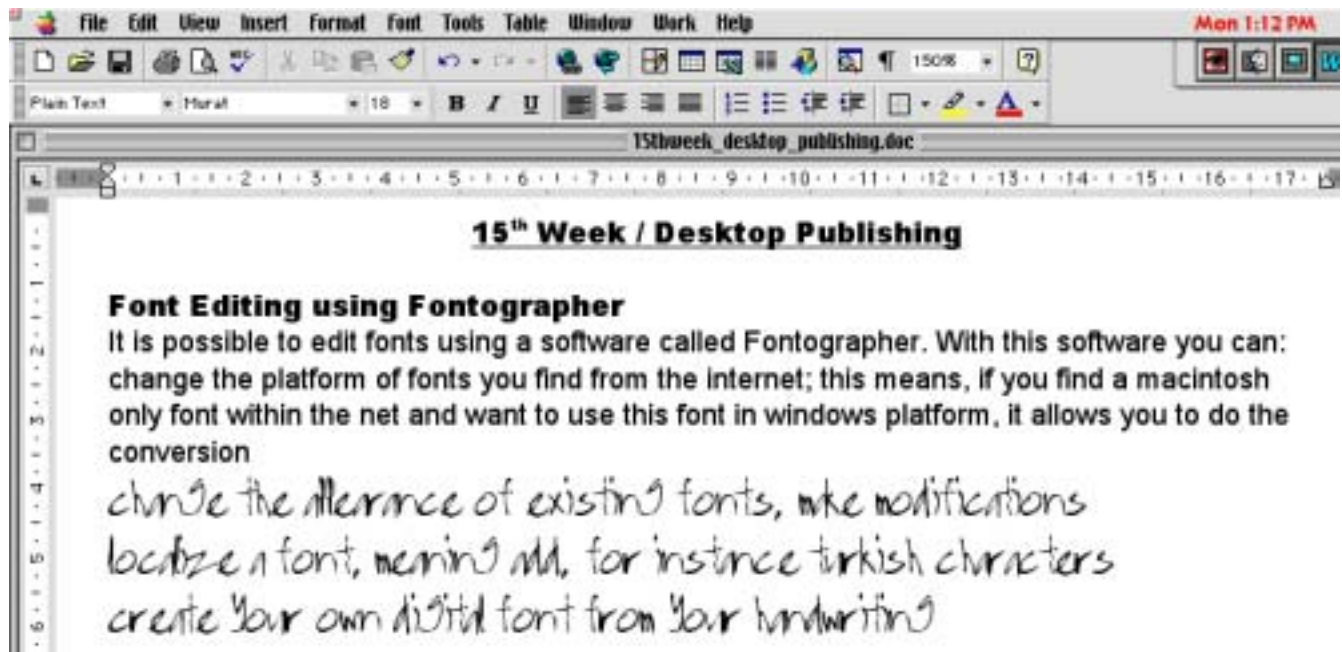


## Desktop Publishing

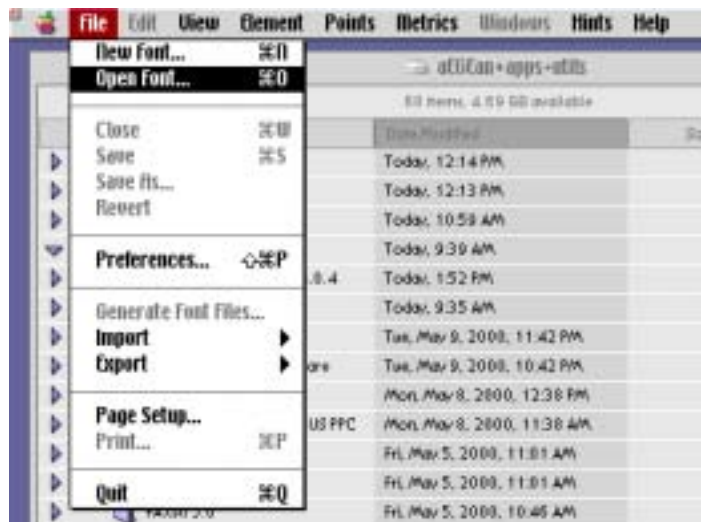
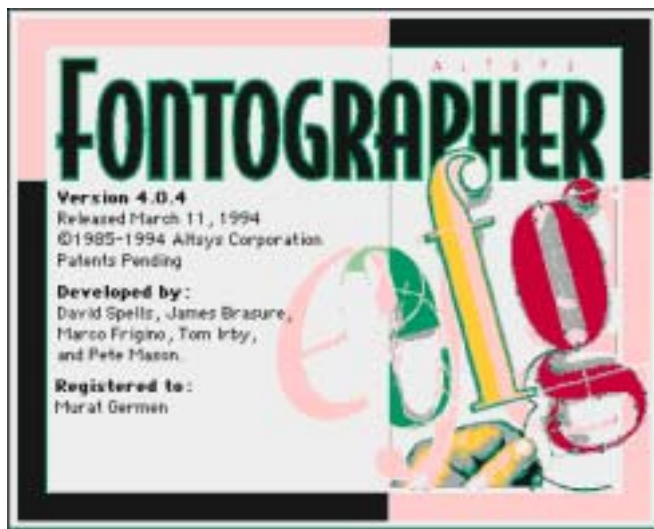
### Font Editing using Fontographer

It is possible to edit fonts using a software called Fontographer. With this software you can:

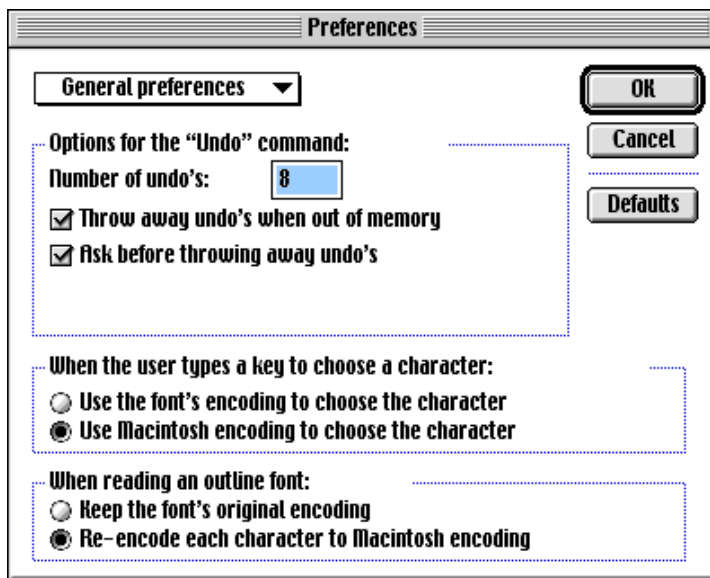
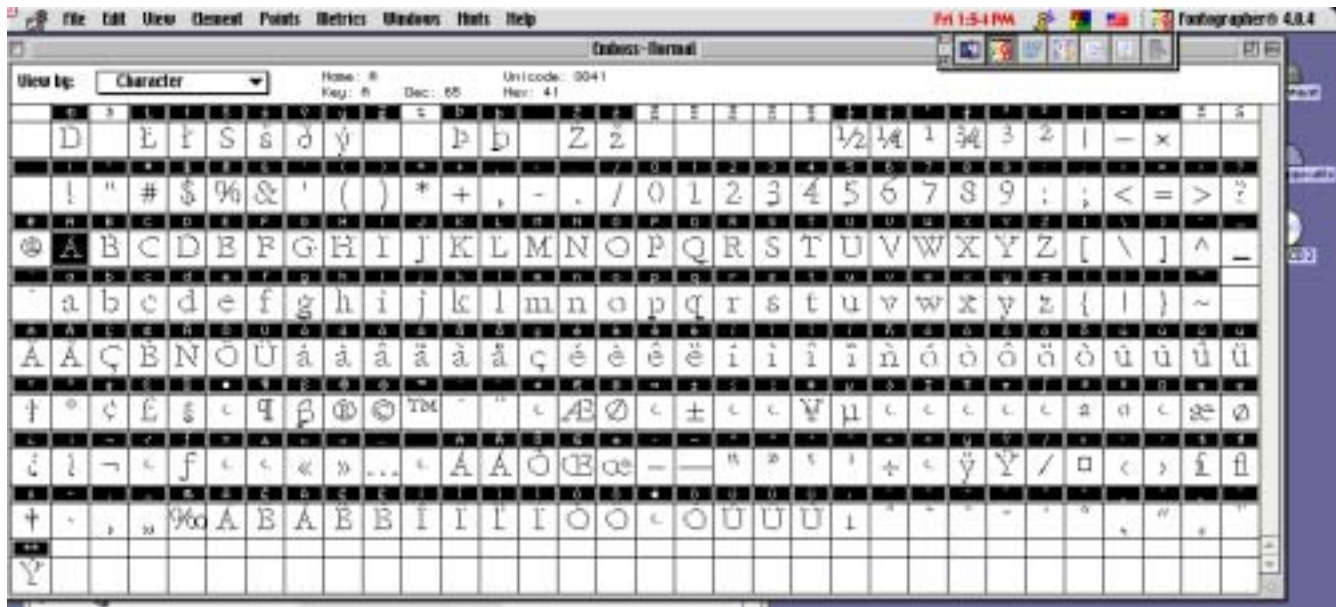
- change the platform of fonts you find from the internet; this means, if you find a Macintosh only font within the net and want to use this font in windows platform, it allows you to do the conversion
- change the appearance of existing fonts, make modifications
- localize a font, meaning add, for instance, turkish characters
- create your own digital font from your handwriting



- create a single font by mixing two existing fonts



This is what you get when you open a font in Fontographer. This software can open and edit TrueType and Postscript fonts, but not screen fonts.

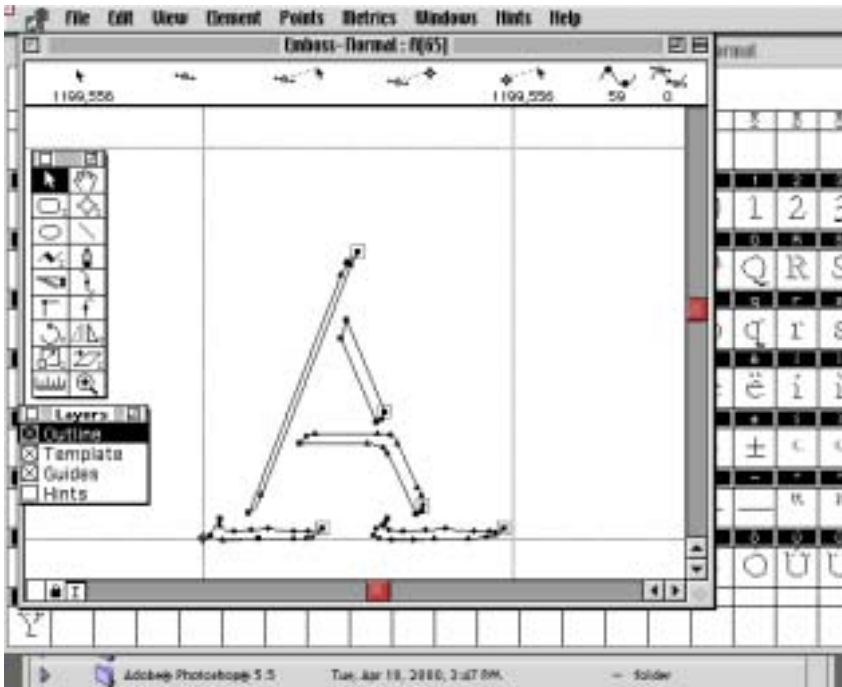
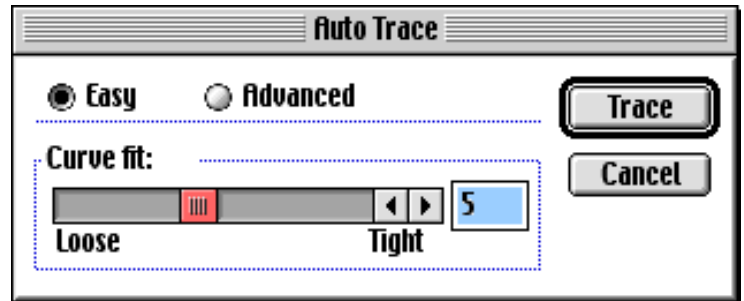


Depending on what platform you are on, preference settings may vary. Basically, two choices in the general preferences box are important. The first is whether you prefer to use a font's original encoding or your computer platform's encoding (i.e. MacOS or Windows) when you type a key. The second is whether you want to keep the font's original encoding or re-encode each character (according to your computer platform) when you open a font. These are important when you edit a font for cross platform compatibility. It is preferable to use font's own encoding in both cases.

If you want to create your own font, what you have to do is to neatly write down the entire alphabet, in addition to special characters you need / use frequently, on a clean piece of white paper. Then, you need to scan this paper and create small bitmap files for each character, using an image editing program such as Adobe Photoshop. Following this, there are two ways of importing these bitmap images into Fontographer. First, is the cut-and-paste way, which is, as usual, the quickest way. You get to Photoshop side and select the entire image, copy it to your clipboard then switch to Fontographer. In Fontographer, you double-click on the box of the letter you want to create and then paste the image that you just copied. The second way is to import the image using Fontographer's built-in menus. You can see which menu to use at below image:

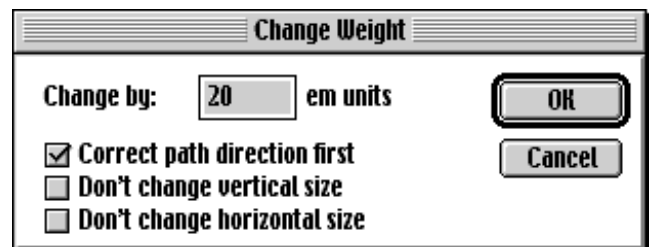
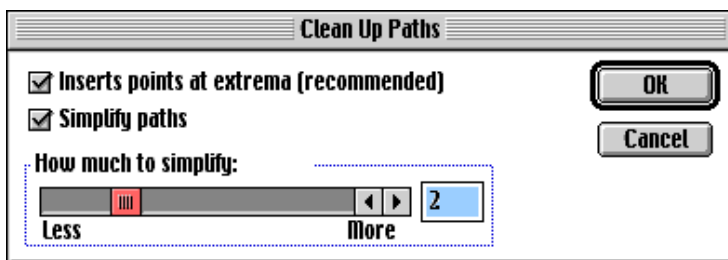


