DIGITAL RENDERING

A Timesaving Guide for Students

A Senior Project
Presented to the Faculty of the
Landscape Architecture Department
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ABSTRACT

The profession of landscape architecture is largely about the expression of ideas. The ability to graphically communicate ideas clearly, quickly and with impact is the most important, and often the most difficult skill for landscape architecture students to learn. On many an occasion the impact of a student's brilliant idea is lost because he or she does not possess adequate graphic ability. The increasing role of the computer and powerful software are helping to solve this problem. Programs like Autocad and Vectorworks have revolutionized the way drafting is done, virtually replacing traditional hand drafting. It's easy to see why this is true. Digital drawings are faster, highly reproducible and easily changed. However, digital illustrative rendering is often criticized for producing images that lack the charm, character, or overall appeal of a high-quality hand drawn graphic. Digital renderings are often labeled too 'cold' or 'computerized'. But, what if it were possible to teach students a method of rendering that produced images with hand drawn appeal but that still retained the benefits of those produced digitally? This guidebook aims to do just that.

This guidebook includes step-by-step instructions on a rendering technique that is a hybrid of traditional and digital rendering. For the purposes of this guidebook, this rendering technique will be refered to as 'hybrid rendering.' Hybrid rendering takes small hand drawn graphic samples and uses them to produce fully rendered images via the Adobe Photoshop software program. It was developed through the testing of several methods of digital rendering. Various digital rendering techniques were drawn from extensive research of online forums, database searches, interviews, books and periodicals on the subject. Hybrid rendering is the end result of this extensive research.

The ultimate goal of this guidebook is teach landscape architecture students a technique that harnesses the benefits of both traditional and digital rendering. Hybrid rendering is fast, easy to learn, and produces consistent results. It can be applied by simply following the step-by-step instructions within this guidebook. Hopefully, it will make it easier for students to clearly illustrate all of their brilliant ideas.

ACKNOWLEDGEMENTS

I would like to thank my committee members for their support and guidance throughout the duration of this project. I would like to thank them for taking time out of their very busy schedules to meet with me or answer any question I may have had.

To my computer gurus Steve McNiel and Brad Wilcox thank you so much for allowing me access to your wealth of knowledge on this subject.

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INTRODUCTION

This project involved not just researching different rendering methods but figuring out exactly what types of methods are really desired and needed in the field of landscape architecture. In order to answer this question, informal interviews of students and professionals were conducted to try and narrow the focus of this guide. A few common themes quickly became apparent. Many people stressed the charm and emotion of a hand drawn image, while others talked about the difficulty they have producing such a graphic. Some people complained about the often stark appearance of digital renderings, while others praised the time-saving advances the computer has brought to the profession. It quickly became apparent that a rendering method that could combine the benefits of both would be highly desirable. Below are some quotes obtained from these interviews:

"Who would want to go back to hand drafting Construction Document Sets of Plans? I know that I wouldn't, not in a million years"

"Exquisite hand drawings are more of a challenge for me. Computer renderings are a blessing for me"

"Some people can effectively communicate their design through hand drawings, but I am finding that the number of people who can do that are very few. I think that using the computer has opened a door to a new breed of designers. Many people who in the past would not have succeeded in the profession can now express their ideas (using computers) to others."

"Working in a design firm that places a huge emphasis on rendering by hand, I have noticed most digital renderings appear very flat."

"I envy my mentor's marker skills and he somehow thinks I'm a computer guru... (I'm guessing this is an all to common relationship these days.)"

"One element of the argument is time...I believe I can get can get reasonable representation of my ideas faster and cheaper and more easily distributed and edited with some help from technology."

INTRODUCTION

"Personally, hand-rendering is not a strength and I can get much more consistent and high quality results digitally"

"The other key is to understand your client. In the beginning of project, if you show them a polished 3D model they might panic and think the design is done when they were just expecting some hand sketches."

"Many whom I work for and consult for say my hand drawings tend to be more people-friendly when you are doing presentations."

"There is something very rigid about most CAD drawn material that doesn't promote as much change and interaction from the people who are viewing it."

"I don't really see it as computers vs hand drawn, but rather hand drawn + computers."

"As far as making digital drawings look hand drawn, this is actually a useful thing…many designers and clients like hand drawn effects because it brings a certain feel of richness and life that computer generated renderings sometimes lack. It's amazing though how you can really create some cool things with a hybrid of the two."

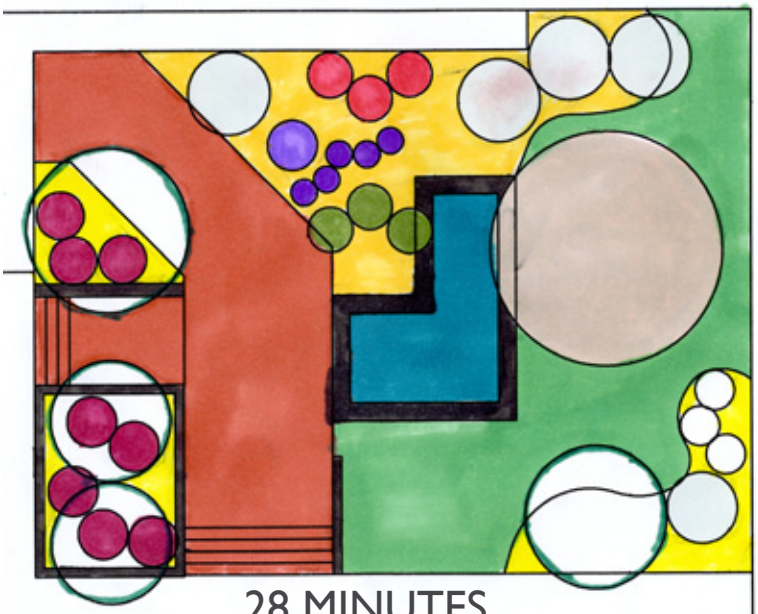
THE GOAL OF THIS PROJECT:

The techniques presented in this guidebook are meant to satisfy the clear desire for a rendering method that combines the speed and revision capabilities of digital rendering while producing an image with a hand drawn appearance. This guidebook is aimed specifically at students who are new to the landscape architecture program. It is these students that often struggle the most with drawing and rendering. The techniques presented in this guidebook will help students overcome the fear of drawing often experienced in the early stages of the program. This guidebook will also help to level the playing field of graphical ability among students ensuring that every student can express their design ideas clearly and confidently. A great deal of work has been undertaken to ensure that the methods presented here are quick, easy to learn, and produce high quality results.

BEFORE AND AFTER IMAGES

In order to ensure the goals of this project were met, trials were performed with subjects possessing no prior landscape architecture rendering experience. The specific techniques that yielded the highest praise from the test subjects are the ones included in this guidebook. In order to illustrate the chosen method's effectiveness, subjects were asked to first render a simple planting plan using traditional media. These images serve as the 'BEFORE' images below. Then, the subjects were asked to render the same plan again using the technique explained in this guide. These renderings are the 'AFTER' images below. As a testament to the speed of hybrid rendering, the time it took to render each graphic is also displayed.

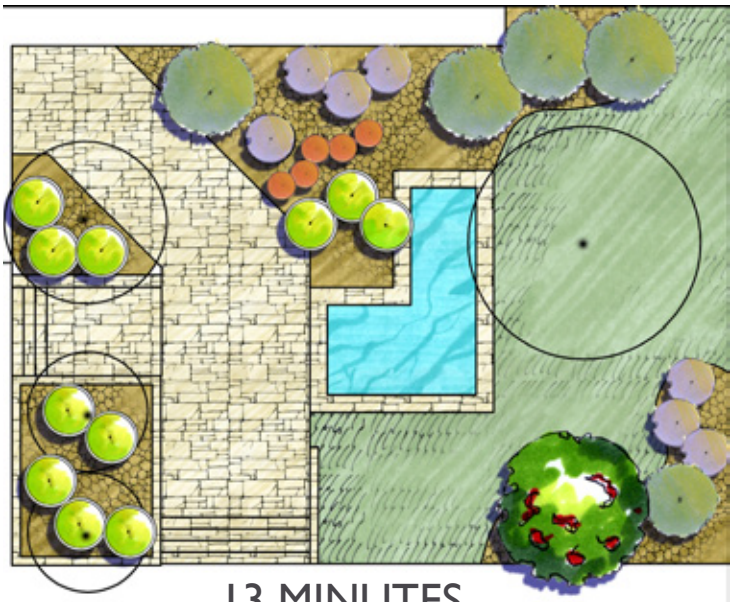
SUBJECT 1 BEFORE:



28 MINUTES

Figure A-1

AFTER:



13 MINUTES

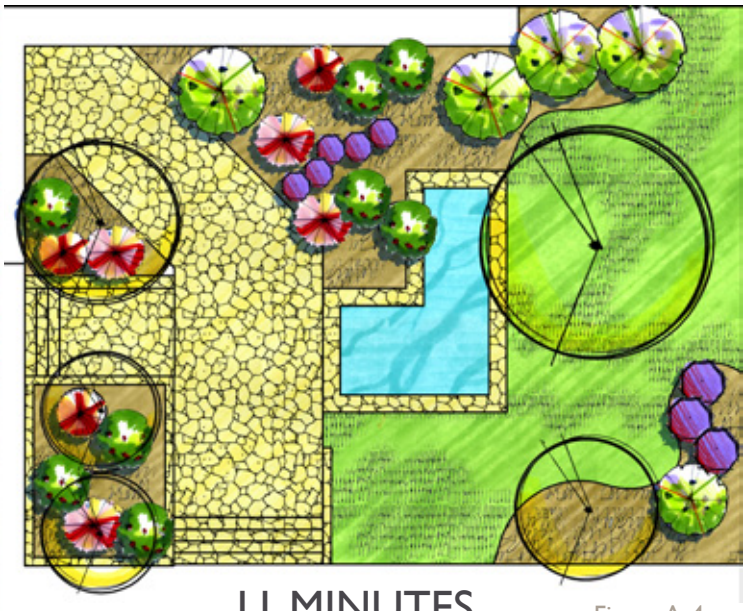
Figure A-2

SUBJECT 2 BEFORE:

26 MINUTES

Figure A-3

AFTER:

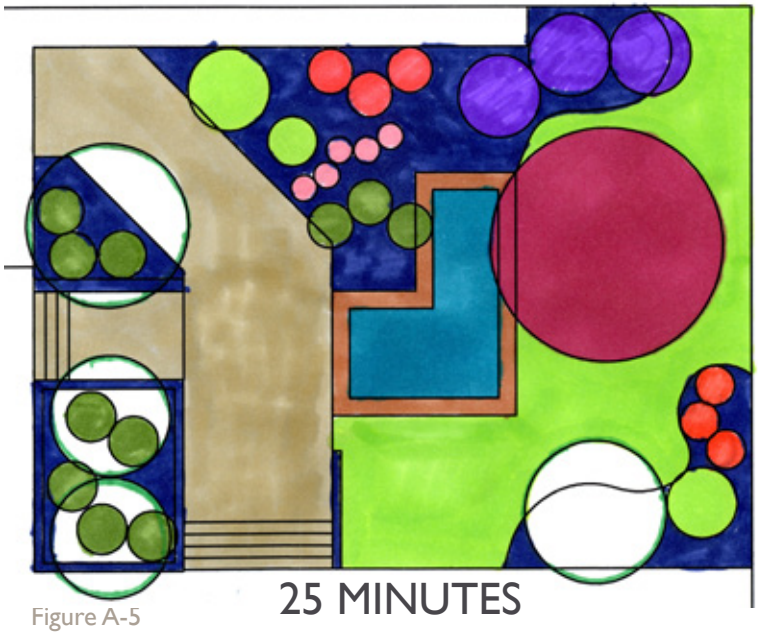


11 MINUTES

Figure A-4

BEFORE AND AFTER IMAGES

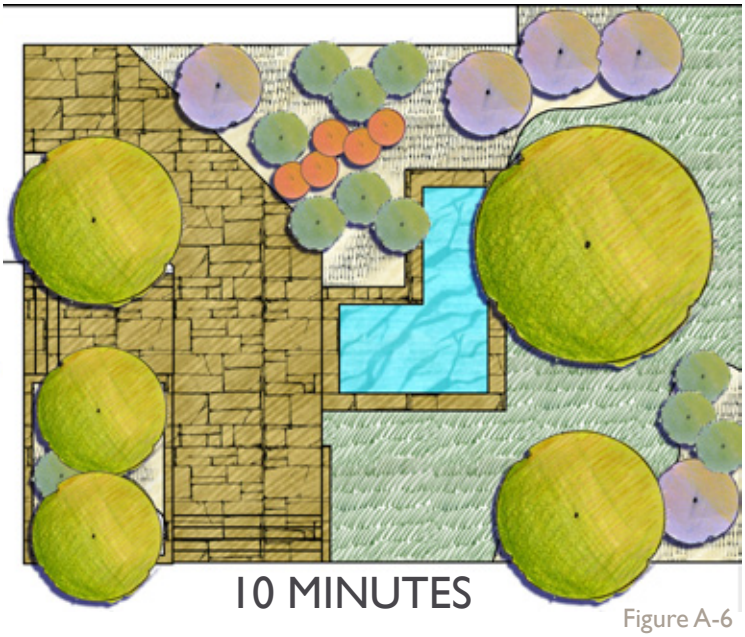
SUBJECT 3 BEFORE:



25 MINUTES

Figure A-5

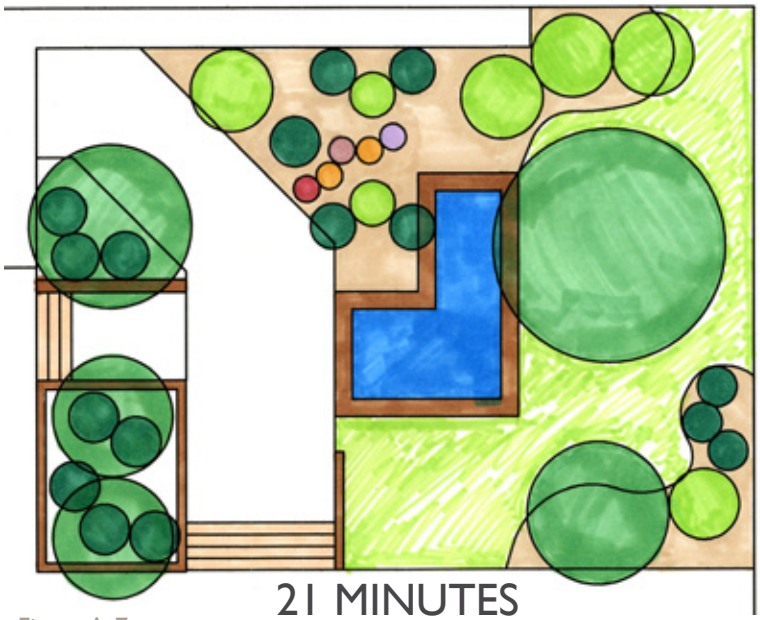
AFTER:



10 MINUTES

Figure A-6

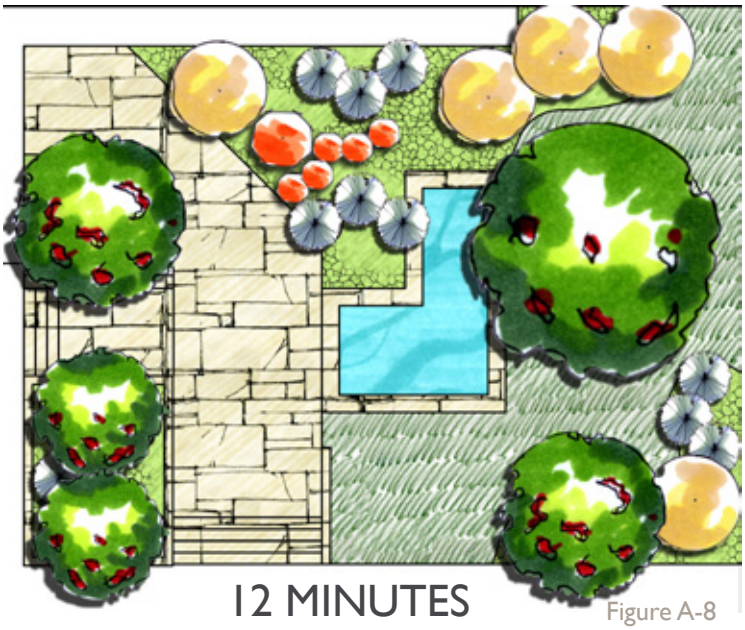
SUBJECT 4 BEFORE:



21 MINUTES

Figure A-7

AFTER:



12 MINUTES

Figure A-8

HOW TO USE THIS GUIDE

Note* This guide assumes the reader has a basic working knowledge and familiarity with Adobe Photoshop. It assumes the reader is familiar with the program's interface, tools and commands. This guide was prepared using Photoshop CS2.

SAMPLE TUTORIAL

The steps in each tutorial are numbered with large numbers in the upper left hand corner. Simply follow the steps in numerical order to complete the exercises.

5 Now that the file is resized go to Filter>Other>Offset. Type in +225 for both the horizontal and vertical values. We get these values by taking exactly half of the file's horizontal and vertical pixel dimensions. (in this case 450/2= 225). Ensure that WRAP AROUND dialogue box IS checked. This will ensure that the outer edges of the texture will tile without seams.

Words accompanied by the > symbol indicate that these are successive menu selections.

Words that appear in all capital letters indicate the term is of special significance to the step being performed. It also indicates a term that can be searched using the help section of Adobe Photoshop.

Most steps have accompanying images to illustrate what is taking place.

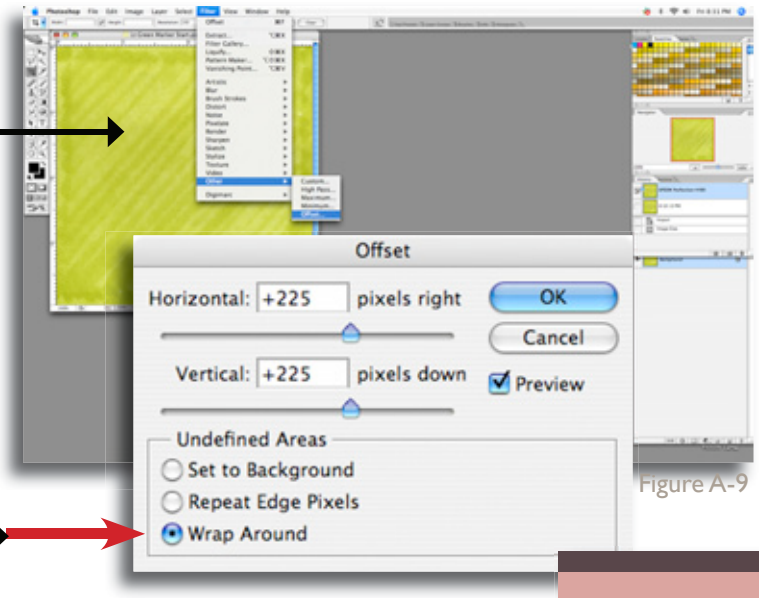


Figure A-9

Red arrows on an image indicate a very important area the user must click on/in as part of the step.

Help boxes

These boxes appear throughout the guide and offer helpful tips, tricks and information regarding digital landscape architecture rendering.

CREATING PATTERN TILES

OVERVIEW

The first step in the hybrid rendering process is to create seamless pattern tiles that are then used to render elements of a plan, section or perspective. By first drawing a small sample of a color or texture such as a stone paving pattern by hand, it is possible to then 'tile' that sample digitally and use it to render large areas of plans and other graphics that would take hours if done by hand. The patterns used to make tiles can be hand drawn or sourced from books, magazines and photographs.

BENEFITS

- Extremely time-saving. Large graphics can be rendered in a matter of minutes.

- Easily revised or removed patterns, even after they are applied.

- Produces images with hand drawn appeal.

- Easy to learn technique,

POTENTIAL DRAWBACKS

- Patterns can appear too repetitive if not created correctly.

CREATING PATTERN TILES

1 Start by drawing 4" by 4" squares on a piece of paper. Then hand render these squares with markers or colored pencils. They can be just color or patterns that you would normally use to hand render ground elements in a base plan. (see box)

2 Use a scanner to import these hand rendered squares at 150 dpi into Photoshop. Use the import command located under the file menu. (File>Import)

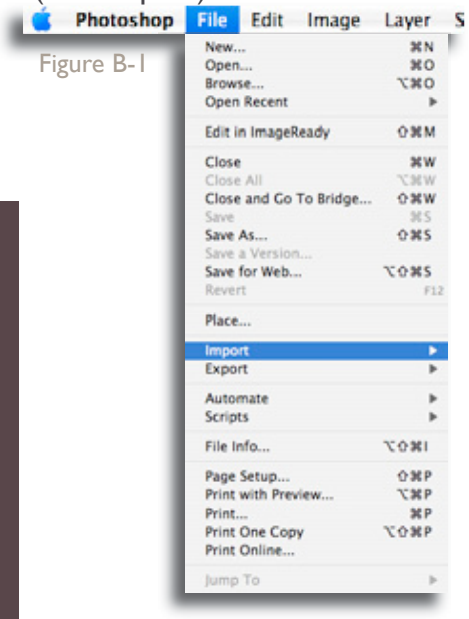


Figure B-1

3 Once imported save the hand drawn texture file as a Photoshop file with a name that describes its use like: grass_texture.psd or Light_green_marker.psd, etc.

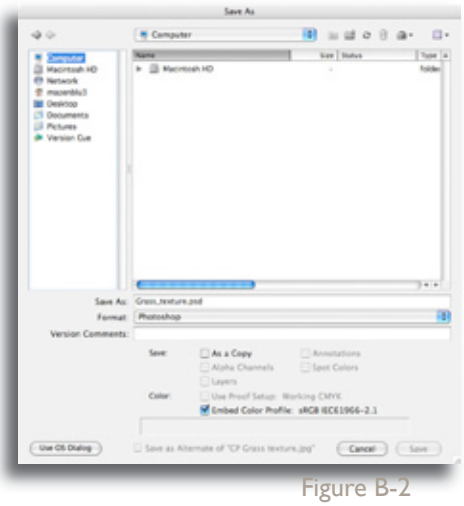


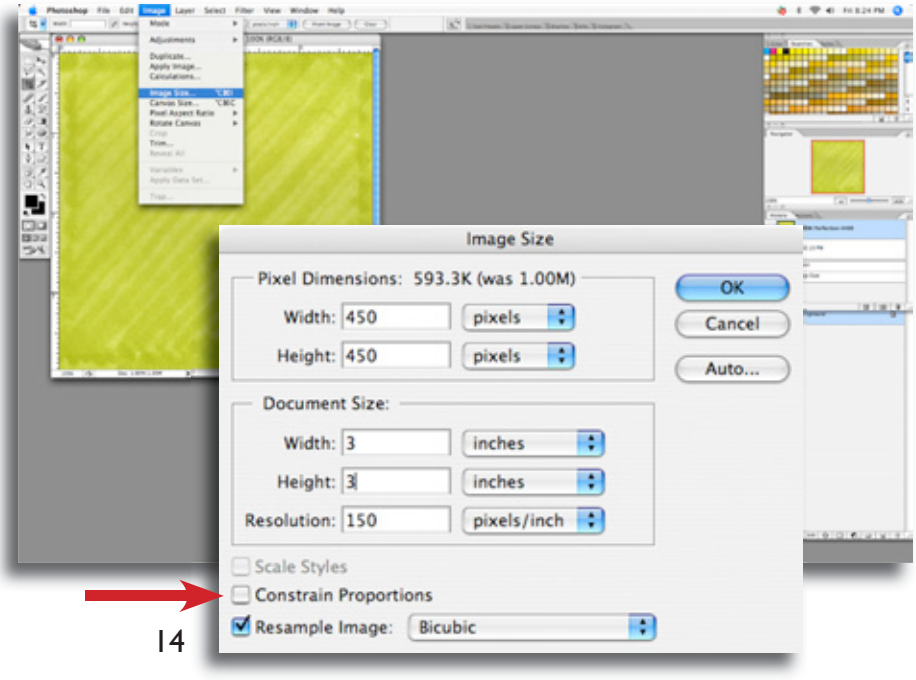
Figure B-2

Creating textures

The goal when creating patterns is to bring the charm of hand rendering into the digital realm. The sketchy quality of the strokes is a good thing! You can render your own patterns or convince talented hand renders to let you use theirs. A few patterns have been included on the disk with this document to get you started. Patterns can also be scanned in from graphics in books and magazines as long as they are big enough to tile. There are even companies that have patterns and hand rendered trees in plan and elevation for sale online. Check out handdrawnimages.com and graphicsketchbook.com for more info (it's MUCH cheaper to make your own though.) As with any reference material be sure to get permission from your instructors to use material not made by you and as always if others are helping out give credit where credit is due.

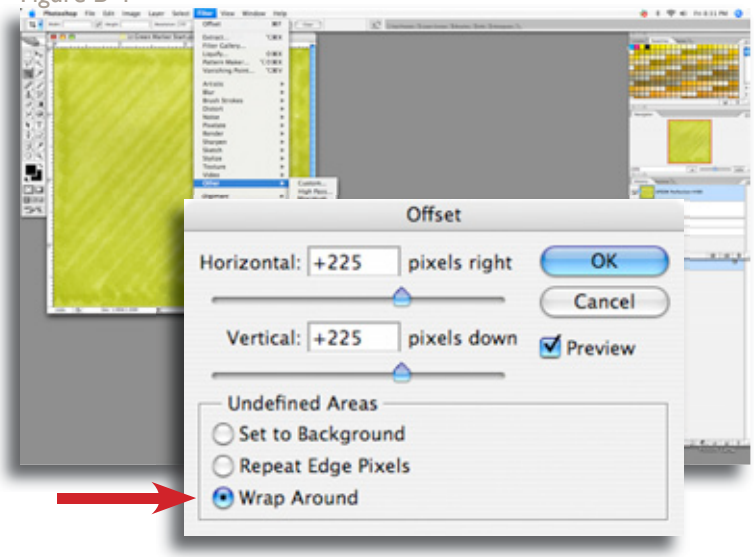
4 Now that the file has been saved, ensure it is exactly symmetrical by shrinking your image to 3" by 3" using (Image>Image Size). This will make the file's pixel dimensions 450 by 450 pixels which is important to note for the next step. When resizing the file, ensure that the constrain proportions box is NOT checked.

