Follow this and additional works at: <https://repository.rit.edu/theses>

Recommended Citation

Sennett, Gilbert, "Illustrating type" (1990). Thesis. Rochester Institute of Technology. Accessed from

This Thesis is brought to you for free and open access by the RIT Libraries. For more information, please contact repository@rit.edu.

.....

A Thesis Submitted to the Faculty of
The College of Fine and Applied Arts
in Candidacy for the Degree of
MASTER OF FINE ARTS

Illustrating Type

by
Gilbert Sennett
5-17-90

Approvals

Adviser: Jim Ver Hague _____

Date: 5/26/90

Associate Adviser: Joe Watson _____

Date: 5/17/90

Associate Adviser: Joan Hantz _____

Date: 5/17/90

Special Assistant to the Dean for Graduate Affairs: Philip Bornarth

Date: 9/13/90

Dean, College of Fine and Applied Arts: ~~Dr. Robert H. Johnston~~

Date: 9/13/90

I _____, prefer to be contacted each time a request for reproduction is made. I can be reached at the following address:

1 Club Drive
Rome, Georgia 30161

Date: 5-20-90



Special Thanks

I would like to thank the following
people for their helpful input to
this project:

The J committee Jim, Joe and Joan
for all their helpful suggestions and
support.

Debbie Loftus, for keeping me calm
when everything started building
up and I thought I was going crazy.

To my classmates for all our sharing
of knowledge.

Dave

Mara

Monica

Bruce





Contents

Introduction 5

Overview of the software 7

Scanning Type using HyperScan18

Tracing the Letters30

Composing a Logo.....66

Trouble Shooting, Useful Tips &
Special Effects 87

Conclusion 110

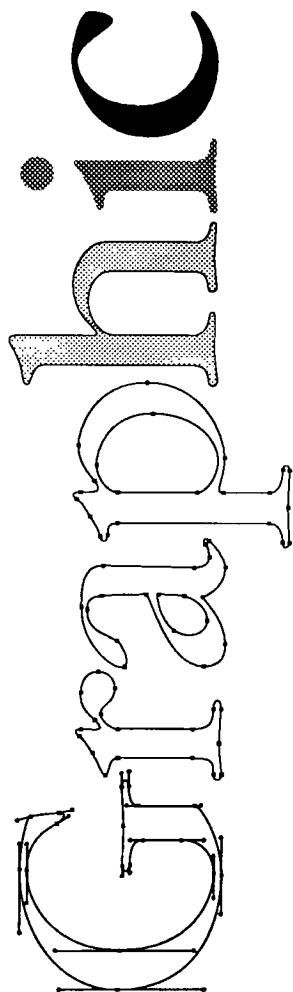
Complete Typefaces 111

Various Logos and Projects 159

Bibliography..... 200



Introduction



When I started this project, I never thought that it would get so intensive. It all started with my summer job of '89 when I worked in Florida for Atlantic Photo Lab running the computer room. Ron Constantino was the owner of the lab and wanted to provide more flexibility to his customers. He wanted to create slide shows in which the customer's logos could appear on each slide. I was hired to aid in this process. Most of the clients presented me with their logos on poorly printed business cards. I scanned the logo and used whatever program necessary to make the logo better for print and slide media, and experimented with different scanning software and found few to be truly acceptable to my needs. I quickly had to find fast ways to scan logos and transform them into postscript format for high resolution output. I had not used Adobe Illustrator at all until that summer, but knew that it was a great program for the task. Many of the logos were predominantly type, but the typeface used was some alteration of an existing common face. If there was a case in which I could use a font that was available on the computer, it was rendered so poorly on the screen that I could not work with it. This meant that printing the artwork many times was necessary to achieve good results. The introduction of Adobe's new ATM (Adobe Type Manager), has made possible the rendering of fonts

on screen. LetraStudio™ from Letraset is also a useful program but the fonts were few and limiting. I quickly learned that if I was to be successful in drawing logos, I have to become fast at using the Pen tool in Illustrator and draw everything that the logo contained, Fonts and all. After hours of working, I was tracing many templates and experimenting with the best way to use the Pen tool. The end results were better and the clients walked away with a quality product.

Summer ended and it was time to return to school. I wanted to keep up with my new skill, so I started tracing complete type faces from specimen books. I found that I could use these faces to design my own logos and headlines. These letters could be altered, colored, copied, and manipulated with precise accuracy. I also gained knowledge of the typeface that I was tracing and all its nuances. This tracing process yielded a typeface that could be use over and over again. It also taught me sensitivity to letterspacing, wordspacing, and figure ground relationships. I wanted to put all this together in an illustrated source and training manual, so the intent of this manual is to teach a new way to use an existing product, Adobe Illustrator, to make practical designs that incorporate hand drawn electronic type and graphic elements. With the methods learned in this book, any

design is possible and only restricted by your imagination.

Text handling abilities never were too strong in Illustrator, but the Pen tool provides the best and most elegant drawing sophistication found with high resolution graphics programs. I wanted the best of both worlds. I wanted to be able to make a swash on a letter 'S' in the same program that I was illustrating elements for a logo. Downloadable fonts can never be altered in this manner. Letters had to be drawn so that the individual points that make up the letter could be moved and paths could be reshaped. I found that the only way to get the effects that I wanted was to draw the letters myself.

During the writing of this book certain products were introduced to the market that helped solve some of the problems that I was having. Adobe created a great program ATM (Adobe Type Manager) that takes the printer font information, and renders the font on the screen at any point size. This means that huge blocky type is a thing of the past. The problem with this solution is that you have to buy the font instead of drawing it yourself, which is very expensive.

Another very significant product is TypeStyler by Broderbund. This product is a type altering software that

works very much like LetraStudio.

The TypeStyler's (version 1.01) advantage is the ability to convert all Type 1 and Type 3 Adobe fonts. Then it can export the outline information to Illustrator. This means that if you have an Adobe font, you can convert it to TypeStyler format, then export the outlines to Illustrator. No tracing is necessary. To use this method in TypeStyler you have to export the outlines to Illustrator and alter them there. Then you have to save them and place them back into TypeStyler. This same font conversion and alteration ability can be found in the new version of LetraStudio. All of these improvements are great for the user who wants to get high quality and flexible designs that take several steps and different programs to get the desired results, but these designs come at the expense of the programs, and the price of the Adobe fonts that have to be bought. This manual contains useful tips that aid the designer in avoiding buying all of these products. The proper use of Illustrator can breed results that can be found in all of these other products. If you already own some of these programs and/or fonts and want to get the best use out of them, then this manual can help you use them faster and better.

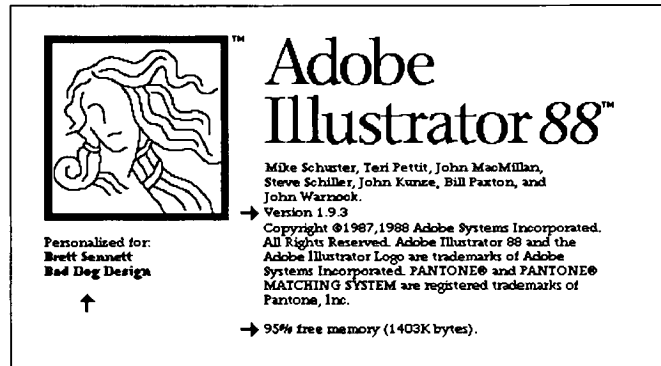
Overview of the software

Adobe Illustrator at first glance seems quite a simple package. The tool box has relatively few tools which make the software seem easy to use, but Illustrator has many hidden features that make it one of the best and most elegant Postscript draw packages today.

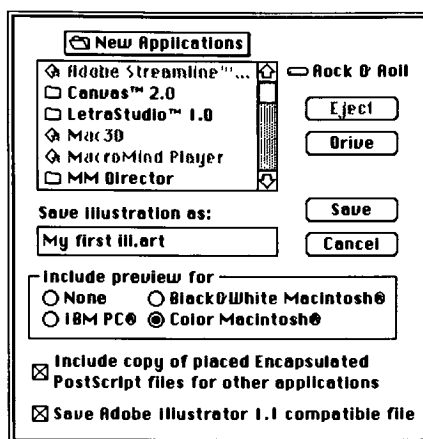
I will take you through the important Menu items and Tools to get you familiar with their use, but, more importantly, I will show you specific examples of how the tool is used and what it can do best for specific tasks.

Illustrator hides many dialog boxes containing powerful features. The Option key combined with a click of the mouse on the majority of the editing tools displays a dialog box where specific increments or values can be entered. Most Menu items have keyboard equivalents where the Command key combined with a key stroke speed up work and make changes fast and easy.

Below, we see the "About Adobe" window that displays the version, registration information, and memory usage indicated by arrows.



File		
New ...	⌘N	
Open ...	⌘O	
Place ...		
Close		
Save	⌘S	
Save As...		
Page Setup...		
Print...	⌘P	
Quit	⌘Q	



The File menu contains the same Macintosh features found in most all other software programs. The *Save* option has a variety of choices that make Illustrator documents accessible to other Macintosh programs such as QuarkXPress®, Ready Set Go!, Freehand, and other desktop publishing and presentation packages.

The *Include preview* section contains four options. These options create screen renderings (Quick Draw, Macintosh only) for either

a Black & White Macintosh, Color Macintosh, or IBM PC.

If *None* is selected, then no screen image will appear in other applications.

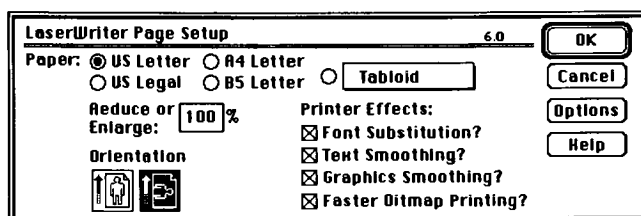
The *Include Encapsulated PostScript* option creates the PostScript text file that other applications need to print the document on a PostScript printer.

Save Adobe Illustrator 1.1 compatible file is for saving the document in the old Illustrator format for use with the old Illustrator. More importantly, Freehand will open and convert Illustrator 1.1 files. This means that you can arrange, draw, design and place elements in Illustrator and then open the document in Freehand where you can take advantage of Freehand's fill effects and printing capabilities. The draw tools in Illustrator are much more elegant than Freehand's. I tend to draw all my logos and designs in Illustrator and save them as 1.1 compatible where they can be manipulated colored and separated in Freehand.

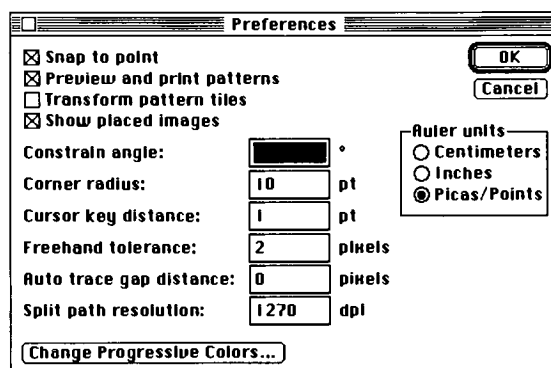
The *Place* option places other Encapsulated PostScript files into Illustrator to be printed and arranged in drawings and designs you create in Illustrator.

File		
New...	⌘N	
Open...	⌘O	
Place...		
Close		
Save	⌘S	
Save As...		
Page Setup...		
Print...	⌘P	
Quit	⌘Q	

The Page setup option is mainly used to change the page from a portrait format to landscape. The type of Chooser output device that you are using will govern what dialog box that will appear. For a LaserWriter, the dialog will look like the example below. Simply click the landscape *Orientation* and the page format will change to the a horizontal format. The Imagewriter has a similar way to do the same thing. This is also where you can *Reduce or Enlarge* the entire document by changing the percentage size. If you enlarge beyond the designated page size, Illustrator tiles the document for you.



Edit		
Undo Copy	⌘Z	
Cut	⌘H	
Copy	⌘C	
Paste	⌘V	
Clear		
Select All	⌘A	
Paste In Front	⌘F	
Paste In Back	⌘B	
Bring To Front	⌘=	
Send To Back	⌘-	
Preferences...	⌘K	

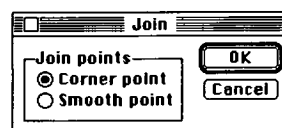
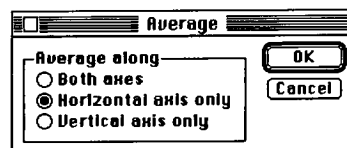


The *Edit* menu supplies you with the familiar Cut, Copy, Paste, Undo and Select All. The Paste and Bring to Front and Back will be discussed later in the book. The Preferences give you a variety of options to customize your document.

Ruler units lets you choose the units of measurement that you want to see in the document. *Constrain angle* constrains all drawn boxes and ellipses to the desired angle. *Cursor key distance* provides you with the ability to adjust the distance the cursor moves on the screen when the arrow keys are depressed. The Freehand tolerance adjusts the number of points placed when using the freehand tool, while the Auto trace gap distance controls the auto trace tool. The Split path resolution controls the splitting up of the document for printing on high resolution Postscript printers.

Arrange	
Transform Again	⌘D
Group	⌘G
Ungroup	⌘U
Join...	⌘J
Average...	⌘L
Lock	⌘1
Unlock All	⌘2
Hide	⌘3
Show All	⌘4

The *Arrange* menu has a variety of very useful features. The first item is Transform Again (Command-D). This feature is mostly used to repeat the move you just made. If you selected a rectangle and moved that rectangle while holding down the option key this would make a copy of the rectangle. If you selected Transform Again from the Arrange menu the copied rectangle would be copied and moved the same distance and angle each time Transform Again was selected. The Group and Ungroup commands provide you with the ability to group items so that they work as one. Grouped items can be resized, moved and duplicated while they are grouped. The Join and Average commands work on points on paths only. These commands are discussed in detail in other parts of the book. The Lock and Hide features are two useful tools to aid you when illustrations get complicated. The Lock feature locks selected items so that they cannot be selected again and altered in anyway. This tool is useful when an object on in the illustration needs to be visible for reference but in turn can not be selected or altered. The Unlock All feature unlocks everything that was previously locked. The Hide command hides or makes invisible any selected object or objects in the illustration. This feature is particularly useful when the illustration gets so busy and confusing. Items can be hidden therefore clearing up space to work. The Show All command shows all previously hidden objects. Hidden objects will also not print.





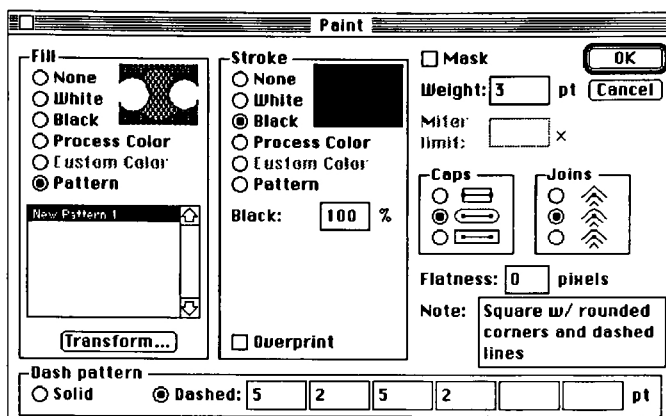
View	
Preview Illustration	⌘Y
Artwork & Template	⌘E
✓ Artwork Only	⌘W
Template Only	
Actual Size	⌘H
Fit In Window	⌘M
Show Rulers	⌘R

The *View* menu displays the different modes that Illustrator displays the work in progress. The Preview Illustration mode is for viewing the illustration as it would look as close to print quality. Line weights and colors, pattern fills and masks will show in the Preview Illustration mode. The next mode is the Artwork & Template mode. This mode is used when a template is opened for tracing. The template is displayed with all the artwork that you have created. The Artwork Only mode hides the template so that you can view your artwork without the confusion of the template getting in the way. If you want to only see what the template looks like, then the Template Only mode is to be used. The Actual Size displays the contents of the illustration in the window to the actual size they would be when printed. Fit in Window displays the full illustration work area into the active window. Show Rulers displays the rulers to the settings that you prefer in the preferences dialog box.

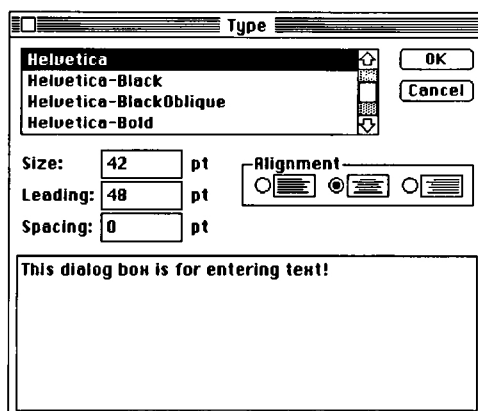


Style	
Paint...	⌘I
Type...	⌘T
Pattern...	
Custom Color...	

The *Style* menu gives you access to the two main editing features. Objects are drawn in Illustrator, but they all have some form of paint values or characteristics associated with them. They could be outlined red with a pattern fill, or black outline with no fill. All of these characteristics are entered with the Paint feature. The Dialog box appears where all of the elements below can be applied to one or more selected items. All of the Paint features will be discussed in detail with useful examples later in the book.

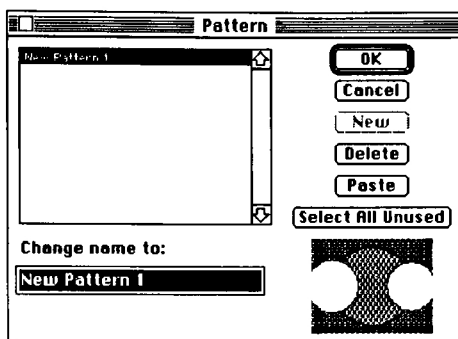


The Type menu item allows you to enter text to your illustrations. All of the text you enter can be painted exactly as the drawn elements. Alignment, Font, Size, Leading and Spacing can be applied within this dialog box.

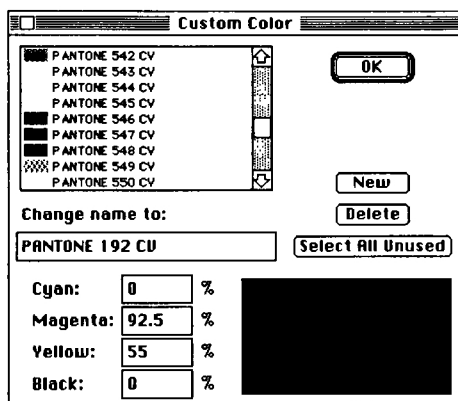


Style	
Paint...	⌘I
Type...	⌘T
Pattern...	
Custom Color...	

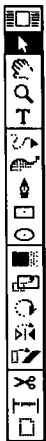
The Pattern command is discussed in detail in a later chapter. Its powers are numerous and applications are many. There can be many different patterns in one illustration. Each pattern has a different name to differentiate between them.



The Custom Color feature is useful to determine the Pantone to process colors conversion. If you were using the Pantone Color page included with your Illustrator package, the process color percentages that it takes to makeup that color are displayed within the Custom Color dialog box.



The Tool Box



The Tool Box is the most intimidating interface because most people have little idea what some of these tools do or stand for.



The simplest and first tool is the Arrow or Selection tool. This tool is used to select and move objects. When other tools are selected, this tool can be obtained by holding down the Command key.

I work with my right hand on the mouse and my left hand on the keyboard. My thumb is ready to press the Command key while my index finger is ready to press the option key. My middle finger is also ready to press the Shift key. All three of these keys are sometimes use together. This speeds up my work time by at least a third.



The Hand tool lets you scroll or push the page around. This tool can be obtained at any time by pressing the Space Bar.



The Magnifying Glass tool is for zooming in and out of your work. To zoom in you simply click the mouse within the illustration area with this tool selected. To zoom out, you click the mouse with the Option key depressed. When the Option key is depressed, the Plus sign in the Magnifying Glass tool will change to Minus.



The Text tool lets you put text into your illustrations.



This tool is the Freehand tool. This tool enables you to click and drag the mouse around the screen. The path you take will be drawn on the screen.



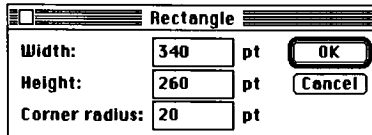
This is the Autotrace tool. This tool is use to automatically trace templates open in Illustrator.



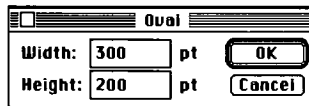
The Pen tool is perhaps the single most elegant drawing tool of any computer package. The Pen tool is use to draw straight lines (paths or strokes) and curves (Bezier curves). These paths and curves are all mathematical forms and can be altered to your heart's content.



- The Rectangle tool draws rectangles. It can also draw perfect squares by holding the Shift key while dragging the mouse. Rectangles can be created from the center out instead of corner down simply by depressing the Option key while drawing rectangles. The combination of Shift and Option key will draw perfect squares from the center out. Squares and rectangles can also be placed in accurate size by clicking the mouse on the work area with the Rectangle tool. A dialog box will appear where increments can be entered. A rectangle's corner radius can also be entered with this dialog box.



- The same features as the Rectangle tool can be found with the Ellipse tool.





 The Blend tool is used to blend two shapes in a number of steps that you specify. The Blend tool will be explained in further detail later in the book.


Blend

Number of steps: 1 %

First blend: 50 %

Last blend: 50 %

OK Cancel

 The Scale tool is used to scale objects. The Scale tool works by selecting an object and clicking to establish a *center of scale point*, then you drag the mouse to enlarge, shrink, or stretch the object on the screen. To obtain the dialog box, select the object you wish to scale and click the mouse with the scale tool while depressing the Option key to establish a *center of scale point*. The dialog box lets you enter the mathematical scale factors.

Scale

☐ Uniform scale: 200 %

☒ Preserve line weights


☐ Scale line weights


OK Cancel Copy

Non-uniform scale:


Horizontal: %

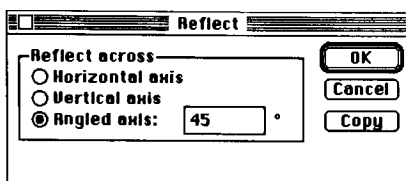
Vertical: %


 The Rotate tool works exactly like the Scale tool. The center of rotation is established by where you click the mouse. The dialog box is activated by holding the Option key while clicking the mouse.

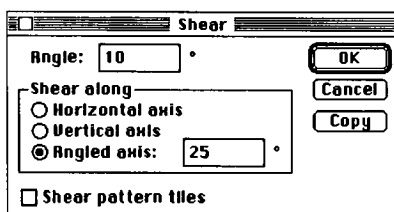




-  The Reflection tool mirrors anything across any axis. The tool works similar to the Rotate tool. The Option key and a click displays the dialog box.

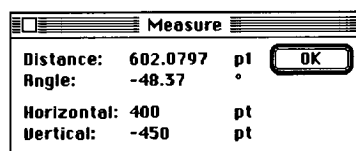



-  The Shear tool slants objects to any degree or axis that you desire. The Option key and a click of the mouse like all the other tools displays the dialog box.



- ✂ The Scissors tool cuts paths into two separate sections. Simply select the Scissors tool and click somewhere on a path, but not on the end of a path, or a Warning message will appear. To add a point to a path, depress the Option key while clicking on a path. This adds a point to the path.

- !!!!! This tool is the Measurement tool which gives precise measurements of your documents. To activate the dialog box, select the tool and click the mouse on a start point and stop point. The distance, angle, horizontal and vertical differences between the two points is displayed.

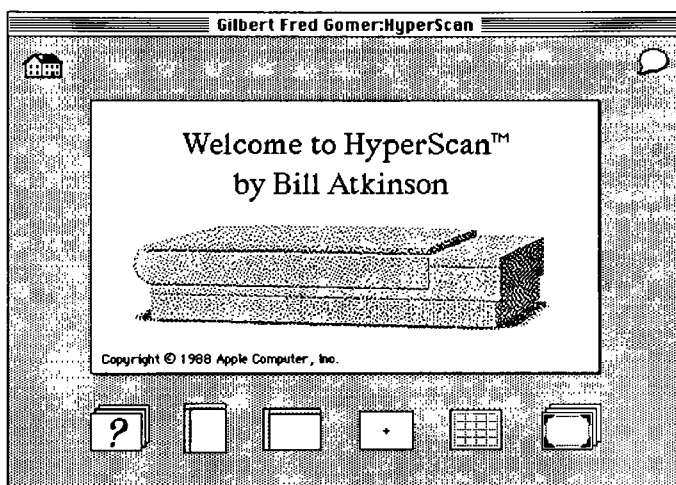


-  The Page tool moves the specified page around to accommodate the illustration.

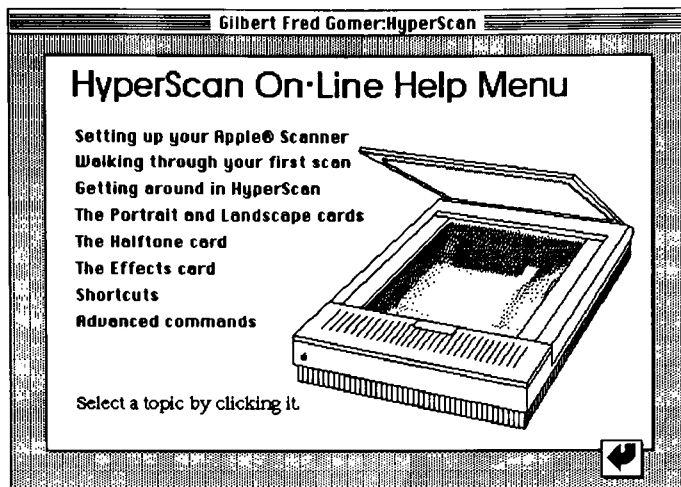
Scanning Type using HyperScan

The general rule of thumb is that the better the scan, the easier it is to trace, so after doing large amounts of scanning using various scanners, I found that the best results in reproducing type for templates to trace is HyperScan using the Apple scanner. HyperScan is scanning software that scans 72 dots per inch into Hypercard windows. HyperScan is a stack that was written by Bill Atkinson, the author of MacPaint and Hypercard. The stack has an excellent help section that guides the user through the paces of scanning. If you are a comfortable HyperCard user then the interface will be quick to understand making

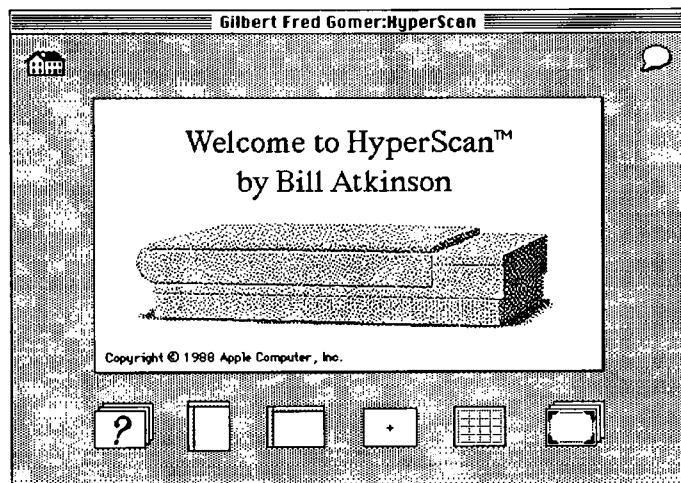
it possible to get great results from the very first scan. To the casual user, the interface is simple and friendly. Since Adobe Illustrator only uses MacPaint and PICT formats as templates, the simplest scans create the best workable templates. HyperScan creates very workable templates to trace. HyperScan enables the user to control the brightness and contrast just by moving the mouse from side to side and up and down. I chose HyperScan to do the scanning because of the ease of use, quickness, halftone ability, and the quality of the templates that HyperScan produces.

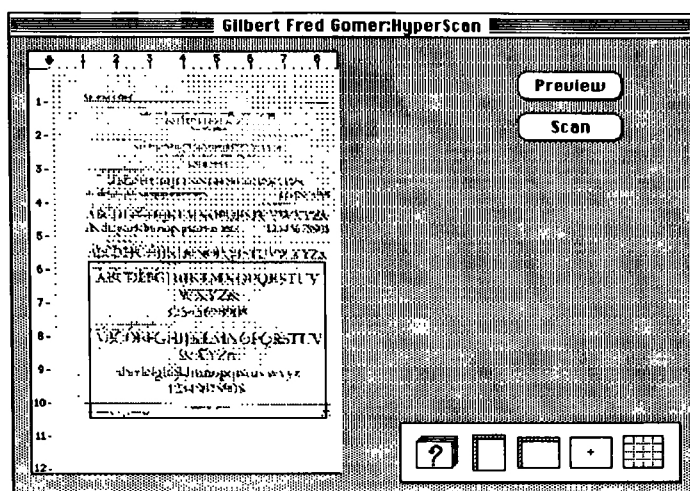


Since HyperScan is a HyperCard stack, the help section is interactive and easily accessible. The topics offered are explained in the On-Line Help section.

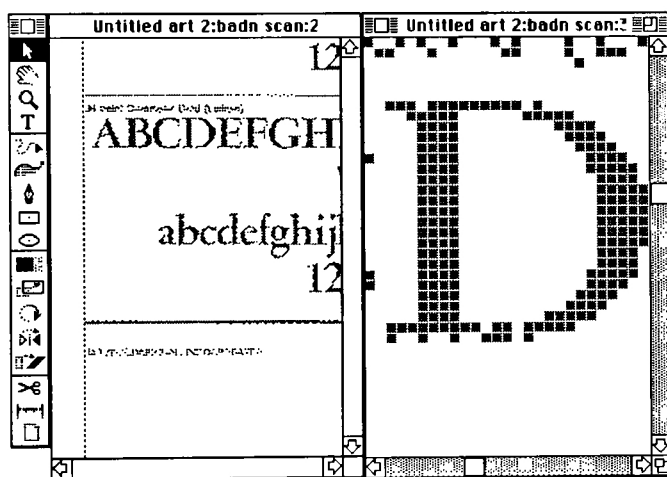


A quick breakdown of HyperScan's operation shows the first card. The buttons on the bottom take you to the different sections of the stack. The first button is the Help section. The next button is the Portrait mode. This is for scanning objects that are tall in orientation. This is the most used mode. The next button is the Landscape mode. The next two buttons are for image manipulation. The first button with the cross hair is for applying halftone effects. The next button is the effects picker. The last button takes you to the stack of HyperScan examples.





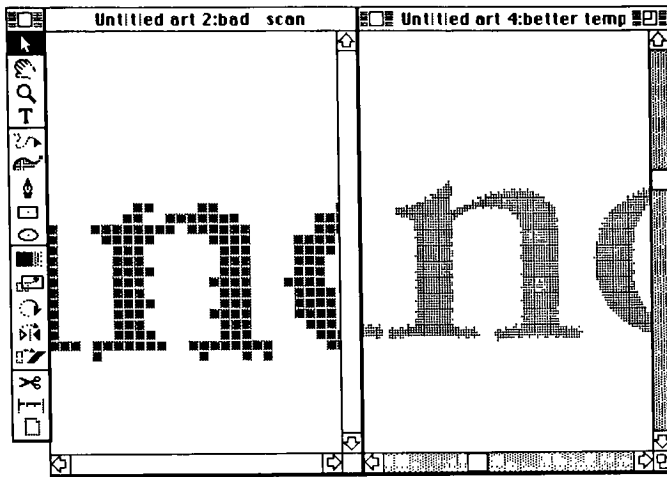
To get to the card shown here, click on the Portrait button. Place a type sheet out of a specimen book. The best results are to scan the largest point size in a sample book. Click on the Preview button. The Scanner will quickly scan the entire page and display the results into the scanner window. The rectangle you see represents the HyperScan window. It cannot be stretched out of proportion, but can be resized. The smaller the rectangle, the bigger the letters will appear in the HyperScan window.



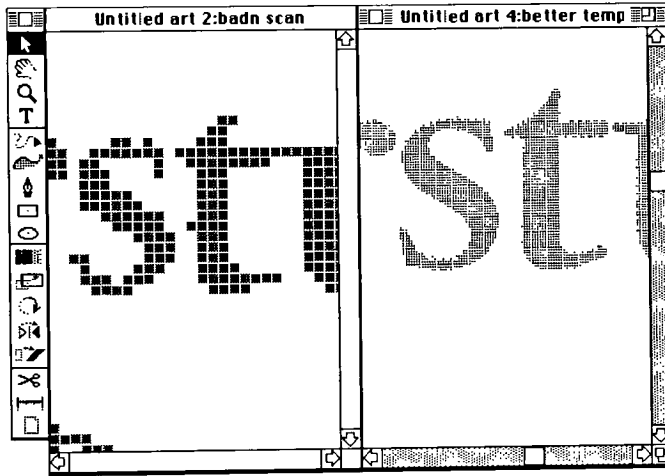
As we see above, the entire typeface was scanned in one pass. The results of that scan are shown in Illustrator as an opened template. The two views show that the letters are too choppy and difficult to trace.

[illegible]

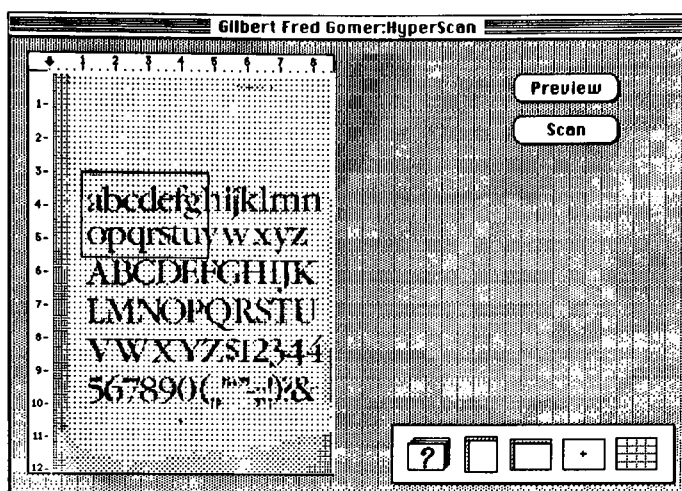
Untitled art 4:better ter	Untitled art 4:better temp:2
---------------------------	------------------------------



These side by side comparisons show the difference and the importance of good scans.