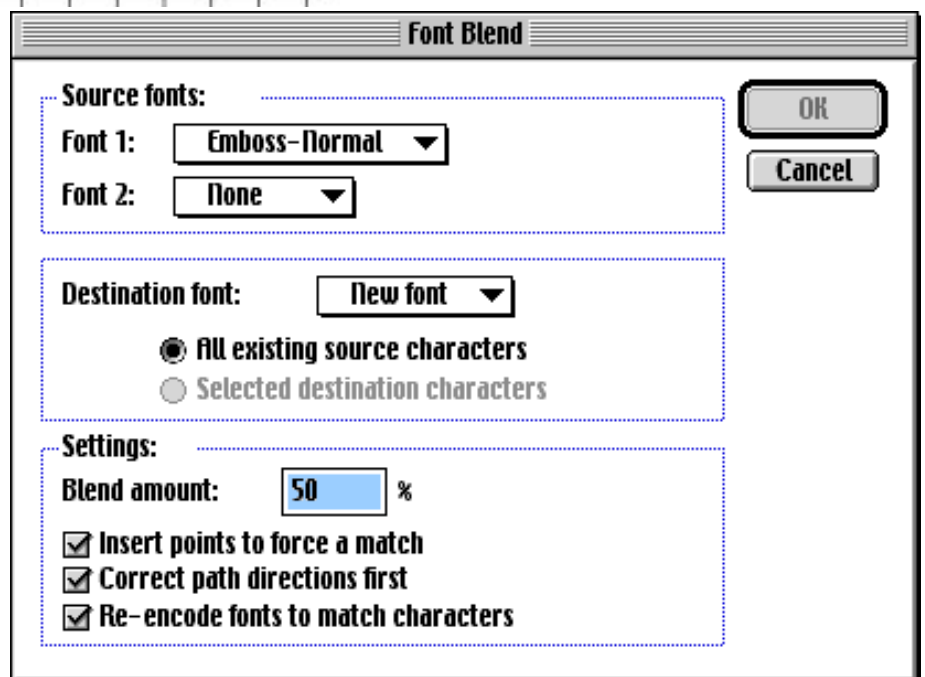
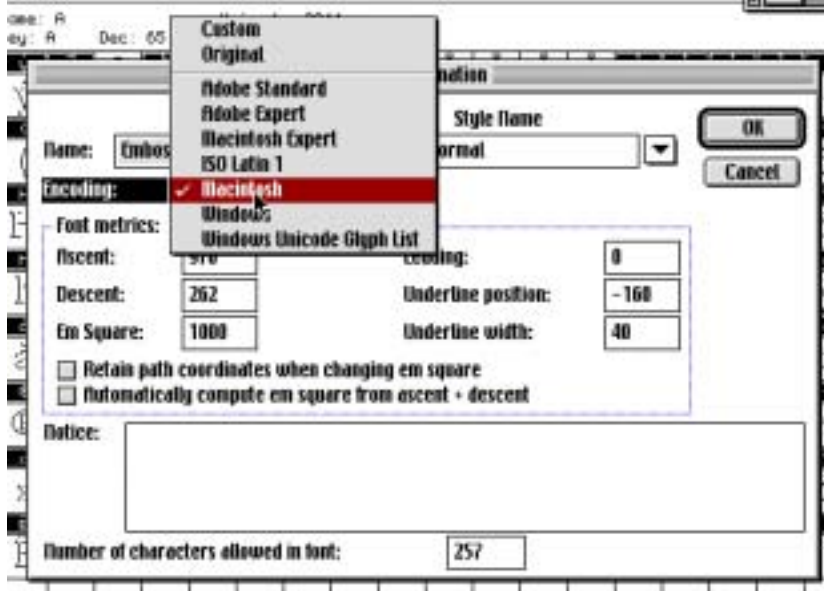
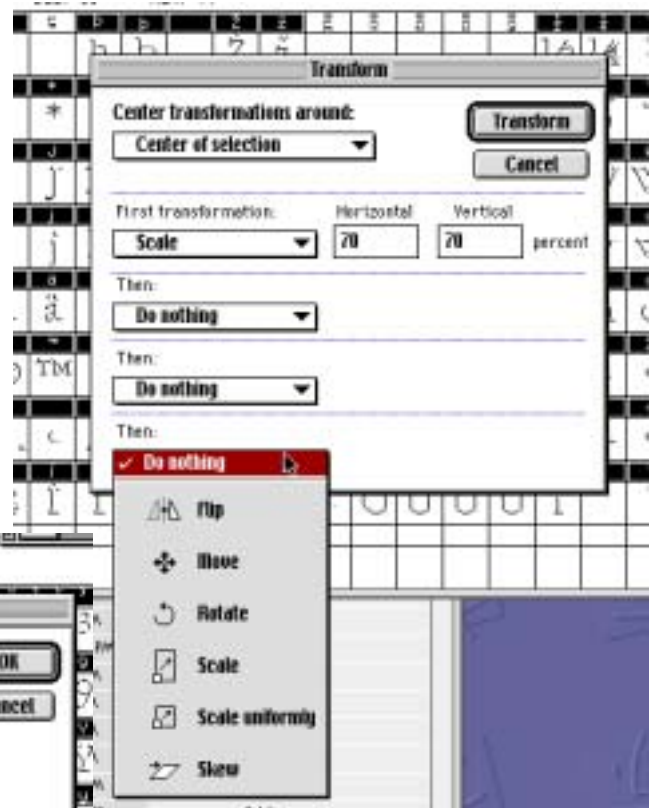
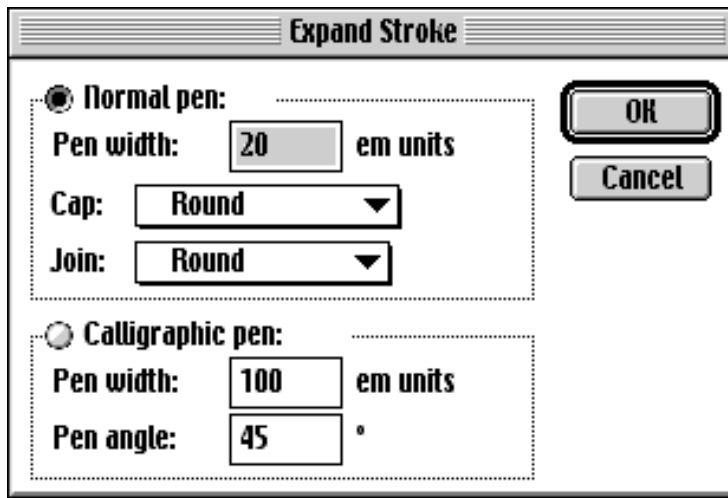
As soon as you import your bitmap image in Fontographer you will need to convert this bitmap information into vector information. The reason for this is that fonts are vectors and contain no bitmap information. The conversion process is easy: Use the AutoTrace command.

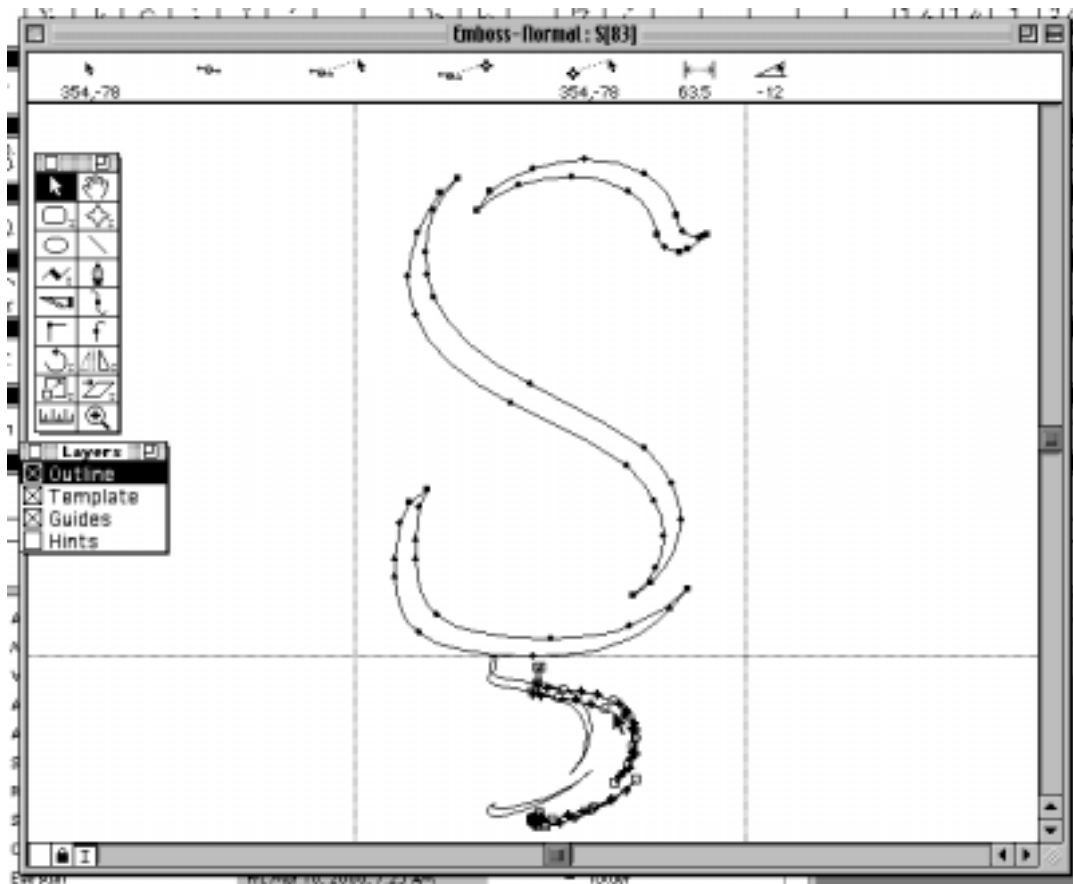
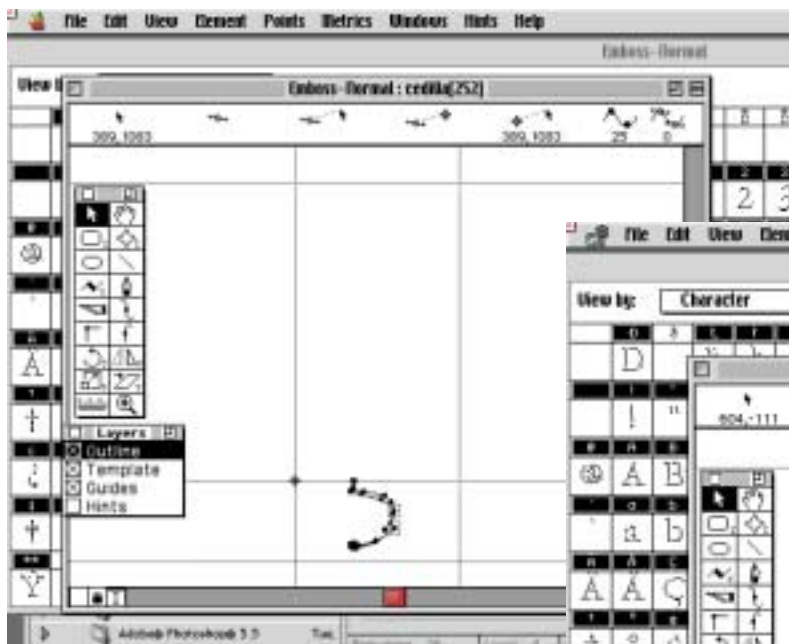


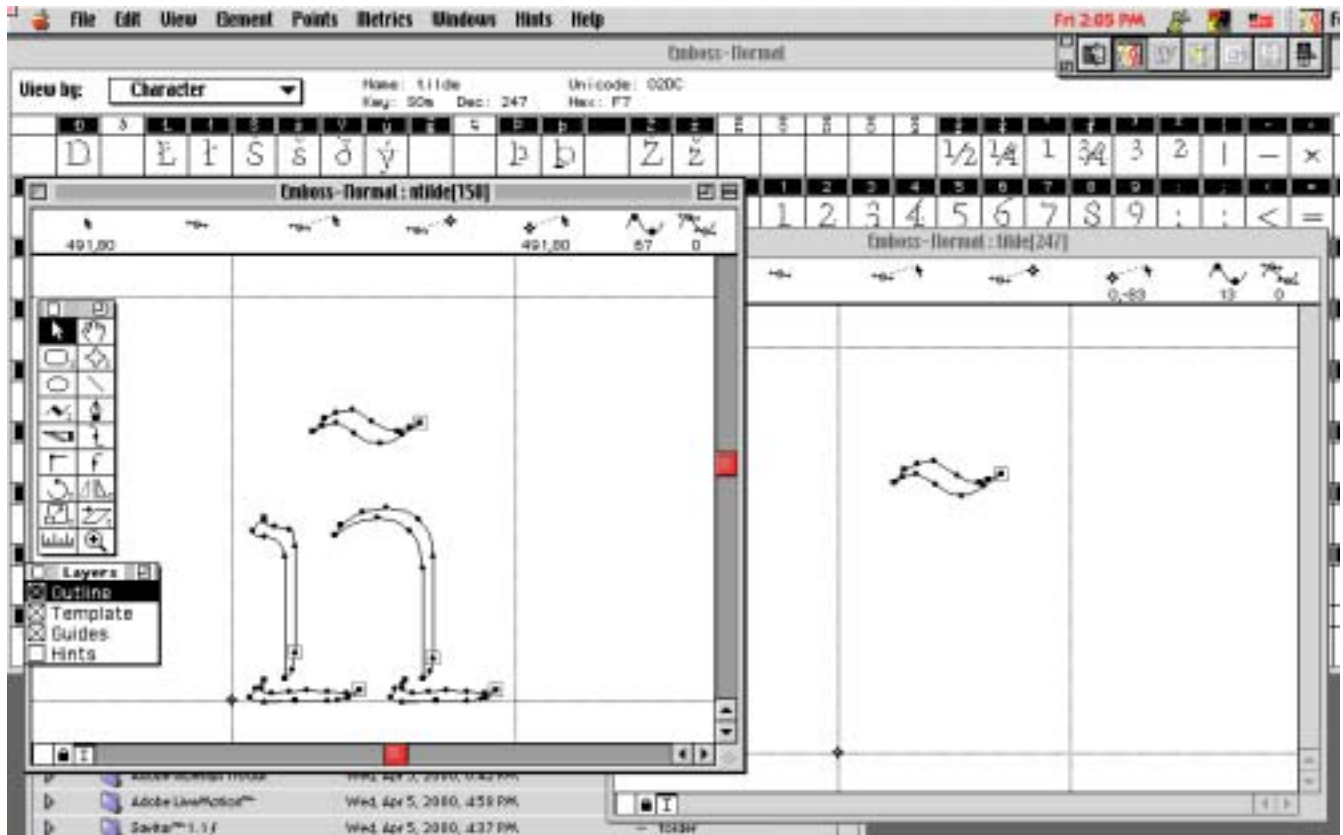
Auto tracing can be found in many programs that support vector graphics, such as Freehand, Corel Draw, Adobe Streamline, MiniCAD, etc. The degree of accuracy during this conversion varies in different programs. The best among the above mentioned software for converting bitmap graphics into vectors is Adobe Streamline. So if you think that AutoTrace command in Fontographer is not precise enough in converting your bitmap graphics into vectors, then you can use an external program like Adobe Streamline, convert your bitmap

into an accurate vector graphic, export it as an EPS file and finally import the vector information into Fontographer as EPS.









## Introduction to Desktop Publishing

While most people associate desktop publishing with word processing, they are actually two different processes. Word processors like MS Word and WordPerfect work with lines of text. This includes graphics. If you've ever inserted a graphic into Word and noticed that it moves as you move the lines of text, it is because that graphic is being treated like one large block of text or letter. Everything with a word processor works serially, from top to bottom.