Figure B-3



5 Now that the file is resized go to Filter>Other>Offset. Type in +225 for both the horizontal and vertical values. These values are obtained by taking exactly half of the file's horizontal and vertical pixel dimensions. (in this case 450/2= 225). Ensure that WRAP AROUND dialogue box IS checked. This will ensure that the outer edges of the texture will tile without seams.

Figure B-4



7 In order to ensure the pattern will tile without visible seams, the two seams have to be corrected. Select the CLONE STAMP TOOL and a SOFT ROUND BRUSH and a size around 20-40 pixels.

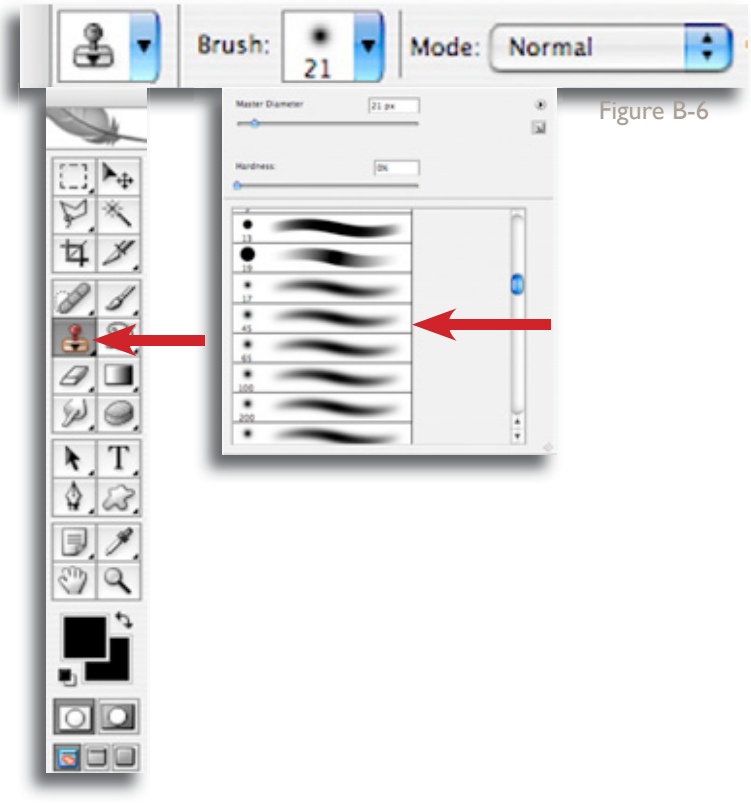
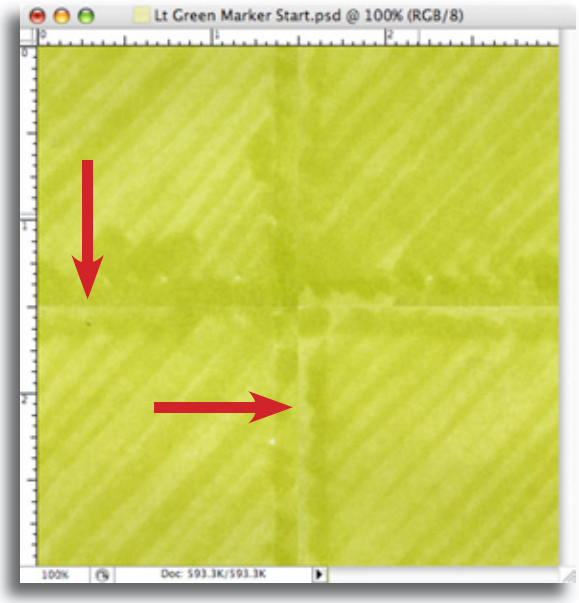


Figure B-6

6 After applying the filter two visible seams will appear, one vertical and one horizontal.

Figure B-5



8 Use the CLONE STAMP TOOL to disguise the seams by holding the ALT key and clicking in an area outside the seams. Then brush over the seam areas by clicking and dragging over them. The goal here is to hide the seams by cloning other areas of the pattern over top of them. The best areas to clone (ALT+Click within) are circled below.

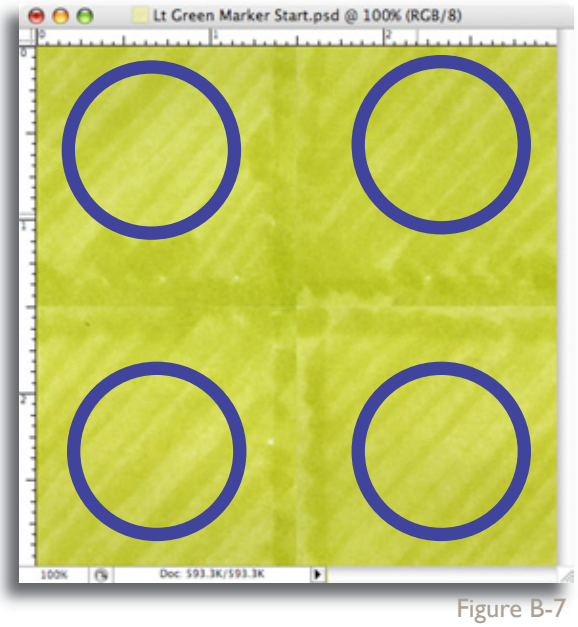


Figure B-7

CREATING PATTERN TILES

9 Demonstrated below are the before and after versions of the pattern after the clone stamping has been conducted. When clone stamping, go slow and experiment with what works best, remember the better the seams are hidden the better the pattern will appear when used to render plans, elevations etc.

Figure B-8

Figure B-9

10 Now that the pattern is complete it must be defined and saved in Photoshop for future use. If necessary flatten your image (Layer>Flatten Image). Then go to Edit> Define Pattern, a pop up box where a name can be typed for the pattern will appear. It's helpful to name the pattern something easy to identify like green marker strokes or flagstone pattern etc.

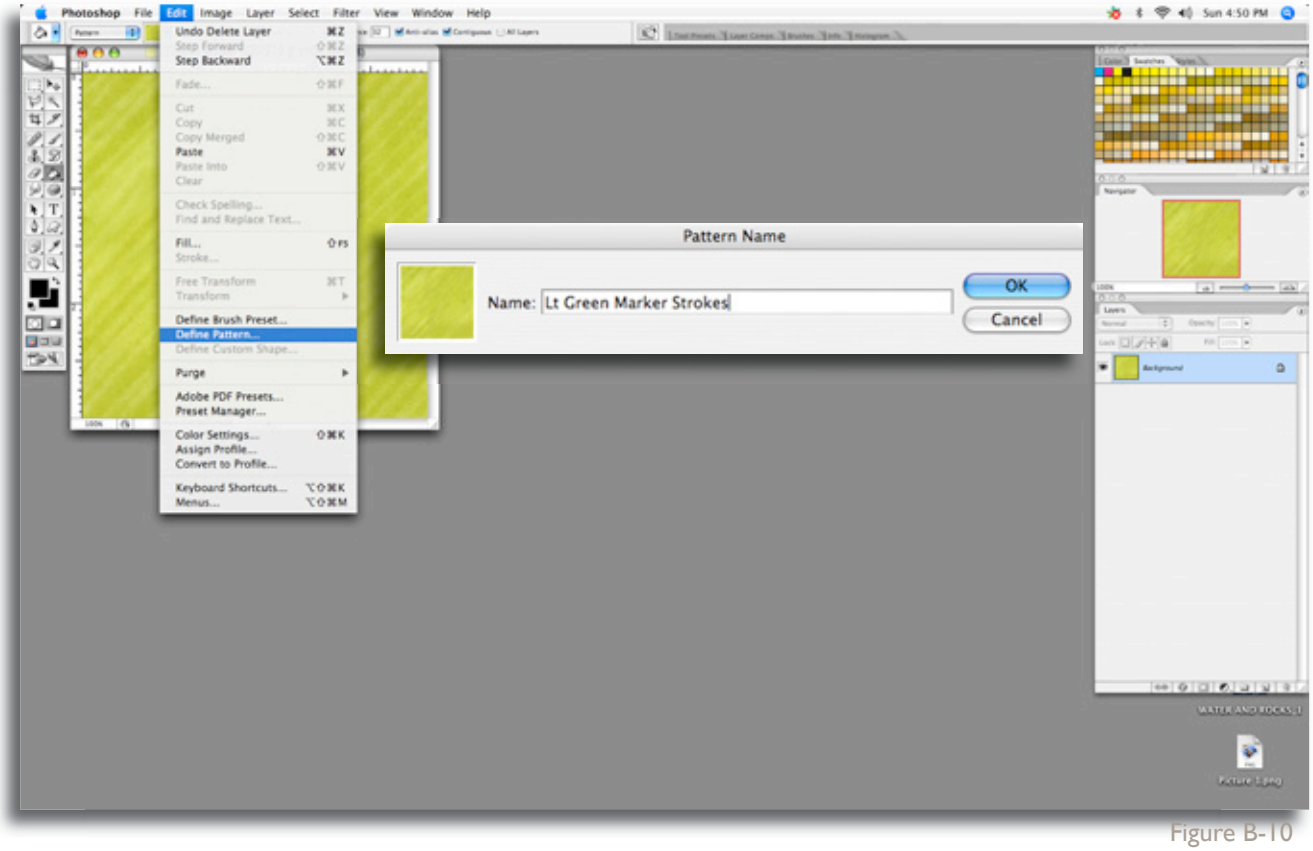


Figure B-10

11 It is also useful to save the new pattern tile to its own new library that can be added to as you create more new patterns. To do this, open the PRESET MANAGER by going to (Edit>Preset Manager). The PRESET MANAGER dialogue box will open. Make sure that PATTERNS are selected under PRESET TYPE and then click the thumbnail of your new pattern and click SAVE SET. This will allow you to save a new pattern library containing your new pattern to any place on your hardrive. It's helpful to name the new library by type, such as: ground cover patterns or hand drawn markers etc. As you make other patterns they can be added to your new library by first returning to the preset manager and pressing the LOAD button to load your library and then repeating the steps in this tutorial to make and/or add more p

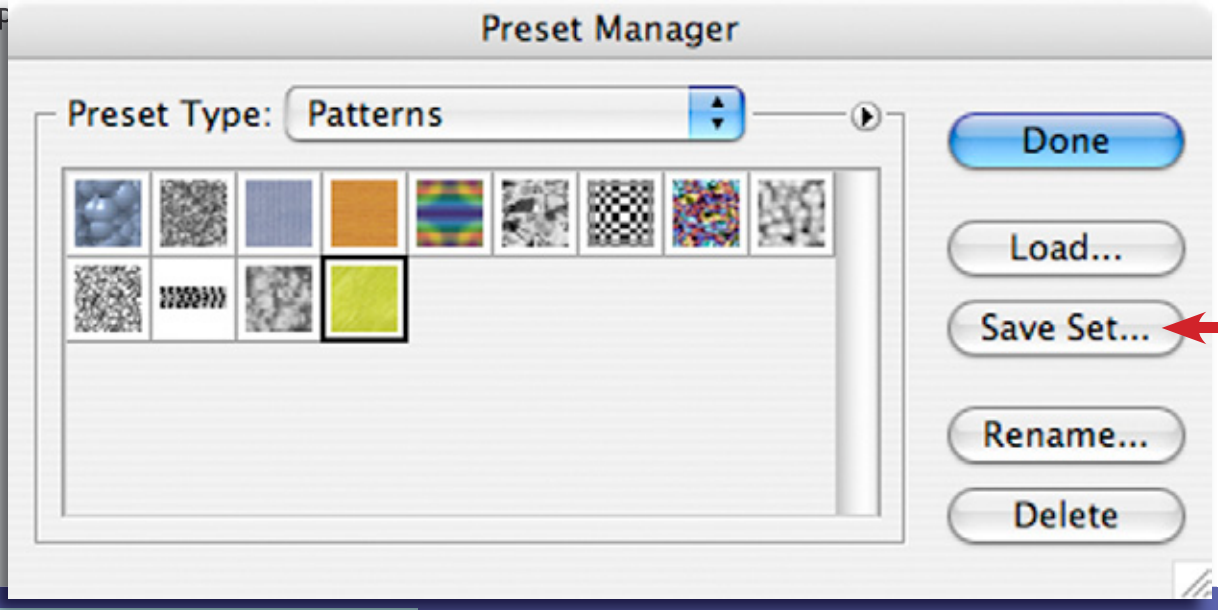
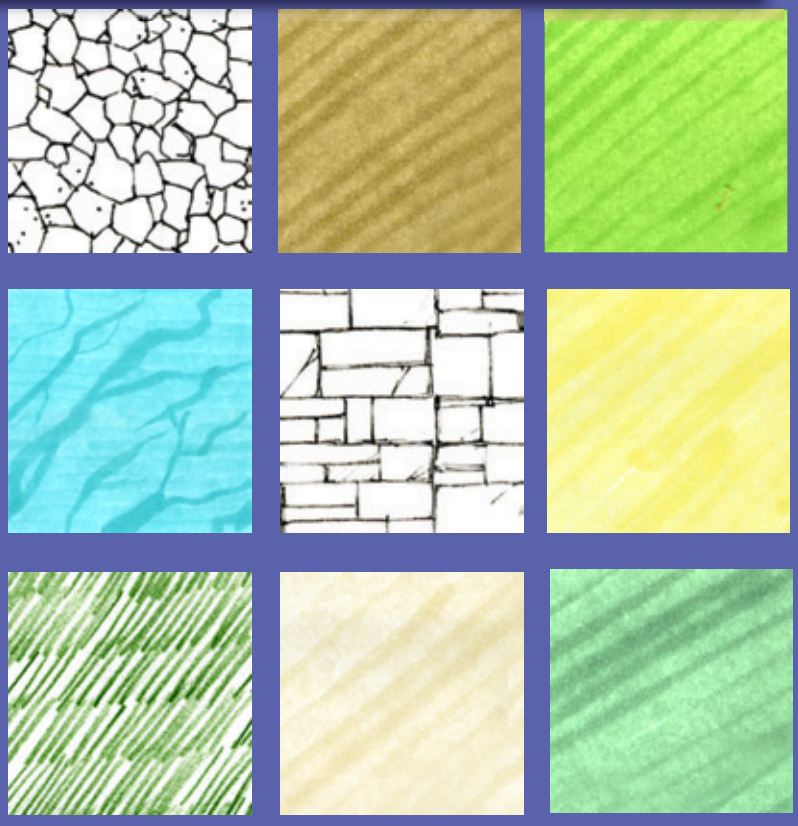