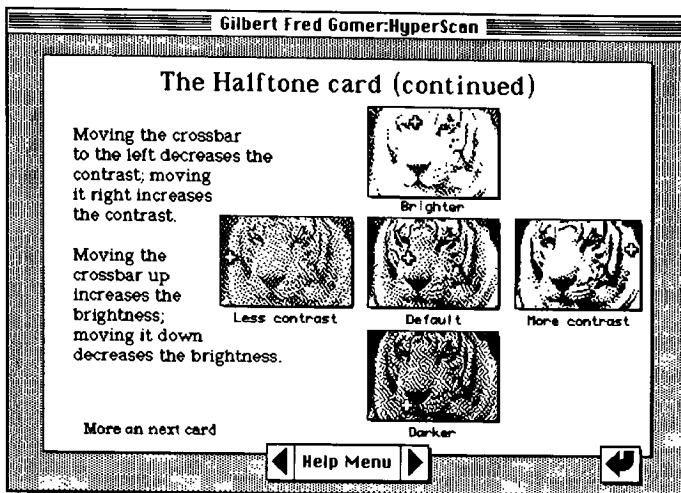


Now that we have covered the importance of good scans, let's go through scanning adjusting, and saving a typeface for templates to trace in Illustrator. Find a good clean copy of a typeface to scan. I will scan Garamond, but you can scan any typeface you choose. Place it on the scanner face down and go to the Portrait mode to scan. Preview the page. Resize the HyperCard rectangle to get the smallest rectangle while maintaining ascenders and descenders.



After scanning the section of type, you will be transported to this window where HyperScan's power and ease of use shines. The section will be presented in this window for fine tuning. The crossbar cursor is the controller of the brightness and contrast. Move it and down, left and right to get different settings.





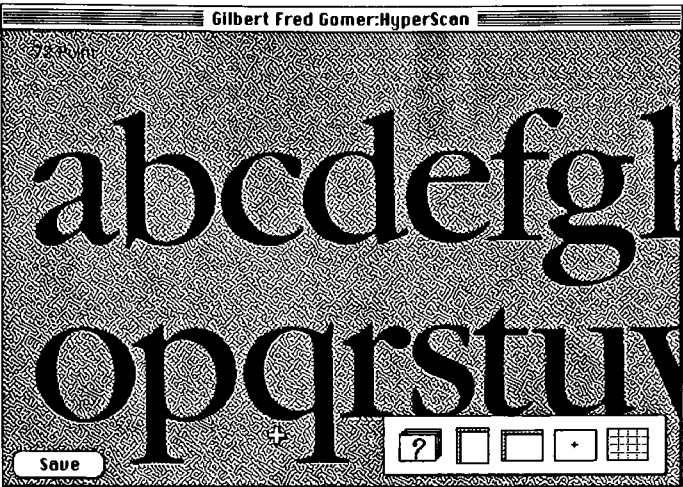
This window is the explanation of the process. Help can be accessed by clicking on the Question mark icon.



This example looks a little to light so we will adjust it further by dragging the cursor down. The scan should get darker.

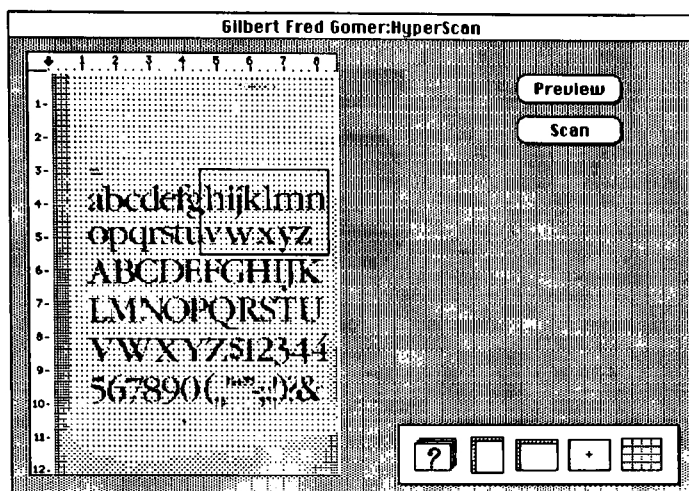
.....

We can see that this is too dark.
Move the cursor more toward the
middle of the window.

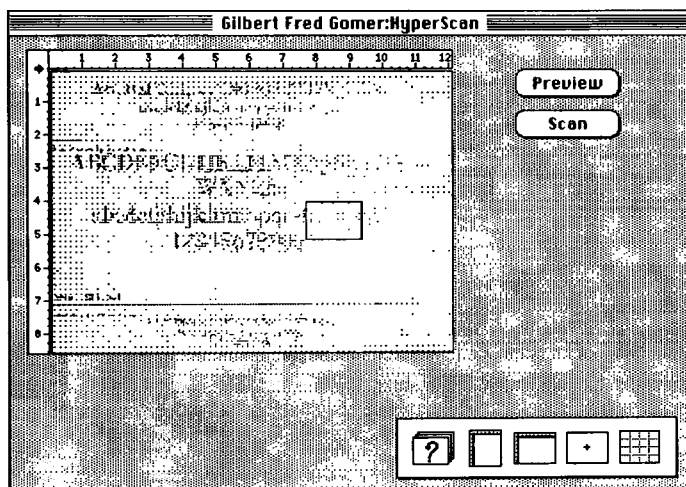


Now that we have acquired the
desired settings, all we have to do is
click the save button. This saves the
image to a card and places it on the
end or back of the HyperScan stack.



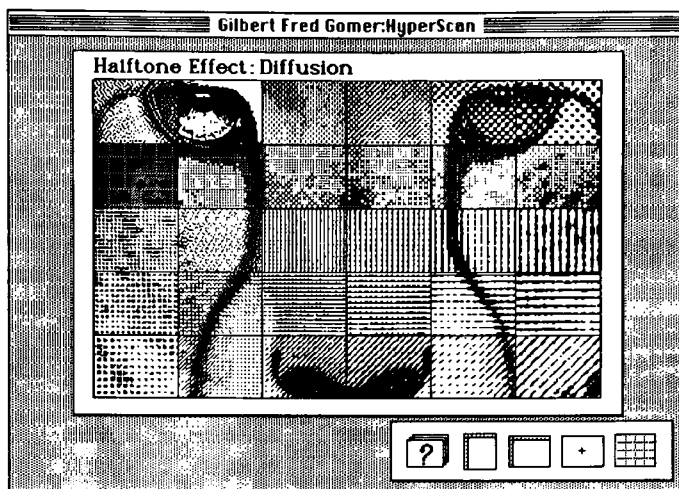


To scan more of the face, we need to go back to the vertical window. Click the second button for the vertical scan window to appear. Now without resizing the rectangle, move it to an area not yet scanned. If the rectangle is resized, the letters will not be the same size. Repeat the process of scanning adjusting and saving. The page does not have to be previewed again. This process may seem tedious, but the templates we are making are detailed and easy to trace.

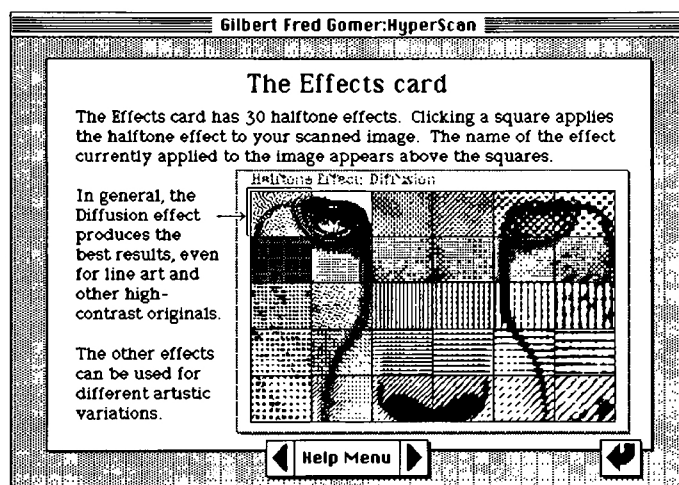


If an object is mounted on a page horizontally, it can be placed on the scanner and scanned using the horizontal window.

HyperScan gives you the chance to add halftone effects to your scans. The window in the example is accessed by the far right button.

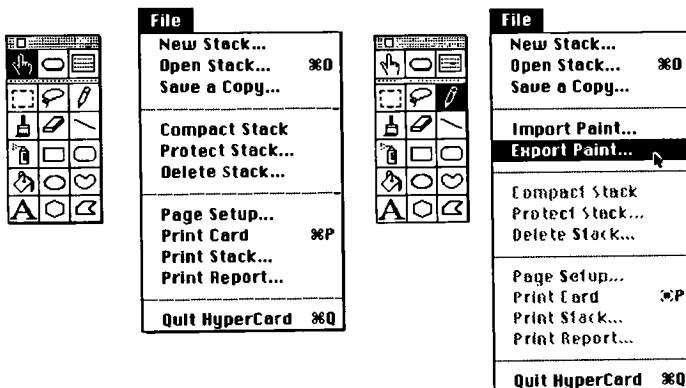


The help screen explains the process and effects of applying halftone effects to your scans.



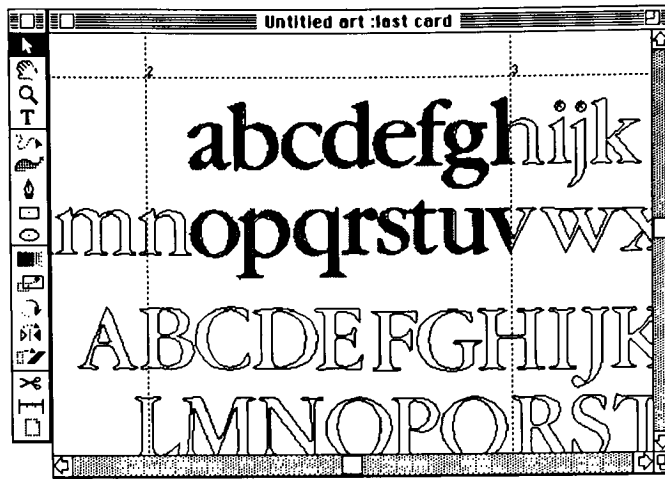


Now that we have the complete face scanned, we need to make a MacPaint file out of it. As it is now, we can not open it as a template in Illustrator. To make a MacPaint file, we must Export it as paint.



The menus in HyperCard change when in different modes. When in browse mode, the File menu appears as shown on the far left. However, when in painting mode, the File menu changes to display the Import and Export paint options. Simply click on any painting tool in the HyperCard toolbox and go to the File menu. Select Export Paint..., this displays a dialog box to save a MacPaint file that can now be used as a template. Go to the next card by depressing the right arrow on the keyboard or by selecting Go Next from the Go menu. Repeat the process until all of the scans are saved to disk.

You may have noticed that the typeface is now broken into many different MacPaint files. When I save the MacPaint files from HyperScan, I give them sequential names so that when I trace the typeface, the templates can be traced in some logical order. The method I use to put together a complete face is to open the first template and trace all the letters I see. Then I save the illustration with the name of the typeface. Without closing the window, I start a new illustration using the next scan as a template. Trace the letters there, copy them, and paste them into the first window. Save the changes to the illustration. Keep repeating this process until the entire face is traced and saved.



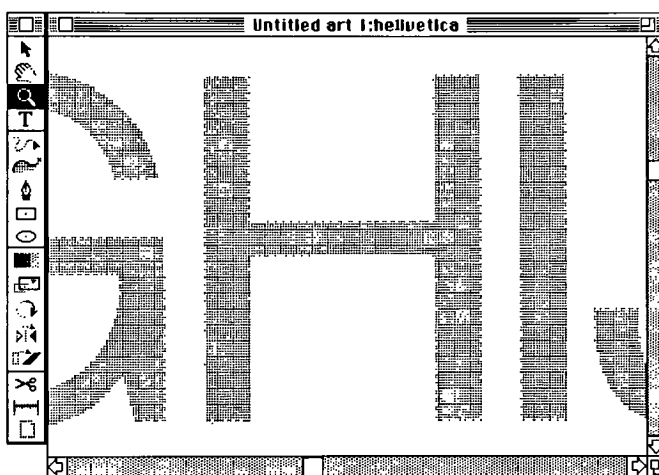
Tracing the letters

Letterforms are wonderful shapes when we look at them as shapes and not just letters. With Adobe Illustrator, you can trace any form with practice.

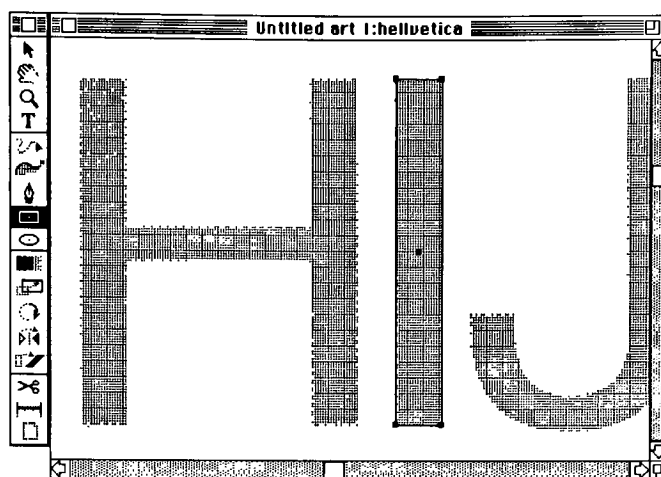
Letter-forms are great practice and you get the benefits of a workable letter or complete typeface when you are done. Practice makes perfect, so practice often and the skill learned from this book will come easier and more understandable. You will soon find the Bézier pen tool of great use to you, and it will be your best weapon to design with.

The examples chosen to demonstrate tracing get progressively harder as we go along. Helvetica is a san-serif

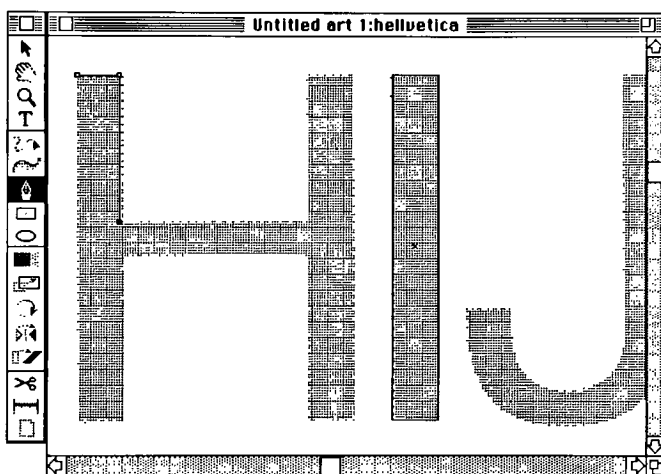
face that does not require that much skill to trace. We will start with Helvetica and progress to Garamond. These two typefaces are very familiar to designers making their forms more recognizable. Helvetica can be traced in less time than serif faces, but there are some additional short cuts that are discussed in this section that are useful. To start, we will create a new illustration and select the scanned Helvetica as the template to work with. We will start with the simplest letters. Find the letters 'H', 'I', and 'J'. These will be the letters we will start with. Zoom in to the letters so that we can begin.

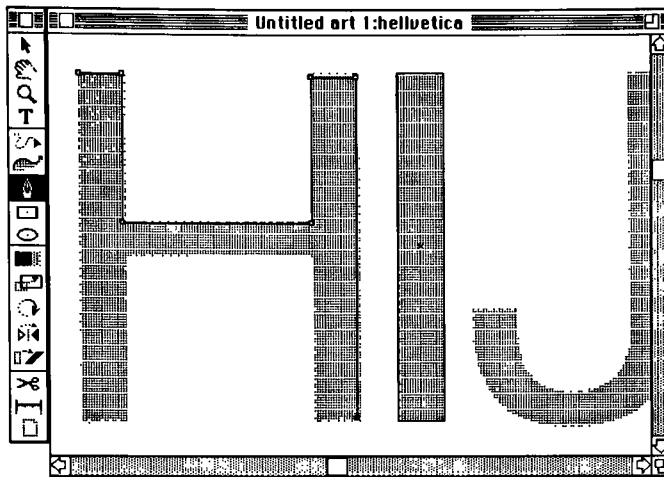


The Helvetica letter 'I' is the easiest letter to draw. Since the letter is simply a vertical rectangle, we will use the Rectangle tool to draw it. Select the Rectangle tool and position it on the corner of the letter. Click and drag over the template until the template is surrounded by the lines. If you find that what you get is undesirable, go to the Edit menu, Undo and try again. It is always easier and faster to use the Rectangle and Ellipse tools to draw those geometric shapes.

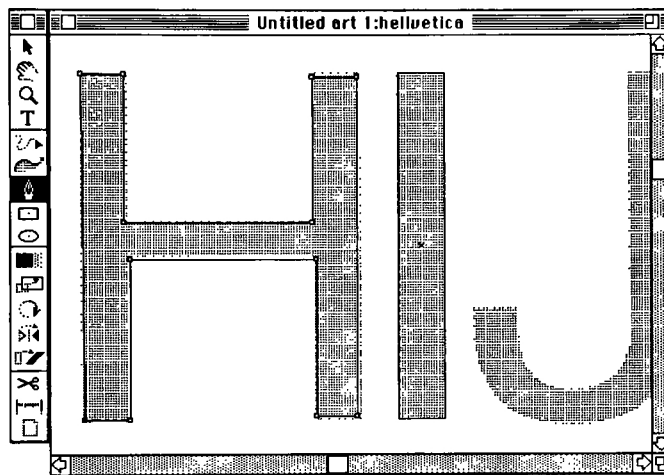


For the 'H' we will use the Pen tool to trace around the letter. The shortest distance between two points is a straight line and that is what we get by simply clicking the mouse from point to point or corner to corner on the template. To aid us with the horizontal and vertical alignments, we will hold down the Shift key. This places a point directly horizontally or vertically from the previous point.



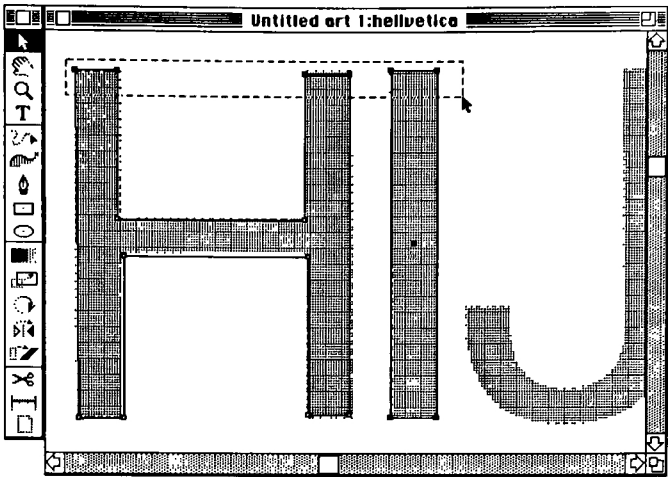


Continue around the letter while holding down the Shift key. You do not have to be accurate because we will adjust and align the points once all of the letter is completed.



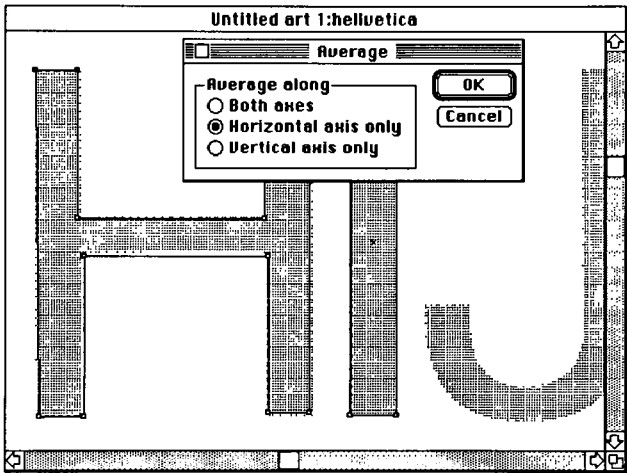
Finish the letter by clicking the last point on top of the starting point to complete the path. Once the letter is complete we can align the points. Notice that the points are not at all aligned in the illustration to the left. Adobe Illustrator provides an easy way to align the points.

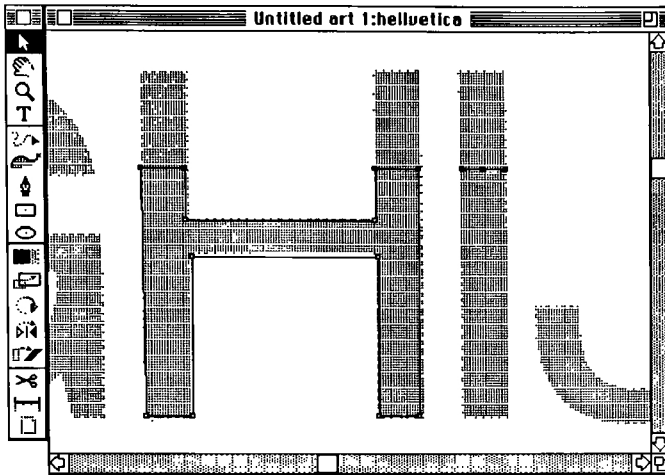
Select all of the points on the upper sections of the 'H' and 'I'. We will align them on the horizontal axis.



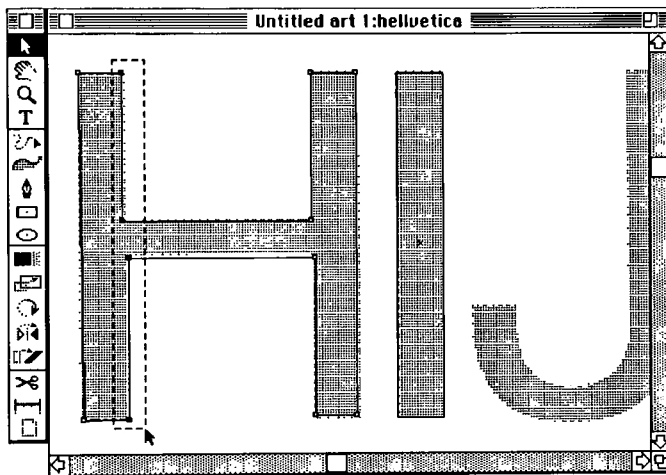
To align the points on the horizontal axis, choose Average from the Arrange menu or type Command-L.

Arrange	
Transform Again	⌘D
Group	⌘G
Ungroup	⌘U
Join...	⌘J
Average...	⌘L
Lock	⌘1
Unlock All	⌘2
Hide	⌘3
Show All	⌘4



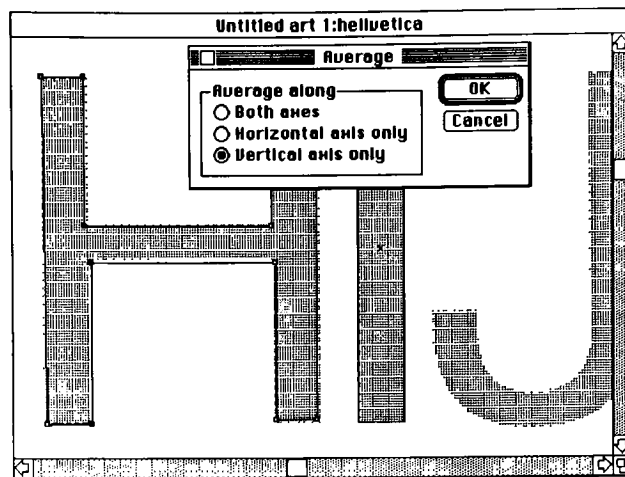


If you get the result that you see in the illustration, it is because the letter 'I' consisted of grouped points. Simply Undo the move and Ungroup the letter 'I'. Repeat the procedure and the you should get aligned points.

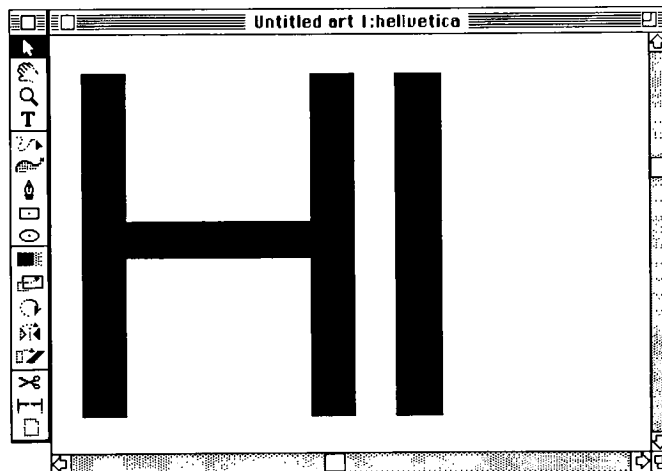


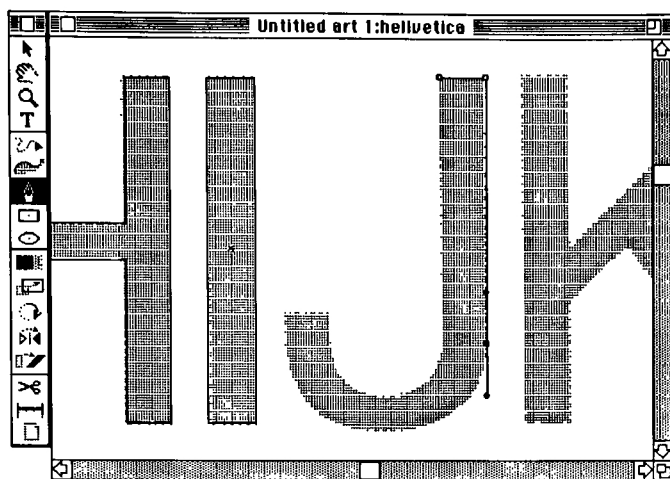
Select the vertical points to vertically align them. Type Command-L for the dialog box. The process is the same for vertical and horizontal alignment.

Make sure that you select the vertical alignment. Click OK and the alignment is complete. Continue around the letter until the points are all aligned.

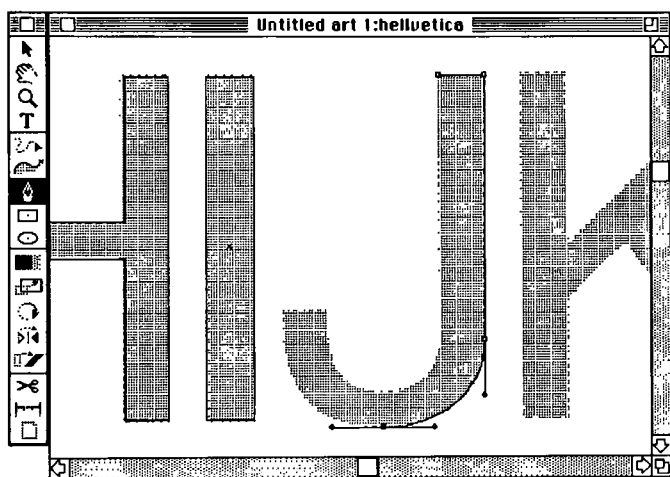


Previewing the results shows that the shapes are perfect letter forms.



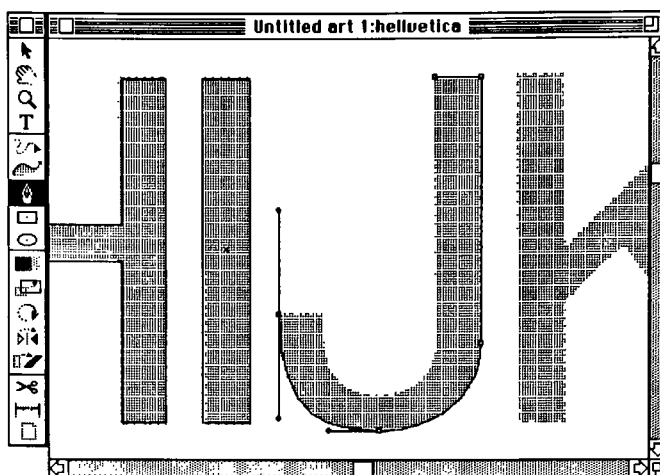


Straight lines combined with curves are almost as easy as plain straight paths. We will use the 'J' as an example. Start at the top and follow around clockwise as in the example. Click the mouse where the curve starts to form and drag the mouse about half the distance down to the next point with the Shift key depressed.

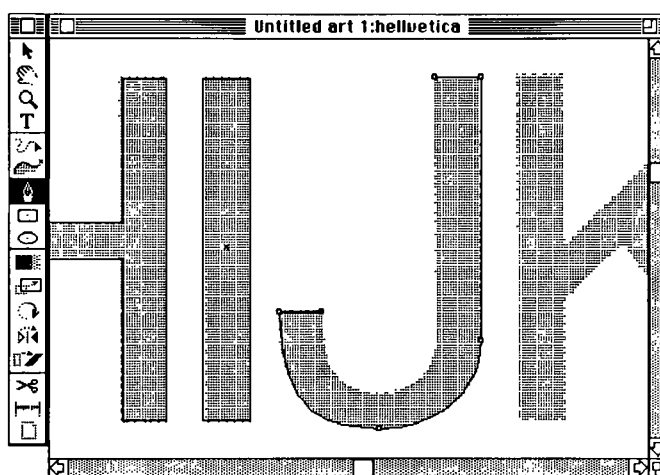


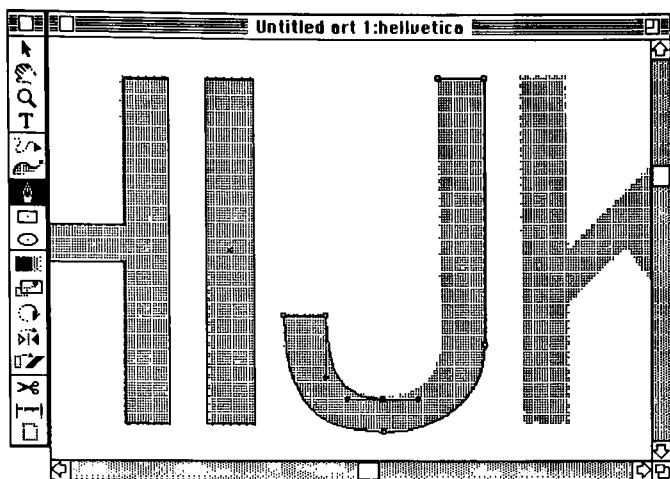
Click on the farthest point south of the letter and drag, with the Shift-key down, to the left. The curve should look like a section of an ungrouped circle.

Click on the left most point and drag up until the curve fits the template.

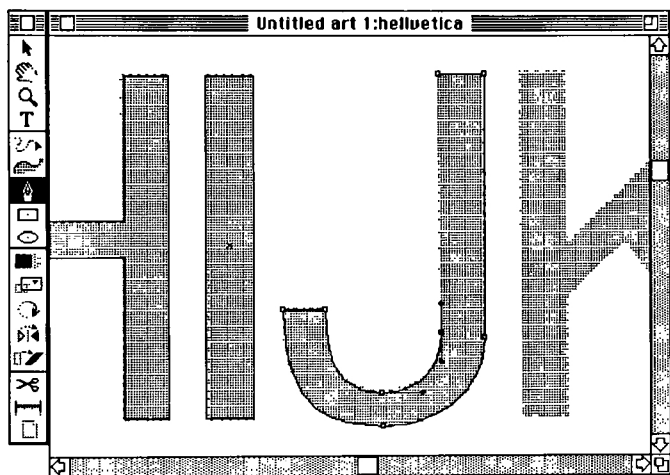


Click directly on top of the point you just put down. This will stop the curve. From a curve line to a straight line transition, you need to click again directly on top of the point and then click for the next point. This breaks the other curve-to handle creating a curve to straight line corner point transition.



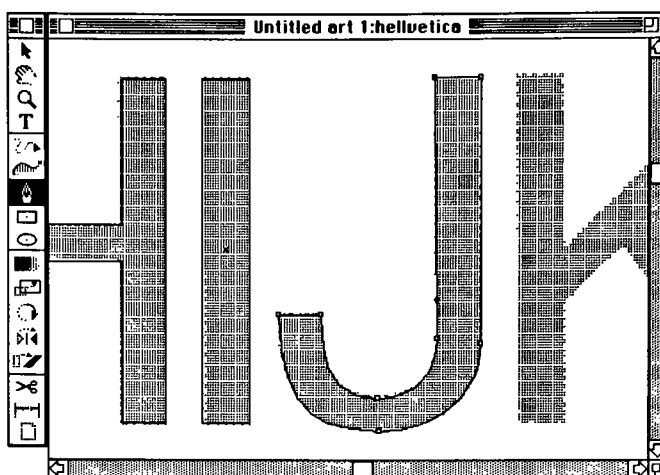


To create a straight line to curve line, click on the point you just placed and drag the handle down using the Shift key. This creates the straight line to curve transition needed for the next point.