Desktop publishing programs like PageMaker and Quark work just the opposite. They treat everything as a graphic. Text is a block, not a series of lines. This gives you the freedom to arrange and compose your pages in a more fluid manner. It can be serially, or erratically. You make the decision.

With this difference, desktop publishing programs offer you a greater degree of flexibility when it comes to creating your documents. To create professional page layouts, there are a series of widely accepted guidelines that can be used. It is important to remember that page layout is a design process, like landscape architecture or architecture. All design fields have three main principles for good design:

- **Function** design must perform the task (for DTP, it must communicate ideas).
- **Economy** design must perform task as simply as possible (for DTP, readers shouldn't have to wade through nonessential content).
- **Beauty** design should be elegant and provide experimental delight. Beauty and economy often come into odds with each other, and it takes practice to develop both.

### Beyond the three main principles, there are other design principles:

- The Golden Section: Defined in the 1st Century BC by Roman Architect Marcus Vitruvius, there is an ideal mathematical relationship between elements, whether it is for architecture, human anatomy (da Vinci's sketch) or page layout. Defined as a ratio of 1.618:1, this is a consideration into all forms of design today.
- The Rule of Thirds: Good layout is based on dividing up your page into 3 columns and 3 "rows." It is visually pleasing to have elements, whether it is text (especially titles) or graphics line up with these columns and rows, or combinations of them. If you have a graphic image, it is better for it to spread across two full columns than have it only cover 1 1/2.
- Organization and Hierarchy: There must be a perceivable hierarchy and organization that leads the reader from beginning to end, through various levels of detail.
- Direction and Sequence: Human reading patterns do not always follow a serial progression from beginning to end (have you ever scanned an article and read middle paragraphs looking for details or information before you read the introduction at the beginning?). Good design will take this into account and provide the reader with cues to make their natural reading habits easier.
- Consistency and Simplicity: Once your organization and hierarchy is established at the beginning of the document, maintain this throughout the document. Any changes can distract and "turn off" the reader.
- Balance: Humans are attracted to balance. We find balanced objects, whether it is a face or a designed page to be more appealing than distorted objects. This appeals to our sense of rational judgement, and can help us in our decision making and relationship building.
- Contrast and Color: Contrast, as aided by the use of color, can help to separate out important content from the rest of the document. Headers or important points can be separated from the rest of the document to help the reader find them, as well as to stress their values.
- Repetition: This is linked to consistency. It helps us to plan on what's coming.
- Style: Every style has a certain connotation to it, whether it is aggressive, loud, playful, formal, tacky, cool, amateurish, professional, etc. These styles are created through graphic types, layouts, shapes, colors and patterns. While not always universal, especially culturally and generationally, these messages can affect the impact of your message. Make sure the style of your document matches the message.

### Design Elements

There are seven elements of graphic design that are the starting point of your design ideas: Line, Shape, Texture, Space, Size, Value and Color. Each of these elements is a building block to a good layout. You are familiar with most of these elements from everyday life so there is nothing mysterious about them. Each one of these elements can be used to design different layouts depending on how you use them.

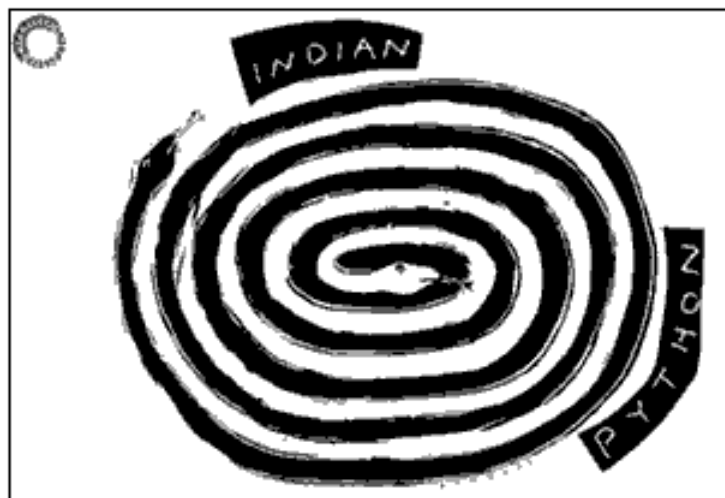
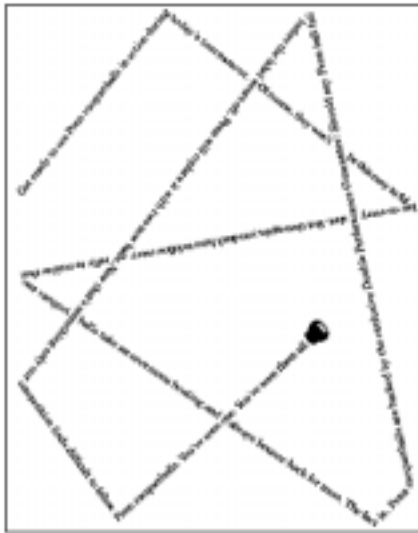
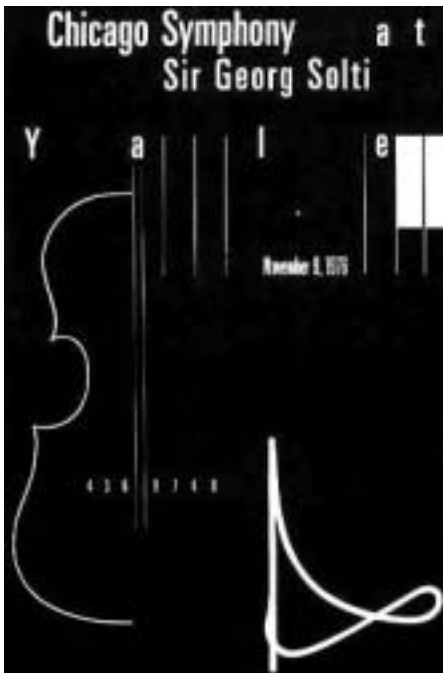
When using the elements of design, it is important to know which elements are necessary and which are not. Knowing this will keep your layouts clutterless and help strengthen your design.

1- Line. The first element of design is line. Lines can be used in a variety of ways in a layout: They help to organize information; They can direct your readers' eye as to the organization of the layout; They can create a mood; And, they can create rhythm and movement.

For example, lines can organize information on your page. A line can define the boundaries of your page. Vertical or horizontal lines can also be used to direct your readers from one piece of information to another. To create a mood, use a wavy line to give the piece a feeling of movement.

Lines in your piece can:

- Convey a mood or an emotion.
- Organize the design.
- Establish columns of text.
- Create a texture.
- Create movement.
- Define shape.
- Call attention to a word.
- Connect pieces of information in your layout.
- Frame an image or a word.



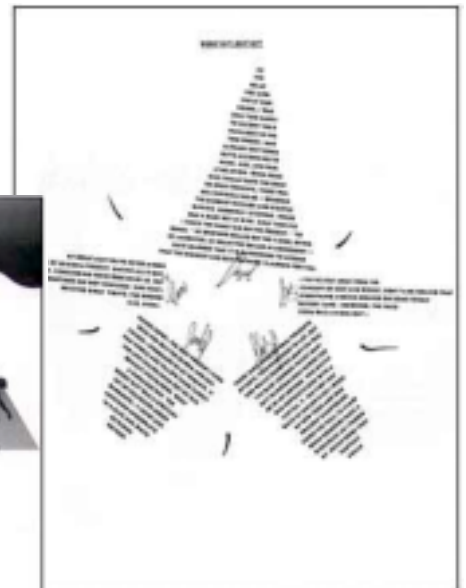
2- Shape. Shape is any element that you use to give or determine form. Shapes also communicate ideas. For example, an international company may use a circle in their logo that could suggest the earth. Unusual shapes attract attention. Because people are used to seeing images regular shapes such as a rectangle, using a shape such a star would call attention to that image. Another example would be arranging type in a shape rather than in vertical columns.

There are three ways that shape enhances your layout. First, shape helps to sustain reader interest. Shapes can be used to break up a page that uses a lot of text. Second, shape is used to organize and separate. A part of the text can be placed in a shape with a colorful background and will add variety to the page. Last, shape can be used as a conceptual tool. You can use shape to lead your reader's eye through the design. In layouts, the eye looks for a place to begin and will follow through the design to the end.

The three different types of shapes- geometric, natural and abstract. Geometric shapes are triangles, squares, rectangles and circles. Geometric shapes are regular and structured, and make excellent building blocks for design. Natural shapes are plant, animal or human, and are irregular and fluid. For example, instead of using a rectangular shape to frame part of a page, you could use ivy if it is appropriate, to give the page a light, airy feeling. Abstracted shapes are defined as simplified versions of natural shapes. An example of an abstracted shape is the symbol for handicapped accessible is a figure in a wheelchair.

To use shape in your piece:

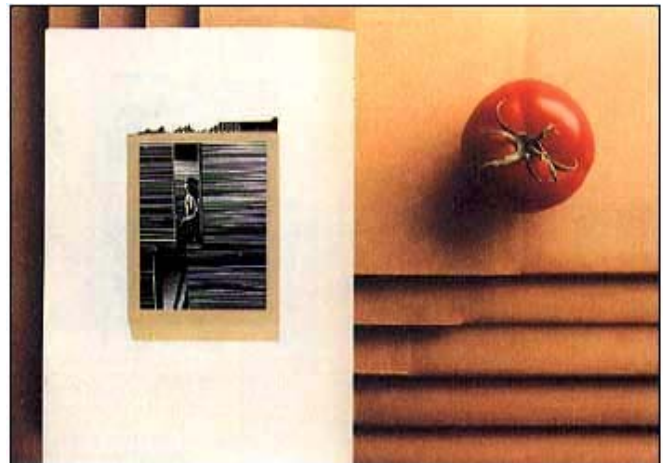
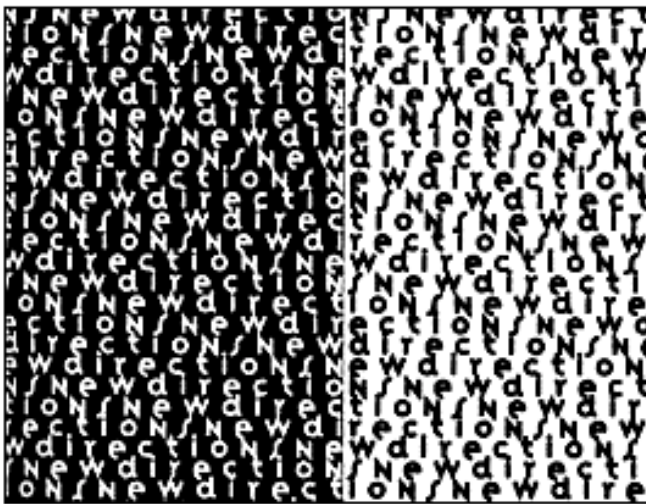
- Frame a photograph using irregular shapes.
- Symbolize an idea.
- Connect pieces of information.
- Make a part of the body copy more interesting.
- Highlight information using a shade of a color.
- Imply letterforms by using a triangle to represent the letter "A" or a circle to represent the letter "O."
- Tie together all the elements on a layout.



3- Texture. Texture gives the design piece a look or feel, or a surface. Think about the different textures that we encounter everyday. Texture can help you create a particular mood for a layout or be used in individual shapes.

Texture can be used in your layout to add dimension and richness. There are two types of texture. The first, tactile texture, can be felt. For example, think about the different pieces of paper you have handled. The second, visual texture, is used to create the illusion of texture on a printed piece. Wallpaper is a good example of visual texture. Blocks of type can be used as texture by alternating the patterns of light and dark that are created by the shapes of the letterforms as well the spaces between them.

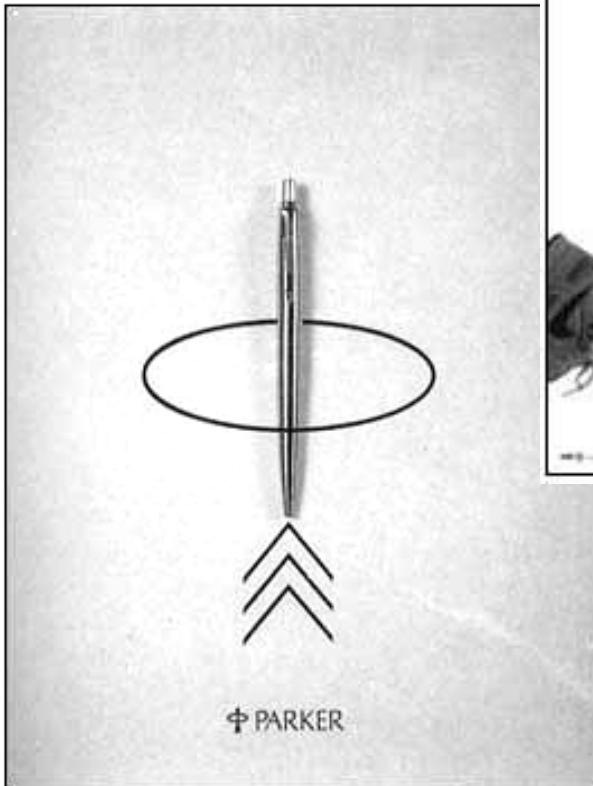
A pattern is type of visual texture. When an image or line of type is repeated many times, the patterns of lights and darks add dimension to a surface. Wrapping paper is a good example of pattern. Patterns can make excellent backgrounds and borders in layouts.



4- Space. Space is an essential element in your layout. Space is defined as the distance or area between or around things. When you have many elements in a piece, you must leave some areas free from type and imagery. This is called white space, and it creates a rest for the eye, and visually organizes what's on the page. The placement and the value of the shapes on the page create spatial relationships and focal points, which are centers of interest.

To use space in your piece:

- Give the eye a visual rest by using white space.
- Use a small amount of space to create ties between elements.
- Form positive and negative shapes with the use of color and shape.
- Give a layout depth by overlapping one element with another.
- Use a lot of white space around an element to highlight it.
- Use large margins to help make a layout easy to follow.
- Use unequal spacing between elements to make a page dynamic.
- Use letterspacing to help make type very legible.



5- Size. Size is how big or small something is. In design, size can function, size can attract or size can organize.