Figure B-11

Time Saver

It is helpful to make patterns to represent all the materials used in landscape architecture rendering. Developing pattern libraries for ground covers, paving patterns, bricks and stone, turf etc. can save tons of time later. It's much faster to use this digital pattern system than to hand render graphics. A little work now will save a ton of work when it's crunch time for a project. Here are some examples:



PATTERN RENDERING

OVERVIEW

The second step in the hybrid rendering process is to use the pattern tiles created in the first tutorial to render an image. In this case, pattern tiles are being used to render a simple planting plan. This step in the process offers the most opportunity for artistic license, as the patterns can be applied in several different ways that each produce slightly different results.

BENEFITS

-Speed, large areas or intricate patterns can be rendered in seconds.

-The patterns can be scaled, edited or changed with just a few clicks even after they have been applied to an image.

-Produces images with hand drawn appeal.

-Easy to learn and fun to use.

POTENTIAL DRAWBACKS

-Some methods of application may require a stylus for the best effect.

PATTERN RENDERING

1 Now that the pattern library has been created it's time to practice rendering with it. Below is an image of a simple planting plan that was drawn in Vectorworks and then exported as a pdf file using the (File>Export>Export Pdf) menu in Vectorworks. The file was exported from Vectorworks at 300 dpi. The file was then opened in Photoshop using (File>Open). When opening the file double check to make sure the import resolution matches the Vectorworks export resolution, in this case 300 dpi. This ensures a crisp image that is not distorted.

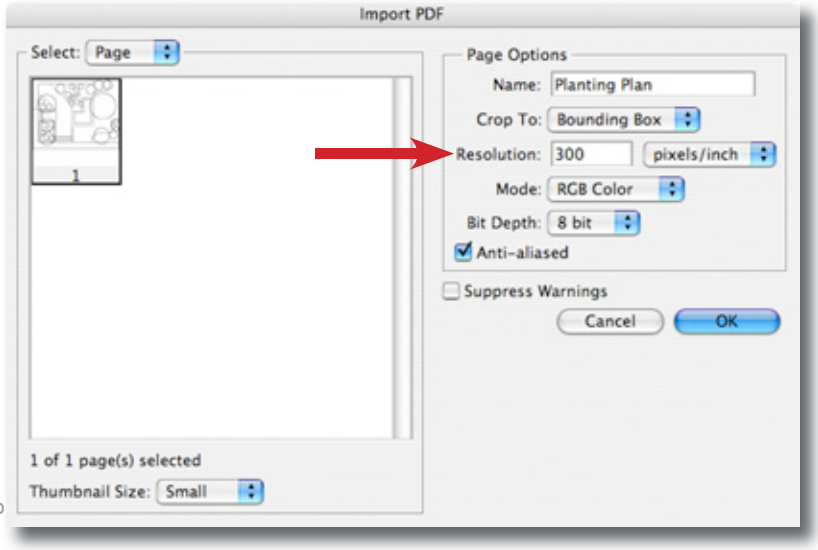
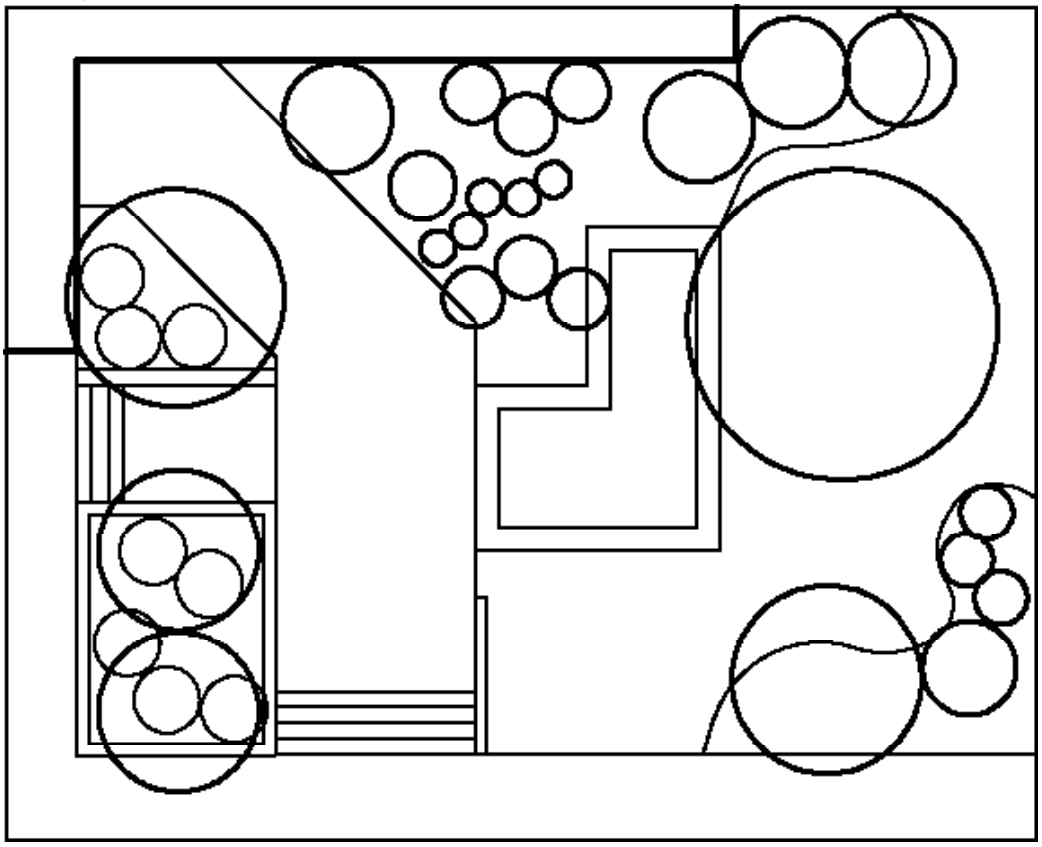


Figure C-2

Figure C-1



Dpi tips

DPI or dots per inch are an important setting when dealing with graphics. Generally speaking, when scanning images into a computer it's best to set the dpi resolution to 300. The same is true when creating a new document in Photoshop, 300 dpi is the way to go. This is also true when exporting something such as a base plan from Autocad or Vectorworks, 300 dpi is the best choice. This setting ensures a crisp, clean image and will prevent the pixilated appearance of a graphic set to a lower dpi and then sized up right before printing. Getting into the habitat of making every digital graphic you work with 300 dpi will save a lot of headaches later.

2 The next step is to load the previously created pattern library into Photoshop. To do this, return to the PRESET MANAGER dialogue box by going under (Edit>Preset Manager).

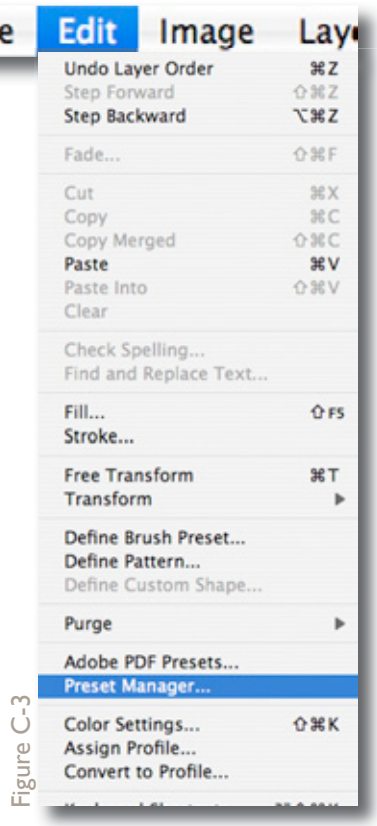


Figure C-3

3 In the PRESET MANAGER dialogue box, be sure that PATTERNS are selected under PRESET TYPE. Then click LOAD and navigate to the location on your hard drive of the previously created and saved pattern library. (For information on how to create a pattern library see the Tutorial "Creating Pattern Tiles" in this book.)

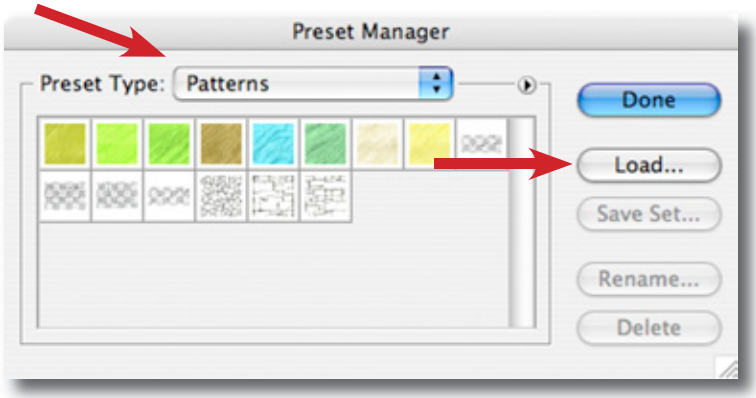


Figure C-4

4 It's time to set up and name the LAYERS of the file to make it easier and faster to navigate through as you render. In the LAYERS dialogue box rename the layer that contains your plan drawing by double clicking on the existing LAYER 1 name and renaming it something helpful, such as 'line drawing' or, as in this case, 'base plan.' Additional layers were also created here: a layer filled entirely with white to serve as a background behind the base plan, and layers that will hold the color and hatching of the grass area that is rendered in the next steps.