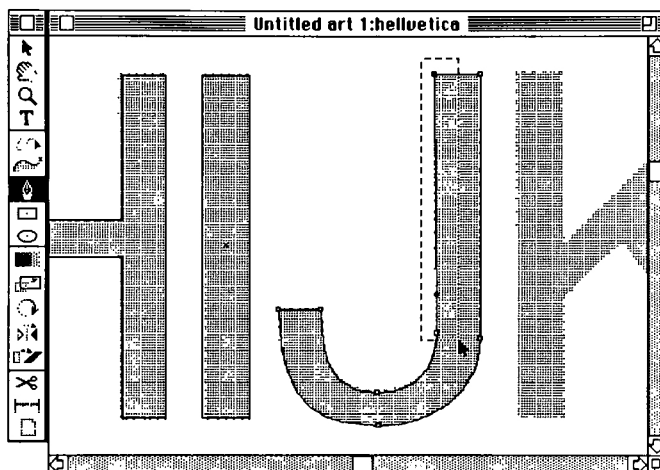


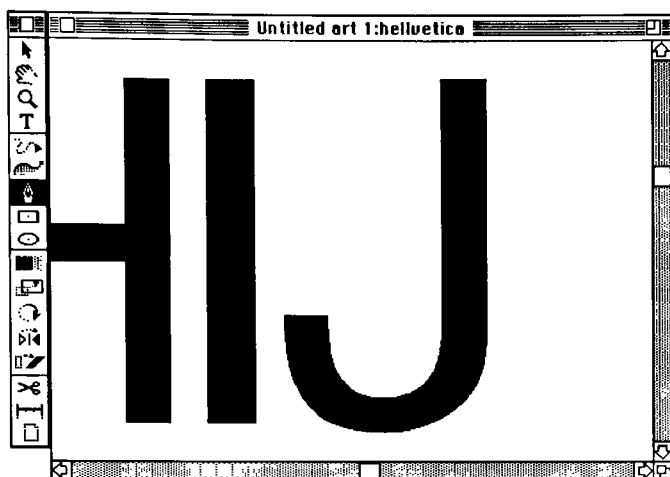
Click on the next point and drag up. If you are following the process and placing the points as you see in the examples, the curves will always match the template.

Finish the form by clicking on the original point. Notice that in the example, the points are not in line. We need to adjust these points.



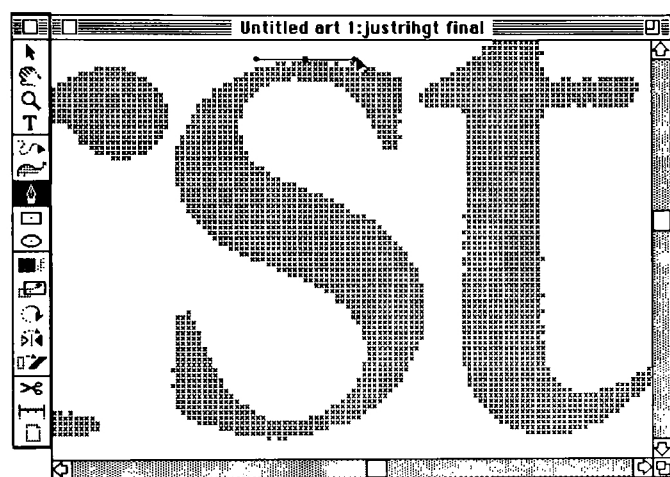
Use the Command key to convert to the Arrow cursor to select the points that are out of alignment and type Command-L. Choose the Vertical axis only and the points will align on the vertical axis.





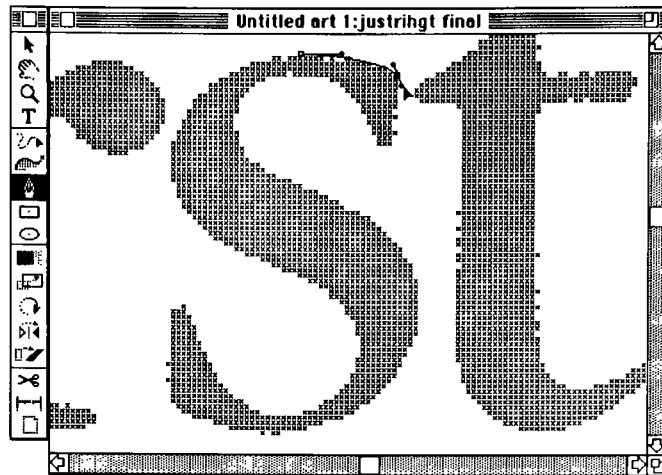
In the Preview mode, we see that the letters look nice enough to use for logos, headlines, ligatures and whatever your imagination can come up with.

Try to trace the rest of the alphabet for yourself. Remember to use the Shift key. Each technique we used can be applied to tracing any typeface, shape or form. Practice makes perfect. You should be able to master the Pen tool and with it do the work in minutes that took hours before.

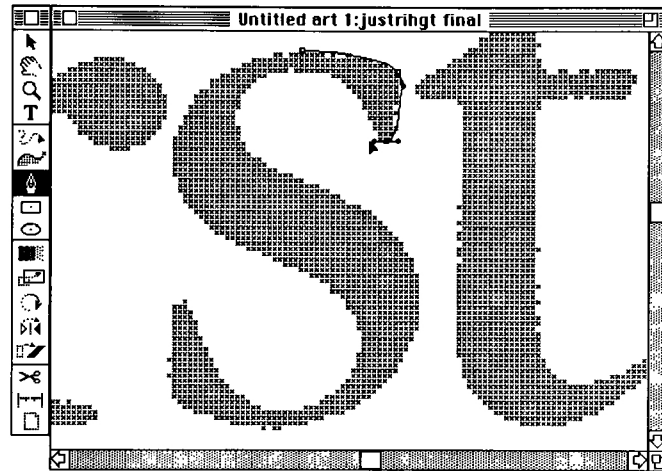


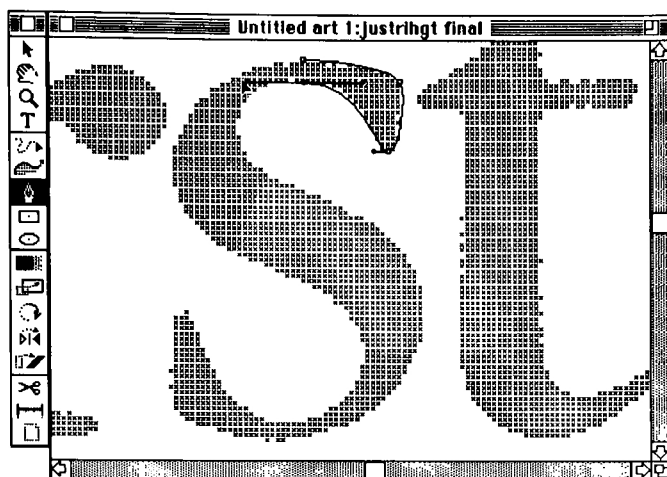
The best results with the Pen tool can easily be obtained using the method described below. The key to the Pen tool is to use it with the Shift key held down. Using the Pen tool with the Shift key creates perpendicular tangents to a curve. Open the scanned Garamond 's' and zoom in. Find the upper most tip of the 's' and hold down the Shift key while dragging the mouse to the right. You will see curve-to handles that are horizontal.

On this letter we will try some variations to achieve the best results. Position the cursor on the tip of the next area. Observe where the next point we will use in the example to the left. Click and drag down to the right. Do not hold the Shift key because the we want to set up a smooth transition curve to the next point. By following the example we will see the results will be desirable. The best way to find out where to place the next point and where to drag the mouse simply takes practice.

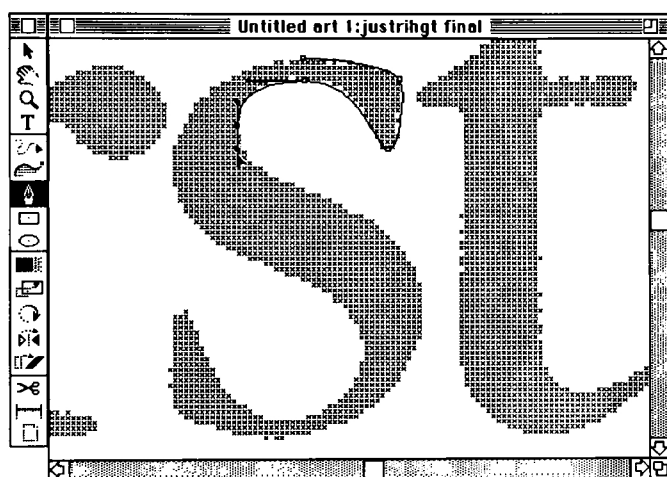


Click the mouse at the tip of the curve of the 's'. Hold down the Shift key and drag slightly to the left. We see that the curve should bow out to fit the template.



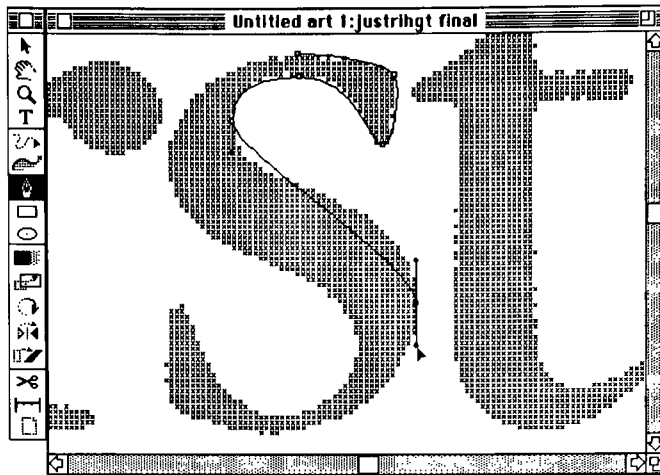


By setting up the previous point, the next point and curve should be as simple as clicking the mouse at the upper point of the template and holding the Shift key down while dragging the mouse to the left and watching the curve fit exactly into position.

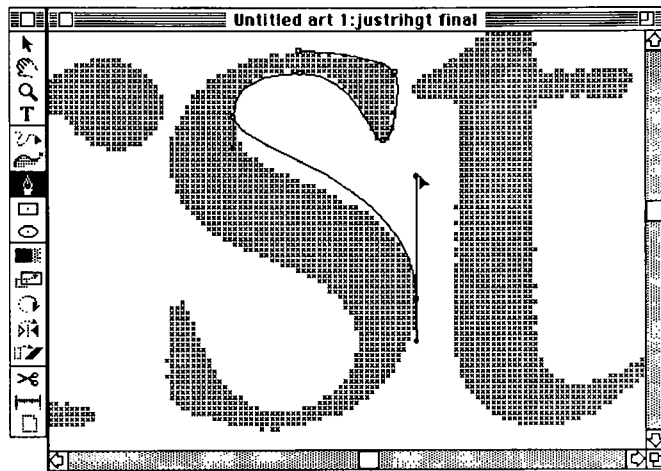


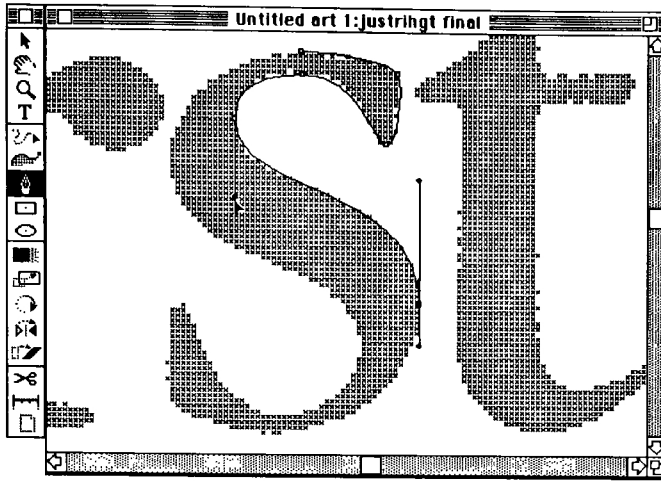
The same process is repeated for the next point. The only difference is that we will be dragging the mouse down instead of to the left. Once again the curve should fall directly into place.

Place the next point on the far right point on the 's' curve. Drag the mouse down with the Shift key. Follow the example to see the desired effect. The curve can always be adjusted after the initial points are placed. There is no need to try making the curve fit at the time of putting the points down.

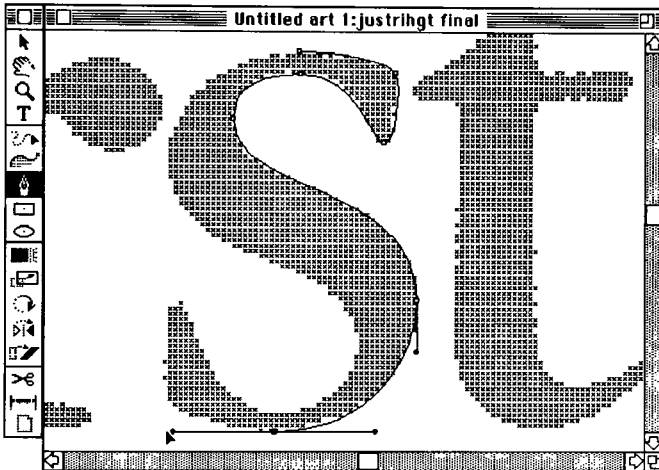


Depress the command key to transform the Pen tool into the Arrow cursor. Select the curve-to-handle and drag the handle up. At the same time you drag, depress the Shift key to keep the handle on the vertical axis. This maneuver requires that both the Shift key and the Command key are depressed at the same time. In many moves similar to this, a combination of key strokes and mouse clicks are used. I tend to use my thumb for the Command key and my index finger for the Shift key. What ever is most comfortable for you should be used. In any case, a two-handed Mac user will always work faster than a mouse-only user.



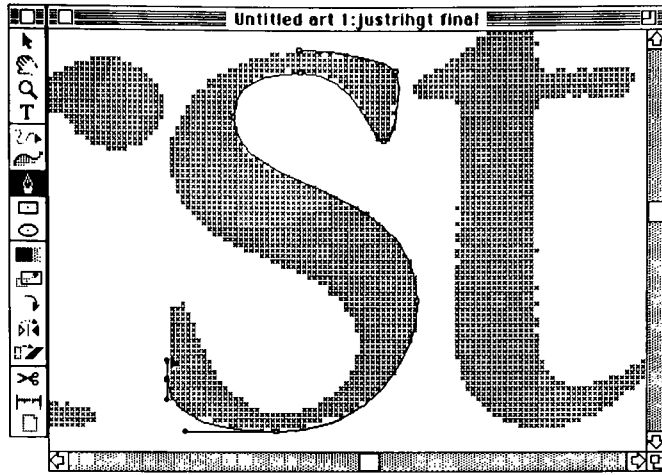


Once the curve is adjusted on one end, the other handle must be adjusted to make the curve match the template. Select the other point and drag down with the Shift key. The curve should start to fit the template. Keep adjusting until the curve fits.

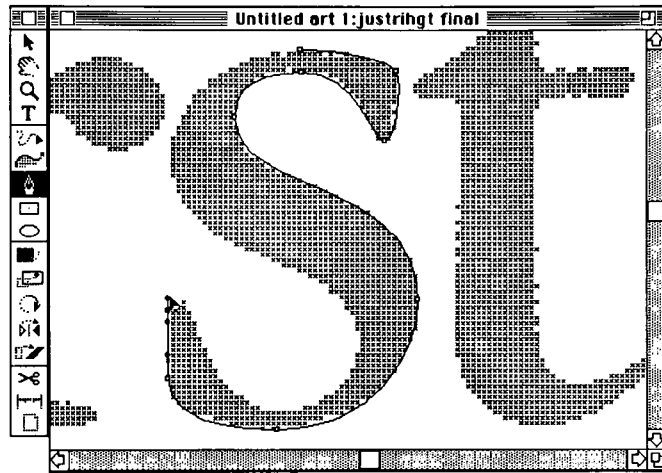


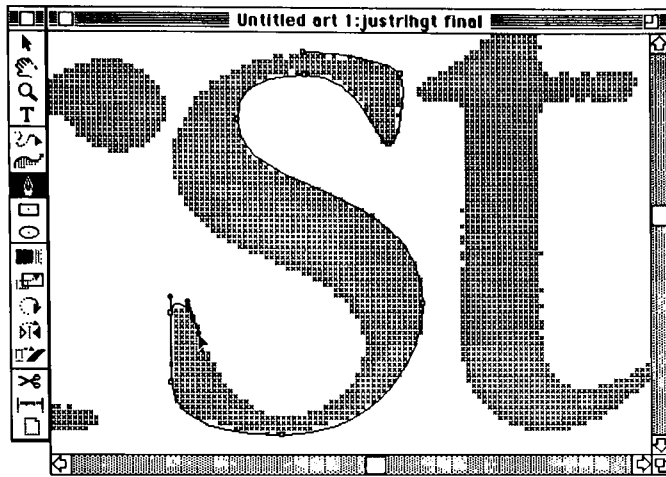
Like the top, we will place a point on the farthest tip south and drag to the left with the Shift key keeping an eye on the curve to see when it matches the template.

Place the next point as shown in the example and drag the mouse up with the Shift key depressed until the template is matched.

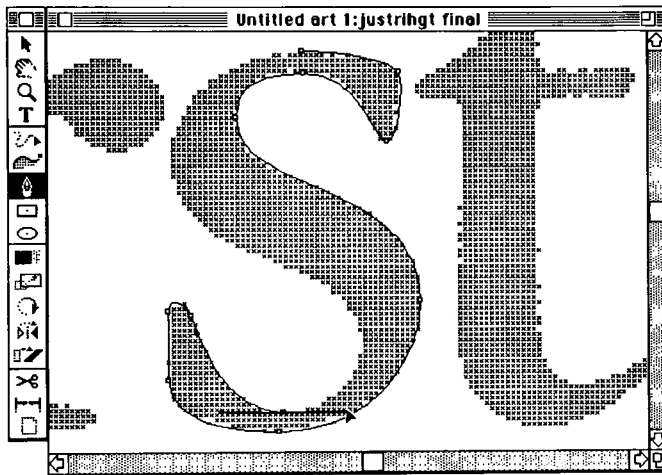


Hold the Shift key down and click the next point. The Shift key will keep the point on the same axis. Drag the mouse up slightly up with the Shift key still depressed. The purpose of dragging the handles up is to set up the next curve. If you had simply clicked the mouse, then that would have made a simple anchor point where smooth curves are desired.





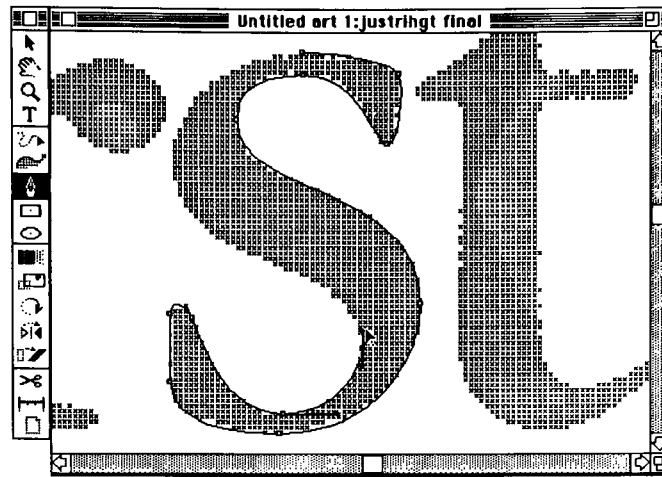
Click the mouse on the next point and drag the mouse along the direction of the template. the serif of the 's' should form and the curves should match the template.



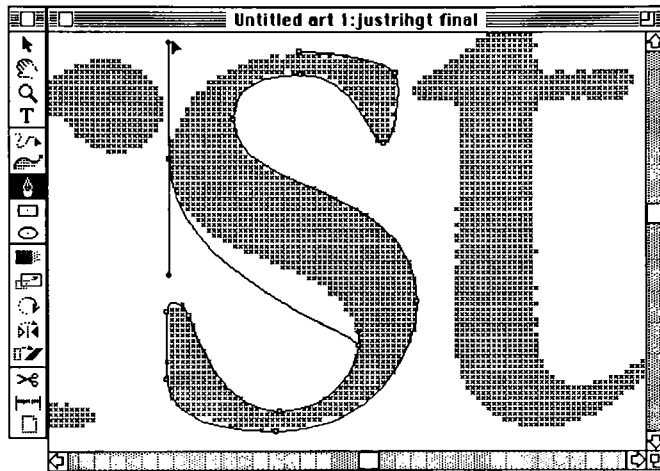
Continue to the next point and repeat the same process.

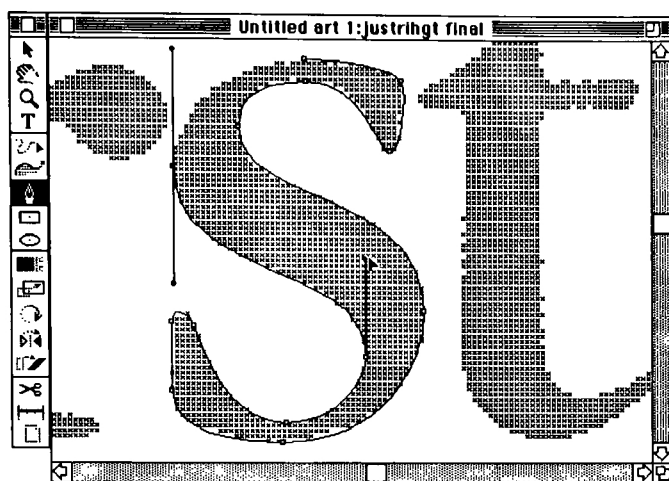


Like the opposite side of the 's', we will perform the exact same motions. Follow the illustrations to see where to click and how far to drag the mouse. Remember to hold the Shift key down when dragging the handles.

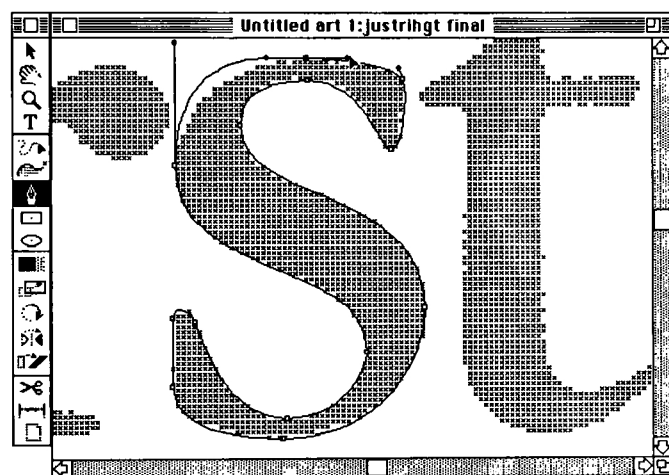


Click on the next point (farthest to the left) and repeat the process. Remember that you do not have to make the curve fit the template in one move. Adjustments can always be made later.





Adjust the handles until the curve fits the template.

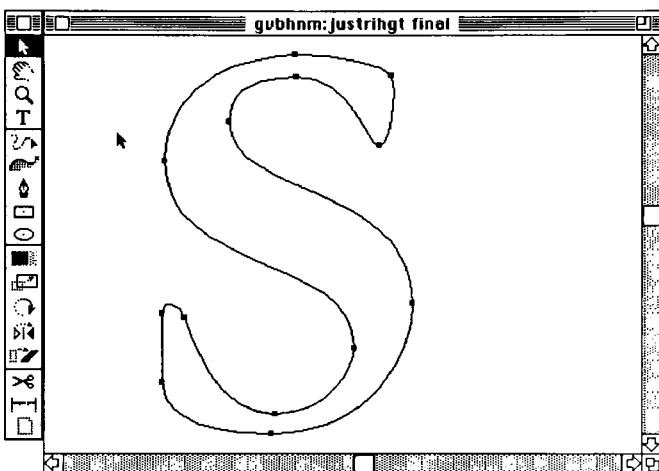


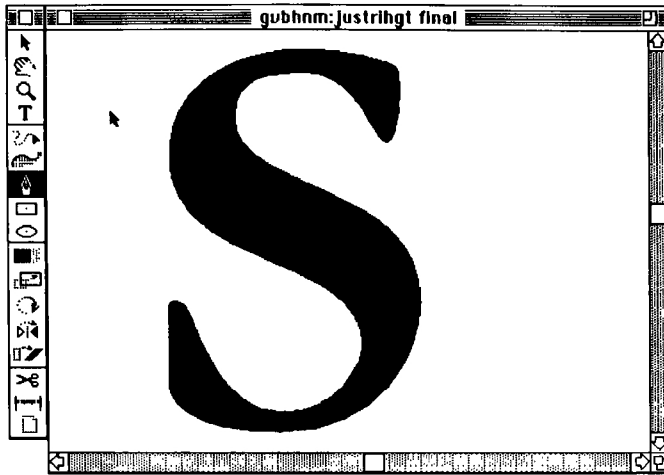
Click the mouse directly on top of the first point. Drag the mouse with the Shift key until there is enough curve to work with. Make sure you drag the mouse to the right. While dragging the cursor to the right, you will see a curve-to handle grow to the left. We need that handle to adjust the curve later.

Use the Command key to select the curve and drag it into place. If the previous move was completed correctly, then pulling the curve into position should be as simple as dragging the curve slightly down.

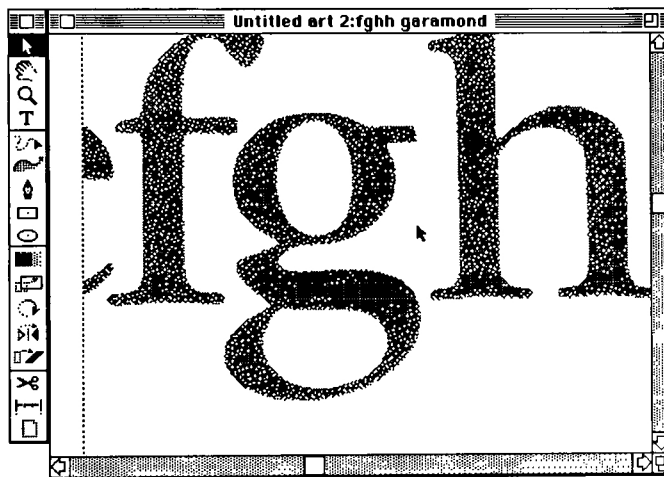


Once complete, we can view the artwork without the template. Depress the Command-w keys or select Artwork Only from the View menu to see the curves with no template getting in the way.



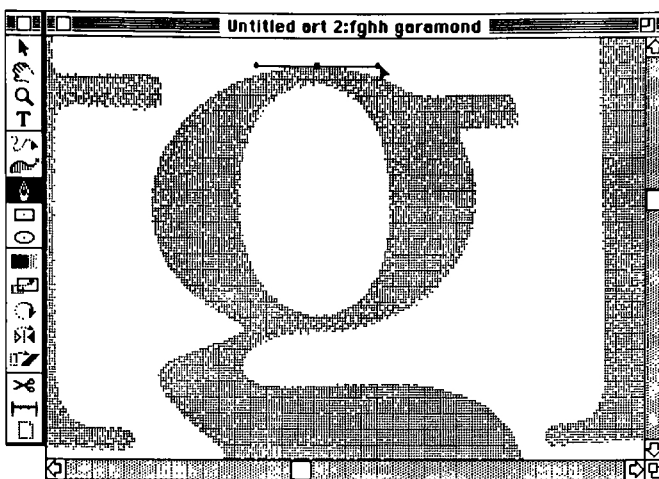


When we select Preview Illustration from the View menu, or type Command-y we should see a nice ready-to-use Garamond 's'.

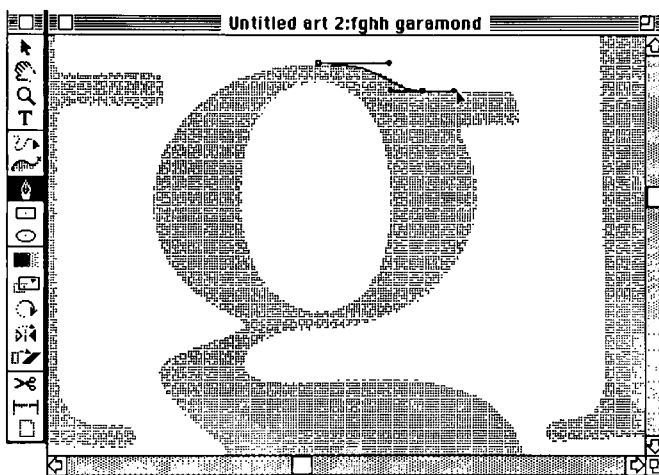


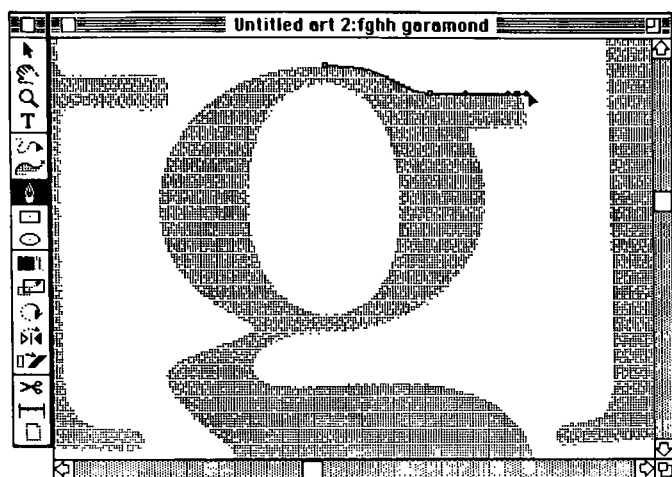
Now we will advance to a much more challenging letter form. The Garamond lowercase 'g' has an 's' shape to it. It also has two counters that need to be dealt with. Locate the 'g' and position it on the screen to begin tracing.

Find the upper point of the letter 'g' shape as we did with the letter 's', hold the Shift key down and drag the mouse to the right.

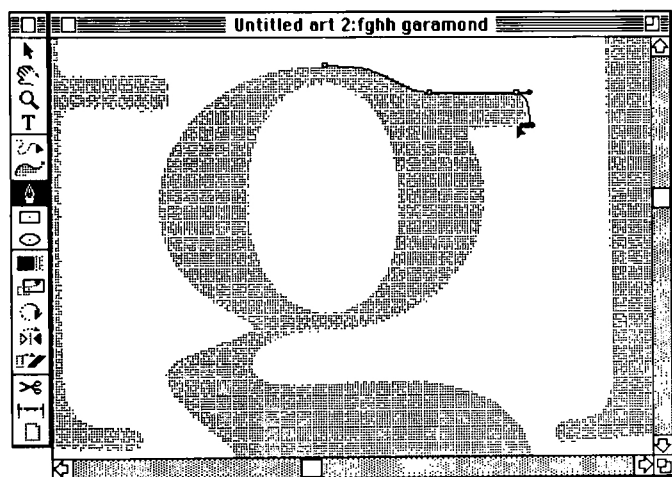


Click the mouse at the next point of the 'g'. Drag to the right with the Shift key held down. The farther you drag the mouse to the right, the more the curve can be adjusted. With the Shift held down, move the mouse back and forth until the curve matches the template.



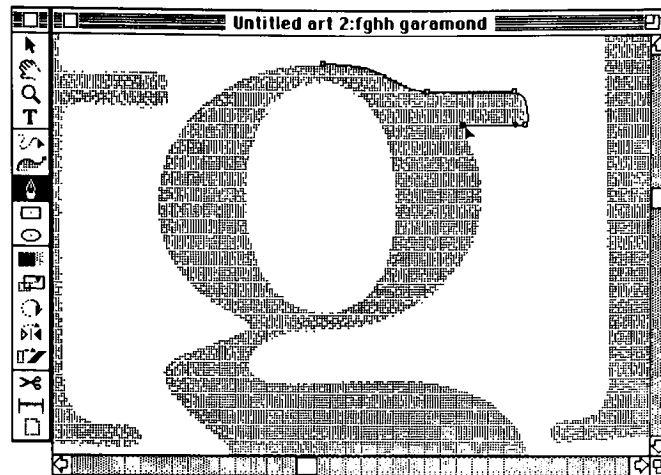


To get the next point horizontally across from the previous point, we turn to the Shift key again. Before clicking the next point, hold down the Shift key first. You do not have to be precise about where you click the mouse. The Shift key will constrain the next point placing it only on the horizontal axis across from the previous one. Keep the Shift key down and drag the mouse slightly to the right.

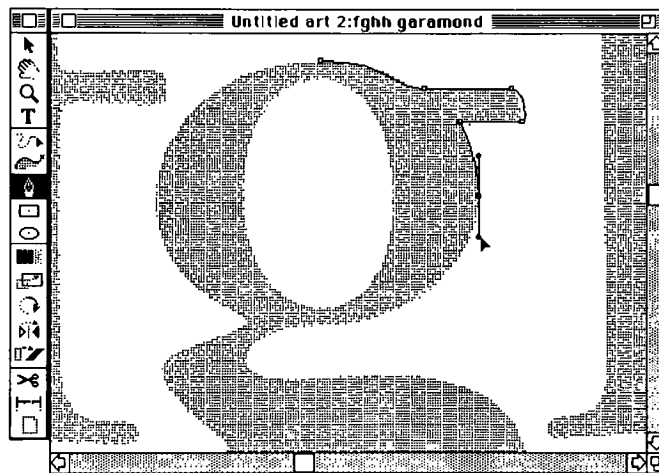


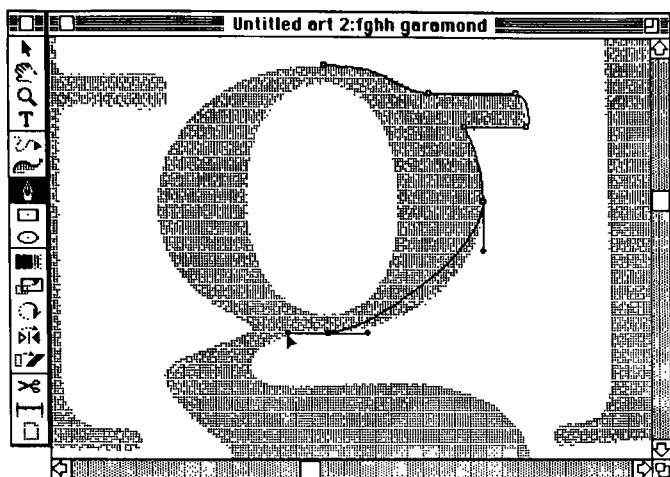
Go to the next area with no keyboard keys depressed and click and hold the mouse. Once the point has been established, pull the mouse to the left while depressing the Shift key. This creates the arch that the serif requires.