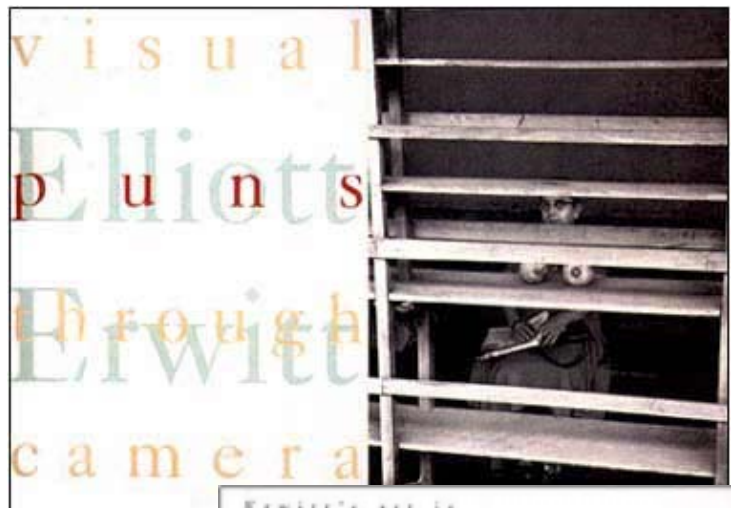
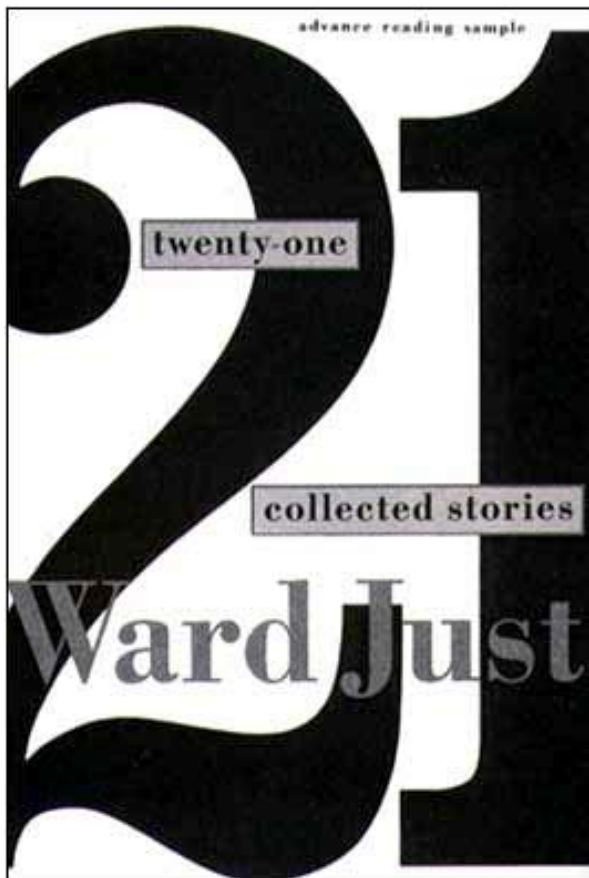
The first factor you need to consider is function - what the printed size of the piece will be. Think about how the piece will ultimately be used and whether the its use will end up limiting the size. For example, if you are designing a brochure, will it need to fit in a regular envelope?

The second factor is using size to attract your audience. You can contrast large and small elements or make an image larger and crop it in an interesting way.

The third factor is using size to organize your piece. To attract your viewers attention, make the most important element the largest and the least important element the smallest. Headlines are usually the largest type element on the page, while subheadlines, and body text is smaller. Larger objects appear to be closer on the page than smaller ones, and that can be used to reinforce importance and create artificial spatial relationships.

To use size in your piece:

- Make the most important element the largest.
- Bring elements forward or make elements recede on the page.
- Give the reader a sense of scale of a photograph by using a related image.
- To make all elements easy to see by using larger type or pictures.
- Make elements fit together properly in a piece by keeping repeating elements such as headlines, subheadlines and body copy the same size.



6- Value. Value is the darkness or lightness of something. Value helps to gives shape and texture to everything around us. In design, every element has value. When laying out pages, an element's value will be affected by its background and other elements that are around it. For example, if you use a lot of text in a small area, it will make the paper look like it has turned gray.

Value is also an important tool for expressing the theme or mood of your design. If you use values of black, white and gray in a design, you add power or change the mood of the design. A good example of this the album cover for the Beatles' "White Album." The cover is a stark white with the words "Beatles" set in small type. The restrained use of value created a visually impacting piece.

Value helps to establish contrast by subtly blending shades of color or black and white. Value also helps to create movement and direction. If you place a single black dot on a white background, there is great contrast between the foreground (the dot) and the background (the white background). If you then add a second dot below the first, both dots will have equal importance, unlike the first example, which only has one element on the page. Furthermore, if you make the second dot a 50% shade, the value of the second dot has created movement and direction.

To use value in your piece:

- Use large type with lots of leading (space between lines of type), which is a dark value, and small type with small amounts of leading, which is a light value.
- Use black and white to create a checkerboard background pattern.
- Use light values to create a subtle look to your piece.



7- Color. Color is the ultimate tool for symbolic communication. The decisions you make about color should be made with great care to ensure the success of your design piece. You should think about the mood you want to convey. Like value, color can evoke moods and emotion. It can also help to identify an important element in your layout as well as transmit the message of your communication. For example, you could use a colored frame around a group of images to let your reader know that all of those images belong together. You could also use red to convey an important piece of textual information. Although color can make a layout more dynamic, it is important to consider why you want to use color and what you would like the color to achieve. Think about what colors are most appropriate to your message and your audience.

To use color in your piece:

- Make important text a different color than the rest of the copy.
- Use a bright color to tell the reader where to look first.
- Use bright colors together to help create a feeling of excitement.
- Repeat a color from an image and use it with corresponding type or as a background to help unify the layout.
- Color code a document (such as a training manual) with large amounts of text to help organize the piece.
- Use an appropriate color to help differentiate parts of a chart or graph.
- Use pastel colors to create a soothing mood.



## Design Principles

There are five principles of design: Balance, Contrast, Emphasis, Rhythm and Unity. These principles will help you combine the different design elements into a good layout. Each principle discussed in this section can be combined with, and applied to, the seven elements. For example, to create unity in a layout you can use any one of the elements such as line, texture, shape, space, size, color.

The principles of graphic design affect where you place type and image, and influence every decision you make when designing a layout. The principles also affect how each piece of image and body copy relate to each other, what your message is and how you communicate it. When working with the design principles, always think about how each principle you use will enhance your layout, make it visually appealing to your audience, how it is organized and whether or not it helps to communicate your message clearly.

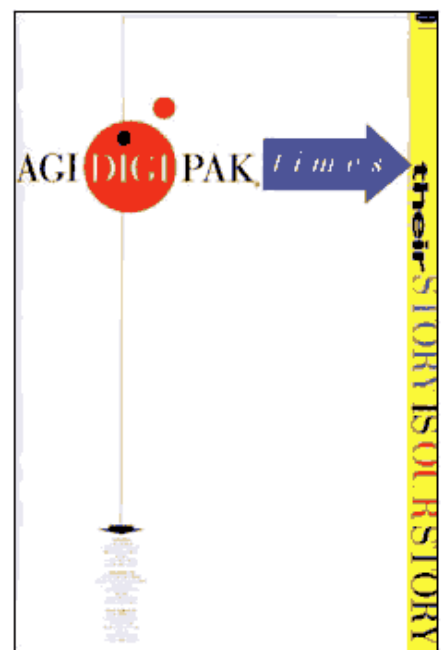
1- Balance. What is the driving force behind balance? Gravity. If you are caught off balance, you may fall, or you may shift your weight to maintain your balance. In graphic design, if a layout is unbalanced, your readers will feel uneasy as if something is wrong with the page.

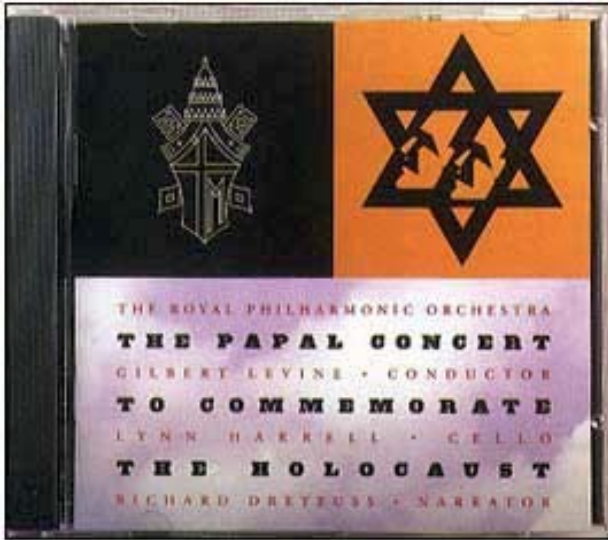
One approach to balance is symmetry, which is an equal distribution of weight. All of the elements on the page are centered and balanced. Symmetrical design can communicate stability and strength, which appropriate for a traditional or conservative piece.

The other approach is asymmetry, which is the opposite of symmetry. The elements on the page are not uniformly placed on the page. To balance an asymmetrical design, use design elements such as color, value, size, shape and texture. Asymmetry can bring contrast, variety, excitement, movement, surprise and informality to a communication. It would be appropriate for a piece that entertains as well as informs.

### To Use Balance In Your Piece:

- Center typographic and image elements on the page.
- Use a shape such as a circle or triangle and repeat the shape at regular intervals.
- To offset a large image or block of copy, place several small visuals in one area.
- Think about using one or two odd shapes if you are using "regular" shapes.
- To lighten up a piece with a lot of body copy, use a bright, colorful image.
- Around large blocks of copy and dark image, use a lot of white space.
- Use several bits of copy to offset large, dark images, leaving plenty of white space around each.
- Use a grid with an equal number of columns or horizontal rows.

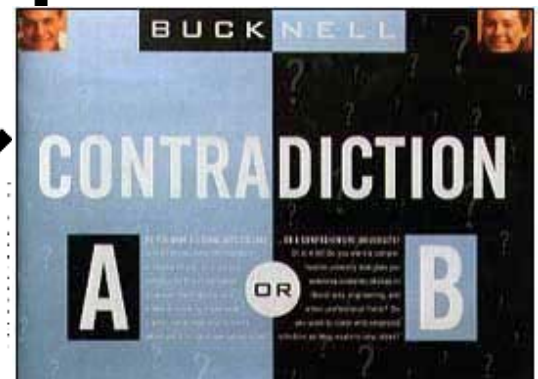
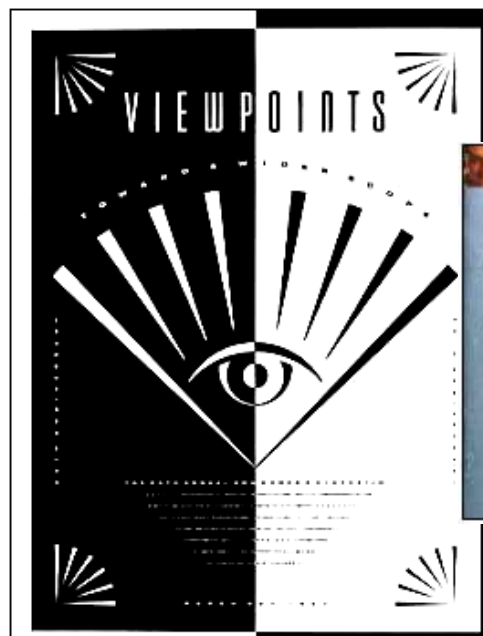




2- Contrast. Contrast can assist you in strengthening an idea and is a strong design principle that will help you distinguish your communication. When you add any element to a page, you've used contrast.

How would you communicate a poster showing all of the moon phases? It would seem logical to use a dark background with white images to make the different phases of the moon stand out on the page. When using contrast in your designs, think in contrasting terms such as small or large, white or black, crooked or straight, rough or smooth, dull or shiny, symmetrical or asymmetrical, serif or sans-serif.

The contrast choices you make do not have to be dramatic to be effective. Think about the overall message of your piece and then consider whether a diminished contrast or a subtle contrast would be suitable. When working with a subtle contrast, be sure that the difference is noticeable or it may go unnoticed, or look like a mistake.



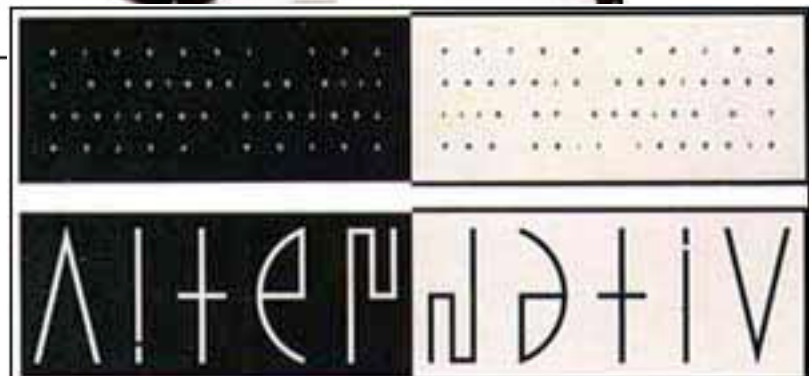
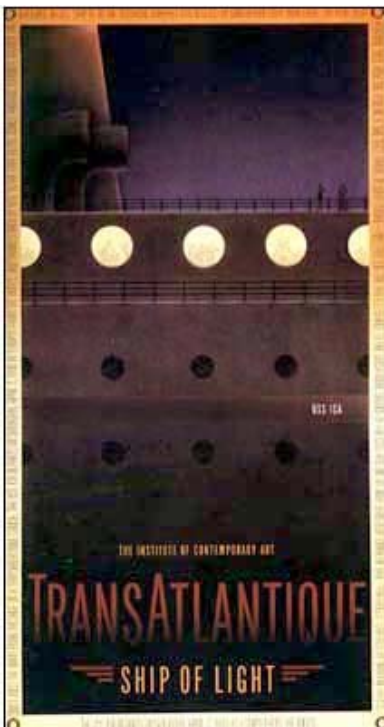
3- Emphasis. In design, emphasis is whatever stands out the most gets the attention. For a communication to attract readers, it must have a focal point. Without a focal point, readers will move on. On the other hand, if there are too many focal points the reader will not know where to start and quickly give up. As a designer, it is your job to choose what the most important element of the communication is based on the message you want to send to your target audience.

You must choose the most important element based on the message you're trying to communicate to your target audience. To make an element bigger or bolder for the sake of making bolder or bigger won't enhance your piece.

After choosing an element to emphasize, there are several methods of calling attention to it. Generally, a focal point is created when there is one element that differs from the other elements. For example, if you are working with a vertical layout, using a horizontal element will stand out (i.e. vertical columns of text with a horizontal picture).

To use emphasis in your piece:

- Surround an image with a lot of text.
- Place an important line of text on a curved line or an angle, and keep the other lines of text in straight columns.
- Set headlines and subheadlines in a bold typeface, and body text in a lighter typestyle.
- Place a small bit of text near a large image.
- Set the most important information in a color, or use an unusual typeface.