Figure C-5

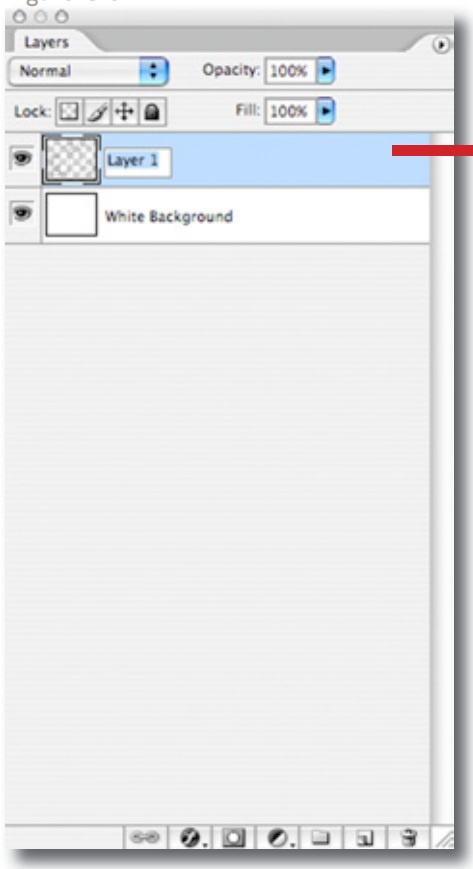


Figure C-6

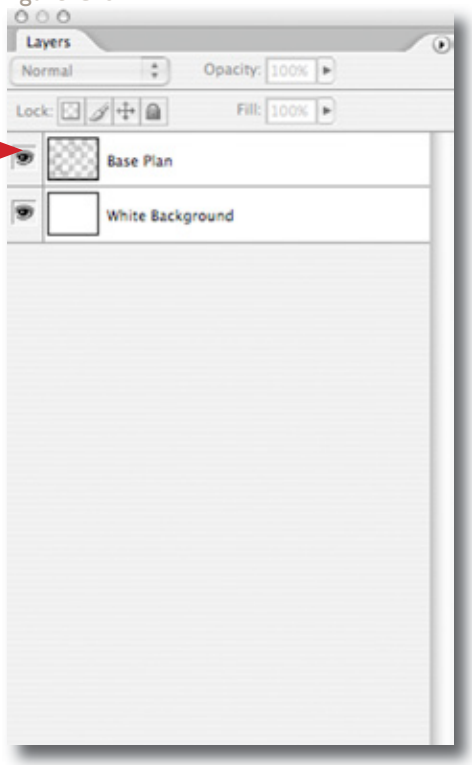
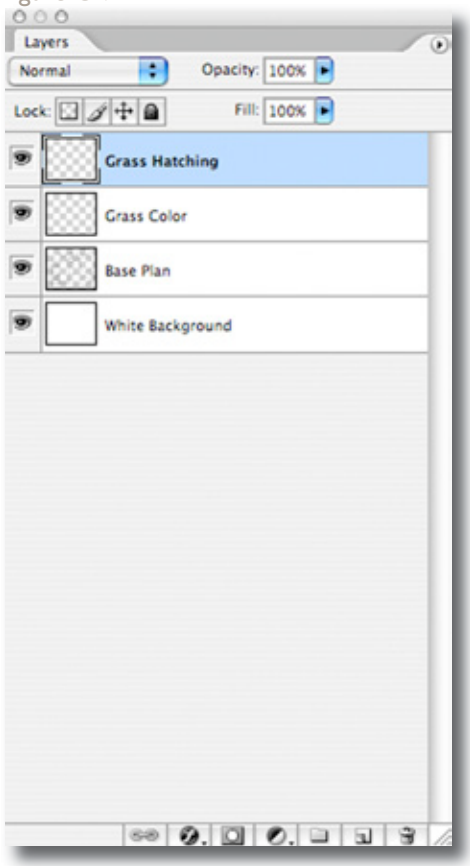


Figure C-7



PATTERN RENDERING

5 It's finally time to lay down some color. First select the layer that will hold the color of the grass area, in this case the GRASS COLOR LAYER. Then click on the LAYER STYLES ICON at the bottom of the layers dialogue box and select the PATTERN OVERLAY layer style. This will open the LAYER STYLE dialogue box.

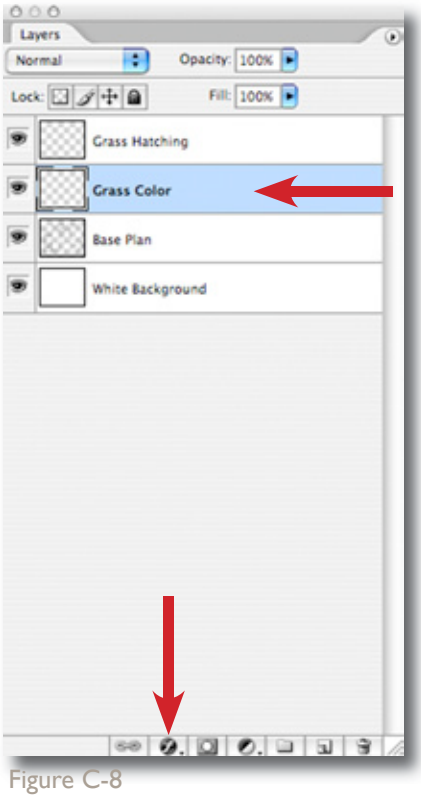


Figure C-8

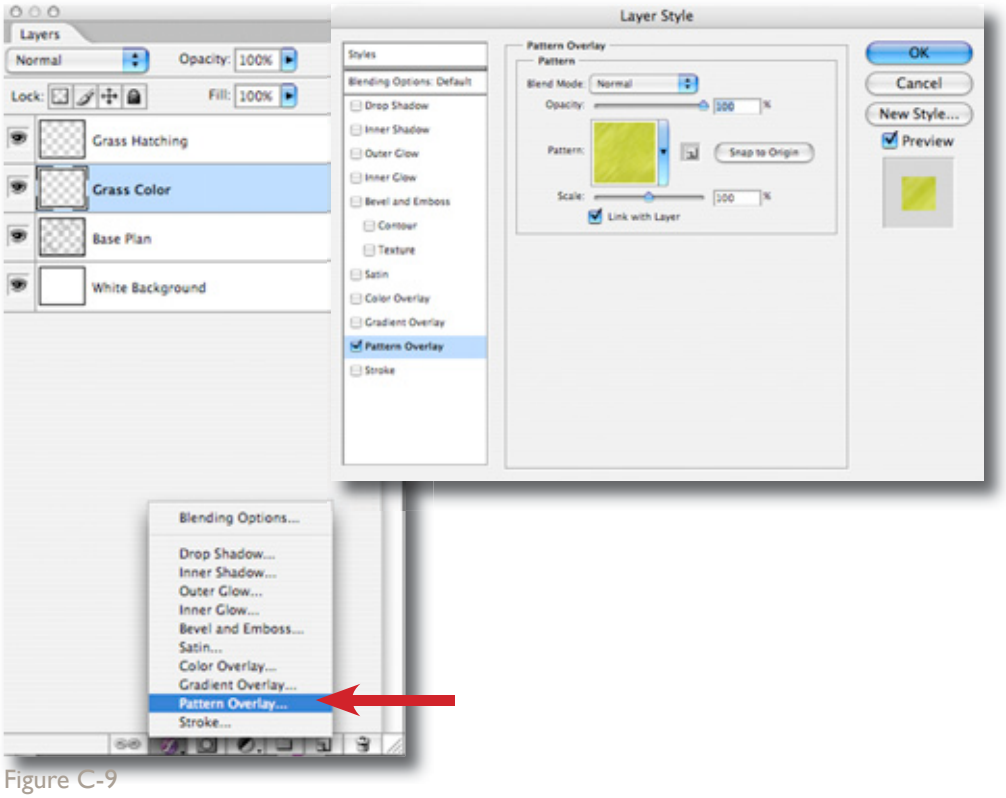


Figure C-9

6 Click on the small arrow to the right of the pattern sample box. This allows you to select which pattern you will use for rendering on this layer. In this example the grass area is being rendered so a pattern that was created from hand drawn green marker strokes is selected.

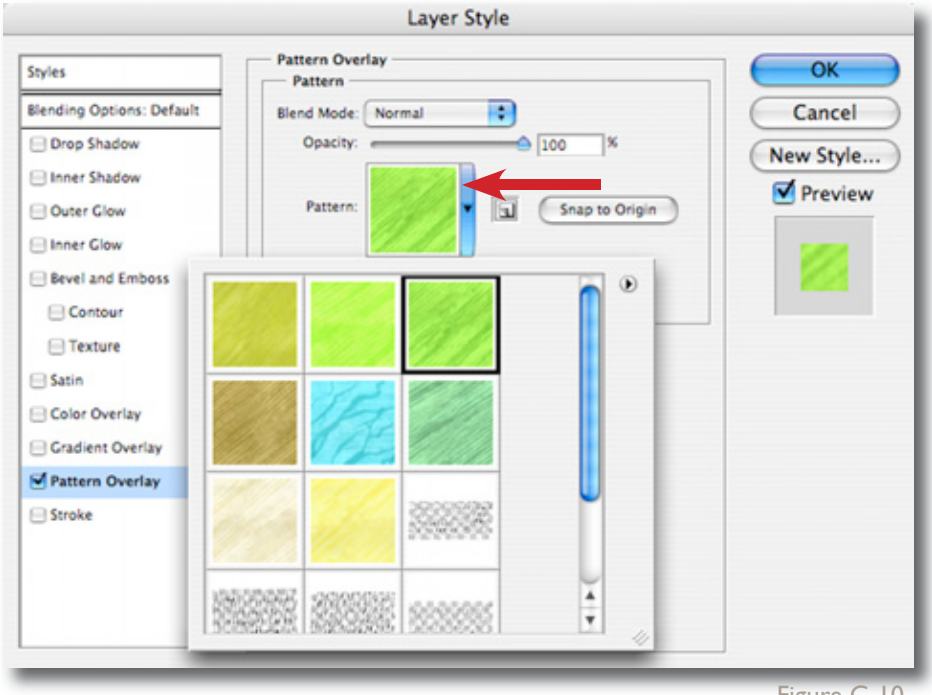


Figure C-10

7 There are several methods of applying the selected pattern to the base image. The first method is to select the layer that contains the line work for the plan, in this case the BASE PLAN LAYER. Then select the MAGIC WAND TOOL. and click within the lawn area, this will create a selection that encompasses the lawn area.

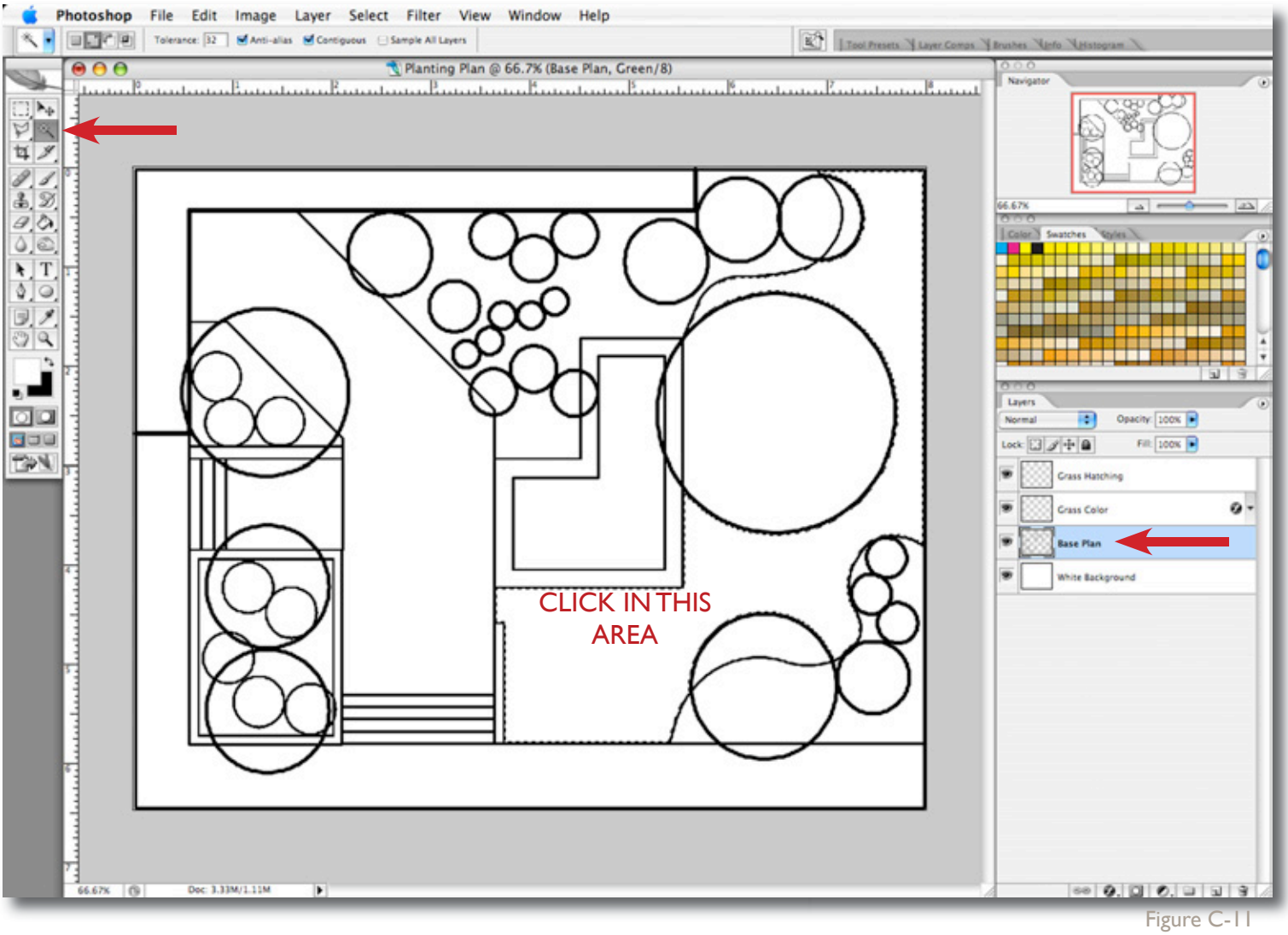


Figure C-11

PATTERN RENDERING

8 Now select the GRASS COLOR LAYER and select the PAINT BUCKET TOOL. Click inside the actively selected lawn area (designated by the crawling ants). This will fill the lawn area with the green hand drawn marker strokes.