Use the Shift key again to establish the next point. This time we only want a simple click. This will create an anchor point with no curve-to handles.

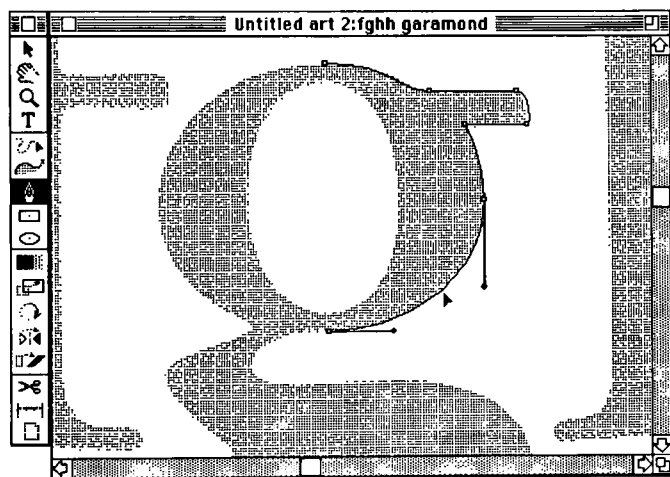


The next step will show the power of using the Shift key. Find the farthest point to the right of the curve. Click the mouse at the point then depress the Shift key and drag the mouse down. The more you pull the mouse down, the more the curve curves or arches. You will see the curve match the template exactly.



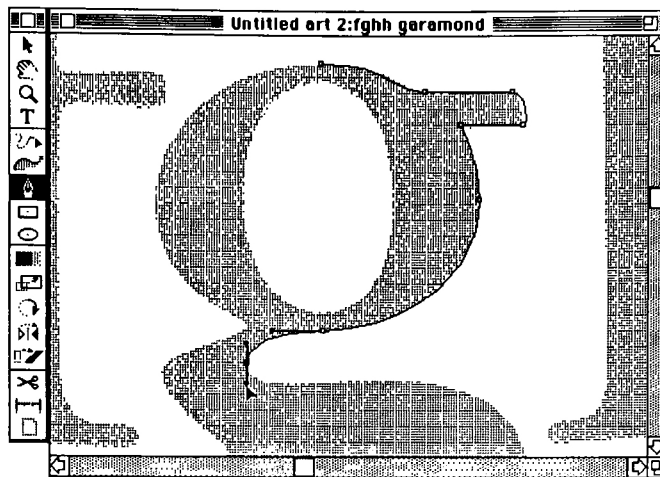


The next point on the 'g' and which is indicated in the example to the left. Click the mouse and then press the Shift key. Drag to the left. Drag only as far as the example shows. The curve falls short of matching the template, but there is a quick way to adjust the curve to match exactly.

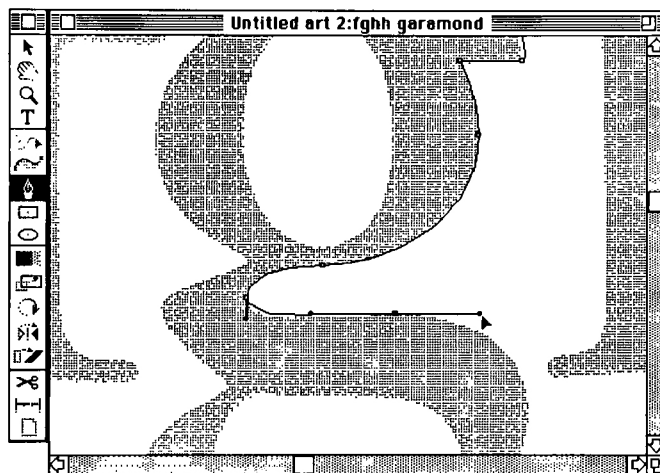


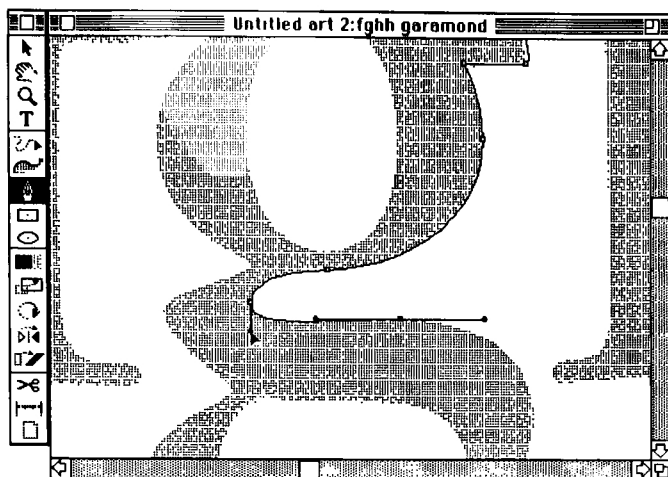
Select the arrow cursor from the tool box or hold down the Command key (this temporarily converts the pen tool to the arrow cursor as we see in the example) and click on the curve. Illustrator gives the user the ability to grab a curve and adjust it. Pull the curve into place and an exact match to the template should occur.

Choose the pen tool again and continue to the next point on the 'g'. If the path is broken (the path does not continue to the next mouse click), then click on the last point established and drag the mouse to the left with the Shift key down. Sometimes when you change the pen tool to the arrow cursor, there is a tendency to click the mouse on the screen any where. If this happens the path stops and the Pen tool thinks it is starting a new path instead of continuing the previous path. Click to the next point and drag down until the path matches the template.

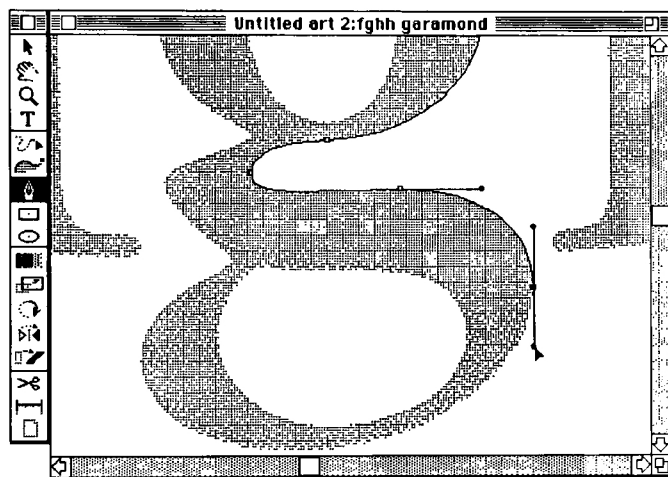


Continue to the next point on the 'g'. At the top of the descender, click and drag with the shift key down. We see that the curve does not match the template, so we will adjust for that.



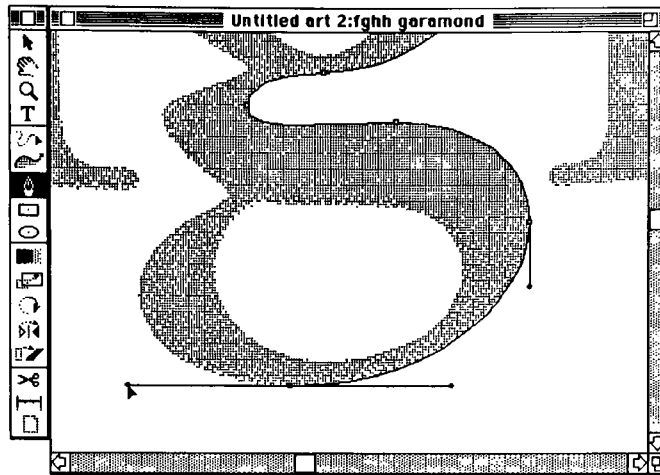


Once again we need to switch tools. Hold down the Command key to convert the cursor to the arrow (I find using keyboard commands and short cuts to speeds up work tremendously). Select the curve-to point and pull down on it. Hold down the Shift key at the same time so that the curve-to points stay on the vertical axis. The curve should fall right into place.

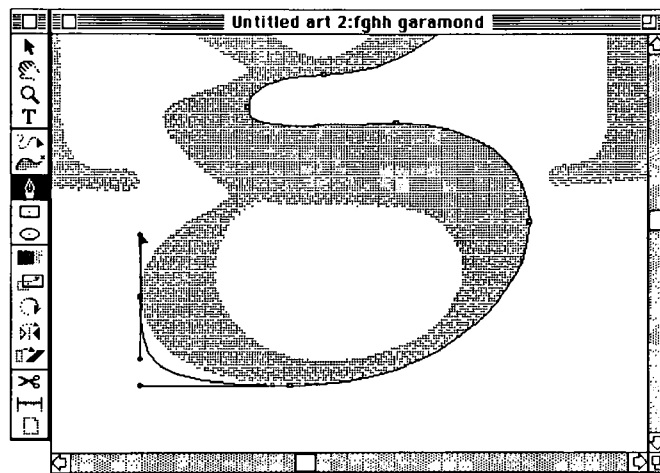


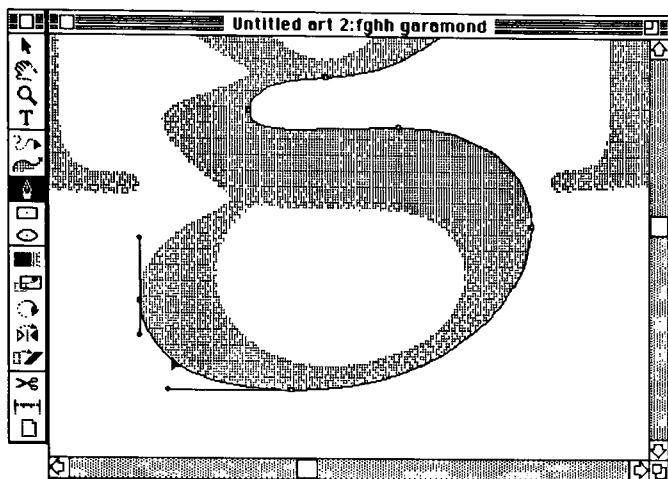
Find the right most place on the descender and click, depress the Shift key, and drag down. The curve should stretch into place.

Find the lowest point and repeat the same process as shown. Remember that at anytime you miss place a point or do anything wrong by mistake, simply Undo the move and continue.

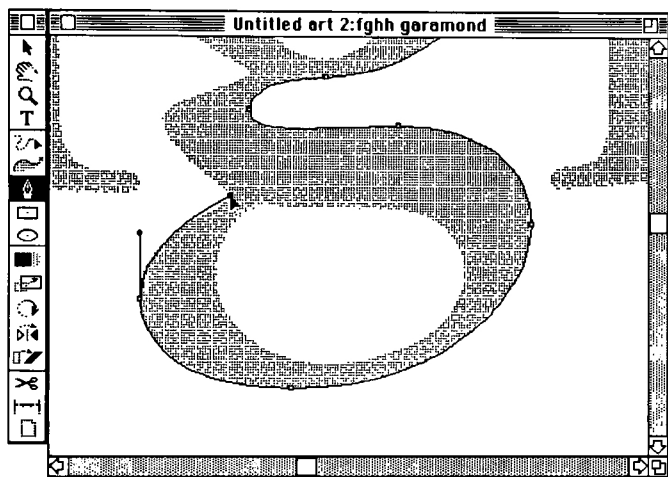


When establishing a curve to fit the template by dragging the mouse out far to the left, curves can be over-extended. The example shows how the curve over extends the template. Continue as though the curve matches exactly and simply go back and adjust.



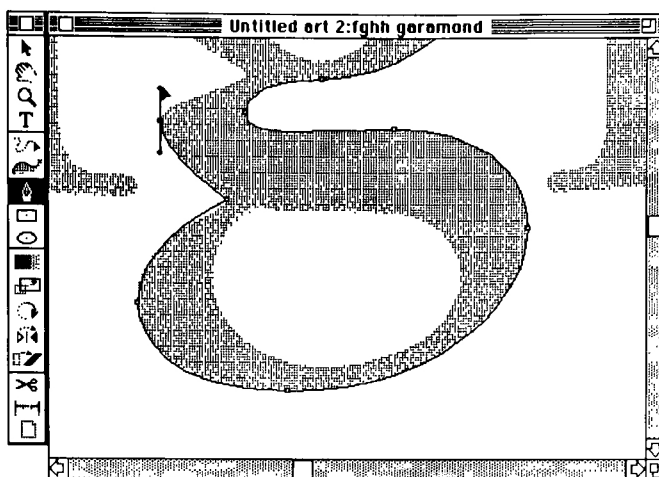


Using the Command key, move the curve in place to match the template.

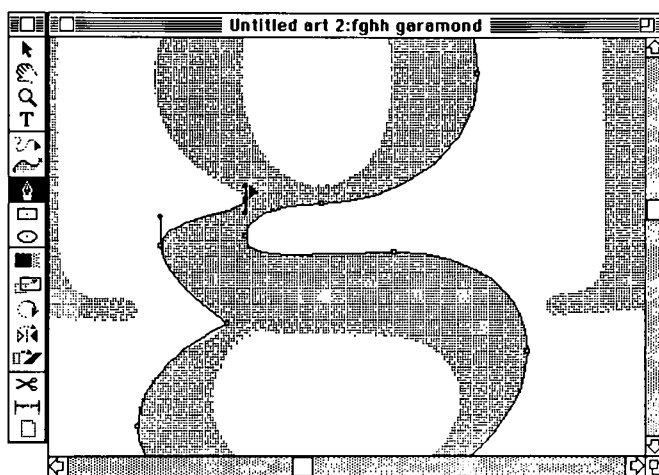


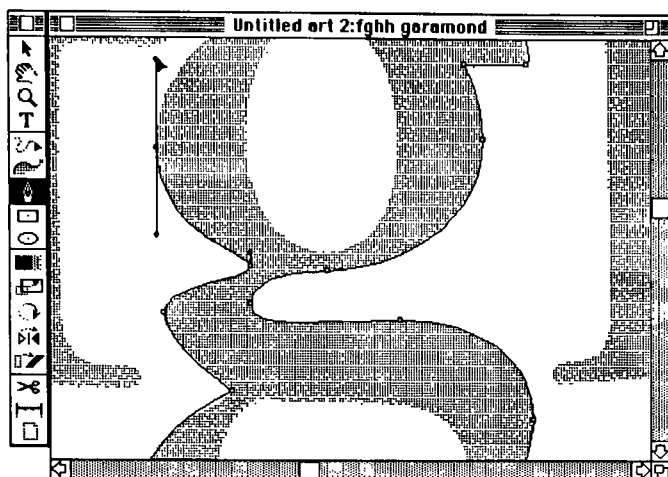
Continue to the next point with a simple click establishing an anchor point. If the previous curve-to handle was dragged to the correct position, then the curve should match the template with no adjustments.

Continue to the farthest point to the left and repeat the process.

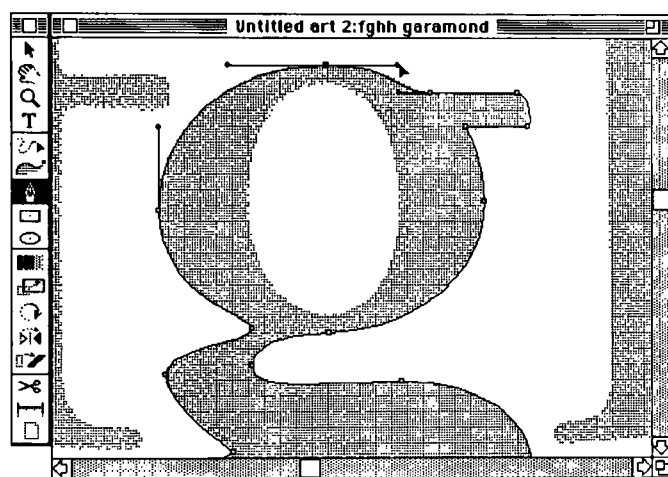


The next point should be placed as in the example and the process should be repeated. The curves should be falling into place.



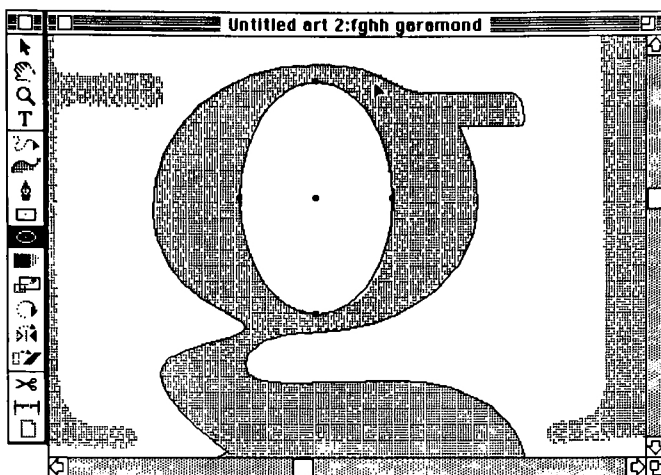


Continue on around the 'g' remembering to use the Shift key.

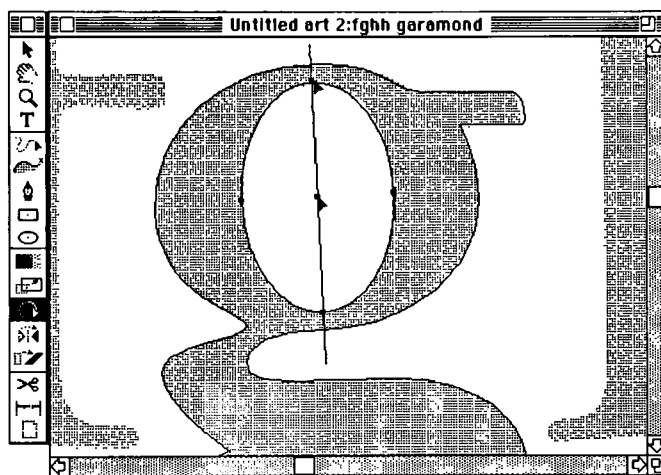


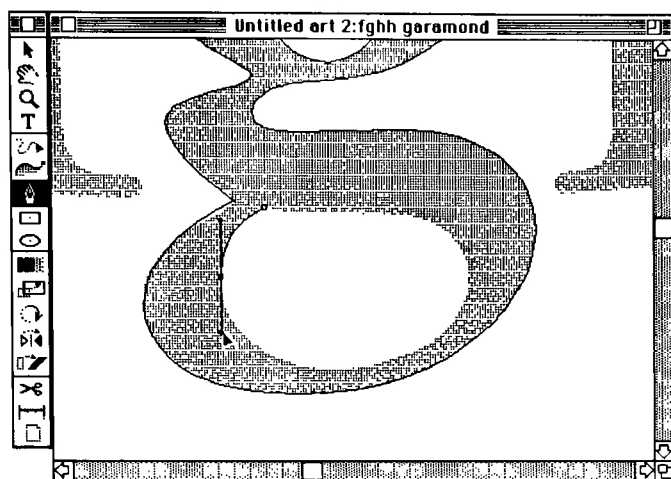
To finish the path, click on the starting point and drag the mouse (with the Shift key down) to the right until the curve matches the template. If you miss the starting point, simply Undo and attempt the curve again. Just position the cursor directly over the point and click. If you noticed, we are drawing the outside of the 'g'. The letter will consist of three parts. The outside, counter and the lower counter of the descender will all be separate shapes.

To draw the counter, use the ellipse tool. Visually find the center of the counter and with the Option key down (this draws the ellipse from the center) drag the mouse until the ellipse matches as close as possible to the template. This may take a few attempts, but just undo the mistakes. Only practice will yield better results.

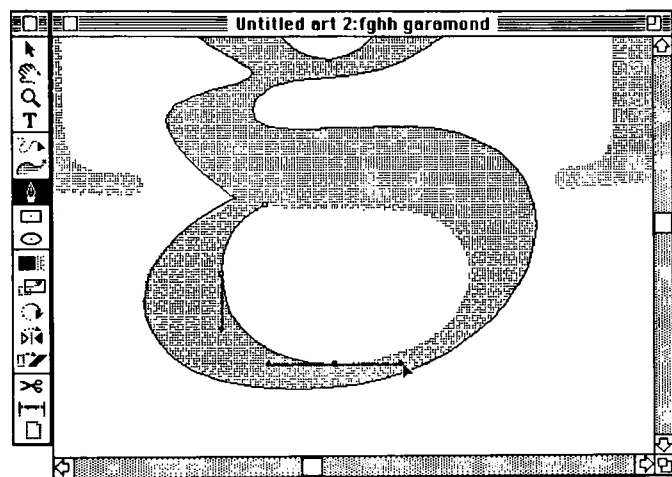


Garamond has a backwards slant or stress. We need to rotate the ellipse to match the stress. Use the rotate tool to rotate the ellipse. Click in the center of the ellipse. Then click the mouse at the top of the ellipse and drag to the left. The line in the example shows the angle of rotation from vertical. After the rotation is complete, select the ellipse and ungroup it for later purposes.



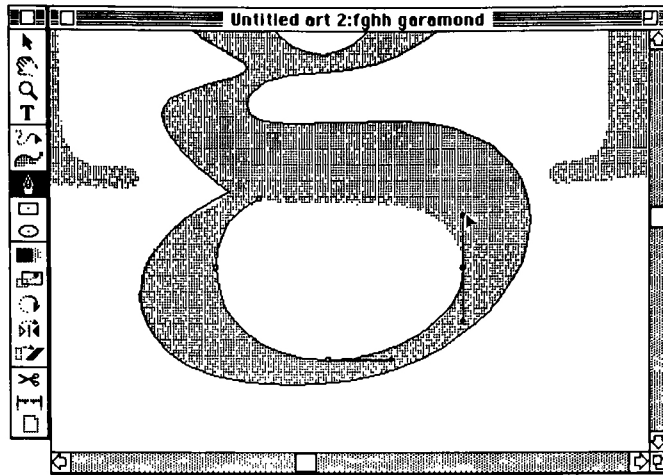


Now we need to work on the counter of the descender. In the example, we went clockwise around the outside of the letter. For the inside of the counter we will go counterclockwise to show that either approach is possible. use whatever direction you are more comfortable with. Click once to establish the first point. Find the next point and repeat the Shift key process.

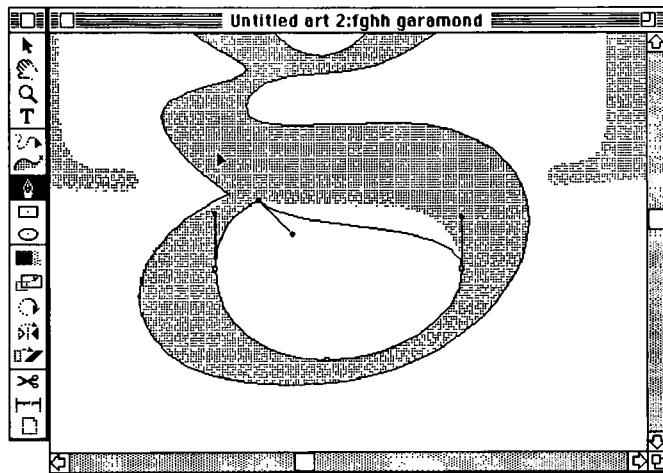


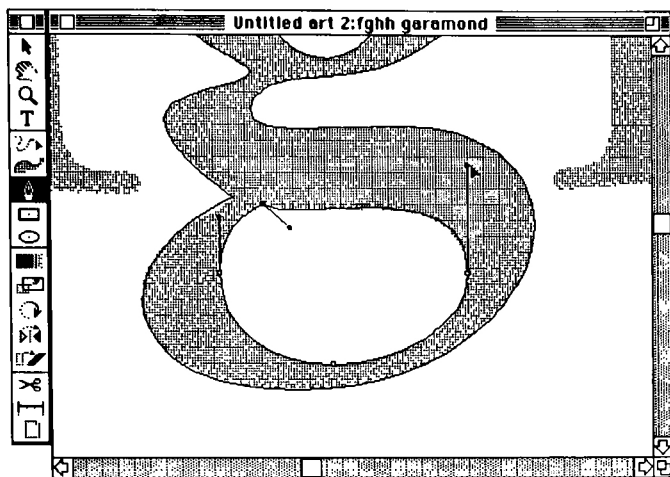
Continue around the shape.

If you are using the Shift key and finding the farthest points out on the shapes, then the curves will always fall into place.

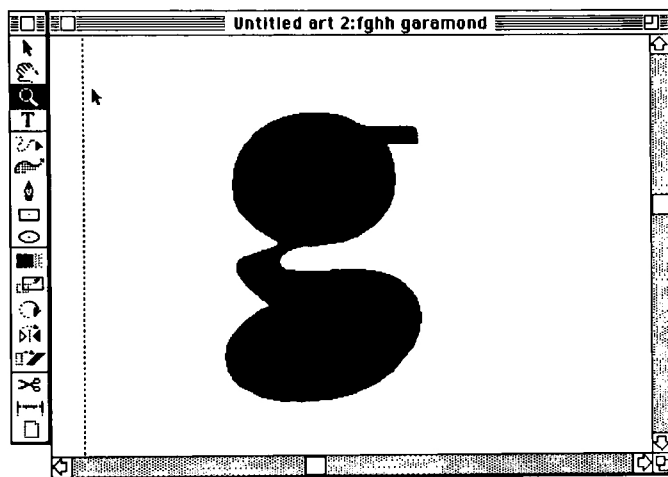


To end the path in the counter, click the mouse on the first point and drag up, to the left at about a 45 degree angle. Follow the example to the right to get an understanding of what is happening. We see that the curve does not match the template. We need to adjust for this.





Once again we depress the Command key to convert to the arrow cursor. Click and drag up the handle with the Shift key. The curve should match the template. The previous curve point handles created a tension that made the sloping effect needed to match the template. Practicing with the Bezier pen tool will make predicting the placement of points easier.



If we were to Preview the illustration, the result might look like the example. What we have here is three shapes stacked on top of one another all painted the same color.

Select the two counters and choose Paint from the Style menu. Select a Fill of White and None for Stroke. The Preview should look like the example to the right.

One important thing to remember is to always draw the outside of the letter first. The counters should be drawn next. Illustrator always puts newly created items on top of previously created items. If the counter was drawn first, the outside letter shape would cover the counter and correct rendering would not be achieved. Also notice that there are three separate shapes all stacked on top of each other.



Composing a Logo

Designing logos is the main purpose behind tracing typefaces. Once the typeface is in this form, it can be used over and over again. Letters can be reshaped, resized and altered.

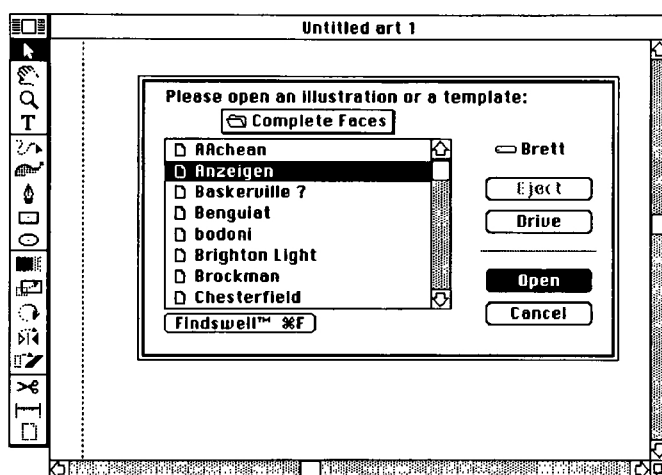
Logos can be created more easily using these traced letters than traditional hand lettering. Each logo you design is ready for client approval. Once the client approves the design, the output is as simple as a push of a button.

In this section, I will take you through the construction of the AG logo. The emphasis here is on the construction of the logo, not the

design. Any two or more letterform combinations can be put together using the same technique. In this case the logo consists of two typefaces. The 'A' is Anzeigen, and the 'g' is Chesterfield. In this section we will cover copying shapes, painting them, cutting & merging shapes, and creating patterns.

The first step is to create a new illustration by selecting New from the File menu, or typing Command-N from the keyboard. No template is needed, so click None.

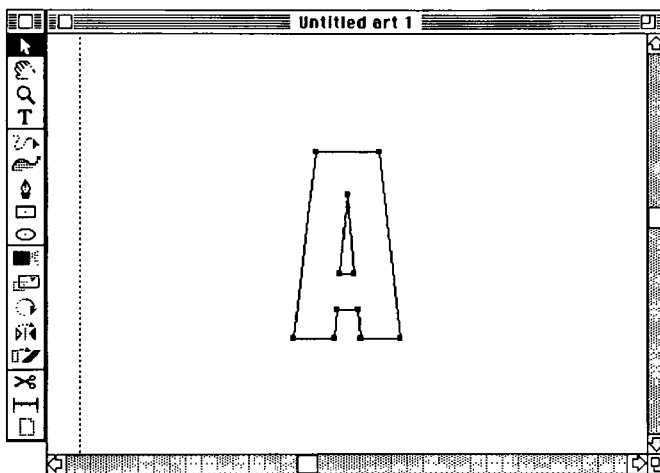
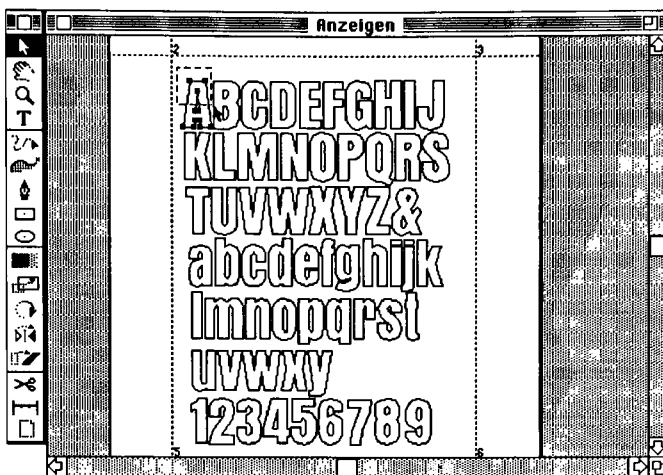
The next thing we want is the Anzeigen 'A'. Open (Command-O)

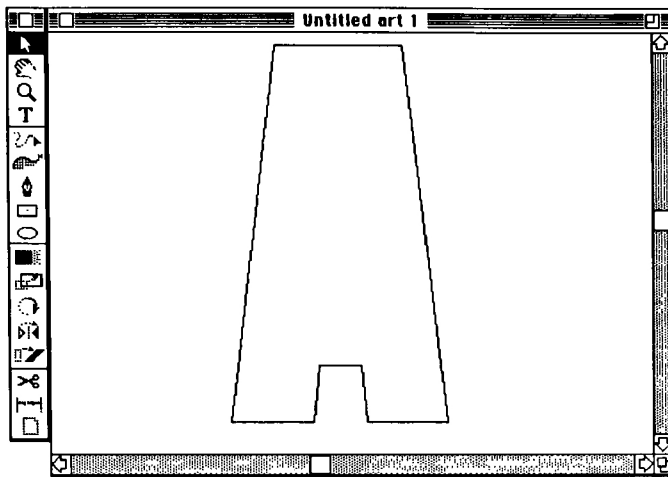


the Anzeigen typeface and select the capitol 'A' by dragging the cursor over the letter while holding down the Option key. This selects the entire letter, paths and anchor points. Make sure the entire letter is selected. Do not forget the Option key or only sections of the letter will be copied to the clipboard. Type Command-c or select Copy from the Edit menu.

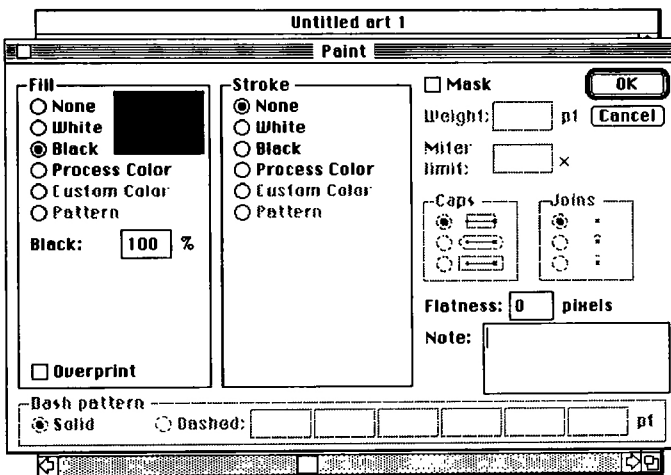


Go to the Window menu and select the Untilted window. This brings the Untilted window to the front. Type Command-V or select Paste from the Edit menu. If only parts of the 'A' appear simply delete what does appear and repeat the process.



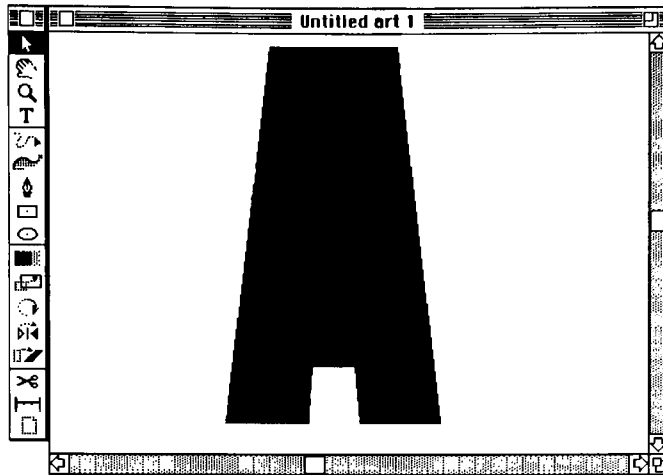


The advantage of outlined fonts is that we can selectively choose what we want or do not want to show. In this case we want to delete the counter of the 'A', so simply select it and delete.