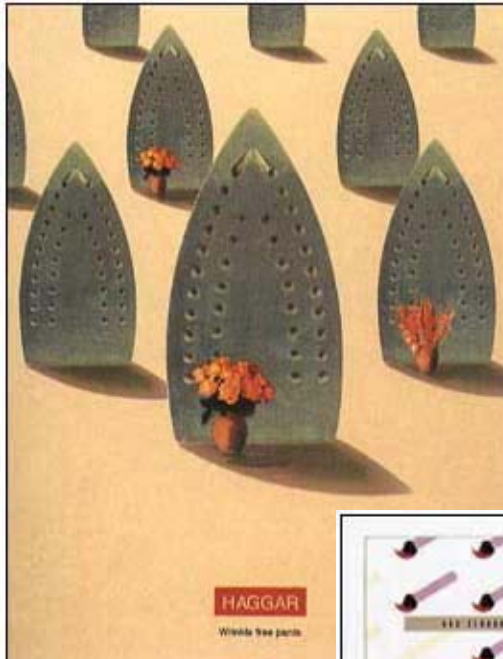
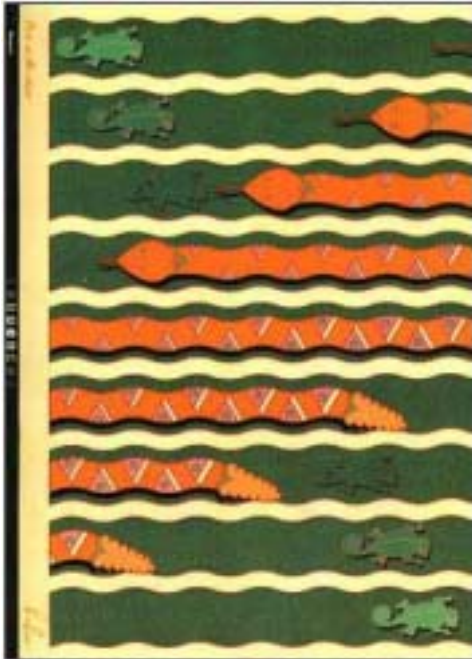
4- Rhythm. Rhythm is used to achieve movement and is the visual progression of repeating elements in a varied pattern. The two keys to using rhythm are repetition and variation. Repetition repeats visual elements in a consistent manner, and variation is a change in the size, placement or form of visual elements.

Repetition helps to unify a piece. For example, to make text easy to read, use even columns. Without the use of variation, repetition can be boring. Many pages of identical columns of text should be varied with the use of headlines, subheadlines and images.

Rhythm is used to communicate a feeling or mood in a piece. To establish a calm and relaxing mood, place your elements at regular intervals, which is a smooth, even rhythm. This approach to rhythm helps your reader with dry, factual text. To establish a more dynamic mood, vary the size and spacing of elements. Advertisements will often use this type of rhythm to keep an audiences attention.

To use rhythm in your piece:

- You can repeat a group of similarly shaped images along the same baseline with equal space between each element.
- Use a series of progressively larger elements in a repeated series.
- Set your text in one size, and use large images.
- Alternate dark, bold type with light, thin type.
- Repeat a similar shape in various areas of a layout.



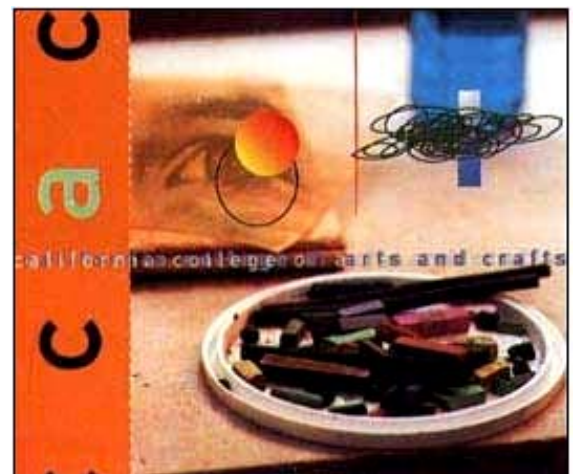
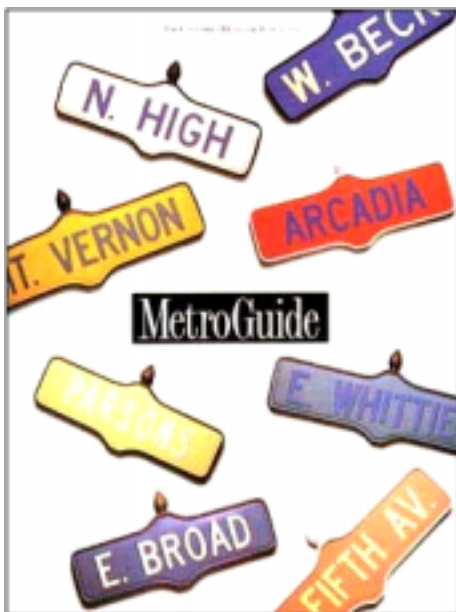
5- Unity. In design, unity helps all of the design elements look like they belong together. Your readers need visual cues telling them which parts of the layout go together. For example, relate a specific headline, body copy, and image that go together. If there is no clear organization or relationship between elements, you've lost your reader.

There are three ways for you to unify type and images: Grouping, Repeating and Grid Systems. Grouping means that elements that are close together look that like belong together. Elements are repeated through the use of color, shape or texture. Repeating elements in a layout, unifies it. For example, if you are using an image of a flag, you can use the blue from the flag as one of your colors. A grid system is a division of page space. You can use a grid to divide the page into columns, margins and space. A grid system helps establish a framework for the typographic elements and imagery on your page.

Use variety to keep your layouts from being boring. Think about beginning with a theme using a circle. You can then use the circle and variations of the circle in different sizes and shapes. Your elements are related through the use of shape, and they are varied and add interest to your layout.

To create unity in your piece:

- Repeat a specific color, shape or texture throughout the layout in different areas.
- Group related elements such as headlines, body text, images and captions together.
- Choose visual elements that have a similar color, theme or shape.
- Use one or two type families and vary the type size and weight for contrast.
- Keep the type families or styles used for headlines, subheads, body copy and captions consistent throughout the layout.
- Use a border around a page, photo, or poster.
- Group elements with the use of line, colored background or shades of a chosen color.



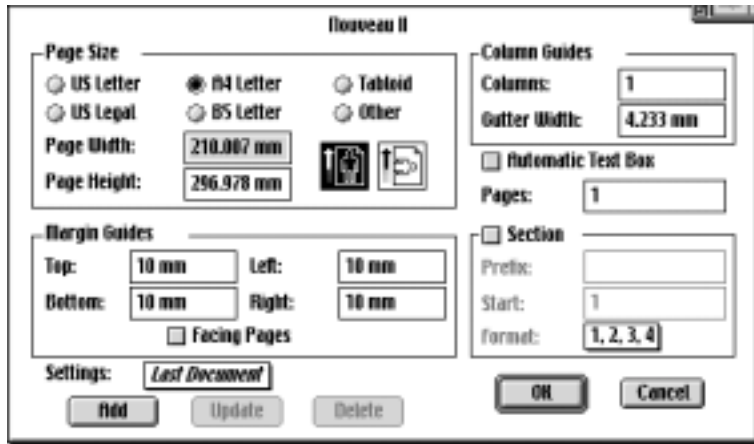
## DTP Rules of Thumb

- Keep it short, unless it is to be read for recreation.
- Make it easy to read, then visually interesting.
- Use fonts and graphics conservatively, unless you have a good sense of graphic appropriateness.
- If you see a style you like, borrow it. We all do it.
- If in doubt, use the rule of thirds and the golden section. These are universal, timeless and easy to use.

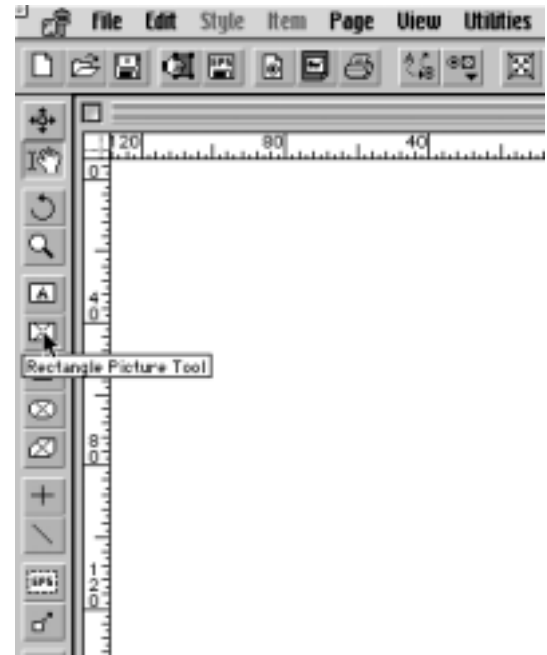
## Things to Avoid (Parker, R.C. The 25 Worst Desktop Publishing Mistakes (and How to Avoid Them). PC Computing. May 1989).

1. Wide columns of text-these are hard to read.
2. Too much or too little white space. No elements hanging in the air and you don't want so much information that the page is dense and daunting to the reader.
3. Rigid balance - too stiff and formulaic.
4. Lack of hierarchy - readers know where to start.
5. Overuse of lines and boxes to divide up content. It is better to use the rule of thirds to separate content.
6. Floating visuals - graphics should have a distinct purpose to support the text (avoid clipart-it is a desperate attempt to add graphics and you can never find exactly what you need anyway).
7. Too much or too little variety.
8. Poor line spacing - it should be appropriate to the font and font size used.
9. Too much or too little contrast.
10. Poor heading or subheading placement. If possible, avoid placing them near the bottom of the page. It is better to place them at the 1/3s of the page.
11. Poor text placement - avoid widows and orphans.
12. Poor text spacing - don't use cramped or widespread characters. Lines of text should line up across the page, even over different columns (use the baseline matching option). They should also match up to graphics.
13. Excessive use of columns - 2 or 3 is good.
14. Fussy borders and decorative dividers - they are out-of-date.
15. Inappropriate font use - fonts have a style and feel about them, match them to your document. Also, size and serifs are important. Smaller fonts should be sans-serif to make it easier to read. Limit the number of fonts used to 2 styles in 4-5 sizes.
16. Poorly cropped graphics - each graphic has an internal composition as well as contributes to page layout. Set internal image cropping first, then set onto page to create pleasing page layout.
17. Inappropriate color use
18. Tombstoning - don't use graphics for headers or banners.
19. Avoid underlining - use bold or italics instead.

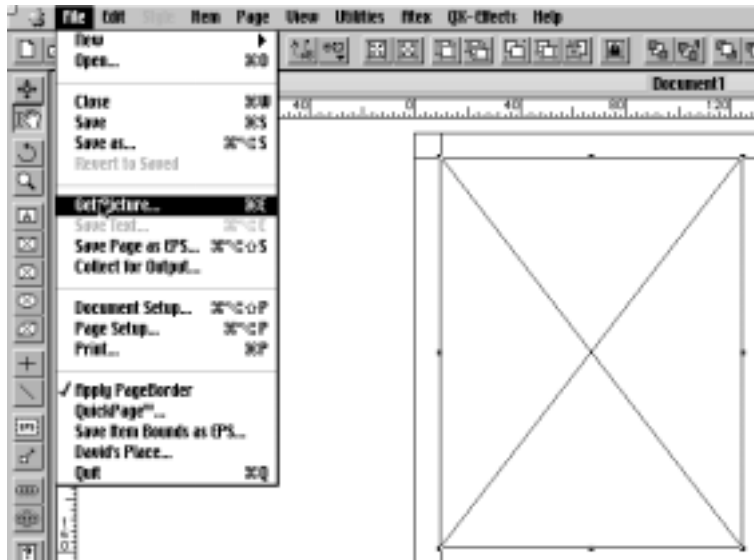
# QuarkXpress / a must-know in desktop publishing