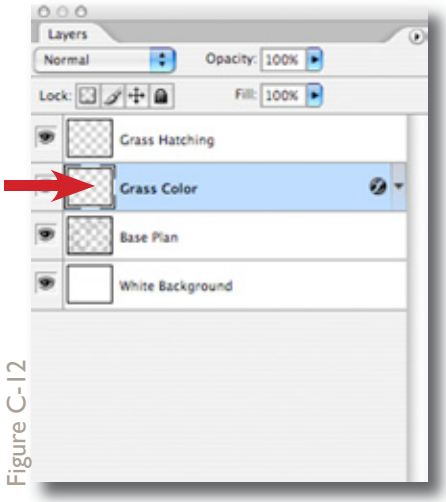


Figure C-12

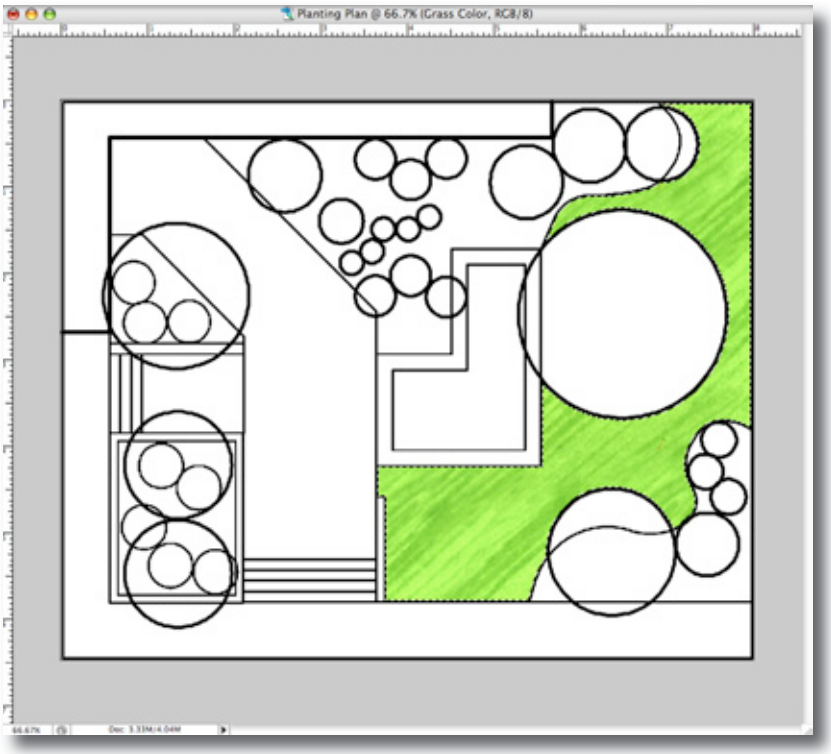


Figure C-13

9 Double clicking the LAYER STYLE ICON attached to the GRASS COLOR LAYER reopens the LAYER STYLE dialogue box. Clicking on PATTERN OVERLAY allows adjustments to be made to the pattern even after it has been applied.

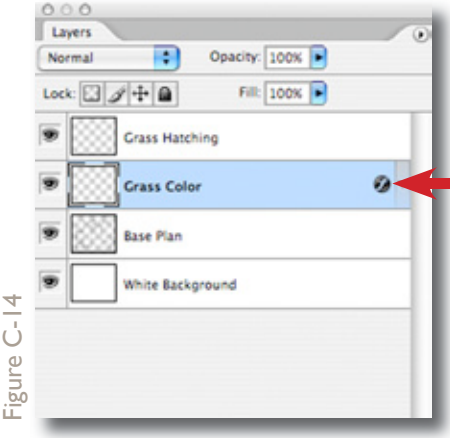


Figure C-14

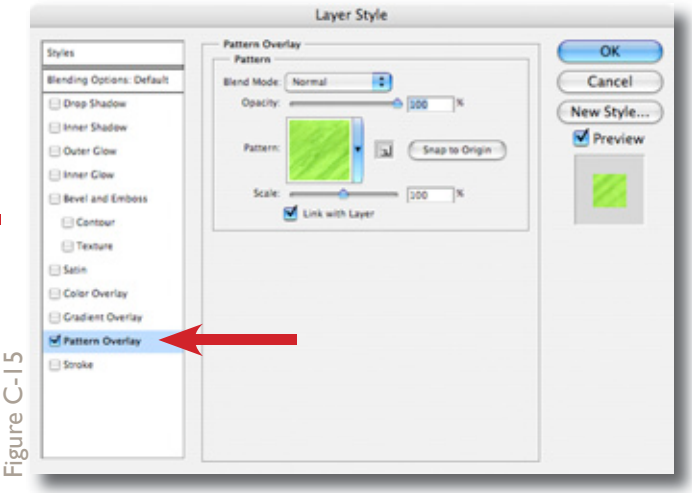
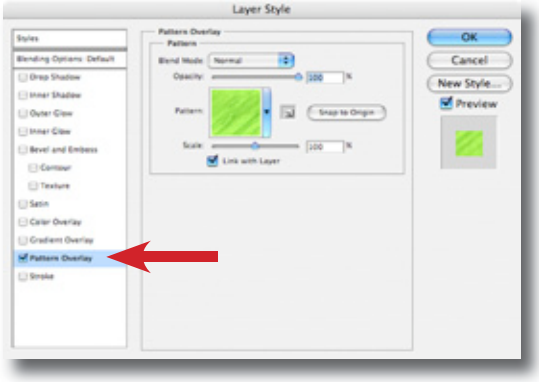


Figure C-15

10 Using the SCALE SLIDER in the LAYER STYLE dialogue box changes the scale of the applied pattern. This is helpful in making the hand drawn strokes of the pattern appear to be proportional to the scale of the drawing that is being rendered. If the strokes of the pattern were too small, the plan would not look as though it were truly 'hand-rendered'. Below, you can see the before and after results of the adjustment.

Figure C-16



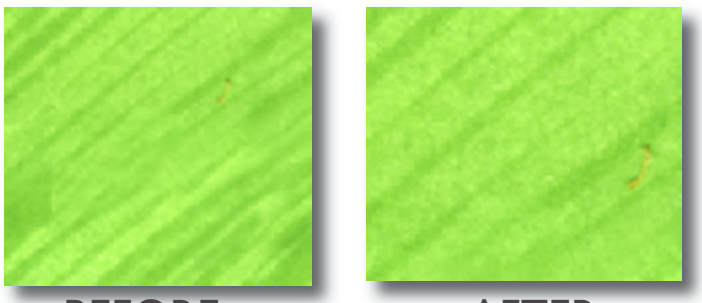


Figure C-17

BEFORE AFTER

Quick tip

The LAYER STYLE dialogue box also allows the opacity of the applied pattern to be adjusted as well as changing the blend mode or even selecting a completely new pattern. These adjustments are an excellent opportunity for artistic experimentation.

11 While the PAINT BUCKET TOOL is the quickest way to apply a hand drawn pattern, the PAINT BRUSH allows for a lot more control. Click on the grass hatch layer above the grass color layer. Now apply a PATTERN OVERLAY layer style as was done in the previous steps, by clicking once again on the LAYER STYLE icon at the bottom of the layers window and selecting PATTERN OVERLAY.

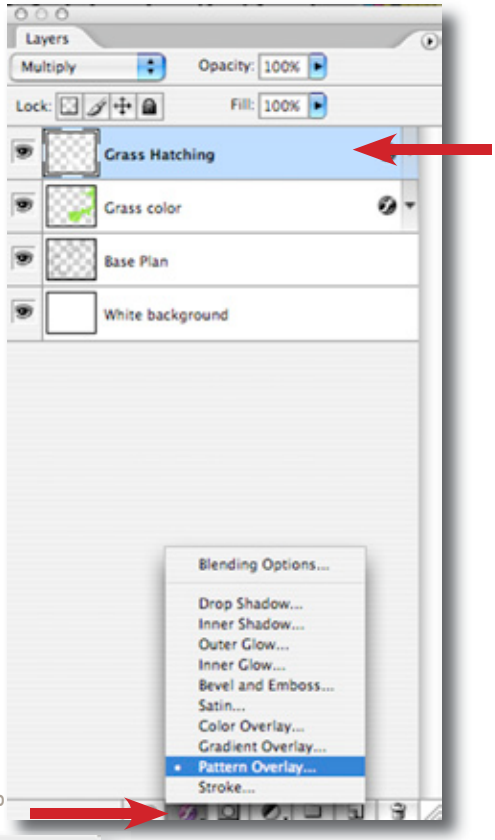
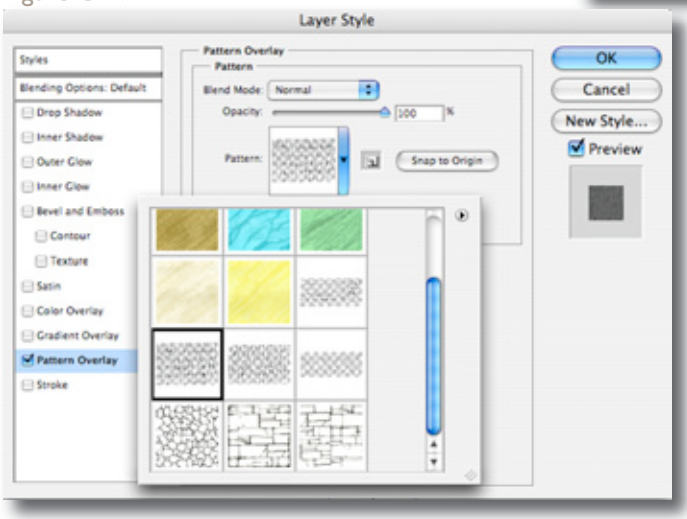


Figure C-18

12 In the LAYER STYLE dialogue box a previously created black and white vertical hatching pattern is selected. This pattern was created using short vertical strokes of a black pen on white paper and then turned into a Photoshop pattern using the methods described in the tutorial 'Creating Pattern Tiles' in this guidebook.

Figure C-19



13 Now select the PAINTBRUSH TOOL from the toolset and a soft round brush from the OPTIONS menu bar at the top of the workspace.

Figure C-20

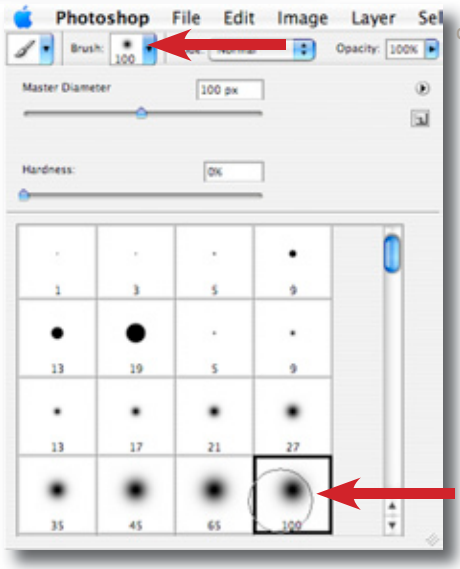
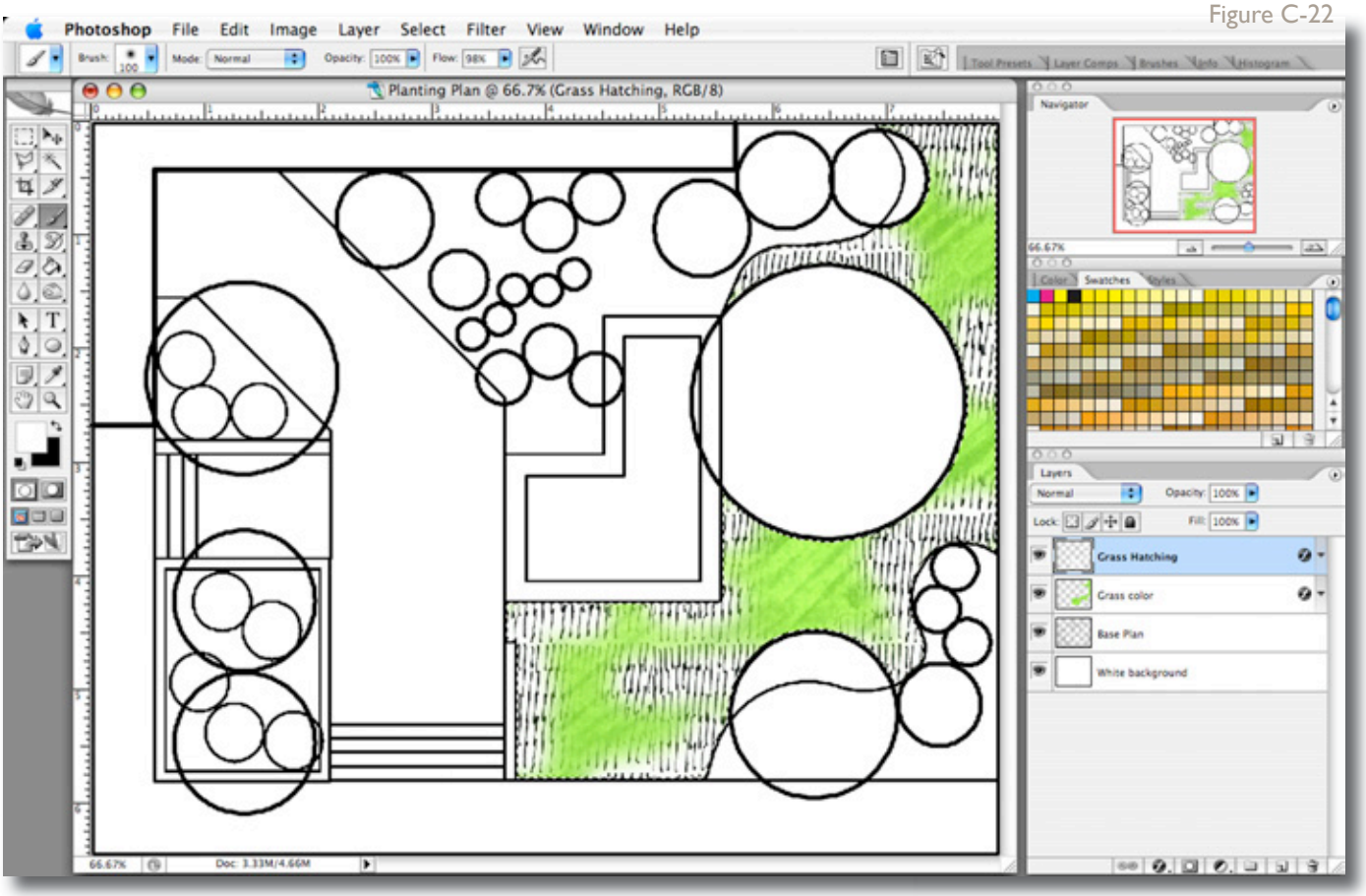


Figure C-21

PATTERN RENDERING

14 In the still selected grass area use the PAINT BRUSH to lay down the hatch pattern over the green marker strokes of the lawn area. As demonstrated below, because the original pattern encompasses both the black hatch strokes and the white background of the paper, it covers up the underlying marker color with what looks like a zebra pattern. This will be corrected in the next step. In order to see only the hatching of the pattern on the grass, the BLEND MODE of the grass hatch layer must be changed to MULTIPLY using the LAYERS WINDOW.