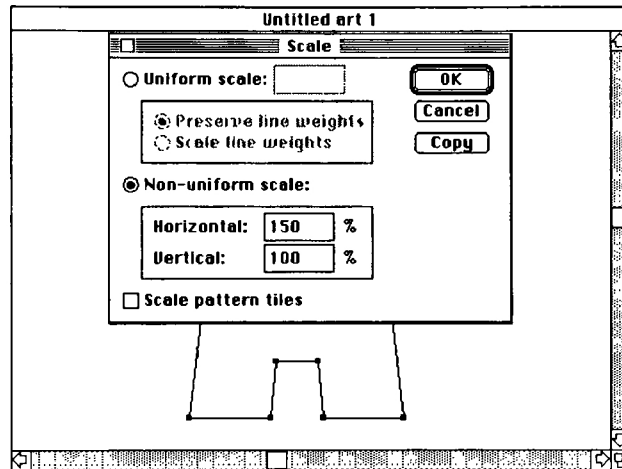


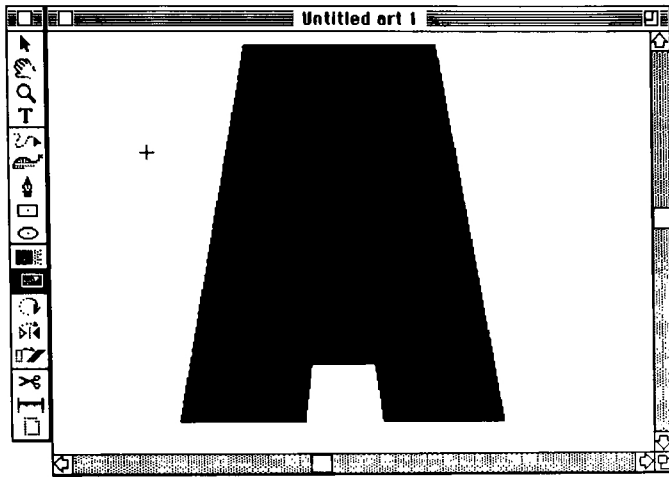
Select the shape now so that we can paint it black. The paint menu is activated by typing Command-I or by selecting Paint from the Style menu. Give the shape a Fill of black at 100%. We do not want any outline, so select None for Stroke and click OK. Another shortcut is to press the Enter key from the number keypad to OK. This process is quicker than moving the mouse around on the screen.

Let's see what we have so far by typing Command-Y or by selecting Preview Illustration from the View menu. We see that the shape is a solid black with no stroke.

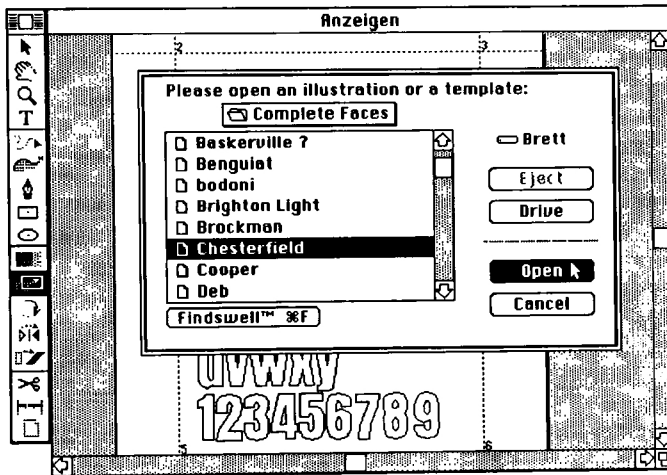


Now we want to expand the shape wider than it is now. There are two ways to do this; visually or mathematically. The scale tool used by itself on a selected item will scale an object by clicking and dragging. Combining the Shift key will scale the item only horizontally, vertically, or proportionally, depending upon what direction you start dragging. In this case we are going to combine the scale with the Option key. This accesses the dialog box for entering scale percentages. Click the mouse in the center of the shape. (Where you click sets up the origin point for the scale.) The scale dialog box appears where we will enter a Horizontal scale of 150%. Click OK and the scale is complete.



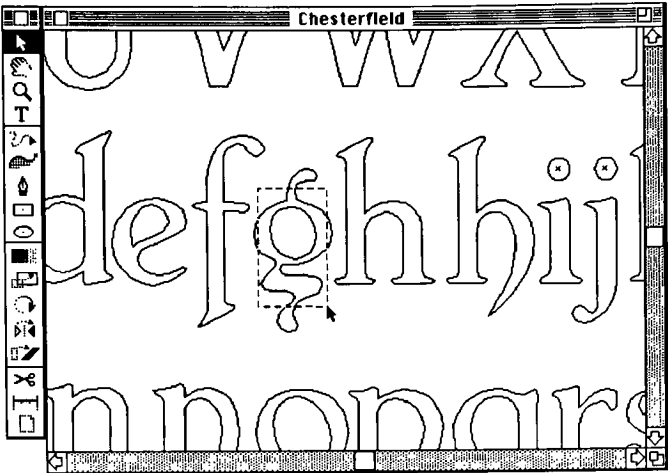


After the scale is accomplished, we should check the progress. I often check the Preview Illustration to get an accurate account of how the logo is turning out. The Artwork mode will not represent the illustration as well as the Preview mode will. We see that the 'A' shape is desirable.

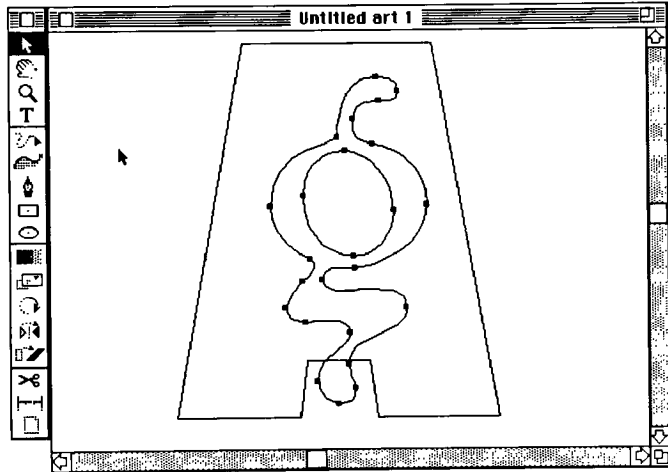


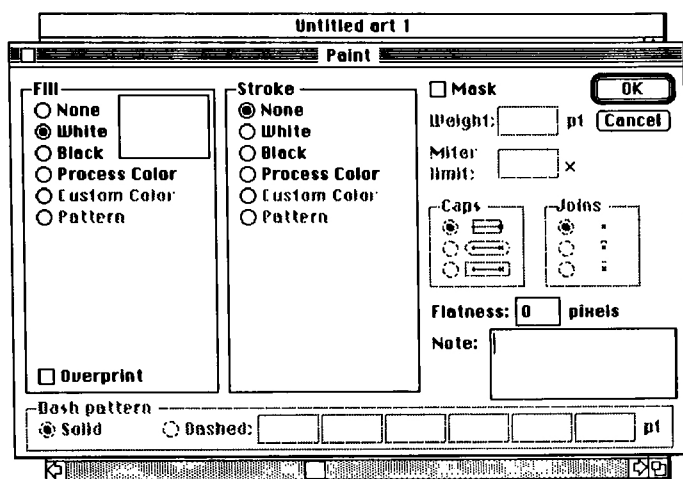
Now the next step is to get the Chesterfield lowercase 'g'. Select Open or Command-O and locate Chesterfield. OK that choice and Chesterfield will appear as the active window.

Locate the lowercase 'g' by using the hand tool to push the page around. Zoom to a comfortable size to select the letter. With the Option key depressed, drag over an area of the letter. If you accidentally move the letter, then type Command-Z or choose Undo from the Edit window. Once selected, copy the selection to the clipboard. Once again make sure all of the letter was selected or only parts of it will be copied to memory.

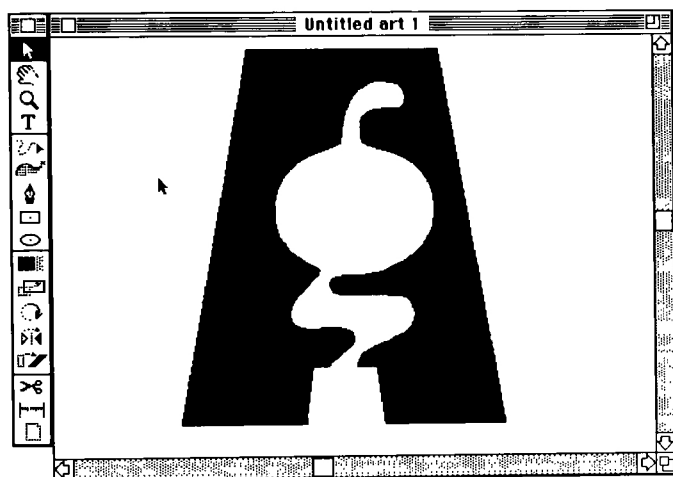


Switch back to the Untitled window to continue working by the way of the Window menu. Once the untitled window appears, paste the letter into the illustration. If only parts of it show up, delete what appeared and repeat the process. When pasting objects from window to window, the shape retains its original size. However, Illustrator pastes the object in the center of the window so you may need to drag it into position. In this case, the letter should appear as in the illustration to the right.



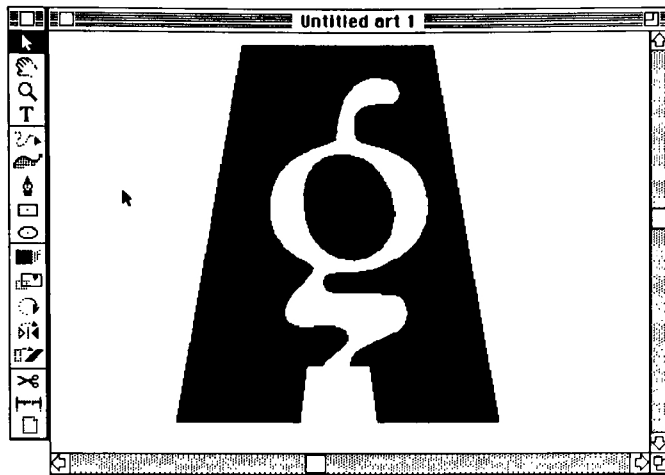


Make sure the letter 'g' is selected, and choose Paint (Command-I) from the Style menu. Paint the letter with White and give it no stroke, then click OK.

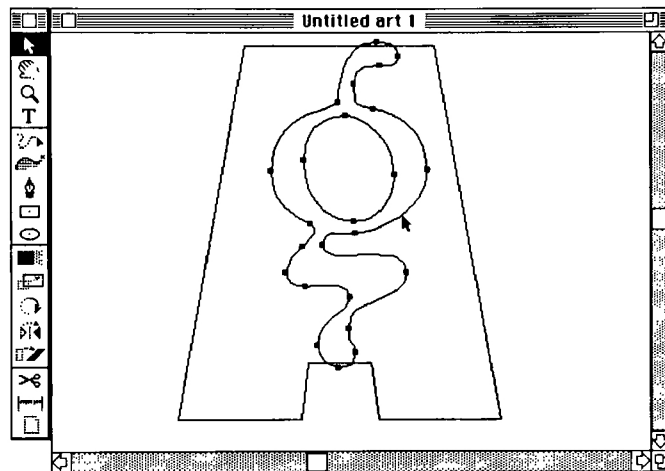


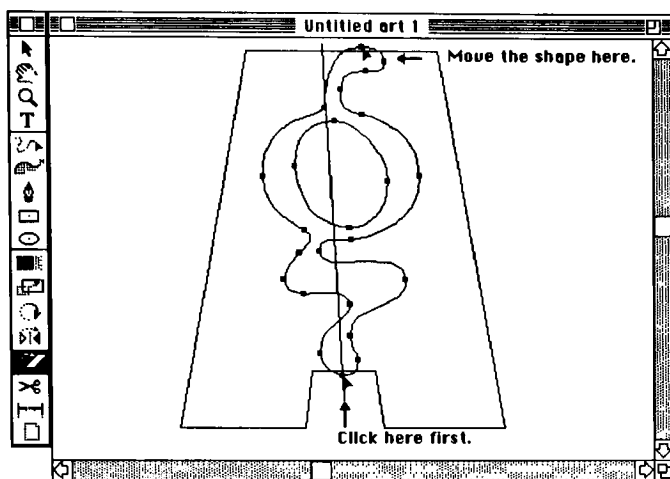
Preview the illustration to see how it is developing. The example to the left seems to be missing the counter of the 'g', but what happened is it was also painted white. Illustrator gives you the ability select and paint multiple items.

To adjust for the error, go back to Artwork mode (Command-w) and select just the counter and paint it black. The previewed result should match the example to the right.

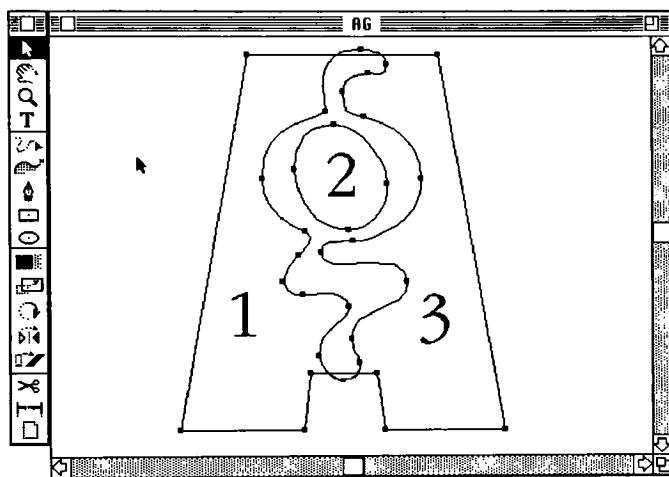


Move the 'g' so that the screen matches the example to the right. The top and bottom of the 'g' should protrude beyond the lines of the 'A'. If you were to preview the illustration now, you might think it was finished, but there is more refining to be completed.





Now we are going to skew or slant the letter to the left. The line in the example is to show how far off vertical the letter should be moved. Notice the markers within the example. Click the mouse where the example indicates, then with the Shift key depressed click at the top of the letter and drag the mouse to the left. The Shift key constrains the slant to a horizontal movement. (The vertical axis is slanted while maintaining the horizontal axis.)

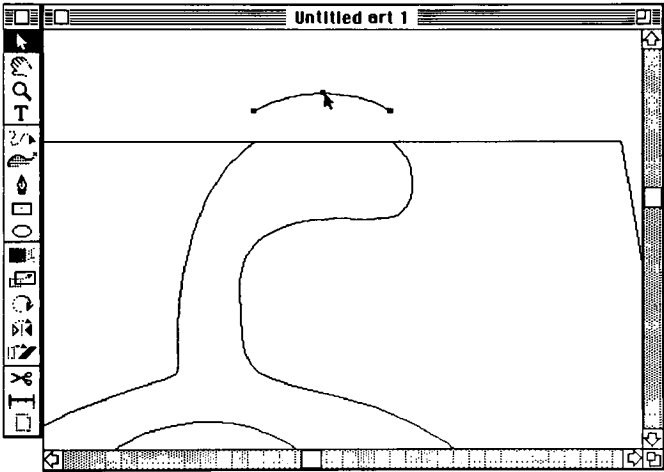
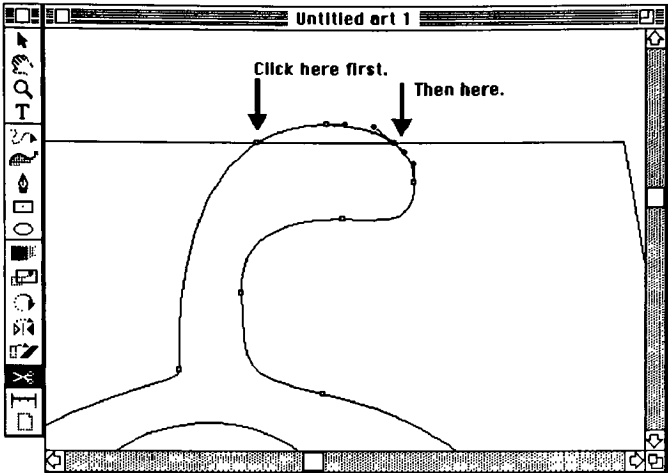


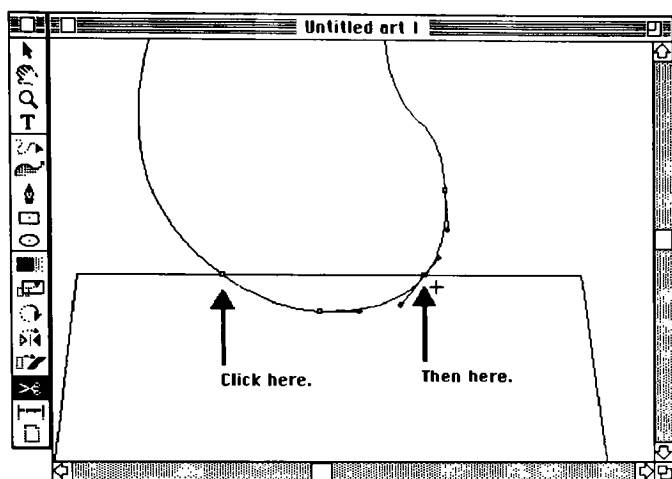
The next few steps will show the power of the outlined letters. In the example we see the numbers 1,2, and 3. These numbers designate the three different sections we want to create. To explain further we have three shapes: the Anzeigen 'A', the Chesterfield 'g', and the counter of the 'g'. Each shape is on top of the other. We want to create new shapes indicated by the #1 as well as the #2 and #3. To achieve this we will use the Lock menu item, the scissors tool, the Average menu item, and the Join menu item. The reasons behind this will be explained later.

The first step is to select the letter 'A' and Lock it by selecting Lock from the Arrange menu, or by typing Command-L from the keyboard. This keeps its shape on the screen for reference, but prohibits selection and editing until the object is unlocked. Zoom in and choose the Scissors tool and simply click on the path to cut it in two.

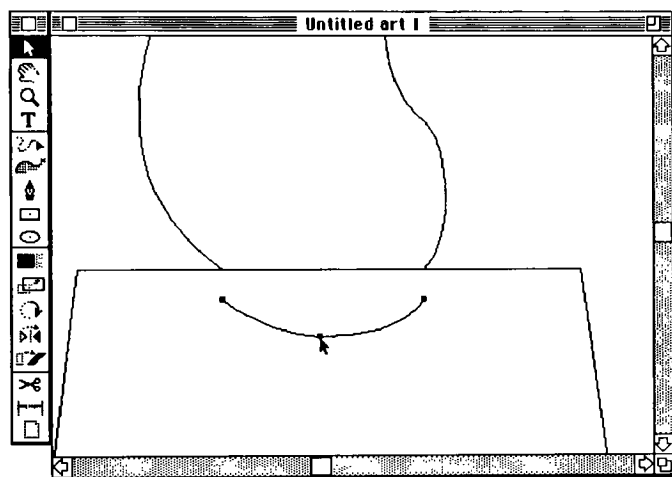
Arrange	
Transform Again	⌘D
Group	⌘G
Ungroup	⌘U
Join...	⌘J
Average...	⌘L
Lock	⌘L
Unlock All	⌘2
Hide	⌘3
Show All	⌘4

Once the path is cut, then select off of the path to deselect anything that is selected. Now click while holding the Option key back on the segment that was cut away and drag it up. This can now be deleted away. The letter 'A' was not affected because it was locked.





Repeat the process for the lower section of the logo



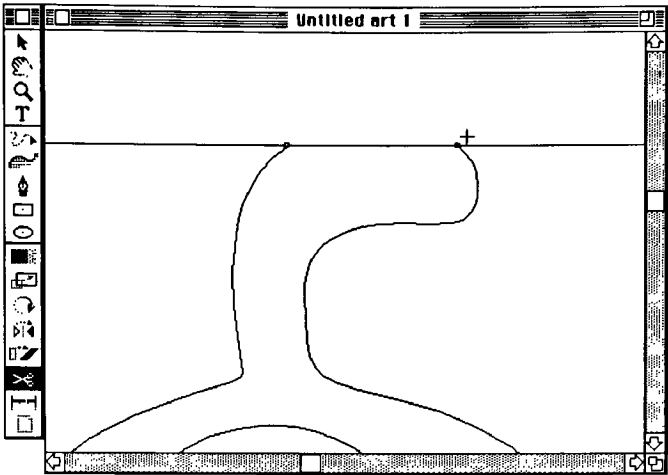
Move the section away and delete it.



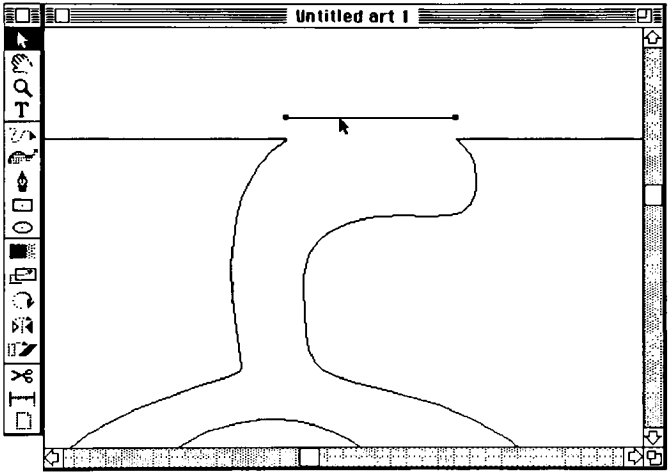
Now that the 'g' is cut into sections we want to work on the 'A'. First we must Unlock it to proceed. Choose Unlock All (Command-2) from the Arrange menu. This unlocks the 'A'. Now we want to lock the 'g' so that we cannot alter it. Select the 'g' and Choose Lock (Command-1) from the Arrange menu. Zoom in to get a better view and use the

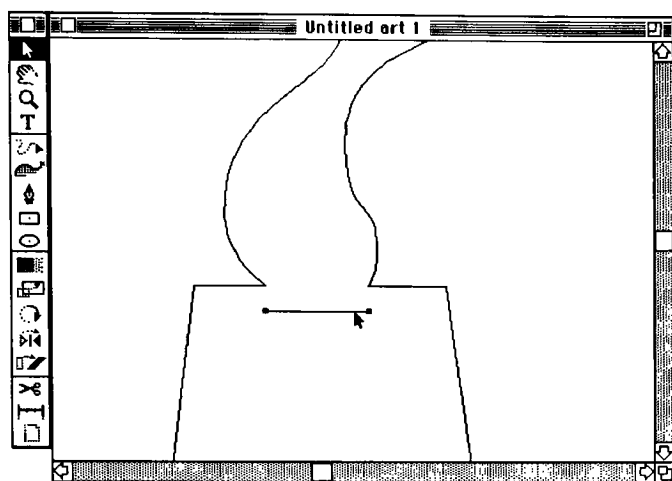
Arrange	
Transform Again	⌘D
Group	⌘G
Ungroup	⌘U
Join...	⌘J
Average...	⌘L
Lock	⌘1
Unlock All	⌘2
Hide	⌘3
Show All	⌘4

Scissors tool the same way as before to cut the paths, where the 'g' touches the 'A'.

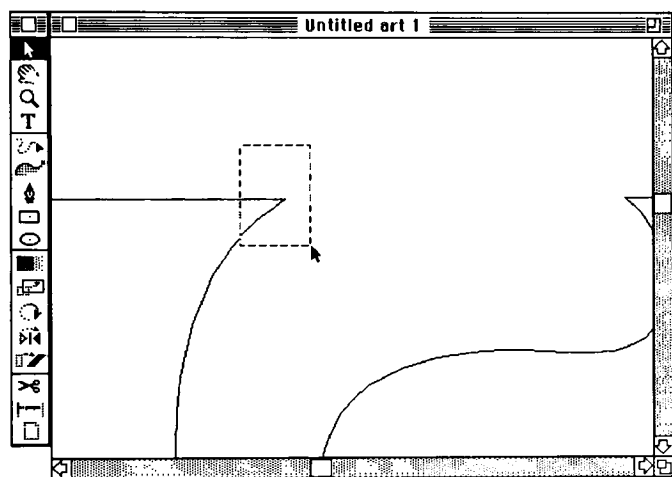


As before, we can now select and delete the path that we do not want. You should now be able to start seeing the results that we desire.





Repeat the process for the lower section of the logo

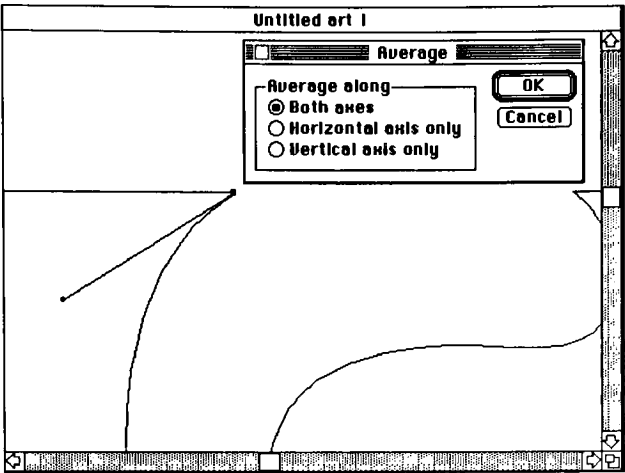


Now we have to connect the two sections into one complete path. Unlock the 'g' so that we can work with it. We want to join the points that are near each other. First we click and drag the mouse over the points to select both of them. There might be a chance they are directly on top of one another, but that is unlikely. Once we have selected both points, we want to Average them.

The Average dialog box is accessed by typing Command-I or choosing it from the Arrange menu. The Average option gives the user a chance to align points on horizontal, vertical, or both axes. In this case,

Arrange	
Transform Again	⌘D
Group	⌘G
Ungroup	⌘U
Join...	⌘J
Average...	⌘I
Lock	⌘L
Unlock All	⌘2
Hide	⌘3
Show All	⌘4

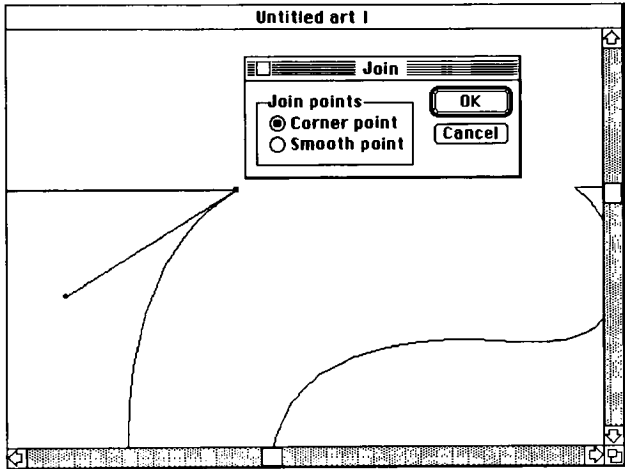
we want to average the two points on both axes so that they are placed directly on top of one another.

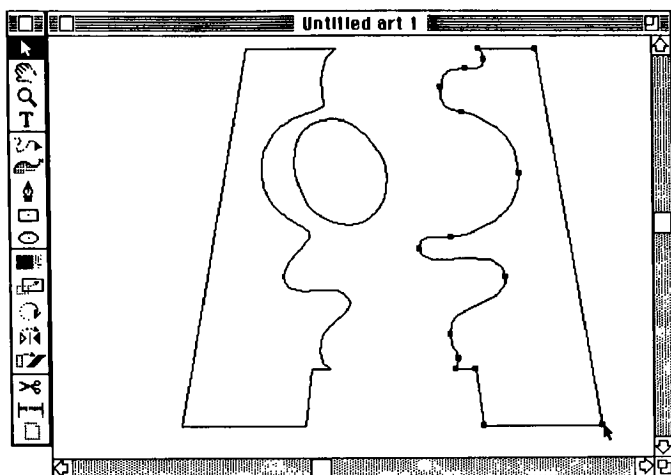


While the points are still selected, we want to now join them. Choose Join from the Arrange menu, or type Command-j. The Join dialog box will appear giving you the option of a Corner point, or a Smooth point. In this case, we would like the Corner point. Click OK and the points are now joined as one. If you choose Join and did not get the Dialog box, then the points

Arrange	
Transform Again	⌘D
Group	⌘G
Ungroup	⌘U
Join...	⌘J
Average...	⌘I
Lock	⌘L
Unlock All	⌘2
Hide	⌘3
Show All	⌘4

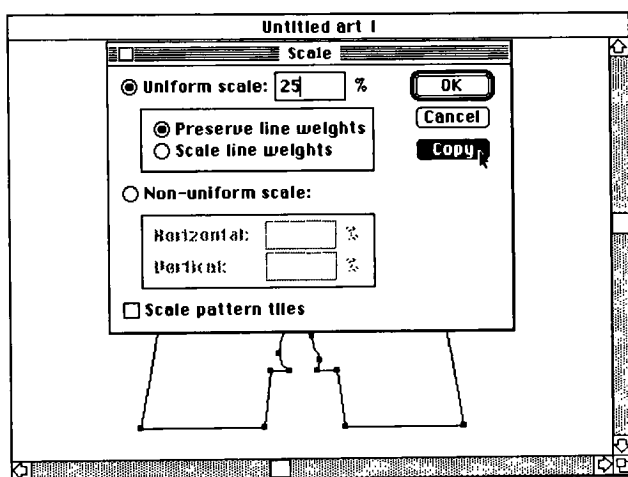
were not directly on top of another. Undo the Join and Average on both axes first.





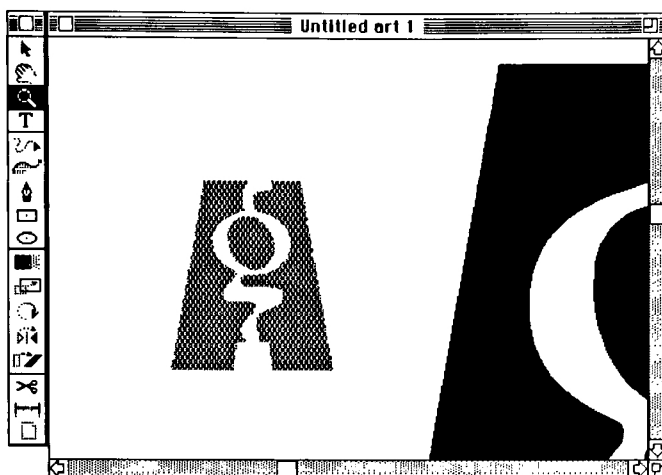
Repeat this method for each section. There should be four joins altogether. As we see in the example there should be three separate shapes that can be moved independently of each other.

Next Select All Group and Paint black with no stroke. The reasoning behind doing this process is the flexibility of the logo shape now. We will continue to work with this logo and discover its flexibility. Now would be a good time to save the illustration to disk before we continue any further.

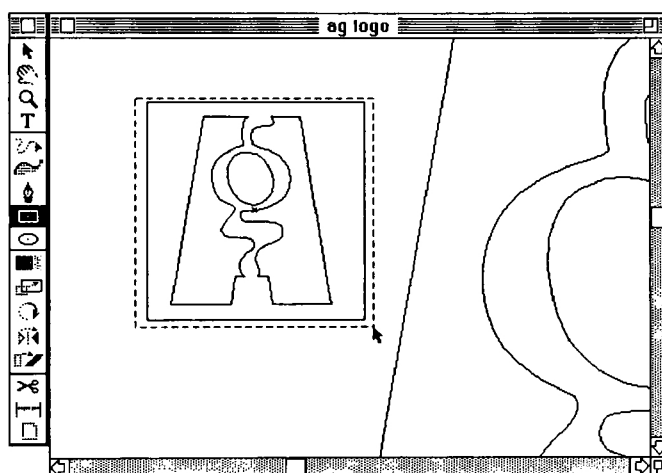


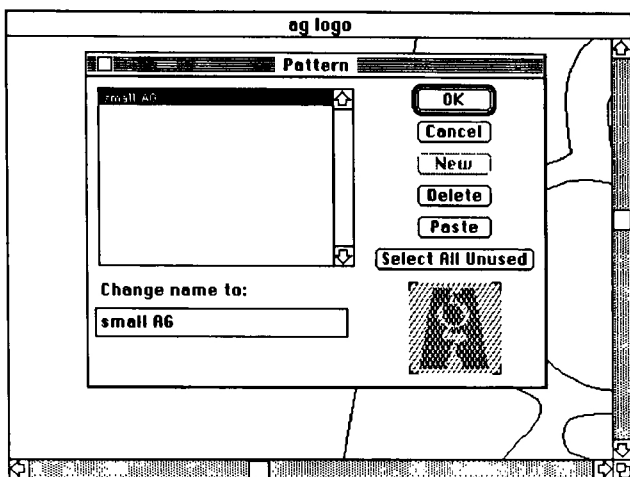
The next thing we want to do is to make the logo into a pattern. Select all three shapes by typing Command-a, and use the scale tool. Click with the Option key down in the center of the logo and the Scale dialog box will appear. Scale the logo by 25%, but this time click Copy. This scales the logo 25% while maintaining the original.

Move the copy off to the side and paint it 60% black. The example should show the results so far in Preview mode.