Open a new document



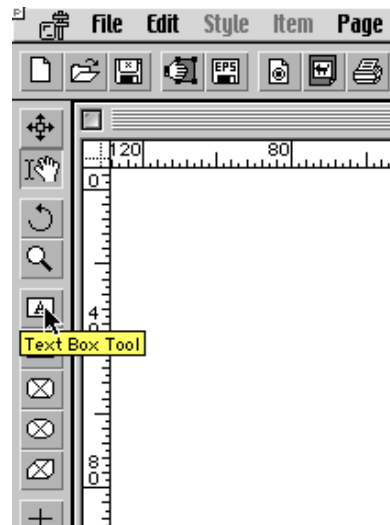
Create a picture box



Import an image into the picture box



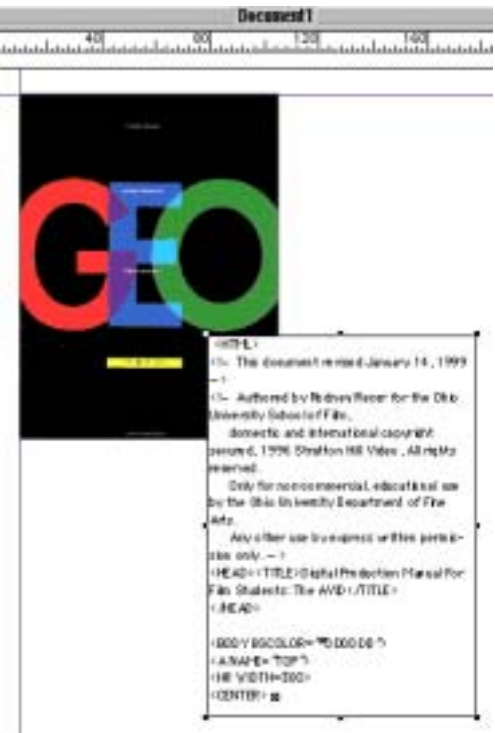
Import picture dialog box



Left: Fitting picture box to picture dimensions  
Top: Opening a new text box



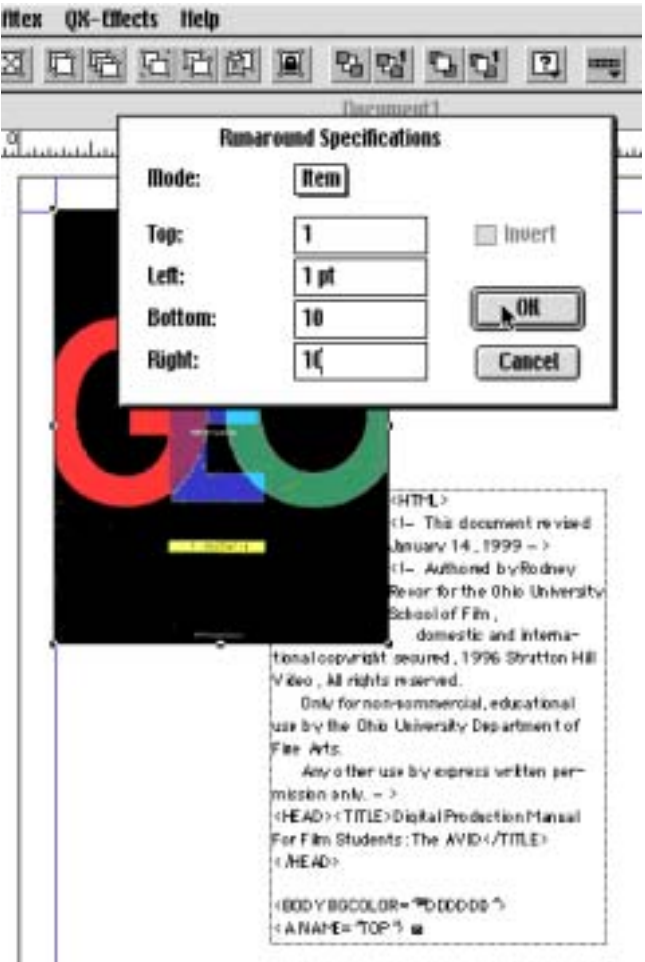
Importing text into the text box



Text imported within the box



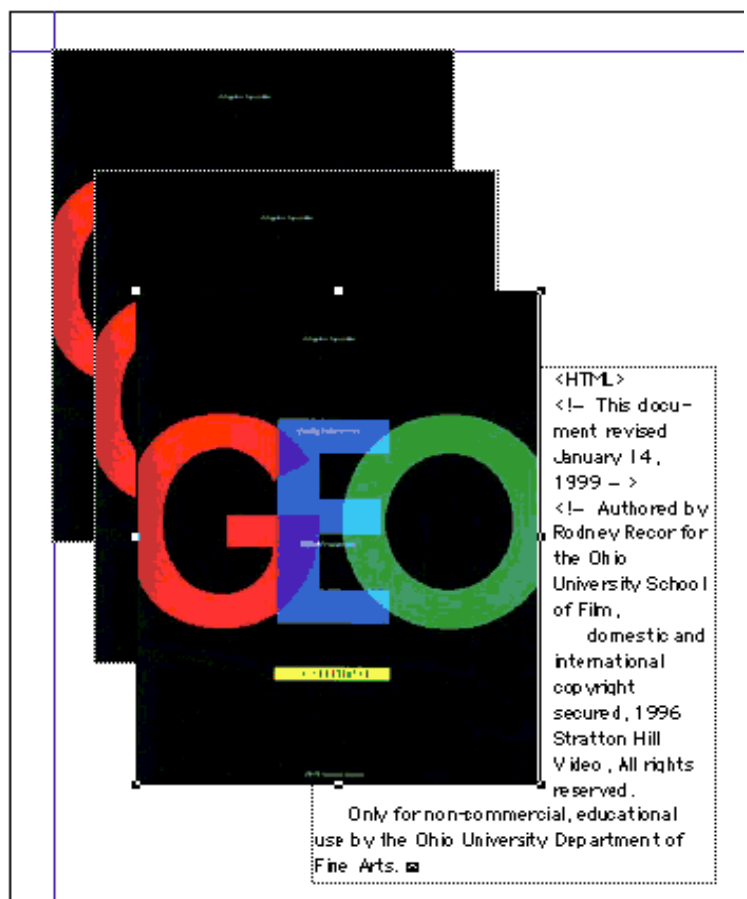
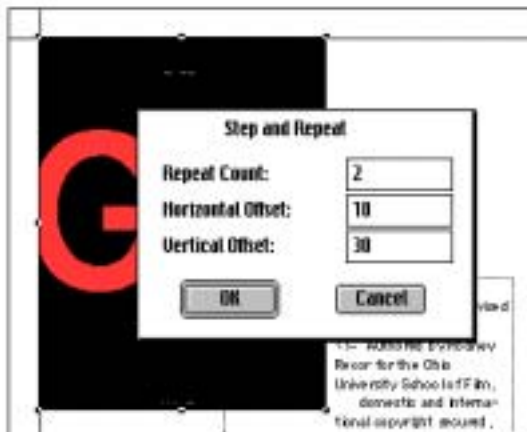
Bringing a picture box to the front



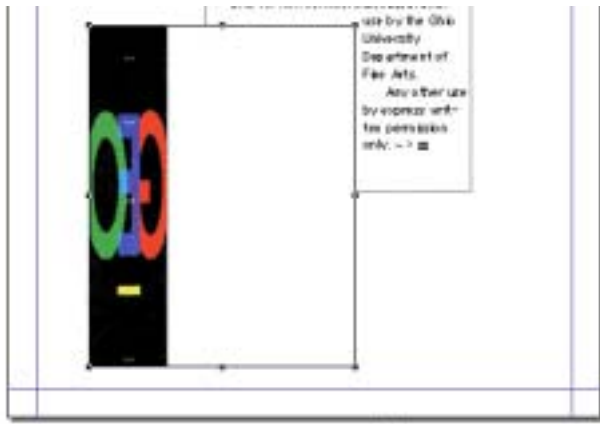
Adjusting space between text and picture



Left: Text distance adjusted after "Runaround" settings  
 Top: Saving page as EPS in order to be able to open it an image processing software like Photoshop



Top left: Duplication settings for the picture box  
 Top right: The picture box duplicated  
 Left: Mirroring image within the picture box



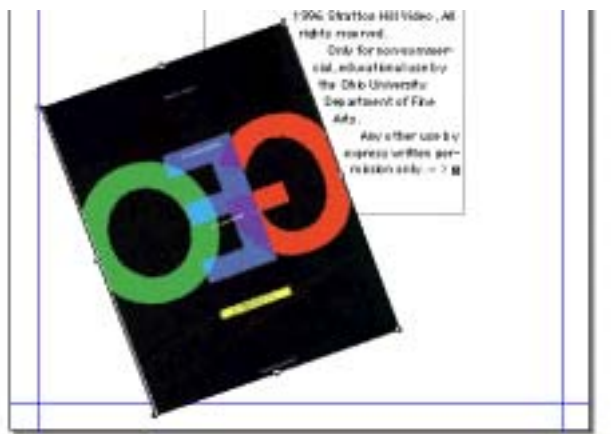
Adjusting image scale



Adjusting image angle



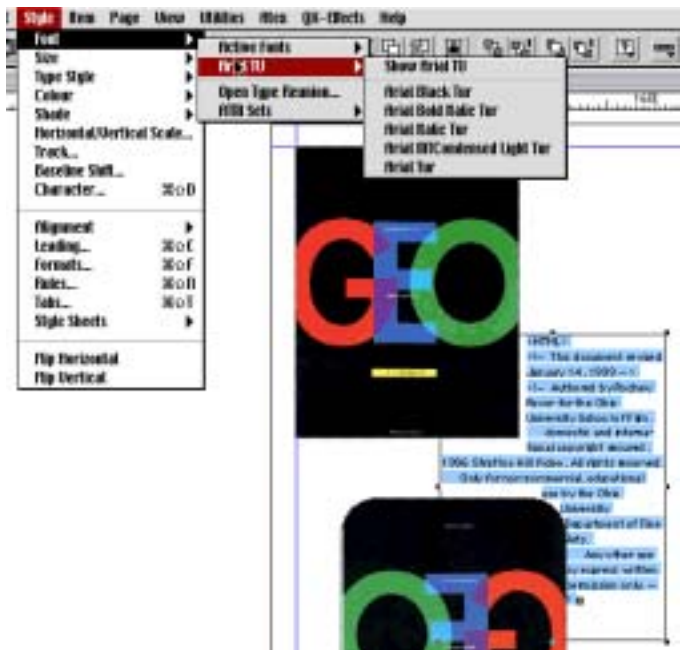
Skewing the image

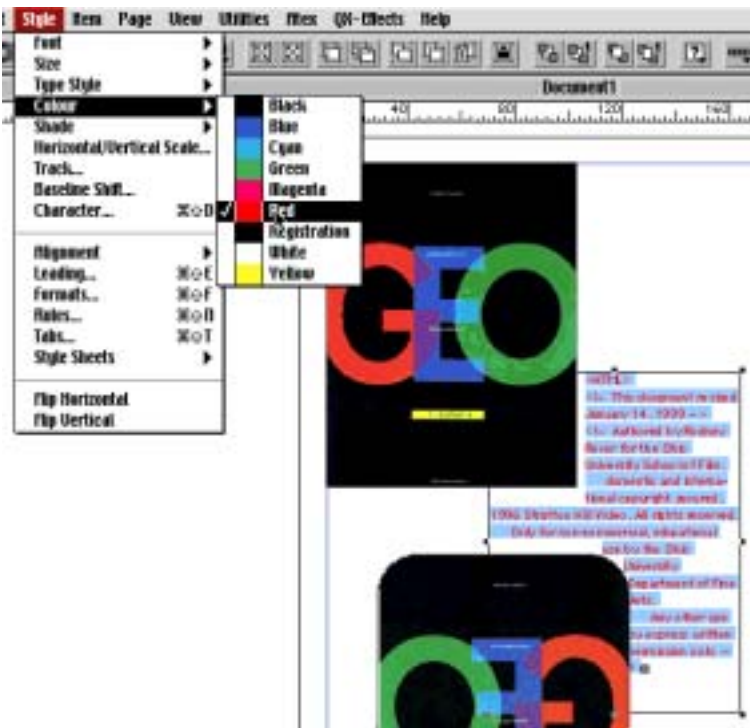


Rotating the picture box itself instead of rotating the image

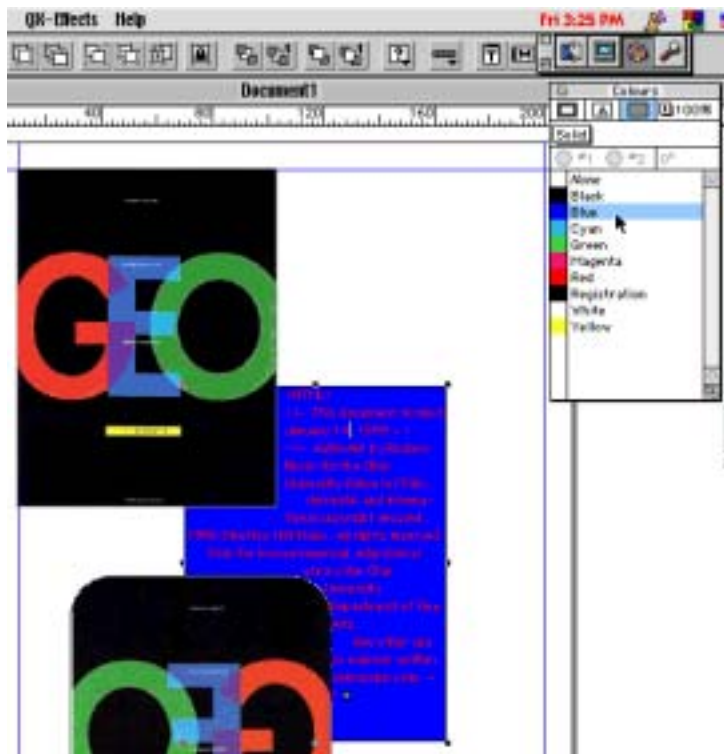


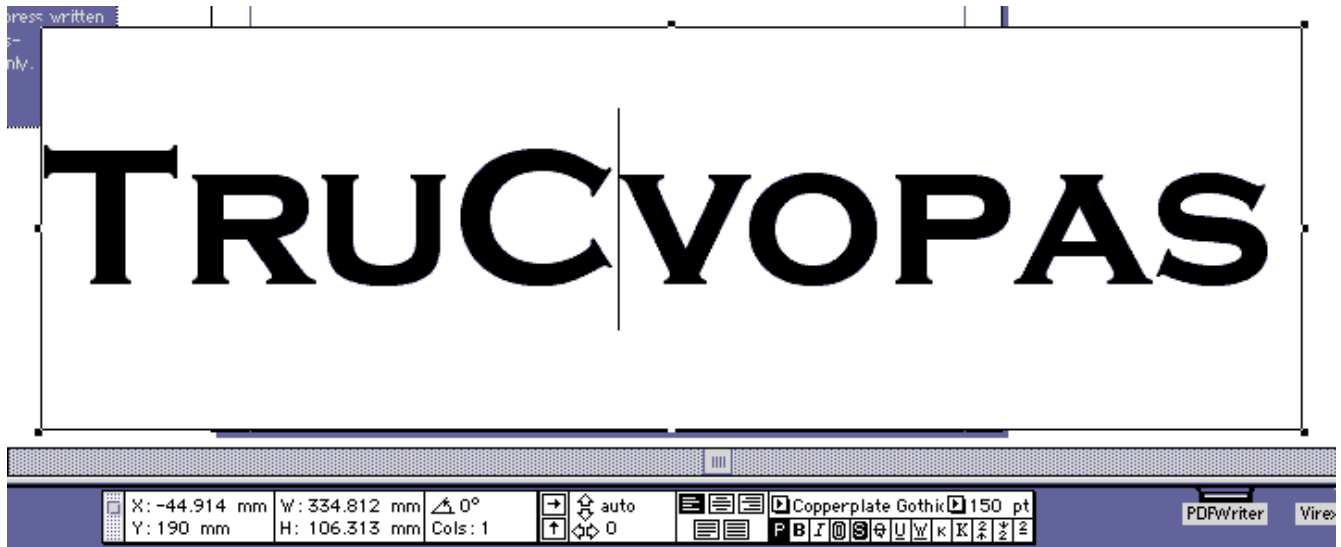
Left: Rounding the corners of the picture box  
Right: Selecting a typeface for the text within the text box



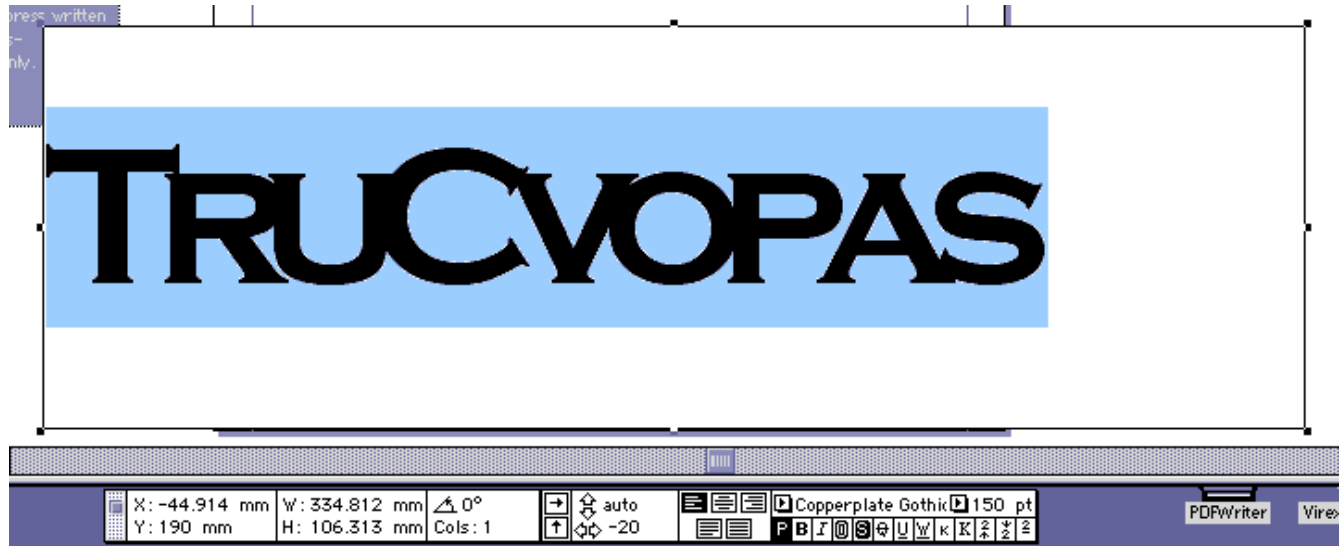


Left: Selecting font color  
 Top: Defining a new style  
 Bottom: Selecting a background color for the text box and assigning a shade of the same color