Figure C-22



15 In order to see only the hatching of the pattern, two adjustments must be made. First, the BLEND MODE of the grass hatch LAYER must be changed to MULTIPLY using the LAYERS WINDOW.

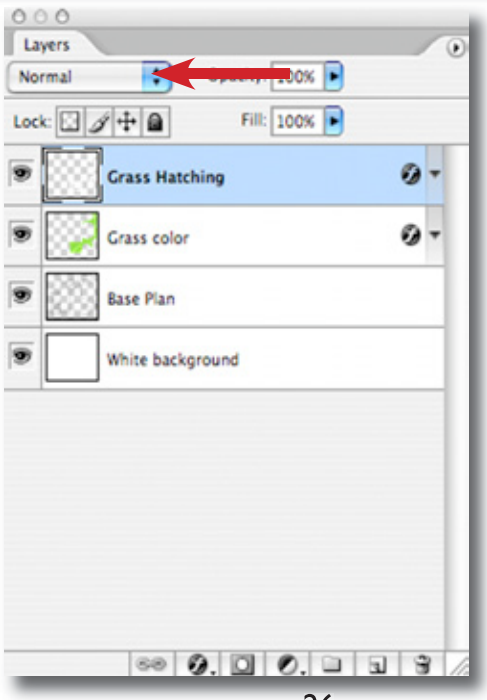


Figure C-23

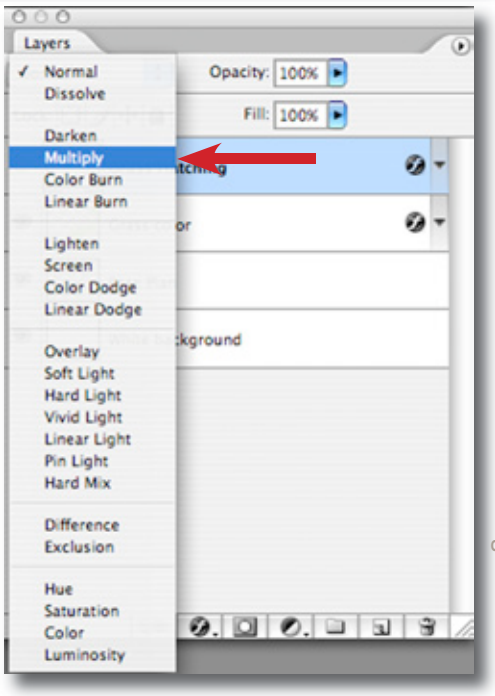


Figure C-24

16 Second, in order to see only the hatching of the pattern on the grass, the BLEND MODE of the pattern itself must be changed to MULTIPLY. To do this, double click on the LAYER STYLE ICON on the grass hatch layer. This will bring up the LAYER STYLE dialogue box. Under the PATTERN OVERLAY change the pattern's blend mode to MULTIPLY. These last two changes make any white background area in the hatching pattern transparent, allowing the color below to show through while still preserving the black pen hatch marks. A close-up of the before and after results of this adjustment are shown to the right.

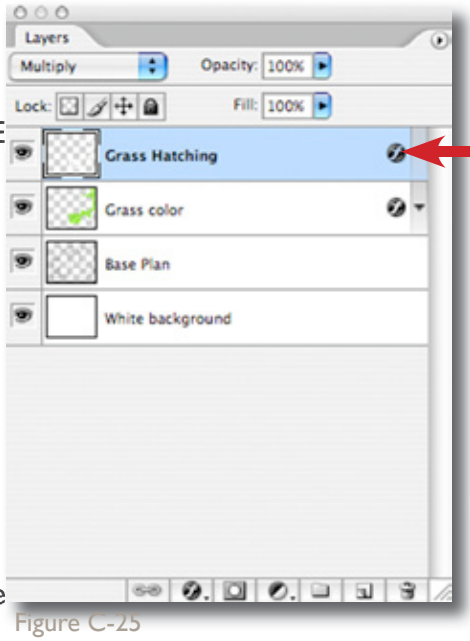


Figure C-25

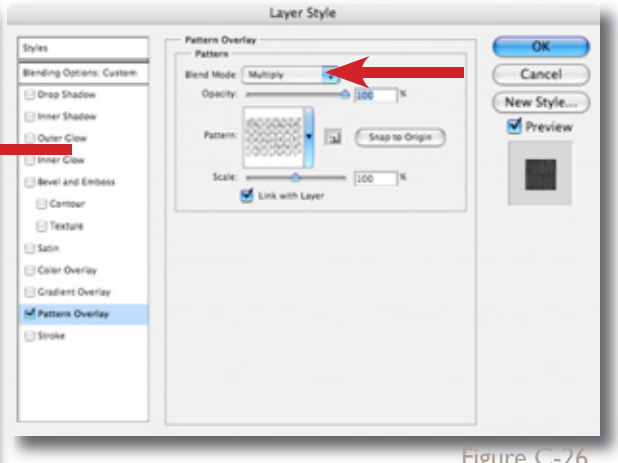
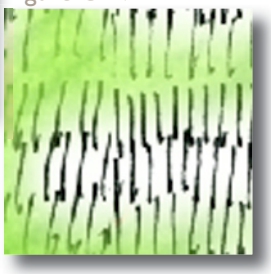
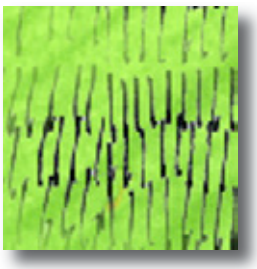


Figure C-26

Figure C-27



BEFORE



AFTER

Brush menu

As with the LAYER STYLE dialogue box, the MENU BAR of the PAINTBRUSH TOOL (shown above) is a great place to experiment. Changing the brush size, shape, opacity or flow can yield interesting results. Using a combination of the settings shown above and repeated mouse strokes yielded the faded effect shown to the right. It provides even greater control over the hand drawn pattern being applied.

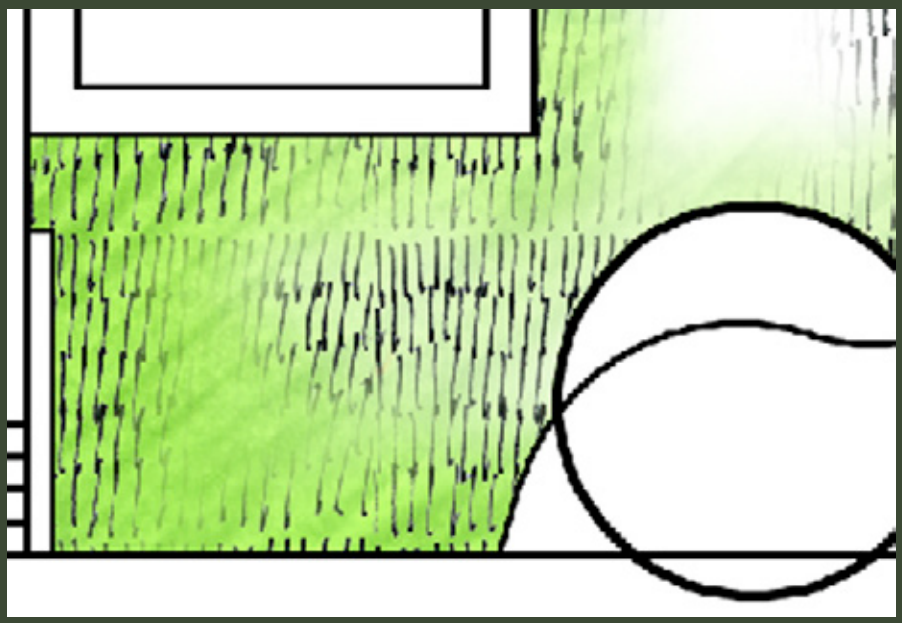


Figure C-28

PATTERN RENDERING

17 The nearly completed plan is shown on this page as well as a snapshot of the file's LAYER structure. The plan was rendered using only the techniques described in the last two tutorials and nothing else. The total time taken to render this plan was approximately 4 minutes. All that is left now is to add the plant material and a few finishing touches, for those exercises turn to the next tutorial.

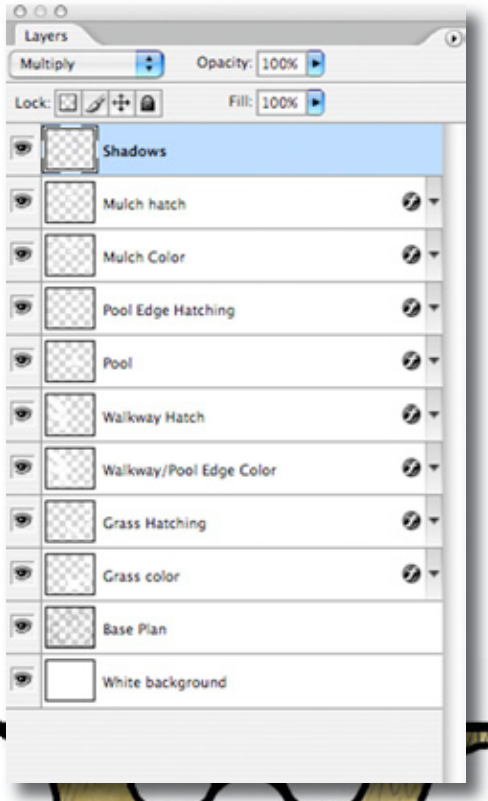
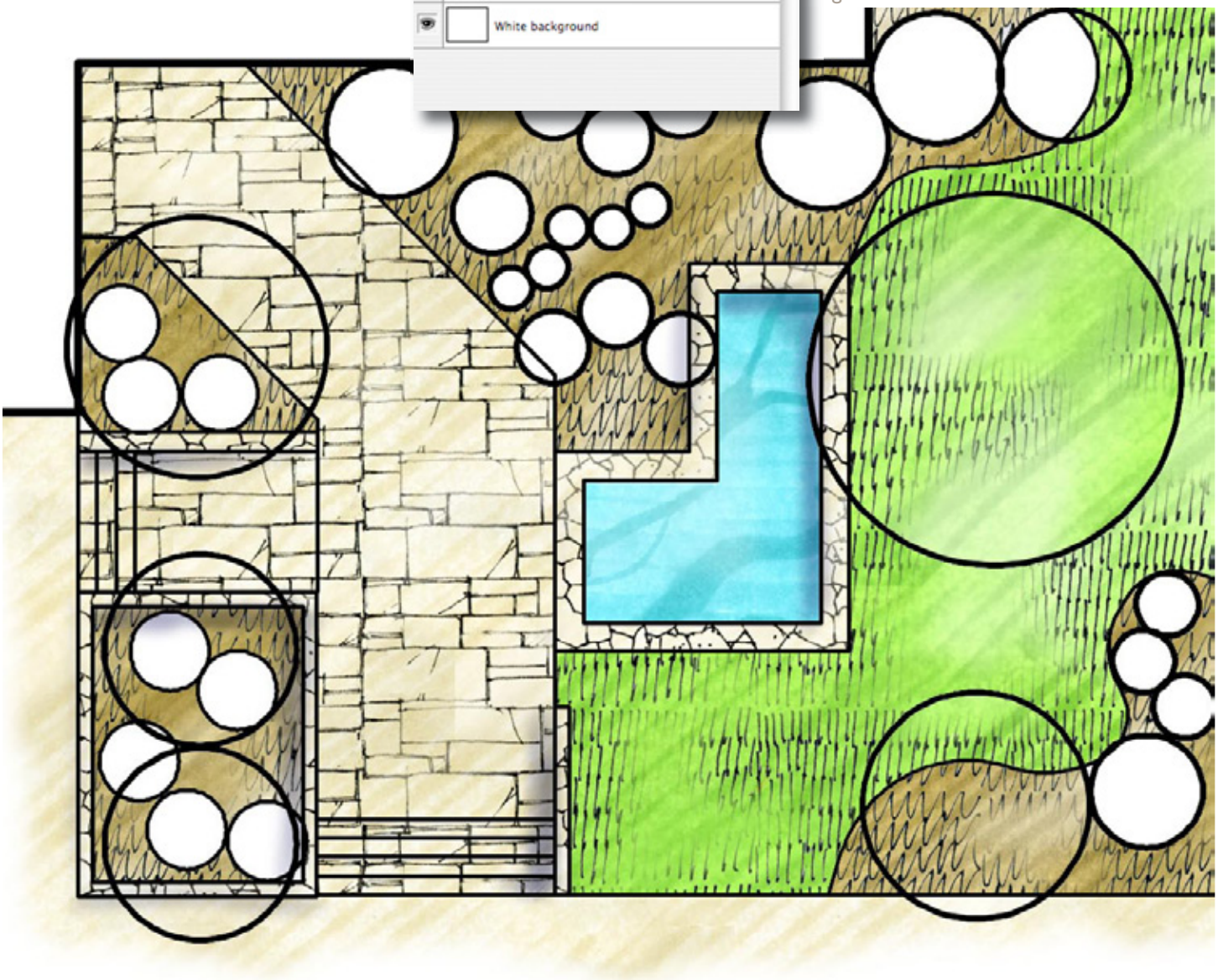