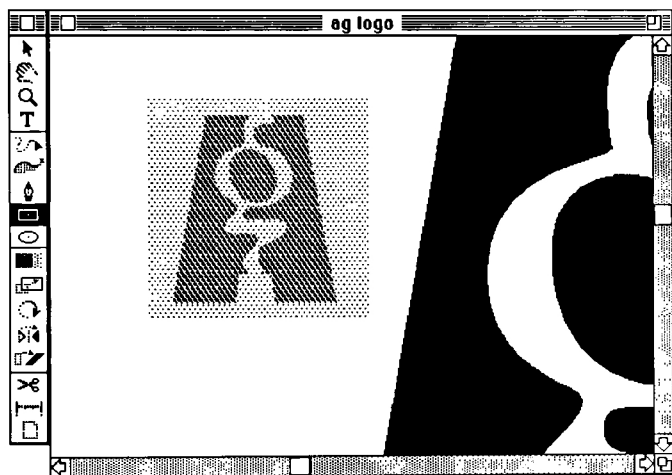


To create a pattern in Illustrator you simply create shapes and place a rectangle to represent the tiled section behind the objects. The rectangle or square can be painted a color or shade of black. In this instance, I want a 30% shade of black. Create a rectangle over the logo and paint it 30% black. Then send the rectangle to the back by typing Command - (-). Select all of the shapes by dragging the mouse over the objects and choose Pattern from the Style menu.



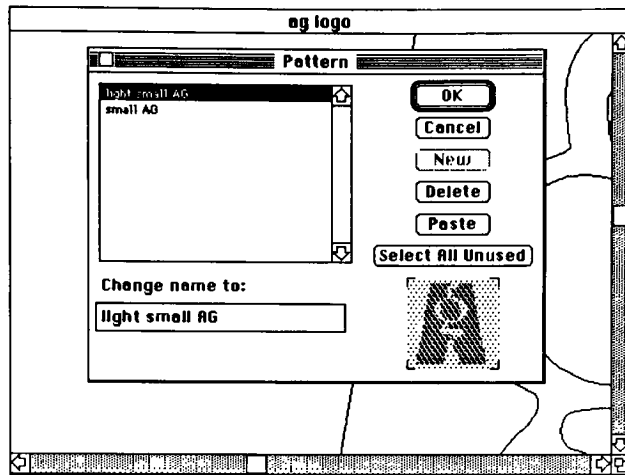


Once Pattern is selected from the Style menu, the Pattern dialog box appears. Choose New and the pattern will appear in the lower right with the default name Pattern 1. Name the pattern appropriately and select OK. Now that a pattern is created, we want to use the same items to create a lighter version of the same pattern. To do this, simply select the individual items and paint them lighter shades. The logo was 60% black, make it 40% black now. The back rectangle was 30% black, make it 15% black.

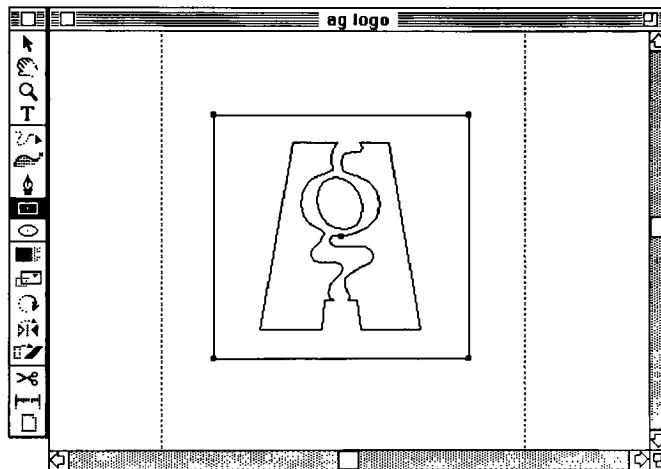


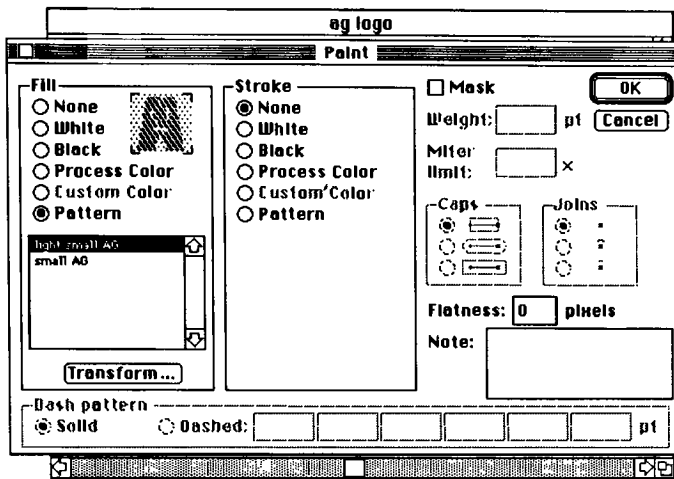
Preview will show the new pattern as a lighter shade than the previous pattern made.

Select the shapes as before and select Pattern from the Style menu. You should be presented with the Pattern dialog box with the previously placed pattern. Click New and name this pattern "light small AG". Now we have two identical patterns that are of different shades. These patterns will be instrumental in creating an effective drop shadow on a patterned back ground.

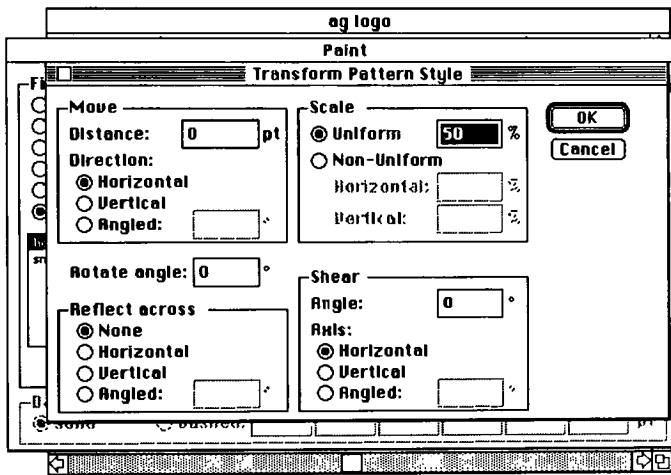


Delete the shapes that were used as to create the patterns. They have no more use to us. Draw a large square to frame our logo. Send it to the back. Type Command-I for paint.



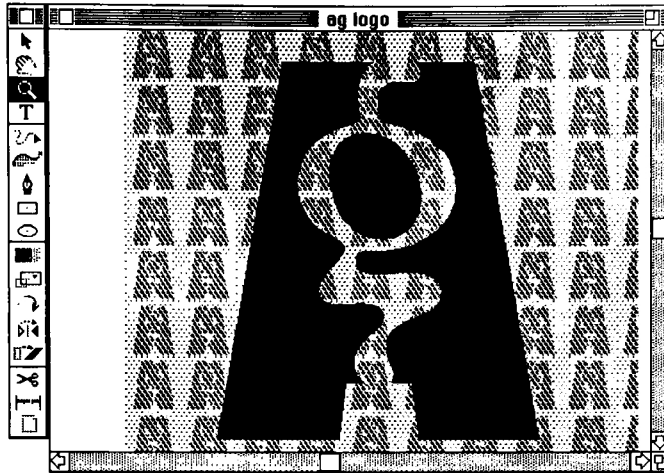


The Paint dialog box appears with a new addition. The Pattern option is available now. Click that option to paint the square with the new pattern. We do not want the pattern to be as large as we created it. We have the option to do many things to it by using the Transform button. Click that button and an additional dialog box appears.

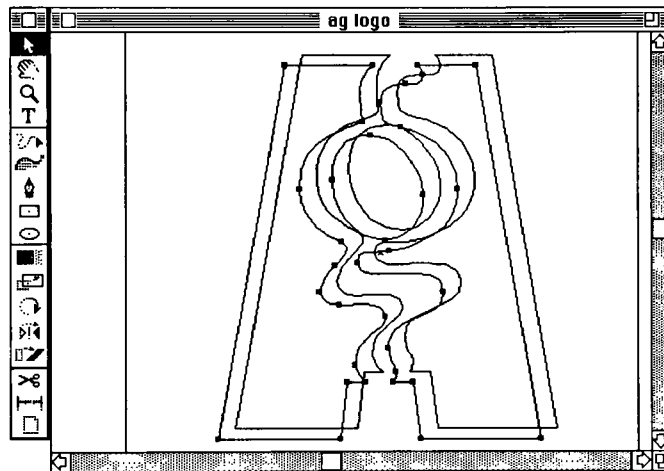


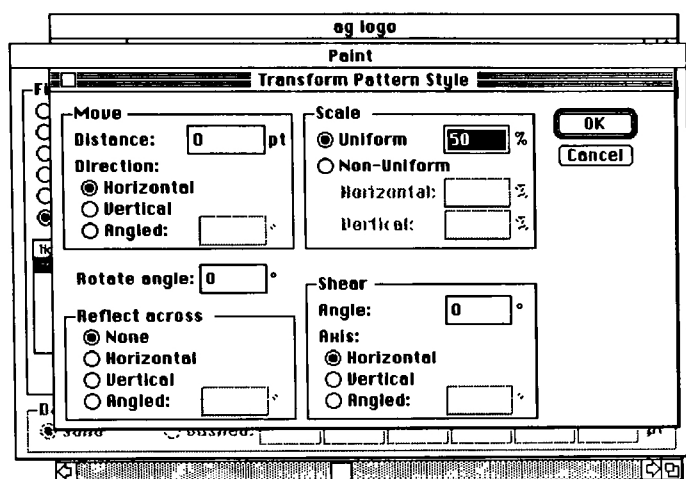
All we want to do is scale the pattern down by 50%. Type 50 into the box for Scale. There are many other options that are useful. Experimentation will be fun and educational to see the possibilities. Click OK on this Dialog and the Paint Dialog boxes.

We should see the results shown in the example. Now we want to create a believable drop shadow.

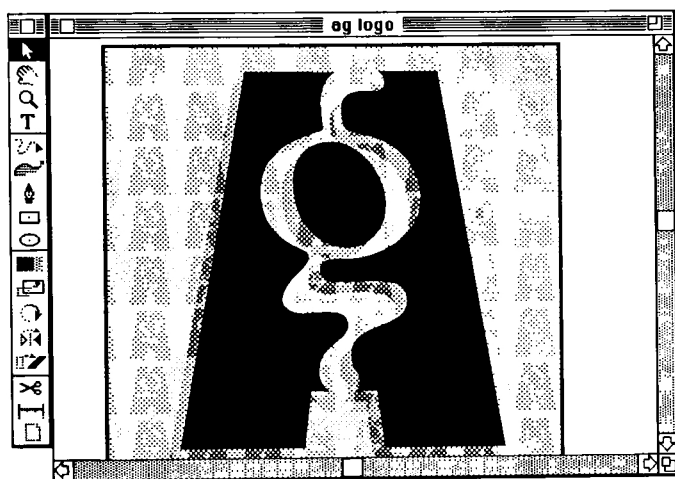


Select the logo and hold the Option key down while you drag the mouse up and to the right. This makes a copy of the logo. Remember that the copy of the logo is on top of the original. Select the original logo to paint it. The original logo is now the drop shadow. We want to paint it with the other pattern. Also we want to put a two point stroke on the frame.





Select the darker pattern - "small AG" and select the Transform option. We want to scale this pattern to 50% to match the other pattern. Click OK for both Dialog boxes.

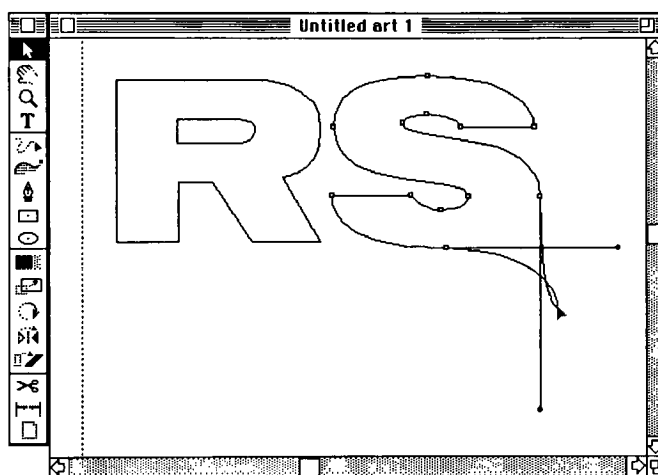


We now see that the drop shadow is more realistic due to the fact that it is a darker shade of the other pattern. This technique can be used to put together anything you can think up.

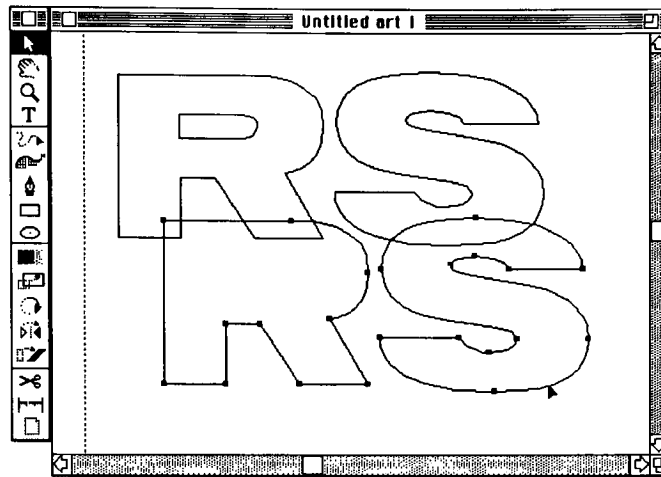
Trouble-Shooting, Useful Tips & Special Effects

When working with these letter forms, remember that they are not regular Macintosh type, but actual artwork. They need to be treated as such so that destruction of the typeface does not occur. Illustrator's Undo feature is not very reliable. If you make a mistake, you must catch it immediately or the Undo will not work. When moving, copying, slanting, rotating, or coloring the letters, special consideration must be taken to get the results you want. Everyday I work with these letter forms, I make the same mistakes over and over again.

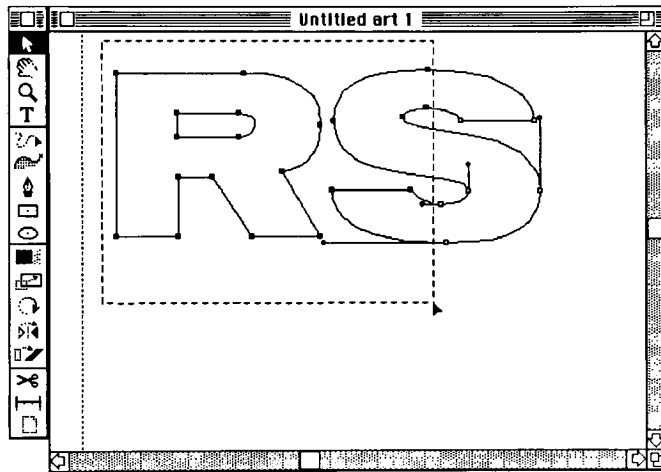
The example below shows what happens when a letter is moved without all of the points and paths selected. Remember that Illustrator lets you move around or alter paths by selecting the paths and dragging them around. To move a letter, all of the paths and points need to be selected. The problem is easily solved by holding the Option-key while selecting the path. This selects all of the paths and associated points. If you were to make a mistake as in the example below, Undo the mistake right away. If any other operation is performed, the Undo is null and void. Even a simple click of the mouse will disable the Undo feature.

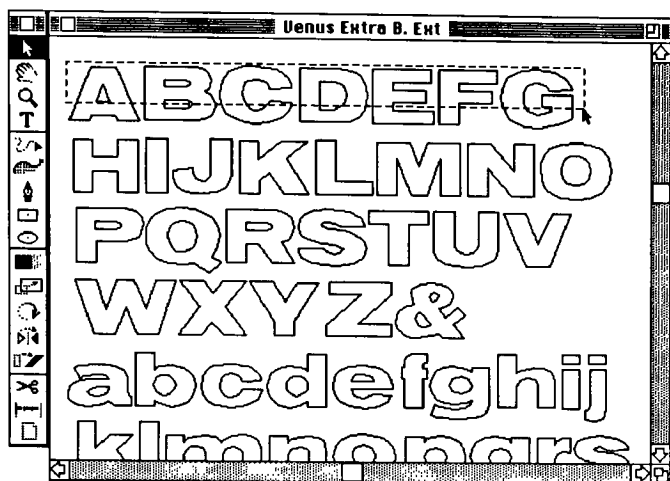


When selecting letters to copy, move, or alter in anyway, make sure that you include any counters that belong to the letter. These counters are separate shapes and should be treated that way. We see in the example that the counter or the 'R' was left behind.

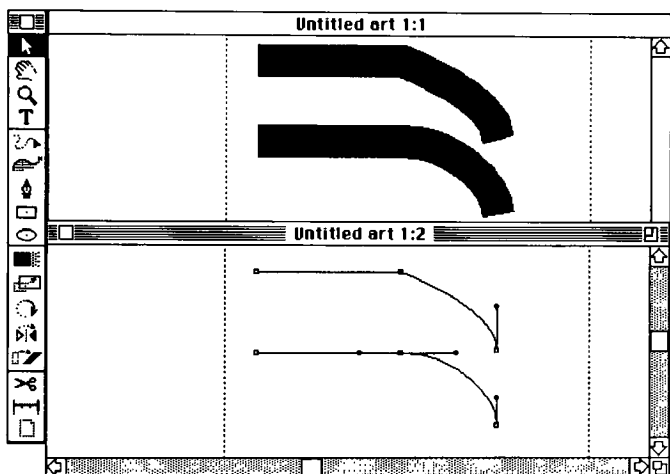


To select multiple letters, you can click on the letter with the Option key held and click on the next letter with the Shift key and Option key held. A simpler way to do this is to drag the mouse over letters to select them. In the example, the Option key was not held, so the 'S' letter was not completely selected.



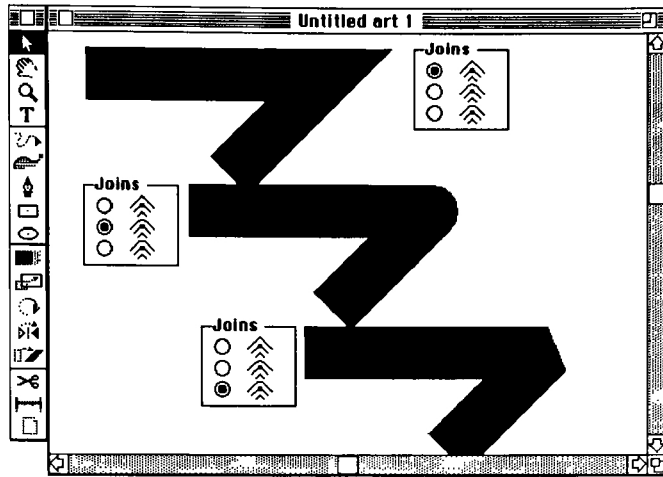


Dragging the mouse over many letters is a much quicker way to select many letters at one time. If the Option key is held down at the same time, whatever path the dashed line crosses, all of the paths and points associated with it will be selected. This method speeds up work and makes time spent at the computer more productive.

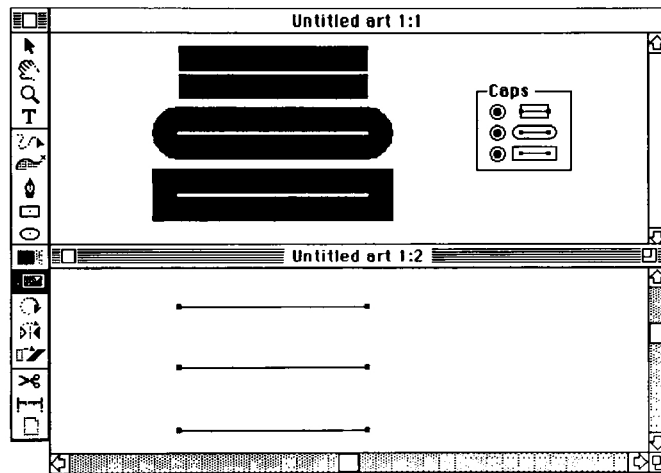


A common mistake is made all the time when drawing a straight line to a curve line. Most people forget to give the straight line a curve-to point so that the curve is smooth from the straight line rather than bent off of it. The differences are illustrated to the left with 10 point lines. Notice the difference to the lines where they start the curve.

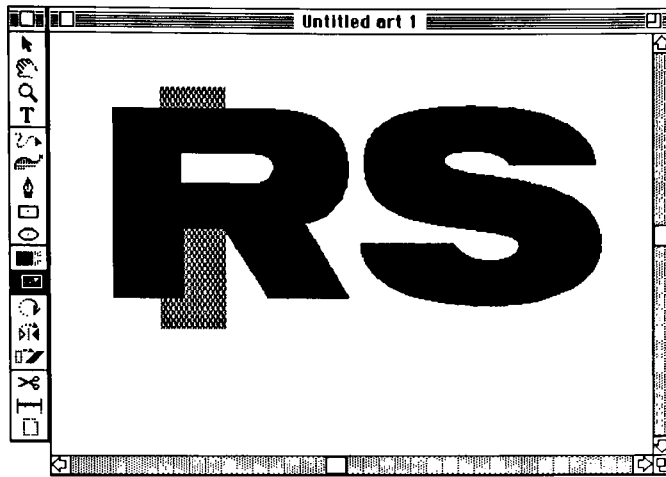
The stroke controls for joins of two paths gives you the ability to alter the way two paths come together. The three examples to the right show a 40 point stroked line with the three different joins. The first join is the default, The next join is for smooth joins, and is useful for neon type effects discussed later. The last is the beveled join. They all have their own particular uses.



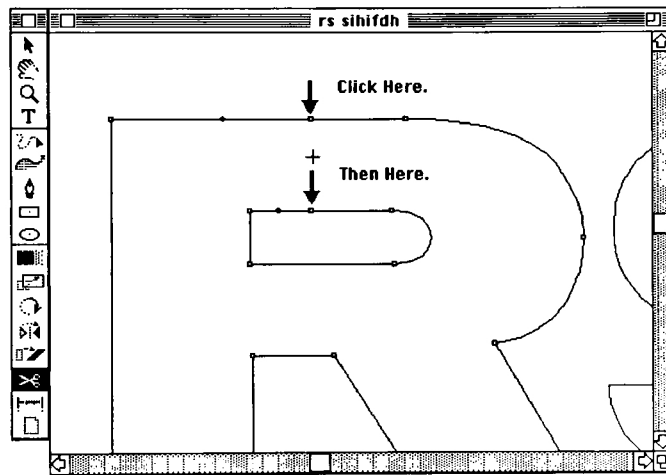
The line cap feature lets you control how the stroke will end. Stroked paths get larger or grow from the center; therefore a ten point stroke will have five points of width on either side of the path. On the first stroke, the cap ends at the end of the path. The second stroke is capped by a circular ends whose radius is 1/2 of the point size. The third stroke extends the stroke 1/2 the point size beyond the end of the path.

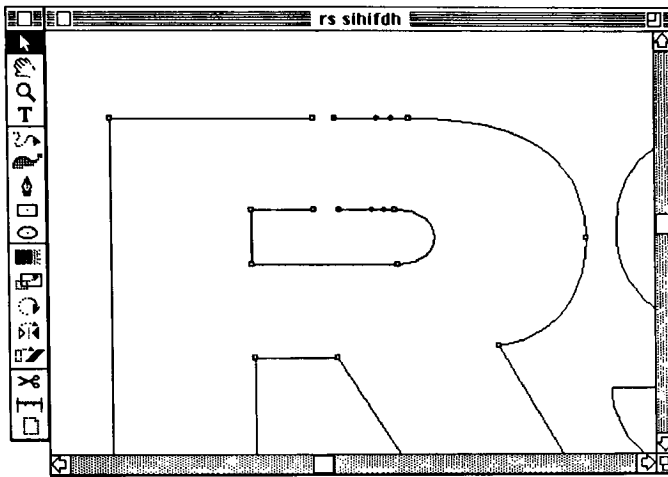


A major problem can occur when using traced typefaces. That problem comes when a shape is placed behind a letter that contains a counter. The counter is not a hollow shape punching out the letter but a solid shape that is only a different color than the letter. There are several ways to correct this problem. If the shape behind the letter is a solid color and completely covers the counter area, the problem can be solved simply by coloring the counter to match the back ground. However, if the background is complex, then other measures need to be taken.

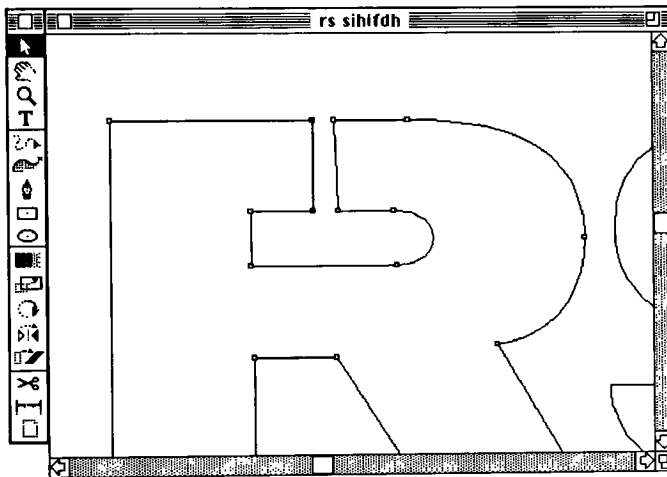


We need to make the letter and counter one continuous path or shape. We achieve that by cutting, joining, and realigning the paths of the letter and its counter. Use the scissors tool to cut the paths. Click on the paths with the scissors tool as seen in the example.



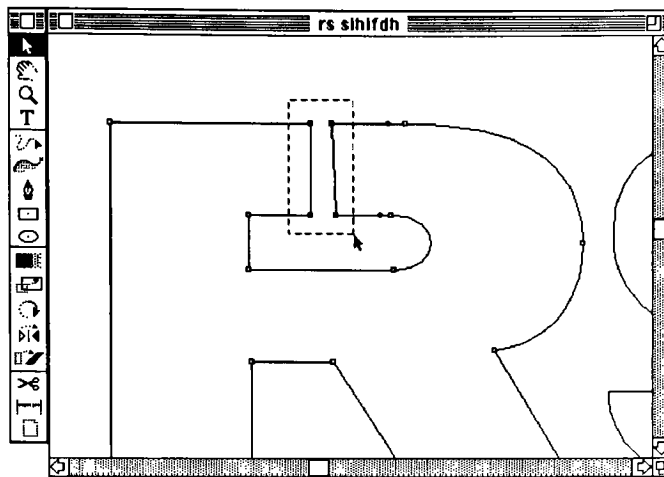


Select the cut point on each path and drag it to the right. This will separate the paths so that they are not directly on top of one another.

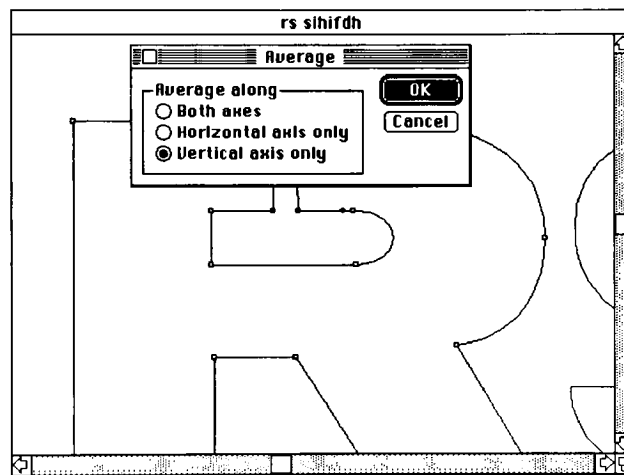


Select a point from the letter and the corresponding point of the counter and join them by choosing Join from the Arrange menu or by typing Command-j from the keyboard. This draws a line between the two points. We now have a continuous shaped letter that has a true counter that enables objects to be seen from behind.

Now we need to close up the space that was created when we separated the paths. Select all of the points and average them by choosing Average from the Arrange menu or type Command -L.

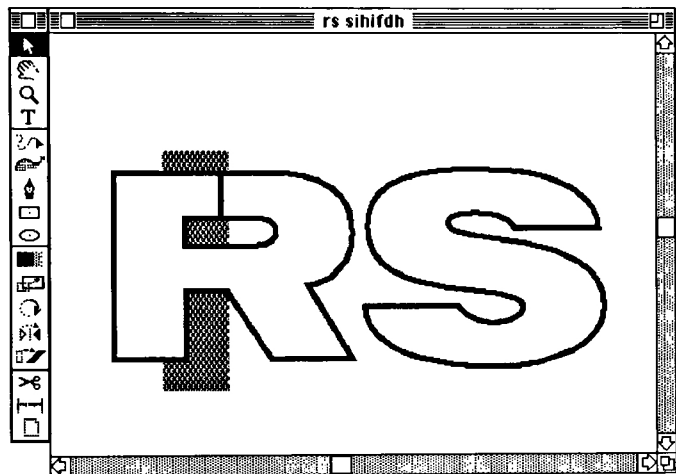


Select Vertical axis only so that the points align. The shape is complete.





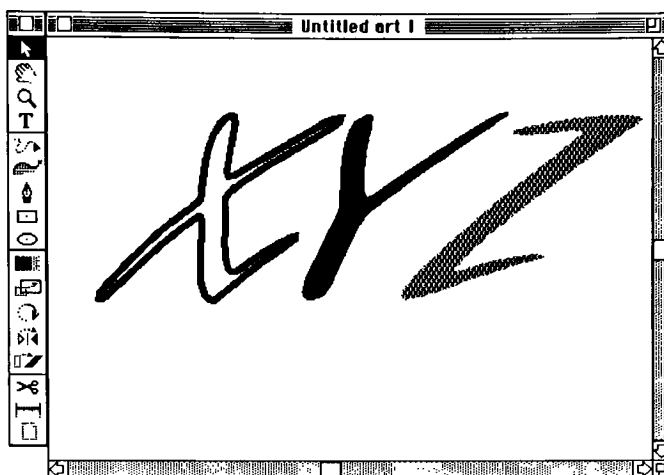
Select the shape and in Paint mode, choose Black for Fill. In Preview mode, we see now that the shape has a "true counter" that lets anything behind it show through.



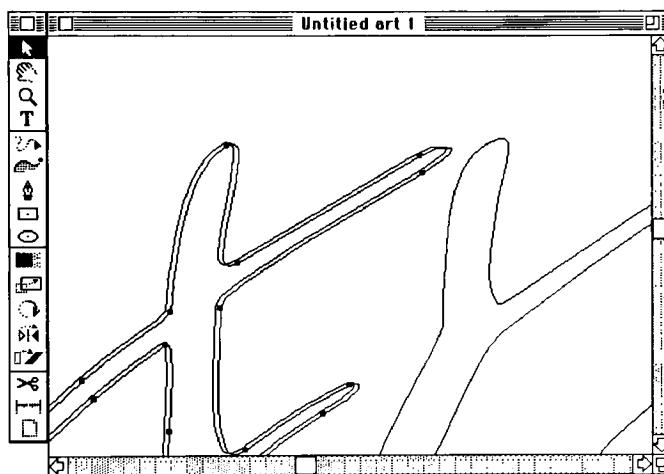
The problem with this letter now is that the stroked form of the letter now has an ugly line going through it. While some of these types of problems are easily avoidable, others require a little creativity to overcome. To fix the problem of wanting a filled letter with a different colored stroke, you can use a white "true counter" letter with the original uncut letter that has no fill and a black stroke on top, then the problem will be solved with a little work.

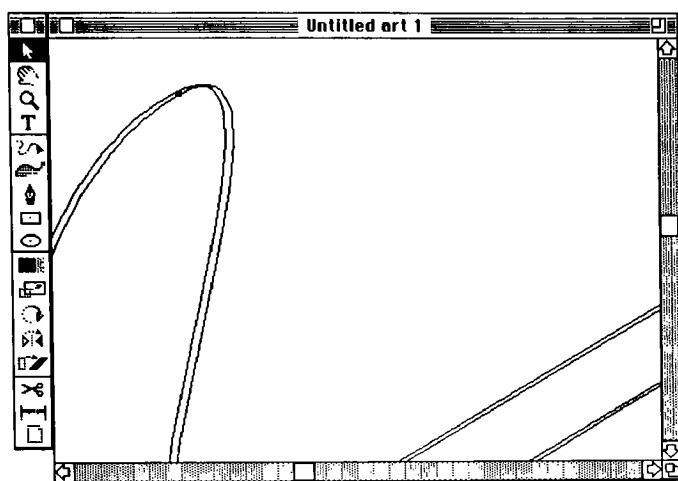
Using the Blend Tool

Very nice special effects can be achieved by using the Blend tool. We can easily make neon type, zoom type, and great shape changes that has endless possibilities. To demonstrate these effects, I will make the 'X' neon, the 'Y' zoom text, and the 'Z' change shape to a square. All of these effects make use of the Blend tool. To follow along, use any letter forms you have available. For these examples I will be using Laser.

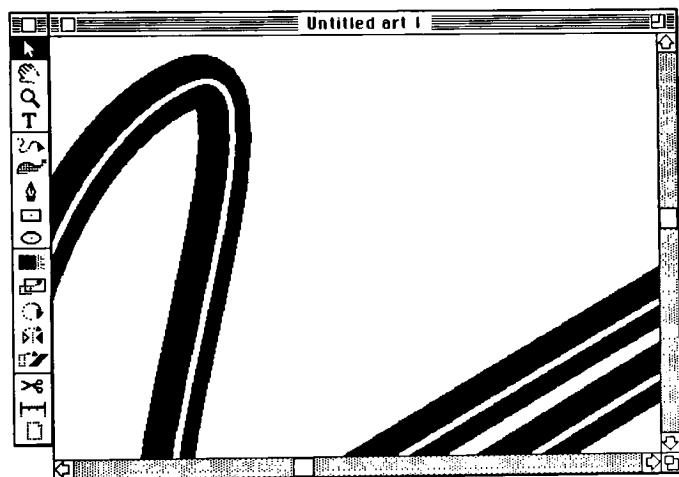


For the neon example, use a letter that contains no counters. The reason for this is that for each shape, counters and outlines, we will need a separate blend. Start with a 5 point stroked letter with no fill. Select the letter while holding the Option key and drag a copy just a little to the side of the original.