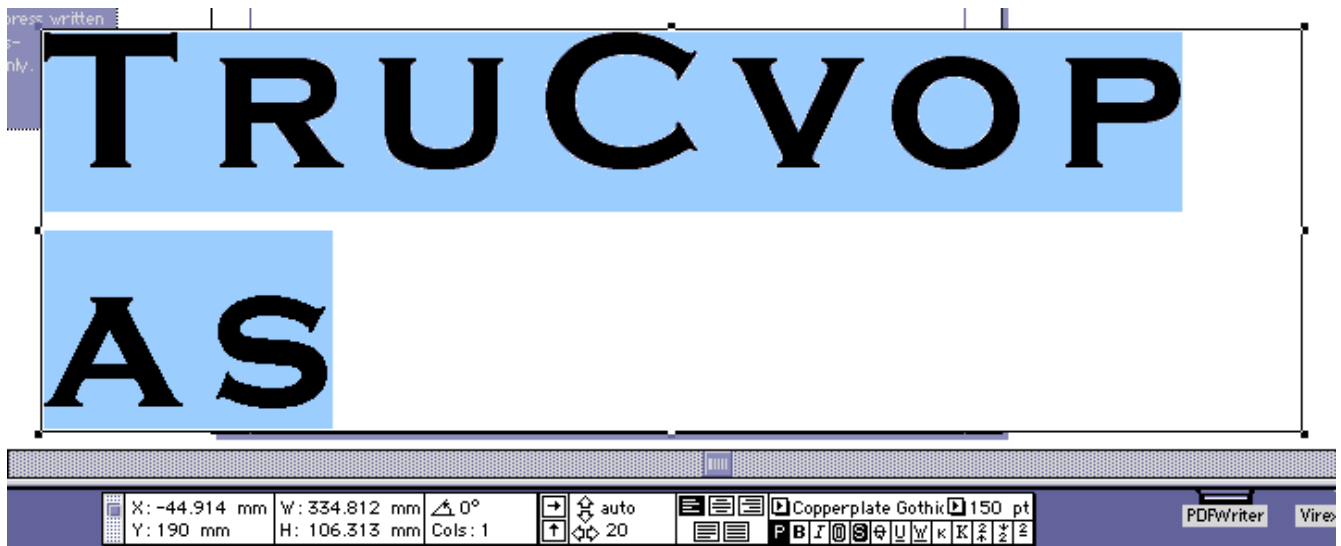




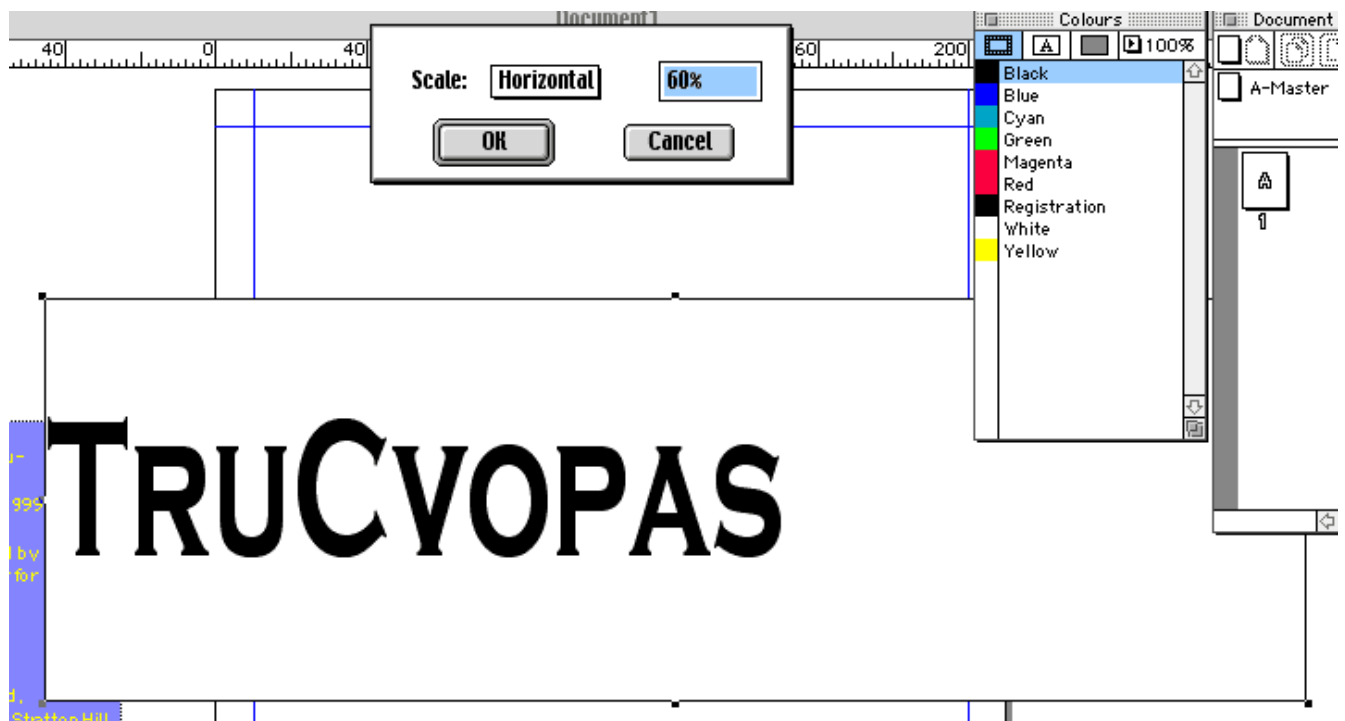
Text editing



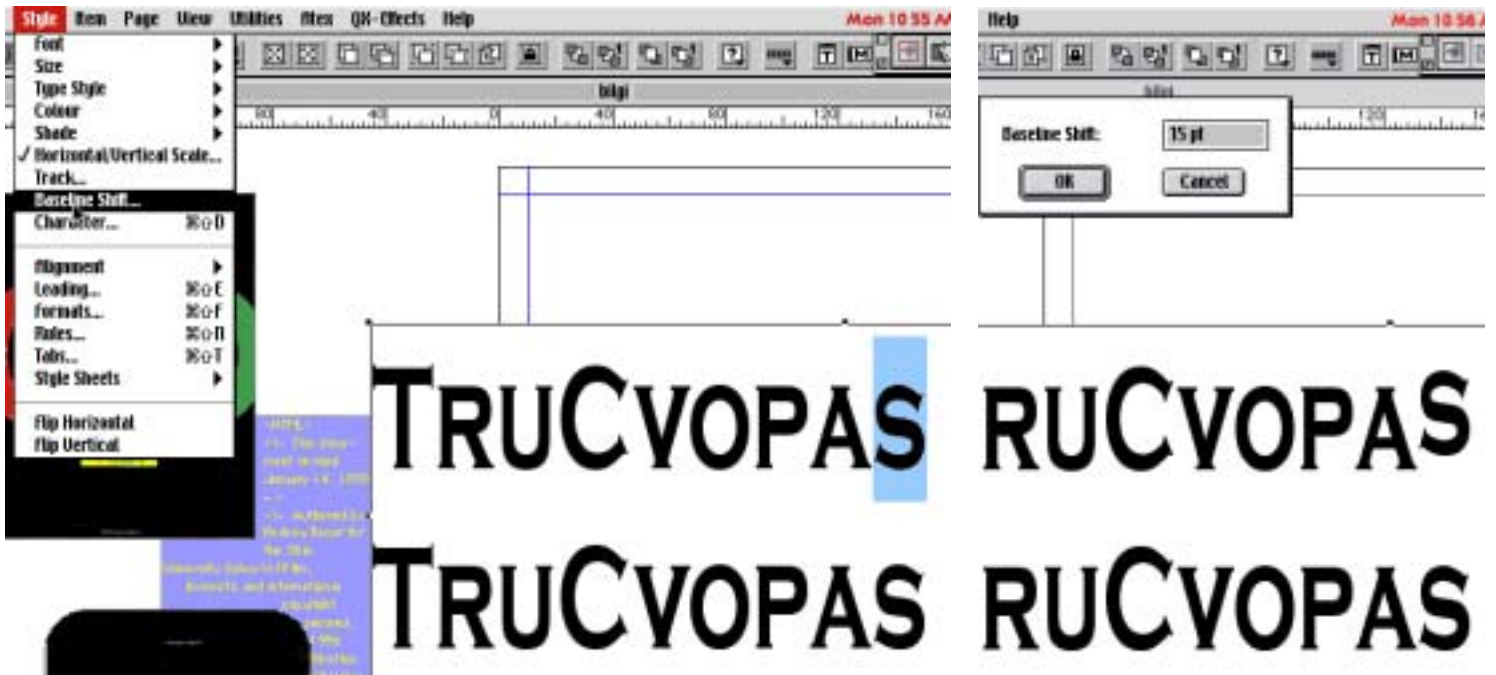
Negative kerning



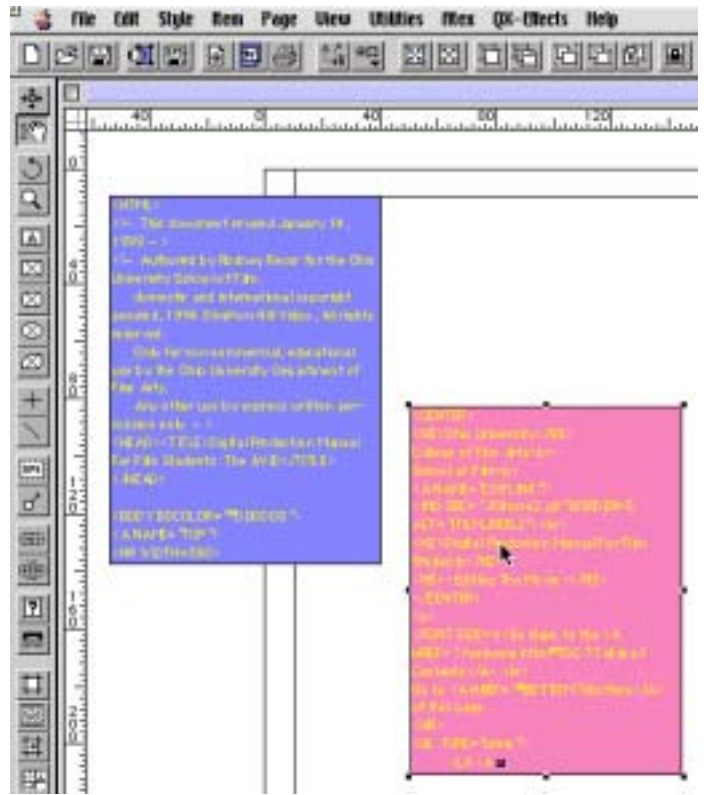
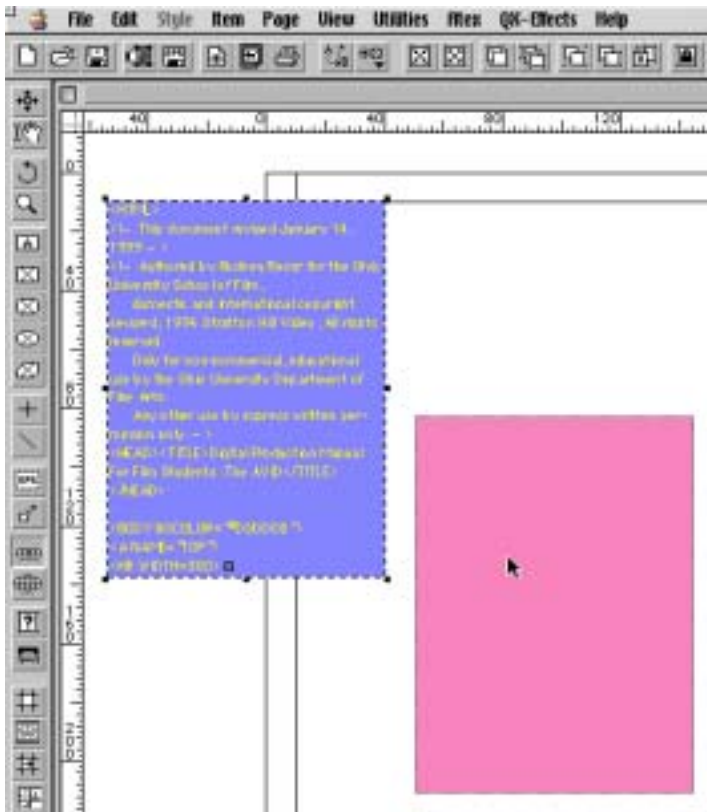
Positive kerning