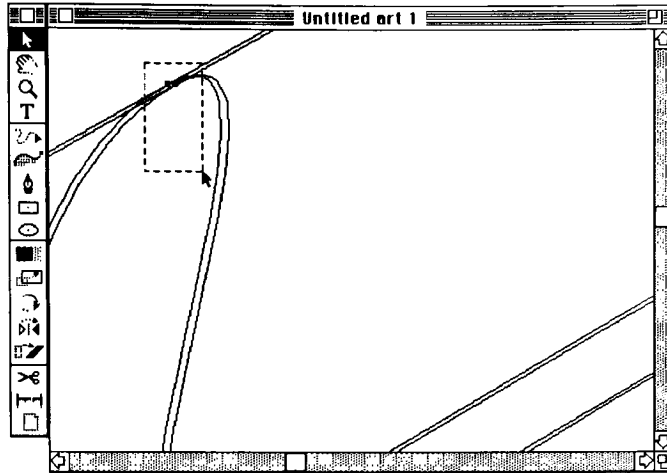
Zoom in as close to the letter as possible. Select the copied letter and change its paint from a large black stroke to a small white .5 stroke.



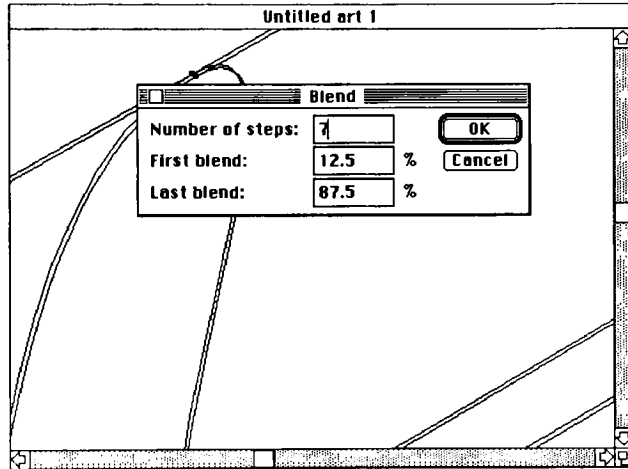
The example shows the results so far.

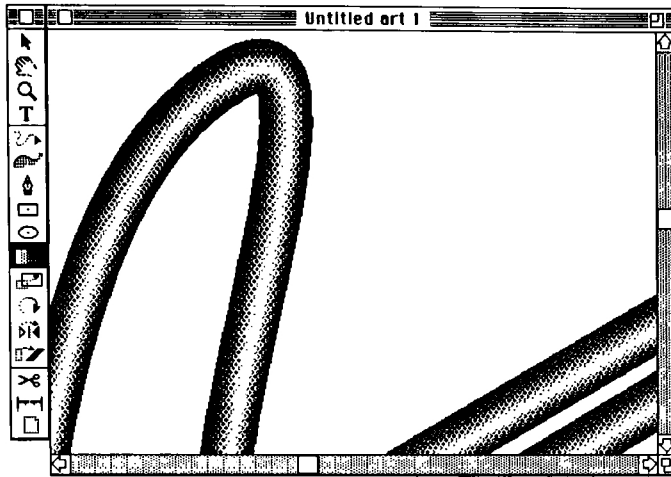


This is perhaps the most important step to get correct. To blend shapes in Illustrator, you need to select an origin point on the first shape and a corresponding point on the end shape. Select the two points that are near each other. Then with the Blend tool click on the first point and then the second. Once the second point is selected, a dialog box should appear.

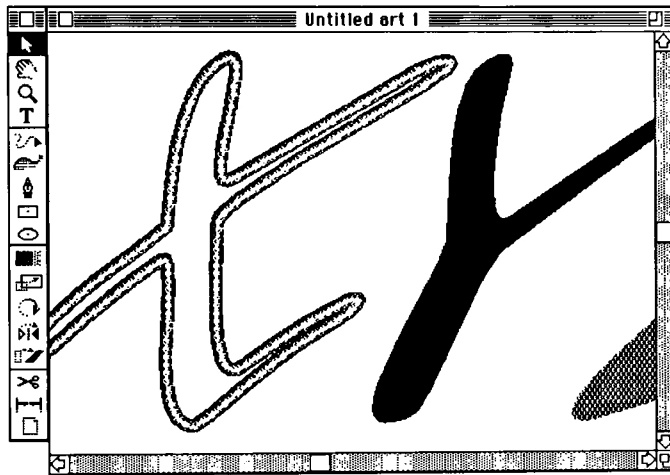


The Dialog box gives you the chance to enter how many in between the first and last you want to blend.



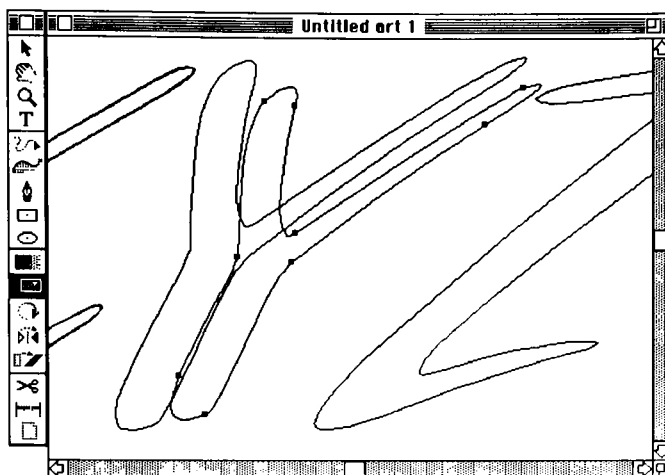


The Preview shows the blend results. The concept behind neon type is blending a large black stroke to a small lighter stroke. The same effect works with color. The number of steps will determine how smooth the neon effect will appear. Experiment with different colors to get a variety of interesting effects.

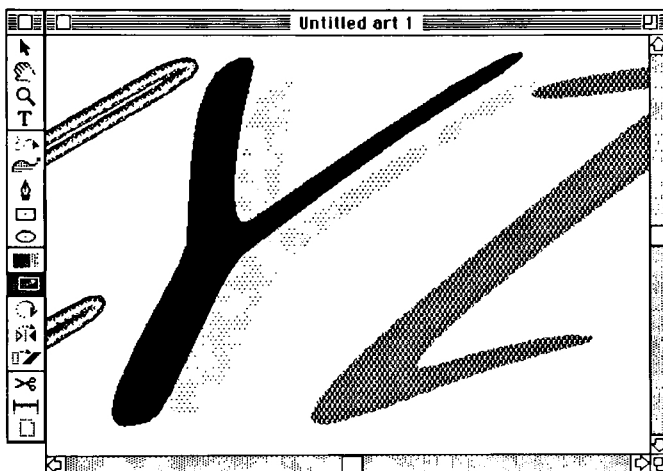


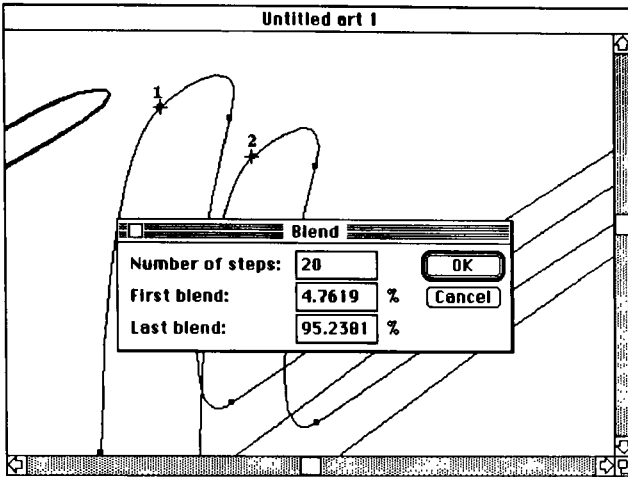
The zoom type effect uses the same concept. Start with a black filled, no stroked letter.

Scale a copy down to 80% of the original. Move the copy off to the side and send it to the back by typing Command- (-).

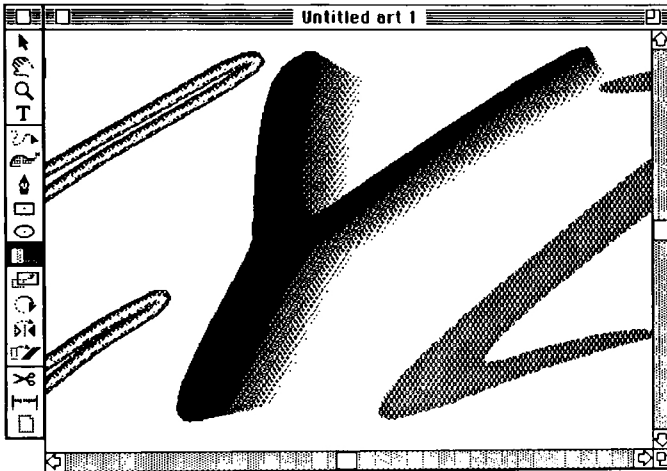


Paint the copy a lighter shade of gray and Preview the results to see if they are similar to the example.



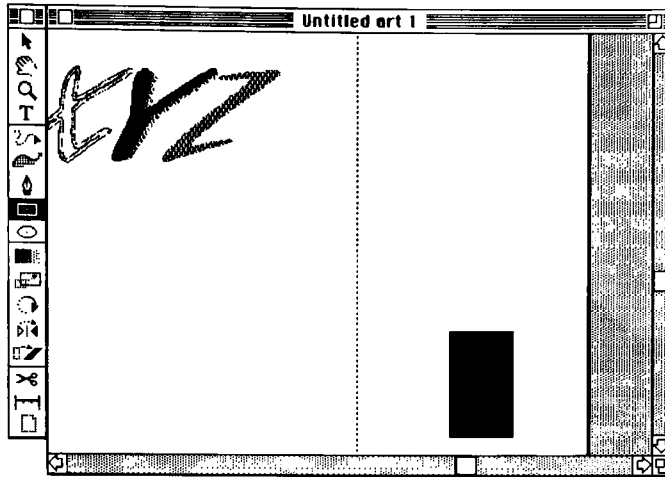


As we did in the neon example, select two corresponding points on both shapes. Use the Blend tool to click on both of the selected points to gain access to the Blend Dialog box. Enter number around 20 to 30. The blend will take place.

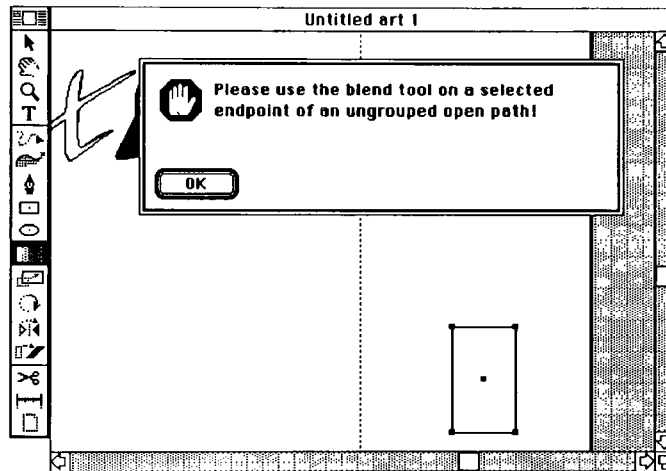


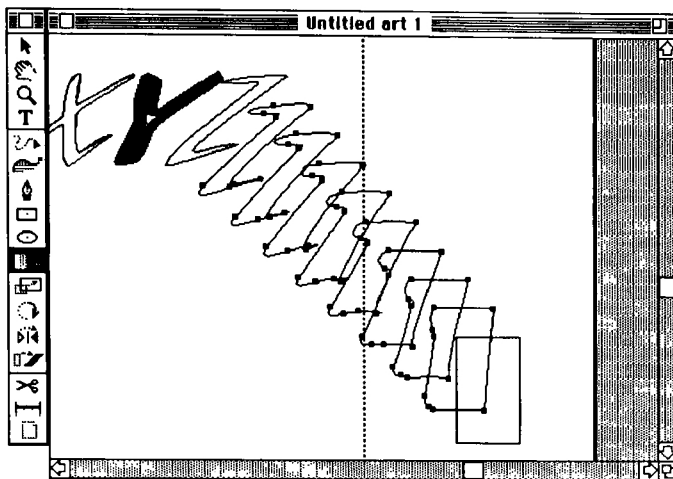
The results are shown to the left. Placement of the copy will determine the look of the zoom. Once again, colors can be used and the number of blends will determine how smooth the zoom will look.

This next effect will show how the blend tool can blend two totally different shapes. For this example I will blend the 'Z' letter to a rectangle. I drew a rectangle away from the 'Z' and painted the rectangle black. The 'Z' is painted 50% gray. As we did in the previous examples, select the two shapes and use the Blend tool to choose points on the two shapes.

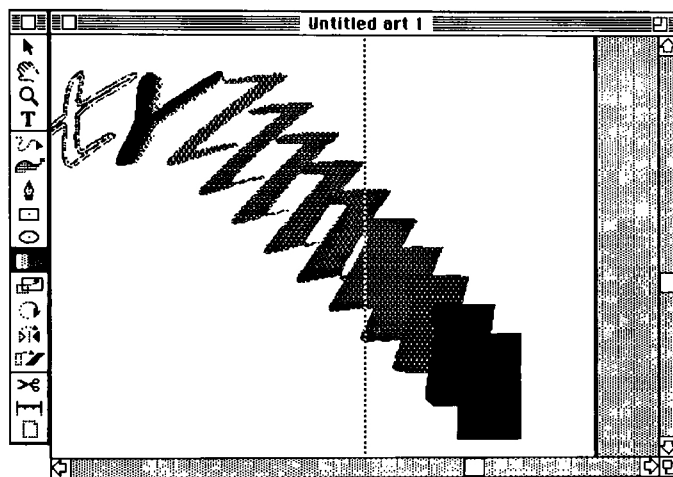


I am sure you have seen this Warning dialog box every time you used the blend tool. What happened to get this Dialog box is that I tried to blend the 'Z' letter to a GROUPED rectangle. When you use the Rectangle tool and the Ellipse tool, the shapes drawn are always grouped paths. You MUST ungroup the shape in order to use the Blend tool on it. The Dialog box says to use the Blend tool on a selected *endpoint* of an *ungrouped open path*. The path does not have to be open but if it *is* then you must click the Blend tool on an *endpoint* of that path and not a point in the middle.



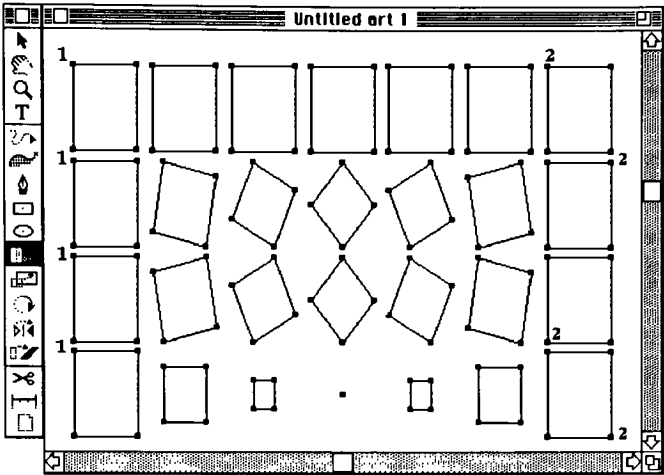


Ungroup the rectangle and try the blend again. The example to the left shows a blend of 8 steps. The points on the paths you select will determine greatly how well the blend will come out. Experimentation will yield the best results. On the following page I will show how the selection of points on two objects makes a big difference in the outcome of the blend.

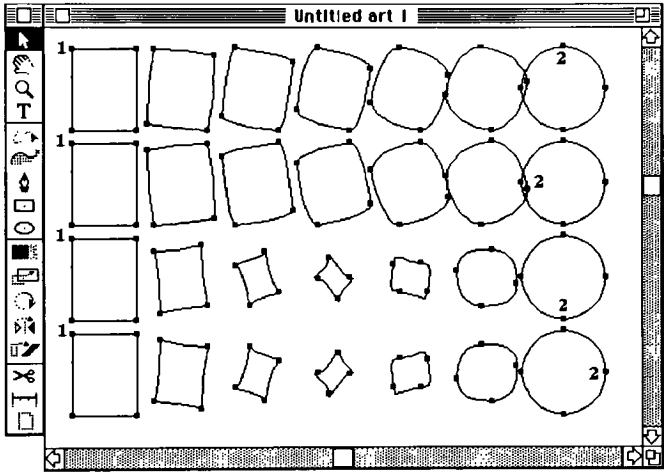


The preview shows the power of the Blend tool. Its uses are left only to the imagination. Remember that the Blend tool will blend strokes and fills. If you were to blend a letter that has red 10 point stroke and a yellow fill with a letter that has a black one point stroke and a green fill, all of the sizes, weights, shape and colors will be blended.

In this example, I created four rectangles and ungrouped them. I placed them on the left side of the screen then copied them to the right side. Then I produced blends between the rectangle on the left with the rectangle on the right. The numbers indicate the points that I chose on the first (left) and last (right) shapes. As you see, the results can be quite unique or not at all what you expected.

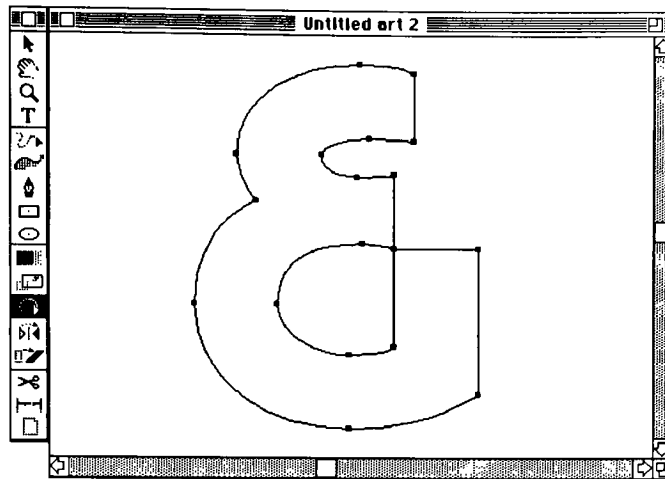


The same process was carried out blending rectangles to circles. The results speak for themselves.

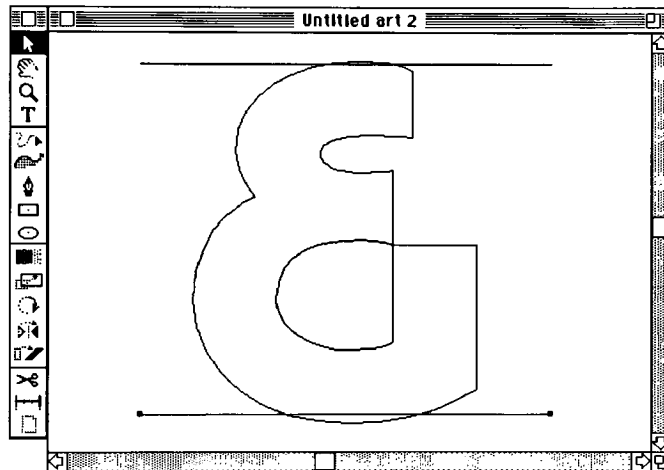


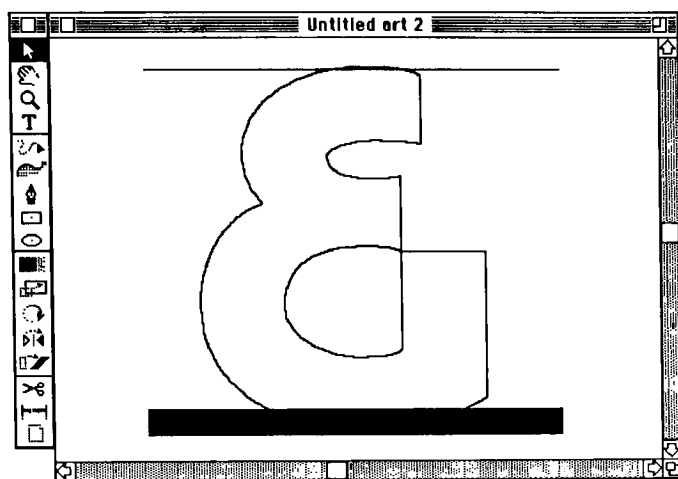
Masking

In this example, we will blend strokes of different weights and mask the results inside the Tabasco ampersand. Paint the shape with None for Fill, Black for Stroke and a line weight of 0.5.

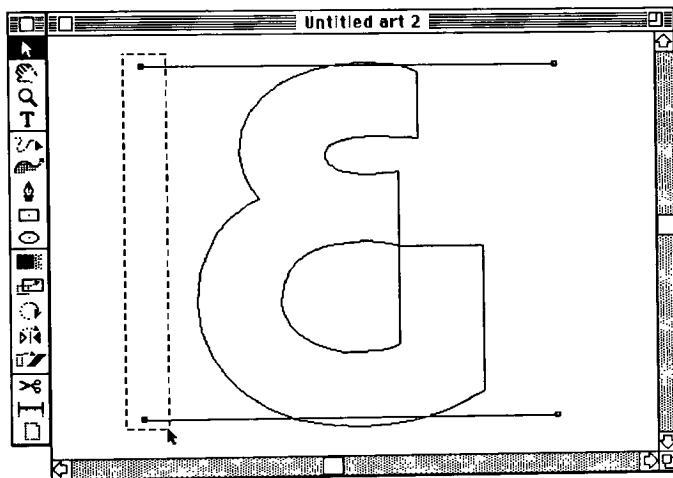


Start by drawing a line near the top of the letter that covers the width of the letter. Copy the line and place it as seen in the example. Stroke the top line at a weight of one point. Make sure there is also no fill. Stroke the bottom line to a weight of ten points.





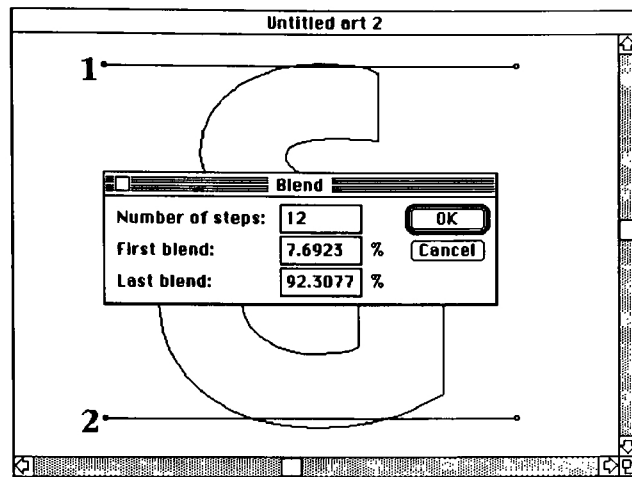
The example shows the Preview of the results so far.



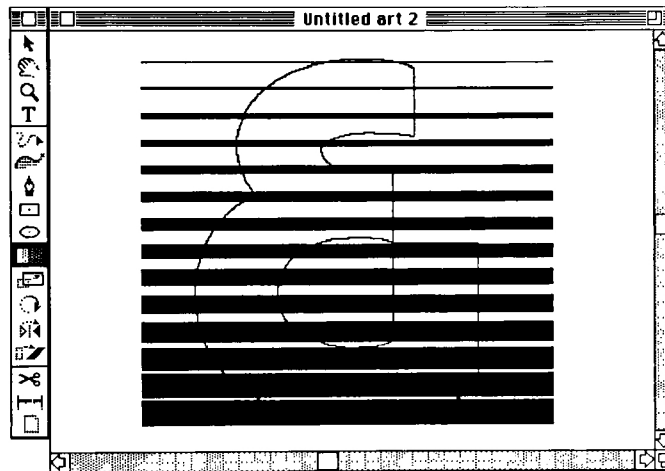
Now we want to blend the lines. Select the end points of both paths. If the lines contained more than two points the Blend tool would display a Warning if anything but the end-points were selected.

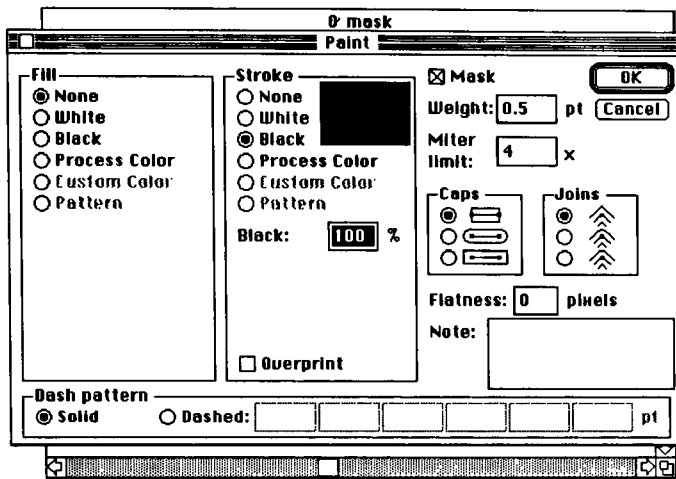


Select the the Blend tool and click the endpoints as shown in the example. Enter an amount of 12 steps.

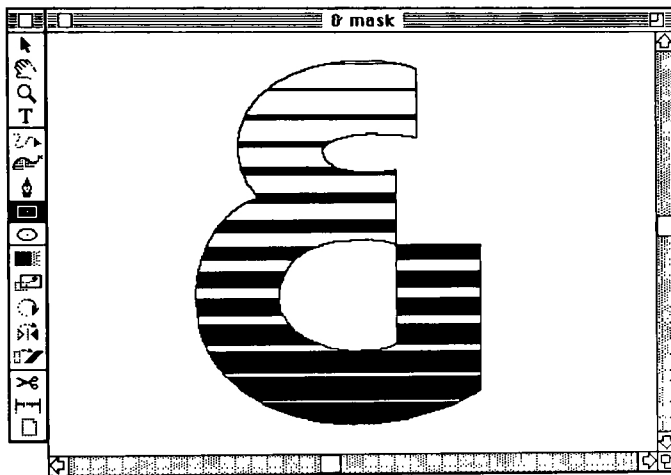


In Preview mode, the results show a progression of line weight changes that produce a very nice effect. We now want the lines to draw *only* inside the boundaries of the ampersand. This is achieved by using the masking feature.



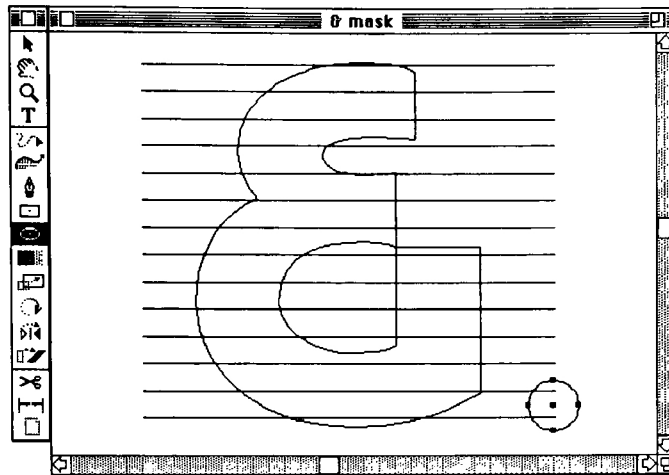


To set up the shape to be a mask, simply select the shape and paint it. The mask feature is found in the Paint dialog box. Click the box beside the word mask and click Ok .

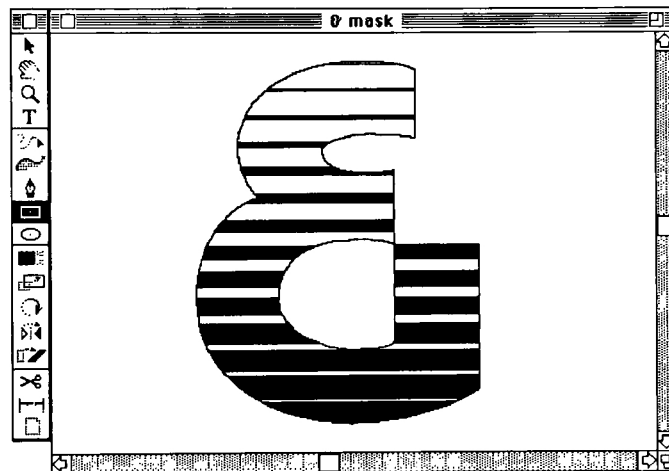


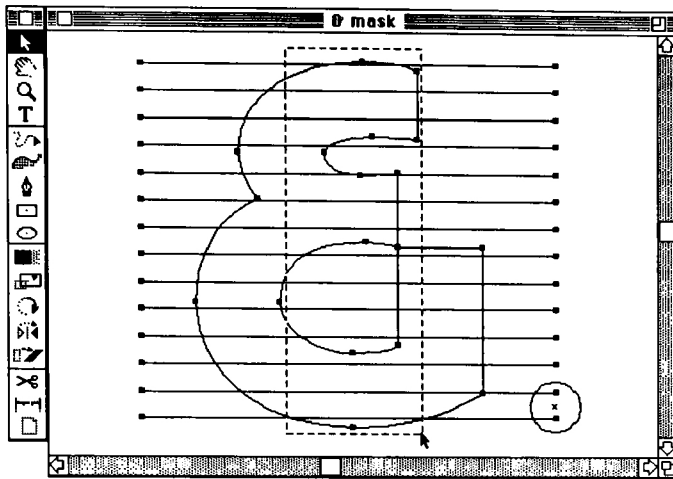
The results are shown in the example. The way the mask works is that anything that is on top or in front of a shape that is designated as a mask will draw inside of that shape. The mask *must* be a closed shape. It also must be an ungrouped shape or the mask will not work.

Let's say we want to put another shape in to the illustration. Draw a circle that does not fall within the boundaries of the ampersand. Make sure that the color is painted black.

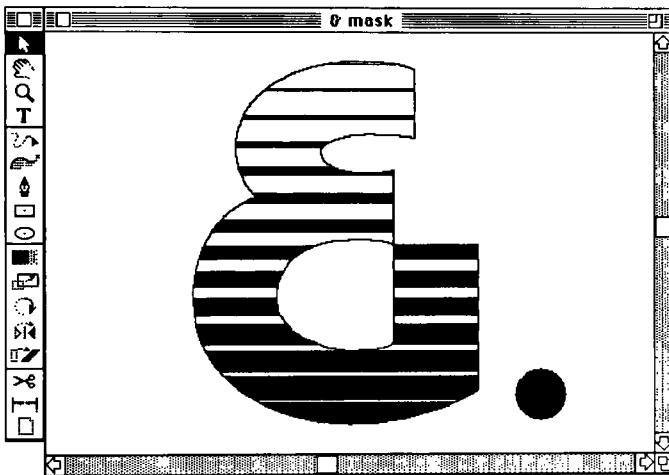


In the Preview mode we see that the circle is not showing. The reason for this is the circle is not within the boundaries of the ampersand. To let the circle draw, we must group the lines to the mask in this case, the ampersand.





When making masks, after the mask looks as desired on the screen, you should group the things being masked (the lines) to the mask object (the ampersand). This now lets the circle draw or show on the screen. The circle is not a part of the mask and now is not associated with it.



The Preview shows that the circle will now indeed show. The thing to remember when you setting up masks is that anything on the page, whether within the shape or not is associated with that mask. The grouping of objects to a mask lets Illustrator know which objects are to be masked to the shape and which are not.



Conclusion

I hope this manual has provided some helpful ways to use Adobe Illustrator, in ways that make you more productive, your designs stronger and crisper, and your time more valuable. Most of all, it should show you that almost anything once drawn by hand, can be easily drawn on the computer.

With all of the recent advances with programs that convert Adobe fonts to outline form, such as TypeStyler™ and other font conversion utilities, designers will have endless amounts of outlined fonts to design with and alter. These same outline fonts can also easily be visually destroyed if proper care is not taken when working with them.

One final note, if you can trace an entire typeface and make it look good, then anything that you scan will be much easier to trace in Illustrator.



Complete Typefaces

The following pages contain the forty eight different fonts that I drew during the work on this thesis. I chose the following fonts because of their uniqueness and flexibility. Each font was scanned from a specimen book and drawn in Illustrator.



A B C D E F G H

I J K L M N O P Q

R S T U V W X Y

Z & 1 2 3 4 5 6 7

8 9 a b c d e f g h

i j k m n o p q r s

t u v w x y z

A B C D E F G H I J

K L M N O P Q R S

T U V W X Y Z &

a b c d e f g h i j k

l m n o p q r s t

u v w x y

1 2 3 4 5 6 7 8 9

A B C D E F G

H I J K L M N

O P Q R S T

U V W X Y Z

a b c d e f g h i j

k l m n o p q r

s t u v w x y z

A B C D E F G
H I J K L M N O
P Q R S T U V
W X Y Z & 1 2 3
4 5 6 7 8 9 0 a
b c d e f g h i j k
l m n o p q r s t
u v w x y z

A B C D E F G H

I J K L M N O P

Q R S T U V

W X Y Z &

a b c d e f g h i j k l

m n o p q r

s t u v w x y z

1 2 3 4 5 6 7 8 9 0

a b c d e f g h i j

i j k k l m n o p q

r s t t u v w x y z

A B C D E F

G H I J K K L L

M N O P Q & ? !

R R S T U V

W X Y Z

1 2 3 4 5 6 7 8 9 0

A B C D E F G H I

J K L M N O P

Q R S T U V W X

Y Z & ? !

a b c d e f g h i j k l

m n o p q r s t

u v w x y z

A B C D E F G H I J

K L M N O P Q &

R S T U V W X Y Z

a b c d e f g h i j k l

m n o p q r s t

u v w x y z

A B C D E F
G H I J K L M
N O P Q R S T
U V W X Y Z
a b c d e f g h i
j k l m n o p
q r s t u v w x
y z & 1 2 3
4 5 6 7 8 9 0



abcdefghijkl

mnopqrstuv

wxyz&ABCD

EFGHIJKLM

NOPQRSTU

VWXYZ

1234567890

a b c d d e e f g g g h i j k

k l m n o p q r r s t t u v

w w x y z A A B B C C

D D E E F F G H I J K

K L M M N O O P P

Q Q R R S S T T U V V W

W X Y Z 1 2 3 4 5 6 7 8 9 0

A B C D E F G H I J

K L M N O P Q R

S T U V W X Y Z

a b c d e f g h i j k l

m n o p q r s t u v

w x y z &

1 2 3 4 5 6 7 8 9 0

A B C D E F G

H I J K L M N O

P Q R S T U V

W X Y Z &

a b c d e f g h i j k

l m n o p q r s t u v

w x y z

1 2 3 4 5 6 7 8 9 0

a b c d e f g h i j k

l m n o p q r s t u v

w x y z A B C D E

F G H I J K L M N

O P Q R S T U V

W X Y Z ? &

1 2 3 4 5 6 7 8 9 0

A B C D E F G
H I J K L M N
O P Q R S T U
V W X Y Z &
a b c d e f g h i j
k l m n o p q r s
t u v w x y z
1 2 3 4 5 6 7 8 9

A B C D E F G

H I J K L M N

O P Q R S T U V

W X Y Z

a b c d e f g h i j k l m n o p q r

s t u v w x y z 1 2 3 4 5 6 7 8 9 0

A B C D E F G

H I J K L M N O

P Q R S T U V

W X Y Z &

a b c d e f g h i

j k l m n o p q

r s t u v w x y z

1 2 3 4 5 6 7 8 9 0

A B C D E F G H

I J K L M N O P Q

R S T U V W X

Y Z a b c d e f g h

i j k l m n o p q r s

t u v w x y z

a b c d e e f g h i j k l m n

o p q r s r s t u v w w x y z

A A B C D E F G H I J K

K L M O P Q R R S

N S T U V W X Y Z

& !

abcdefghijklm

nopqrstuvwxyz

yz &

ABCDEFGHIJ

KLMNOPQR

STUVWXYZ XY

Z 1 2 3 4 5 6 7 8 9 0

A B C D E F G H
I J K L M N O P Q
R R S S T U V W
W X Y Z & a a b c d
e f g g h i i j k l m m n o
o p q q r s s t u v
w x y z

a b c d e f f g h
i j k l m n o p q r
s t u v w x x y z

A B C D E F G
H I J K L M N O
P Q R S T U V
W X Y Z & ? !
1 2 3 4 5 6 7 8 9 0

a b c d e f g h i j k l m

n o p q r s t u v w x y

z & A B C D E F

G H I J K L M N O

P Q R S T U V

W X Y Z

Legend

A B C D E F G H

I J K L M N

O P Q R S T U

V W X Y Z &

a b c d e f g h i j

k l m n o p q r

s t u v w x y z

A B C D E F G H I

J K L M N O P

Q R S T U V

W X Y Z &

a b c d e f g h i j k l

m n o p q r s t u v

w x y z

A B C D E F G H I

J K L M N O P Q

R S T U V W X

Y Z & a b c d e f g

h i j k l m n o p q r

s t u v w x y z

1 2 3 4 5 6 7 8 9 0

A B C D E F G
H I J K L M N O
P Q R S T U V
W X Y Z & ? A b
c d e f g h i j k l m n
o p q r s t u v w
x y z 1 2 3 4 5 6
7 8 9 0

A B C D E F G H I J

K L M N O P Q R

S T U V W X Y

Z a b c d e f g h i

j k l m n o p q r s

t u v w x y z

& 1 2 3 4 5 6 7 8 9

abcdefghijklm
nopqrstuvwxyz
xyz

ABCDEFGHII
JKLMNOPQR
STUVW
XYZ&\$

A B C D E F G

H I J K L M N O

P Q R S T U V W

X Y Z & a b c d e

f g h i j k l m n o p

q r s t u v w x y z

a b c d e f f g h i i k

A B C D E F G H I J

1 2 2 3 4 5 6 7 8 9 0

l m n o p q r s t u v v

K L L M N N N O P Q R

w w x y z z ß & ? !

S T U V V W X Y Z Z

A A B C D E F G

H H I J K L M M

N O P Q R R S T U U

V V W W X Y Y Z &

a b c d e f g h h i j k k

l m m n n o p q r s s

t u v v w w x y z

1 2 3 4 5 6 7 8 9 0

A B C D E F G

H I J K L M N

O P Q R S T U

V W X Y Z &

a b c d e f g h i j

k l m n o p q

r s t u v w x y z

1 2 3 4 5 6 7 8 9 0

A B C D E F G H I

J K L M N O P

Q R S T U V W

X Y Z &

a b c d e f g h i j k l

m n o p q r s t u

v w x y z

1 2 3 4 5 6 7 8 9

A B C D E F G H

I J K L M N O P

Q R S T U V W X

Y Z & 1 2 3 4

5 6 7 8 9 0 a b c d e

f g h i j k l m n o

p q r s t u v w x y z

A B C D E F G
H I J K L M N O
P Q R S T U V
W X Y Z &
a b c d e f g h i j
k l m n o p q r s
t u v w x y z
1 2 3 4 5
6 7 8 9 0

A B C D E F G H

I J K L M N O P

Q R S T U V W

X Y Z & a b c d e f

g h i j k l m n o p q r

s t u v w x y z

1 2 3 4 5 6 7 8 9

A B C D E F
G H I J K L
M N O P Q
R S T U V W
X Y Z & a b c
d e f g h i j k l
m n o p q r s t
u v w x y z 1 2
3 4 5 6 7 8 9 0



Various Logos & Projects

The following pages contain various logos design using the drawn type faces. There are also various projects that were created during the writing of this thesis.



R&S

W

Quick
Design

S

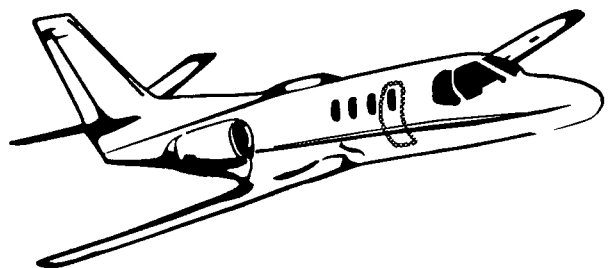
DESIGN

T

S

Y

GILBERT
GILBERT



THE
DEPOT

DemoGraphics
Inc.

BD DG
DESIGN

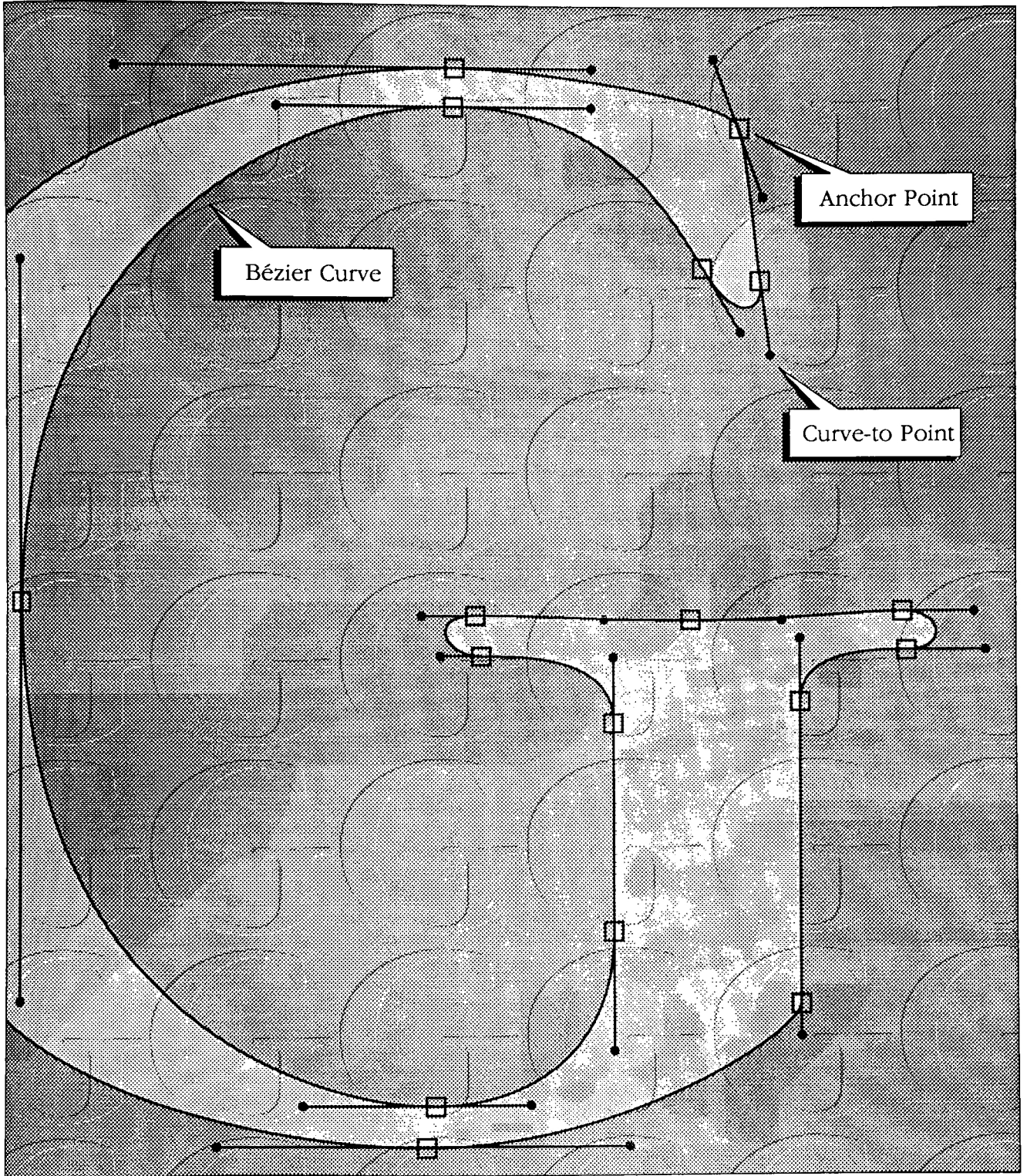
QBT

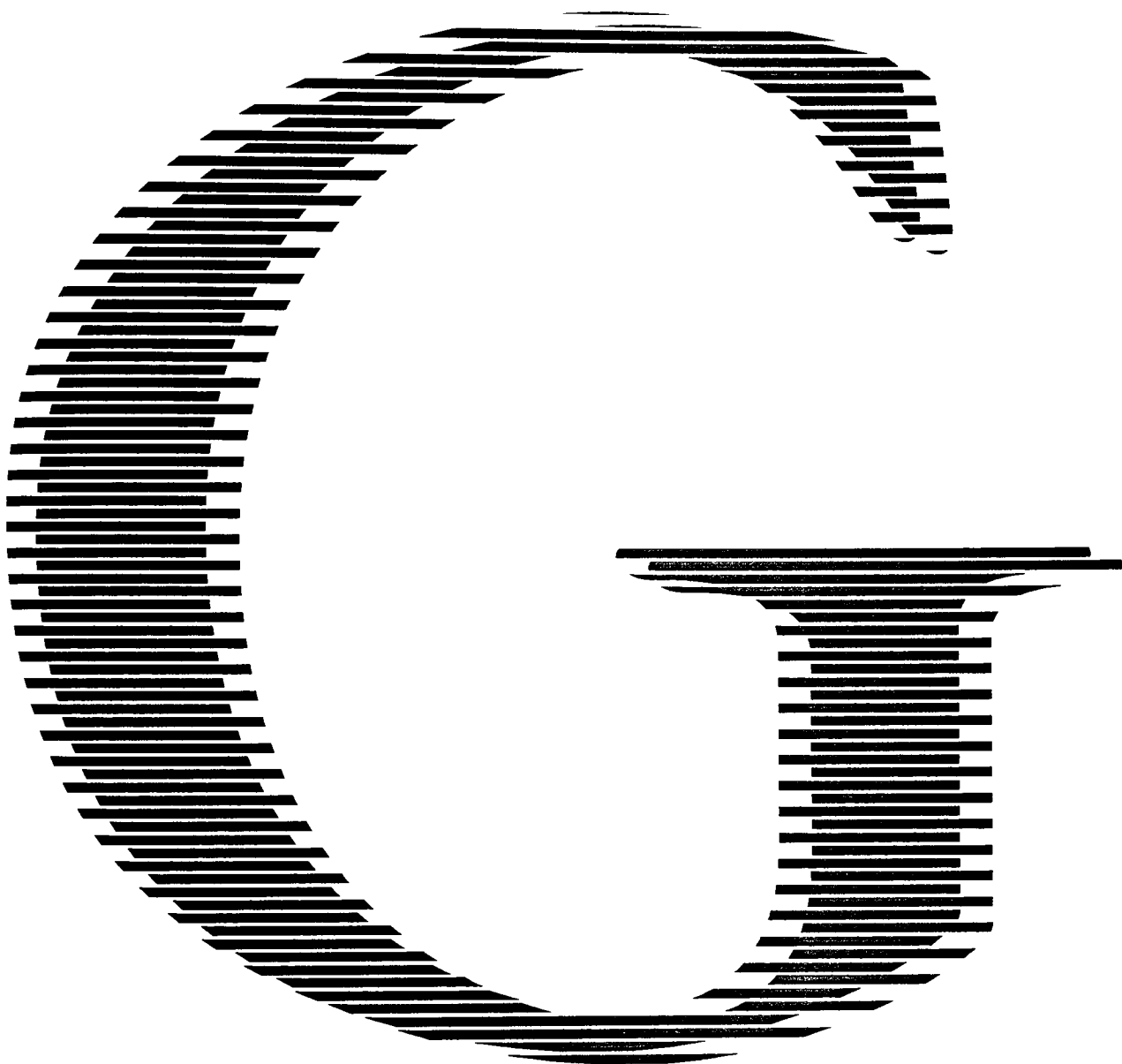
GRAPHIC
DESIGN

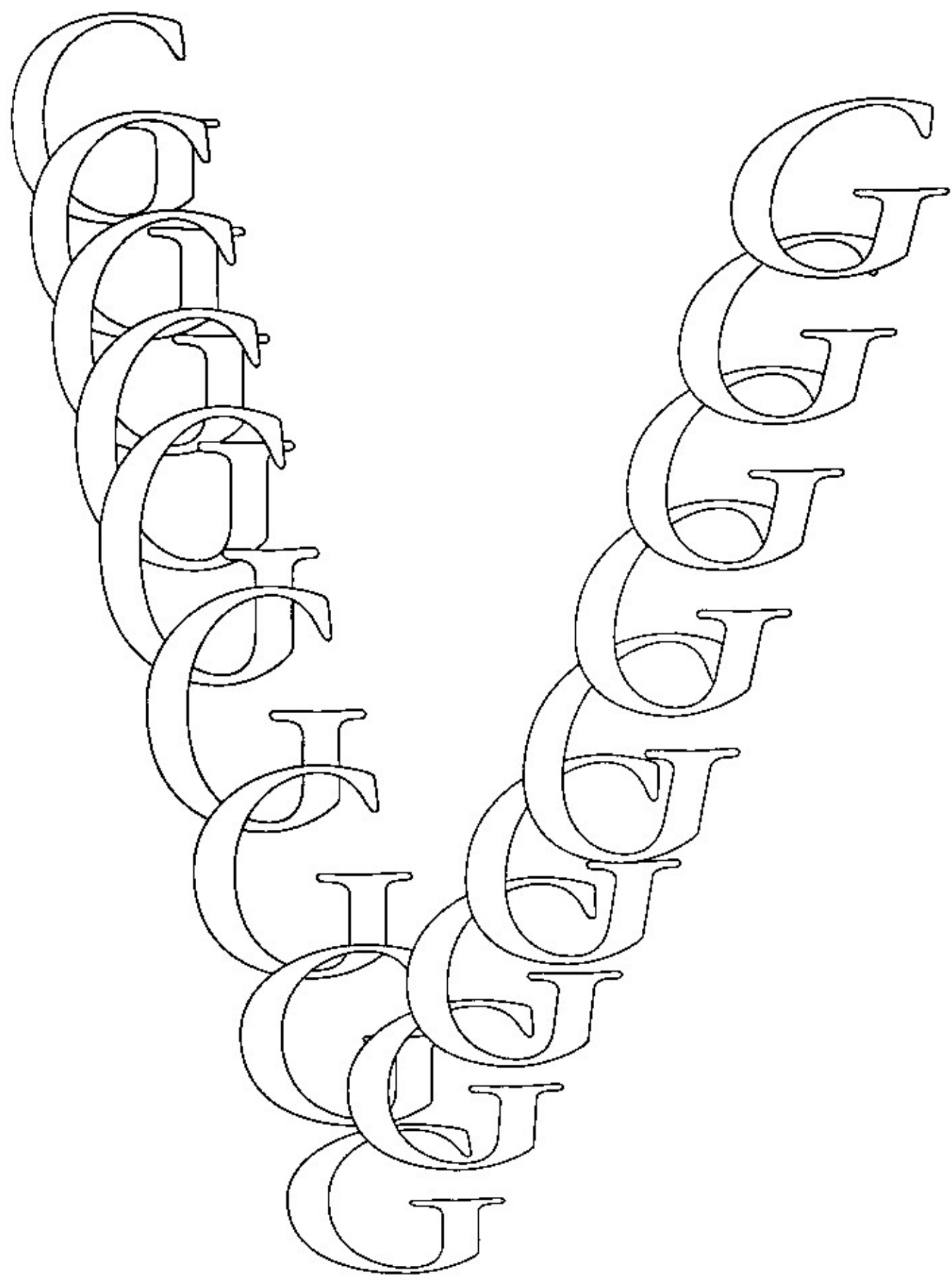
graphic
design

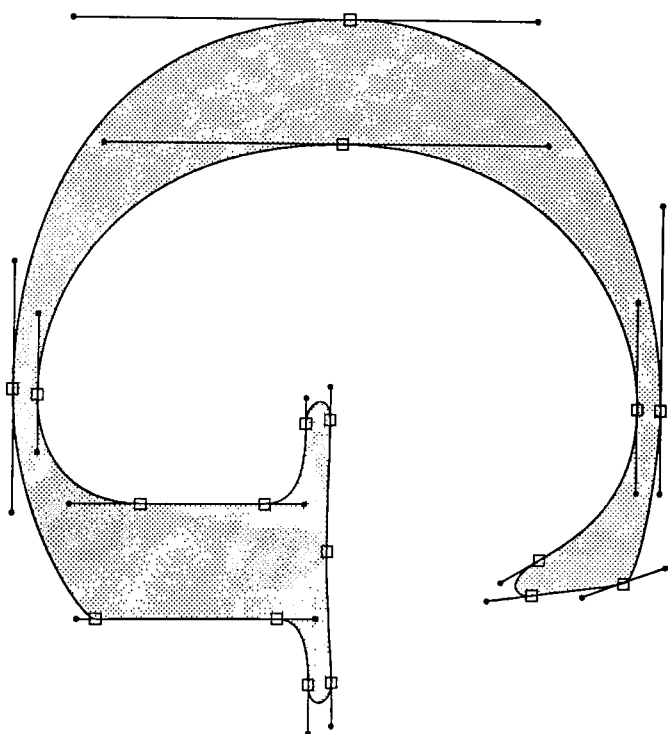
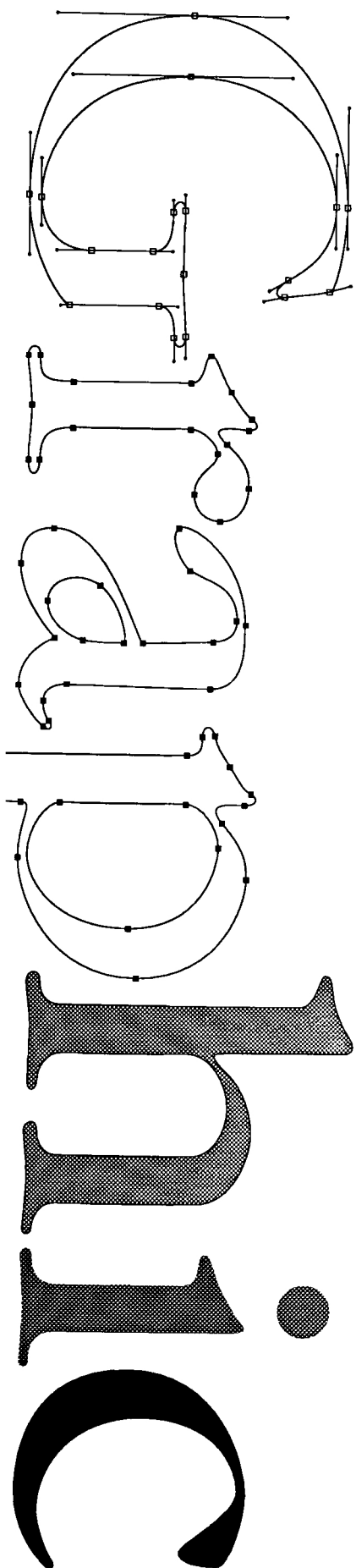


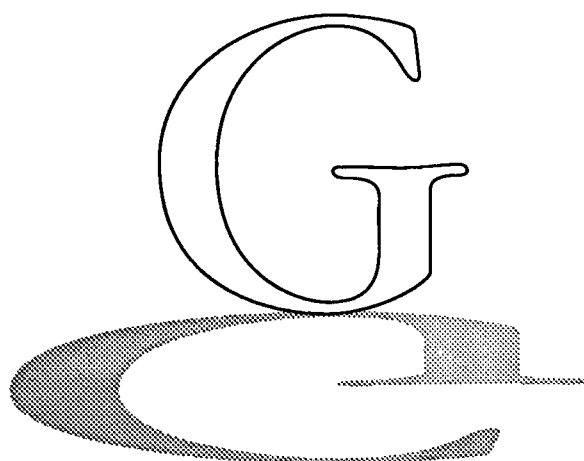
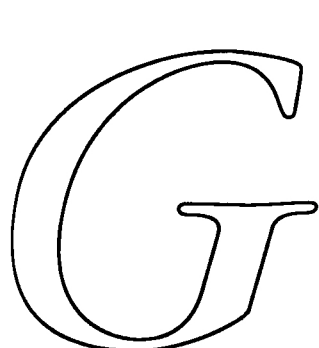
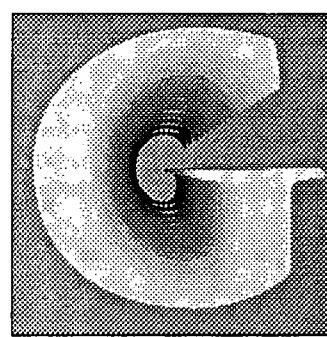
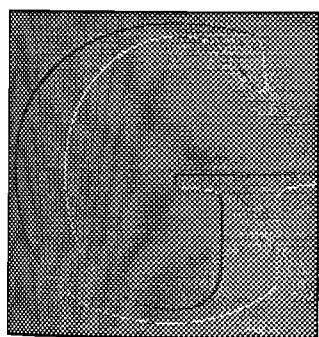
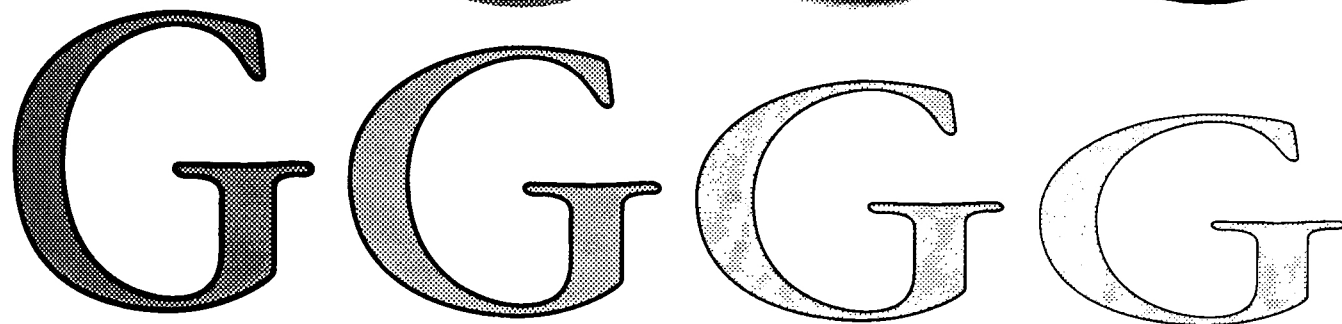
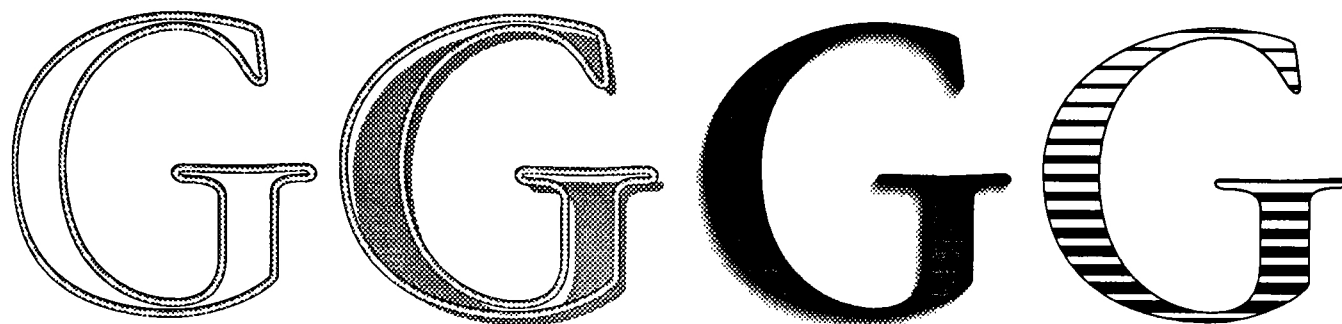
CLARKSTON
&
QUINNNTON









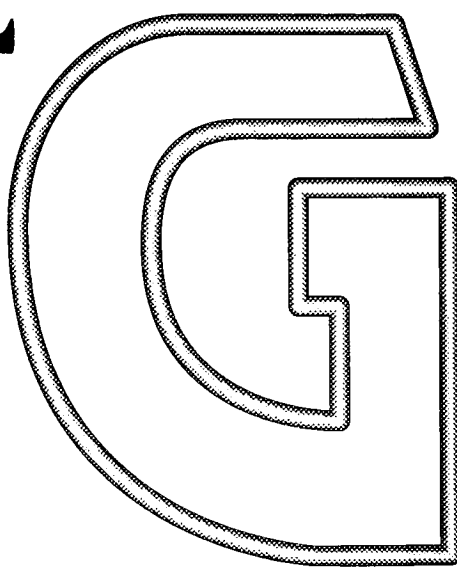


NEON TYPE

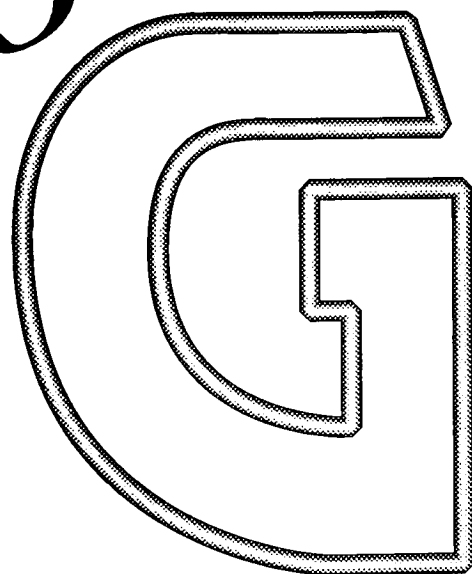
1



2



3



1 Squared line joints.

2 Rounded line joints.

3 Beveled line joints.

NEON TEXT



1

First select a letter to make neon.



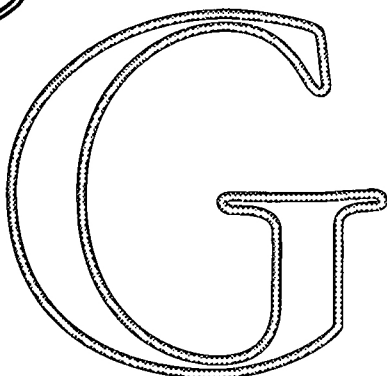
2

Next, change the stroke to black and the point size to anywhere from 3 to 5 points. Also make sure the fill is set to none.



3

Make a copy of the letter offset slightly from the original. Set the stroke point size to .5 and the color to white. Now you have a large stroke letter with a smaller stroked white letter on top.

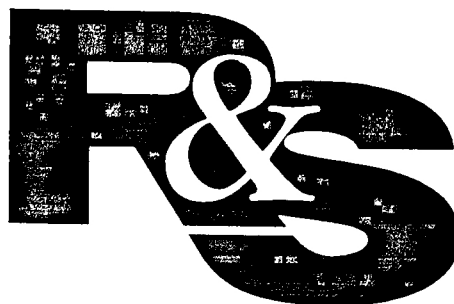


4

Now select two corresponding points on both letters and blend between them in 5 to 10 steps. The more steps achieves a smoother gradient.

Unedited

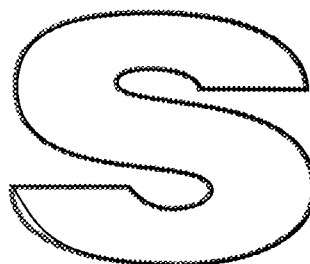
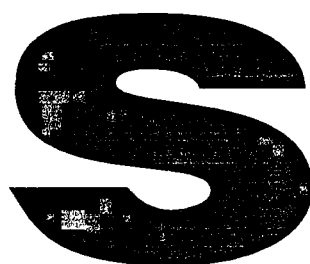
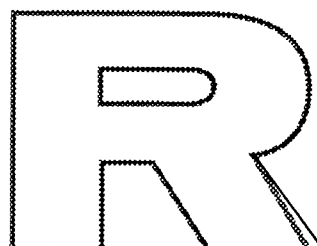
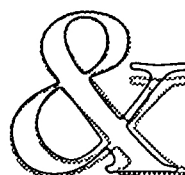
Edited

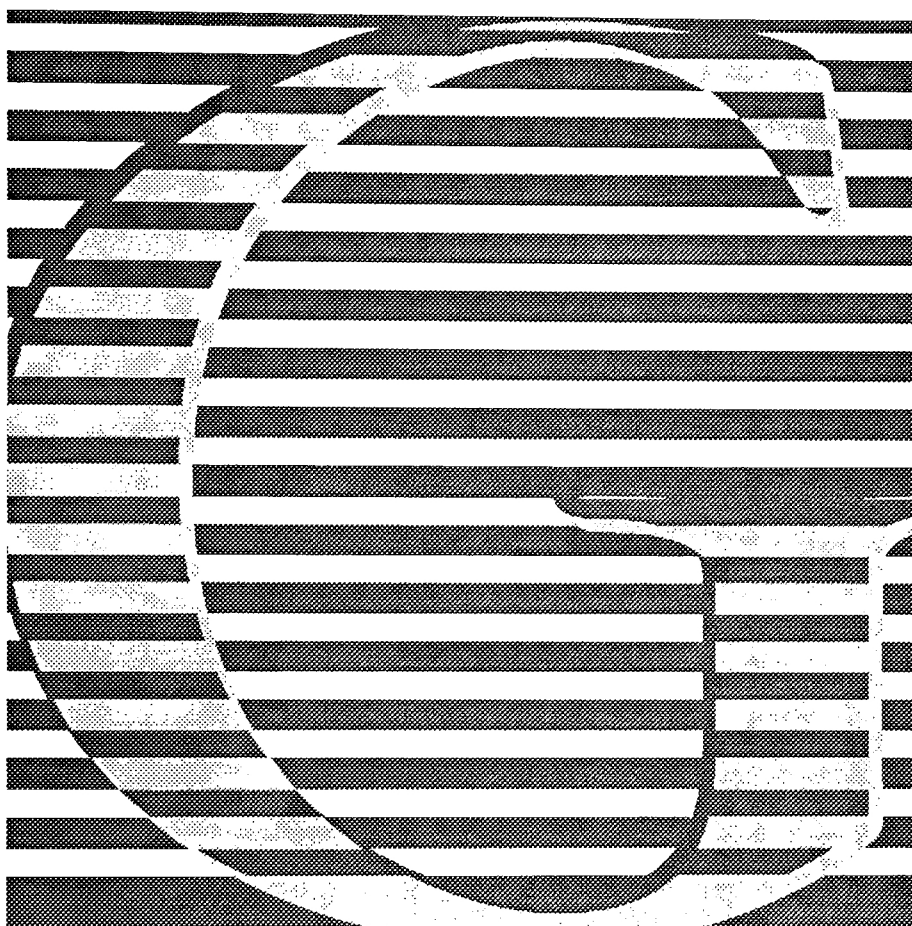


Unedited

Edited

Mixed







Bibliography

- Carter, David E. *Trademarks/10*
New York: Art Direction Book Company, 1987.
- Carter, David E. *Trademarks/11*
New York: Art Direction Book Company, 1989.
- Holfgang, David A. *Mastering Adobe Illustrator*
California: Sybex Inc., 1988.
- Mendenhall, John *High Tech Trademarks Vol 1*
New York: Art Direction Book Company, 1985.
- Mendenhall, John *High Tech Trademarks Vol 2*
New York: Art Direction Book Company, 1988.
- Letraset *Letraset: Graphic Materials Handbook*
New Jersey: Letraset USA, 1986
- Letraset *Letraset: Graphic Materials Handbook*
New Jersey: Letraset USA, 1987
- 