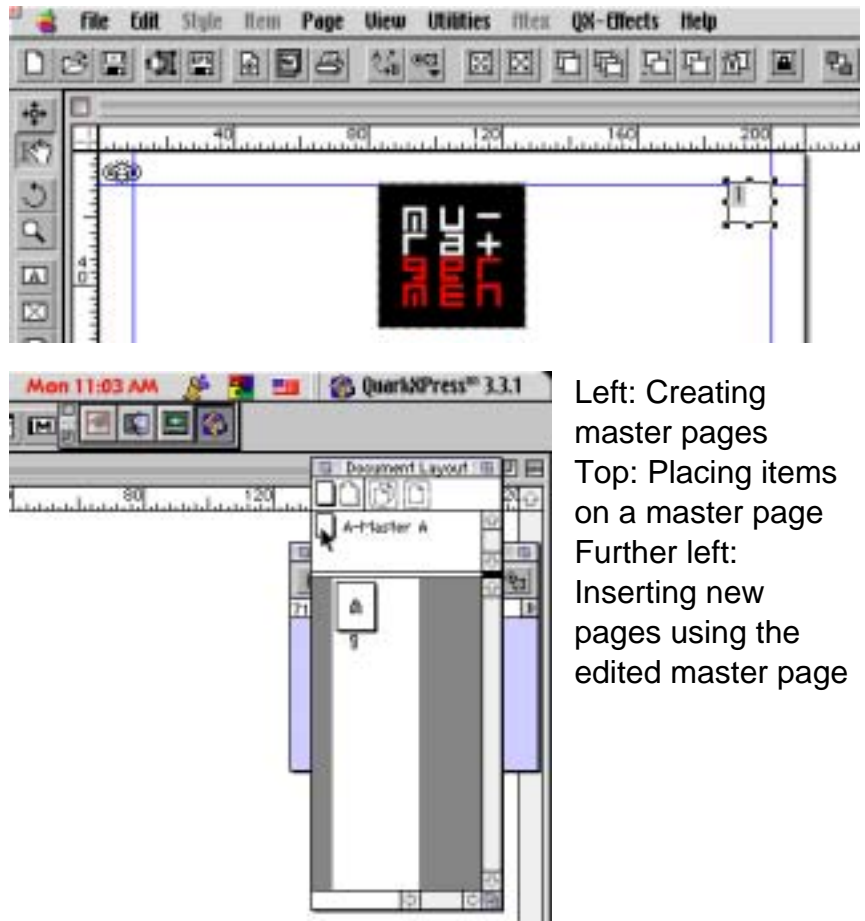
Horizontal text scaling



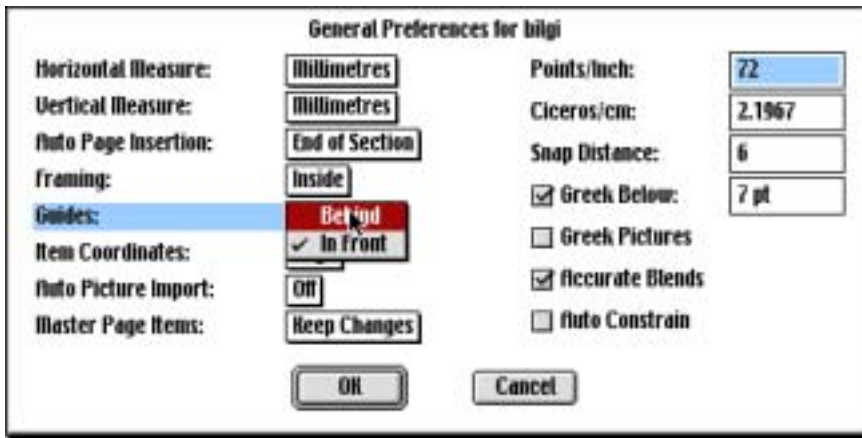
Baseline shifting



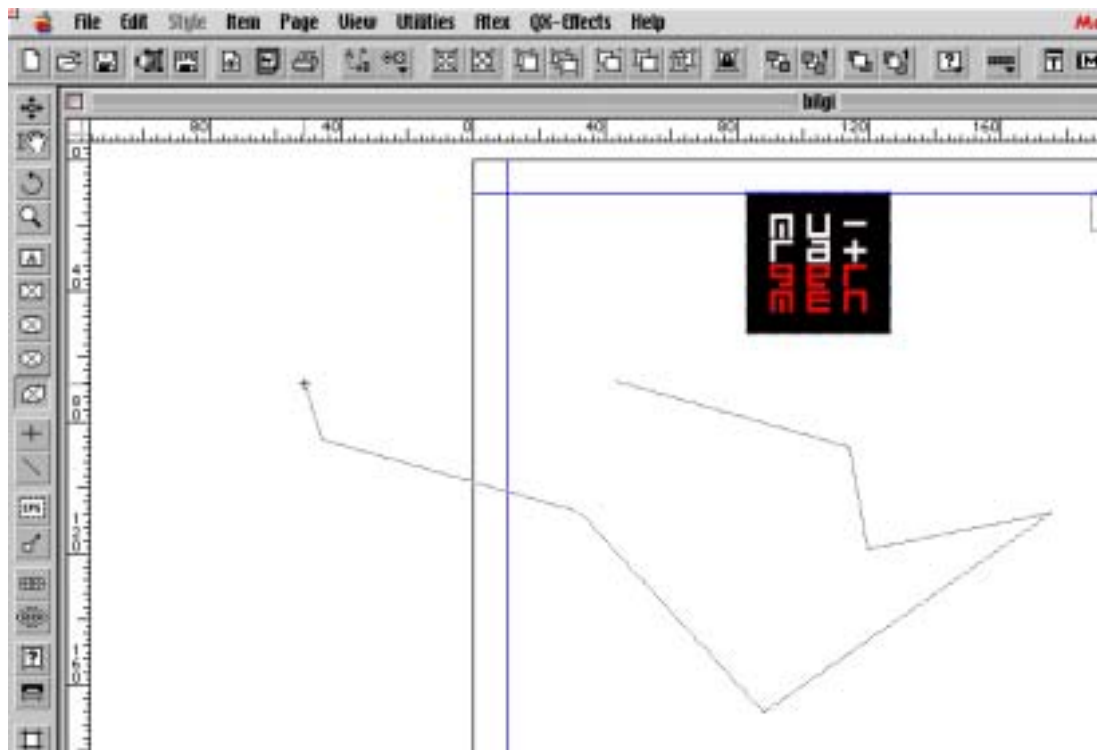
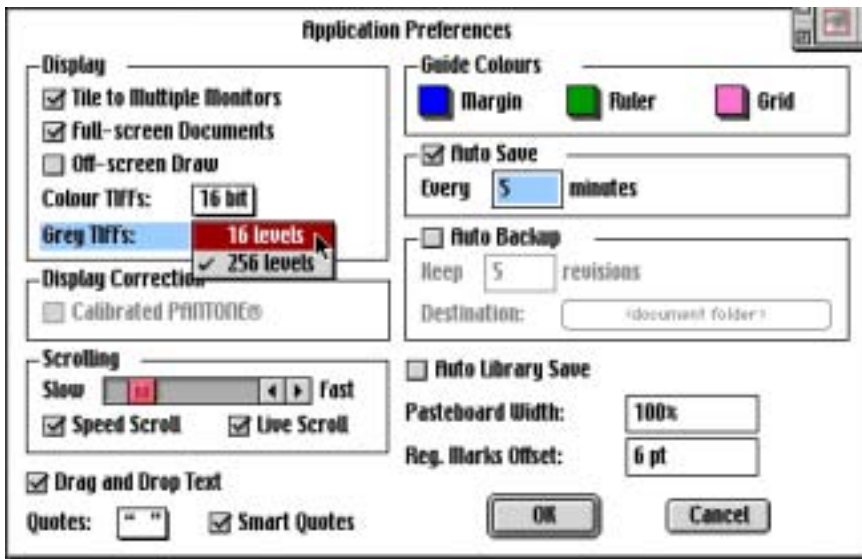
Text box linking



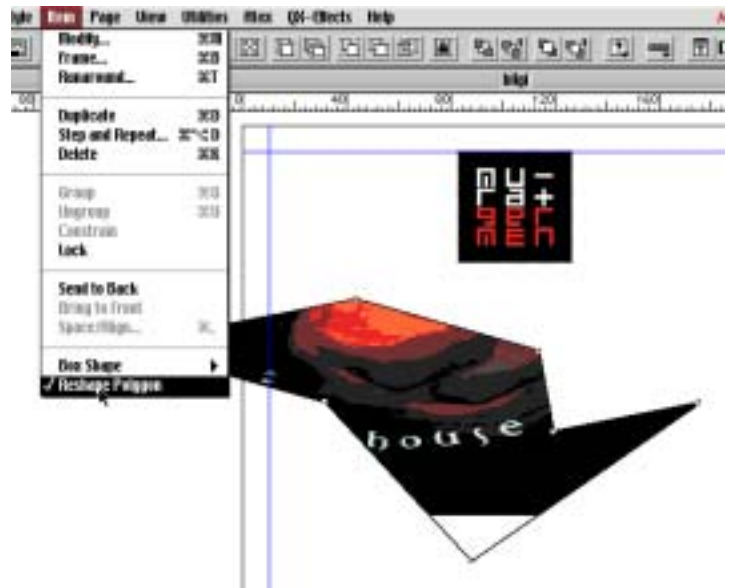
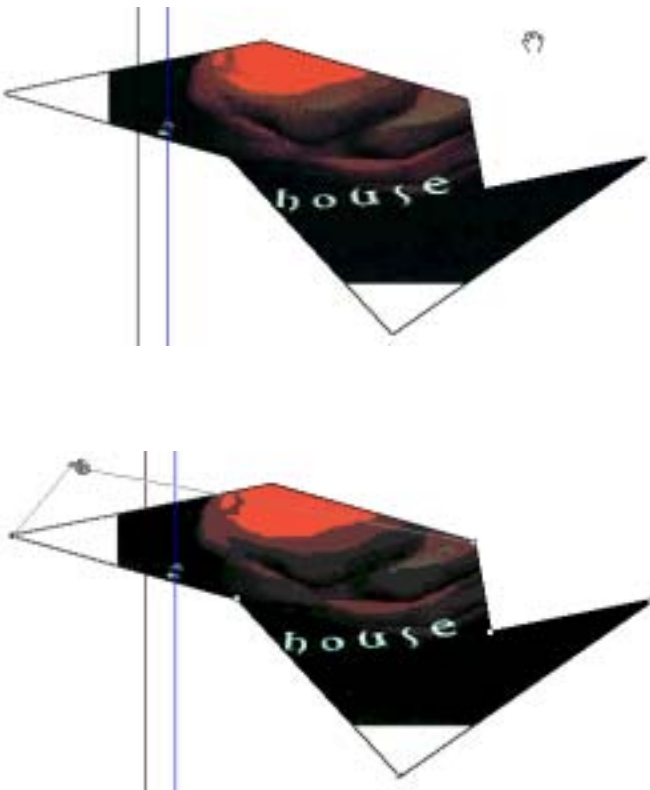
Left: Creating master pages  
 Top: Placing items on a master page  
 Further left: Inserting new pages using the edited master page



Preferences dialog boxes



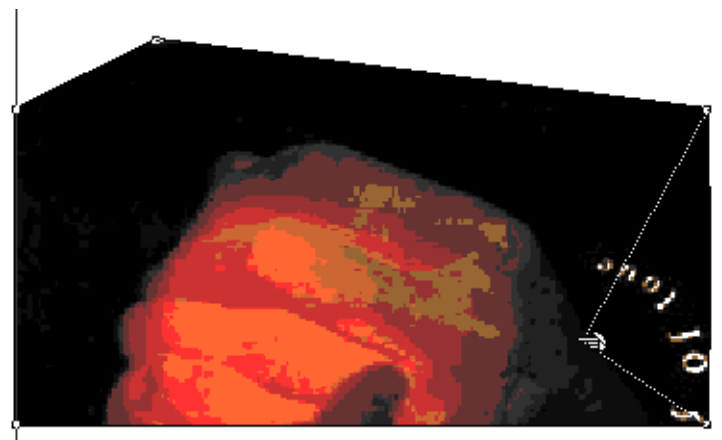
Creating polygonal picture box

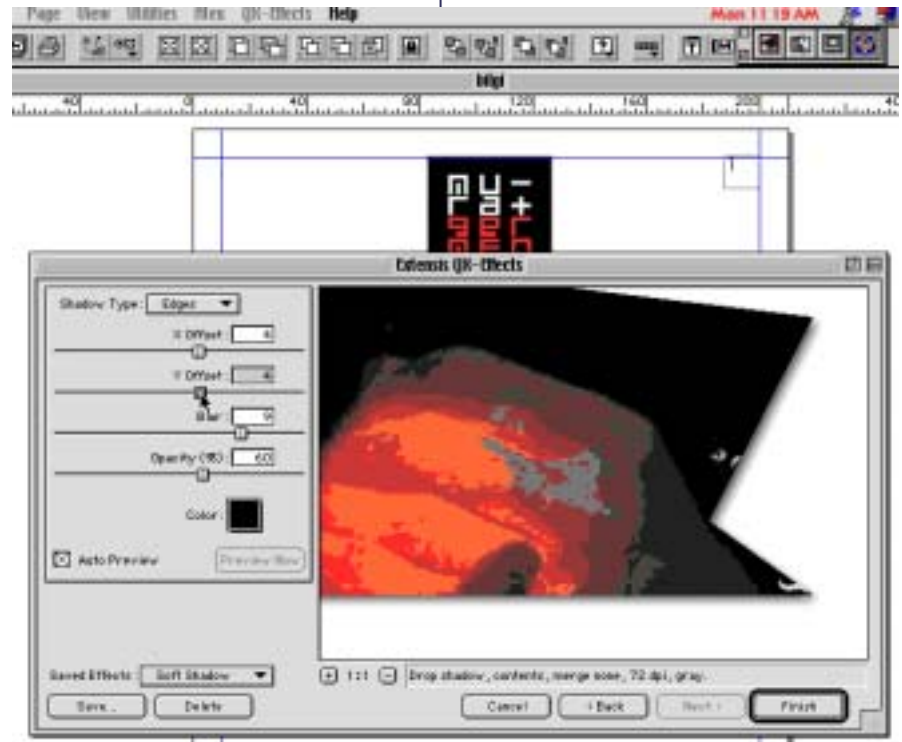
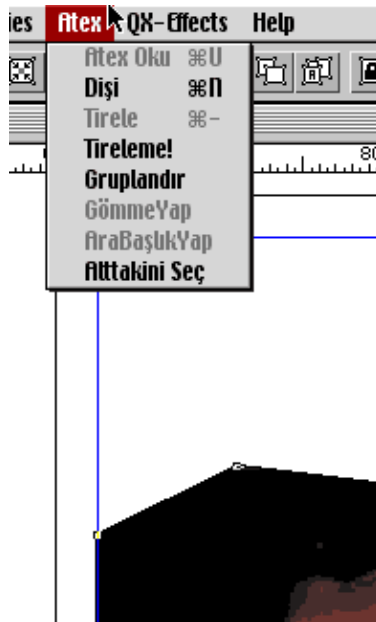
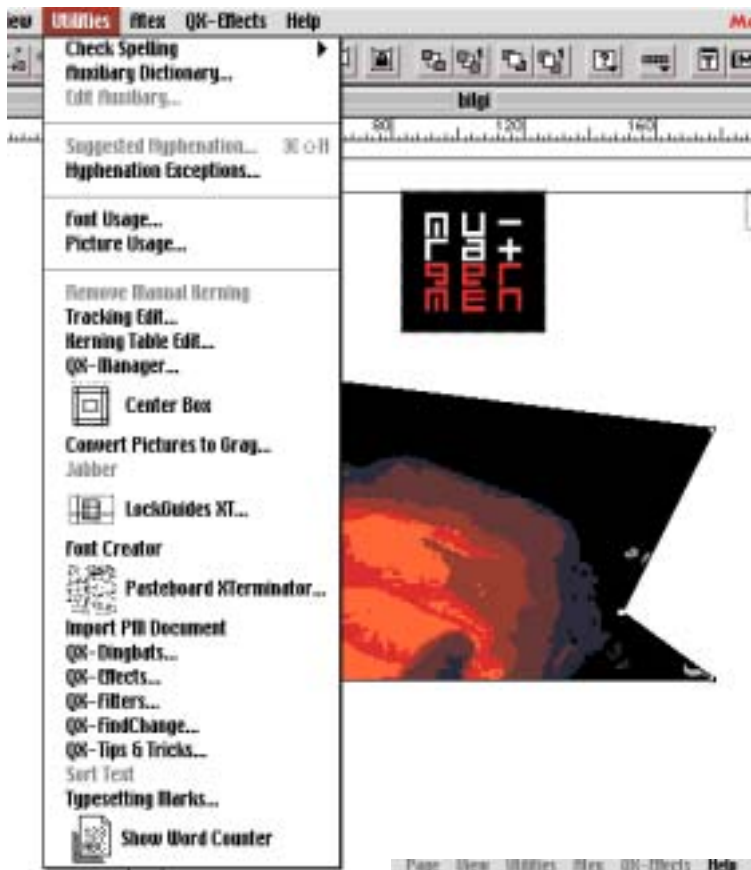


Top left: Placing pictures in polygonal picture box  
 Top right: Selecting menu for reshaping the polygonal picture box  
 Left: Reshaping the polygon



Left: Box shape change  
 Top: Adding handles to the picture box  
 Bottom: Moving added handles





Quark utilities

## REFERENCES

<http://fla.esf.edu/cavlab/Reference/res.htm>

<http://www.rit.edu/~ej4107/index2.html>