Figure C-29



ENTOURAGE

OVERVIEW

The final step in the hybrid rendering process is to add hand drawn entourage elements using a simple cut and paste command in Photoshop. This step in the process is the digital equivalent to hand tracing entourage elements from a book or magazine using trace paper. In this particular example trees in plan view are being added to the planting plan that was rendered in the previous tutorial. Entourage elements can be original hand drawn pieces or they can be sourced from books, magazines or photographs. It is important to note that this simple method can be used not just on illustrative plans but the same technique can be applied to section/elevations or even perspectives.

BENEFITS

-Great increase in rendering speed. Once elements are scanned and saved in to libraries they can be accessed and used quickly.

-Ease of repetition. Similar elements don't have to be drawn over and over.

-Consistency of graphics across a project. Different users accessing the same library can produce identical graphics. This is great for group projects where a unity in graphical output is desired.

POTENTIAL DRAWBACKS

-Can be time consuming at first if all elements are being drawn by hand and scanned in.

-Repetition of a single entourage element without variation can detract from the appearance of a graphic.

-It can sometimes be difficult to match the lighting of a given entourage element to that of the rest of a image.

1 The first step is to hand render a few of the needed elements, in this case vegetation in plan view, on a sheet of paper.

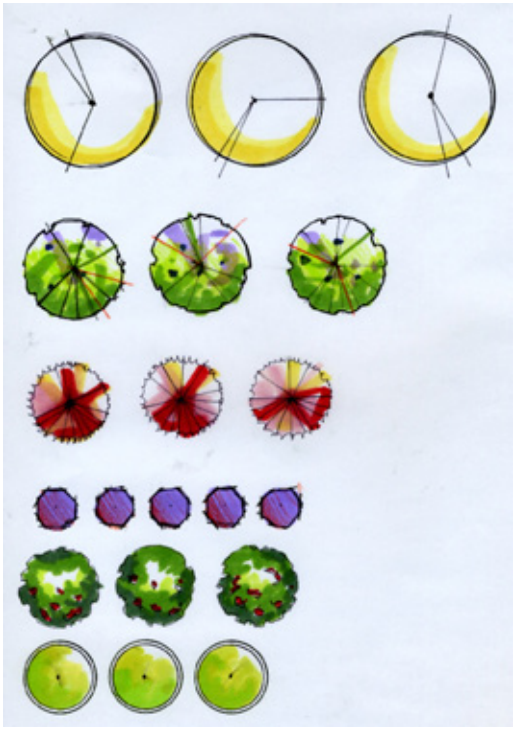


Figure D-1

2 Even when using a high quality scanner the background of the image below doesn't appear to be the bright white of the paper as it should. A simple way to correct this problem is to go under: (Image>Adjustments>Levels)

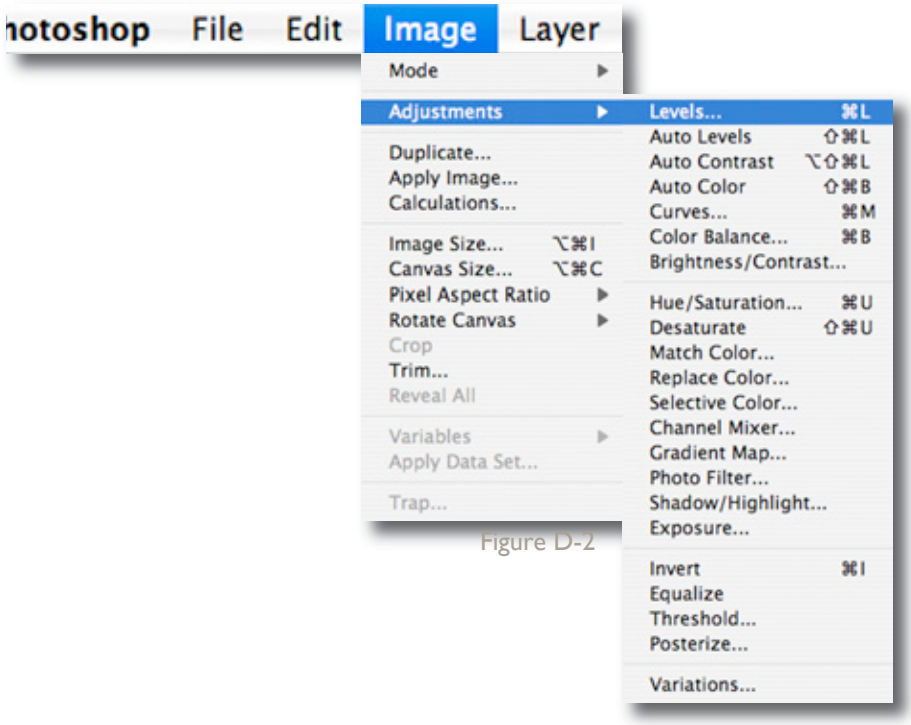


Figure D-2

3 This will open the LEVELS dialogue box. Sliding the small white highlight arrow in the dialogue box to the left will brighten up the white background and liven up the colors of the scanned image. The exact level of brightness is a matter of personal choice. Before and after results of the adjustment are shown below.

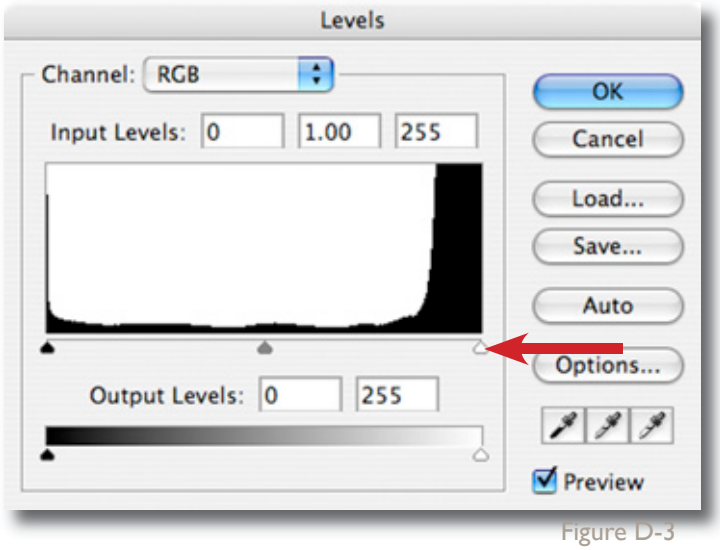
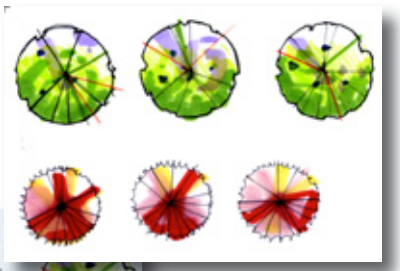


Figure D-3

AFTER



BEFORE

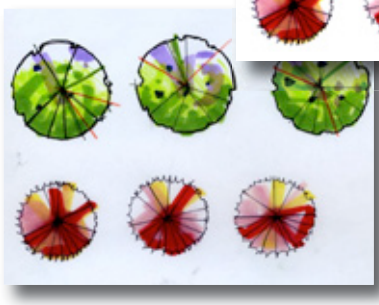


Figure D-4

4 The next step is to isolate and delete the white space surrounding the trees. To do this first the background layer has to be unlocked so it can be worked on. To do this double click on the name of the BACKGROUND LAYER in the layers window. This will open the NEW LAYER dialogue box. Type a new name for the layer, in this case "Trees" and press ok.

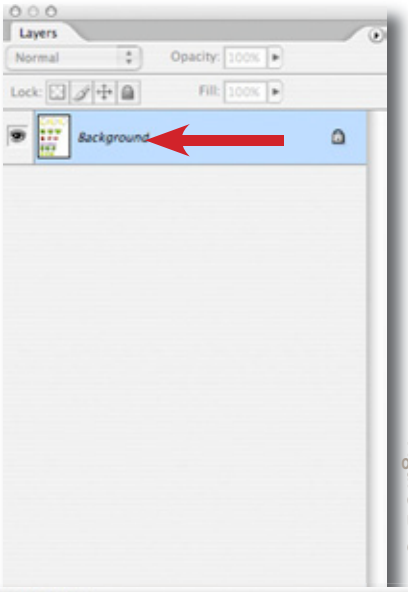
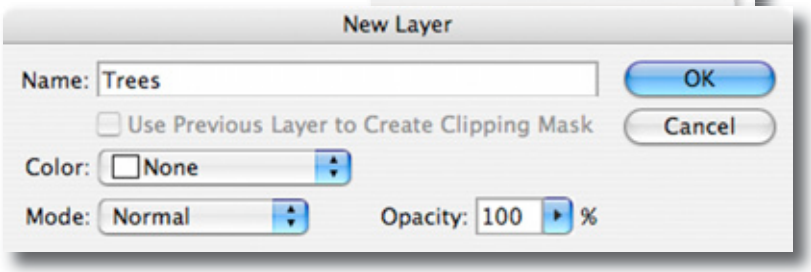


Figure D-5



5 What was the locked background layer is now an editable layer. In order to delete the white space surrounding the trees select the MAGIC WAND TOOL in the tool window.

Figure D-6

6 Click the MAGIC WAND TOOL somewhere in the white space in between the trees, this will make the entire area a selection (designated by the crawling ants). Now delete the active selection by simply pressing delete on the keyboard. The area that was white paper will now be transparent as shown below. This is important for the remaining steps.

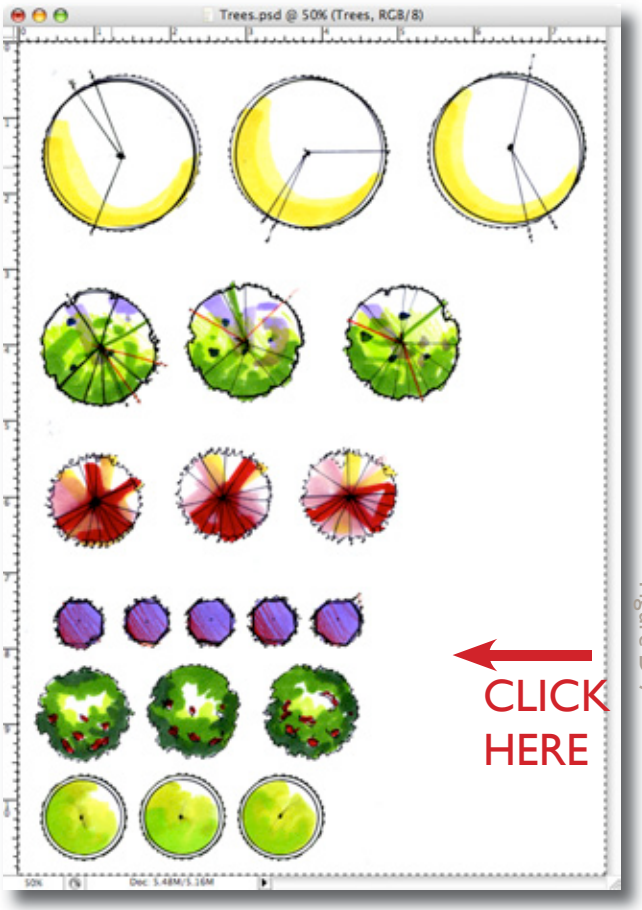


Figure D-7

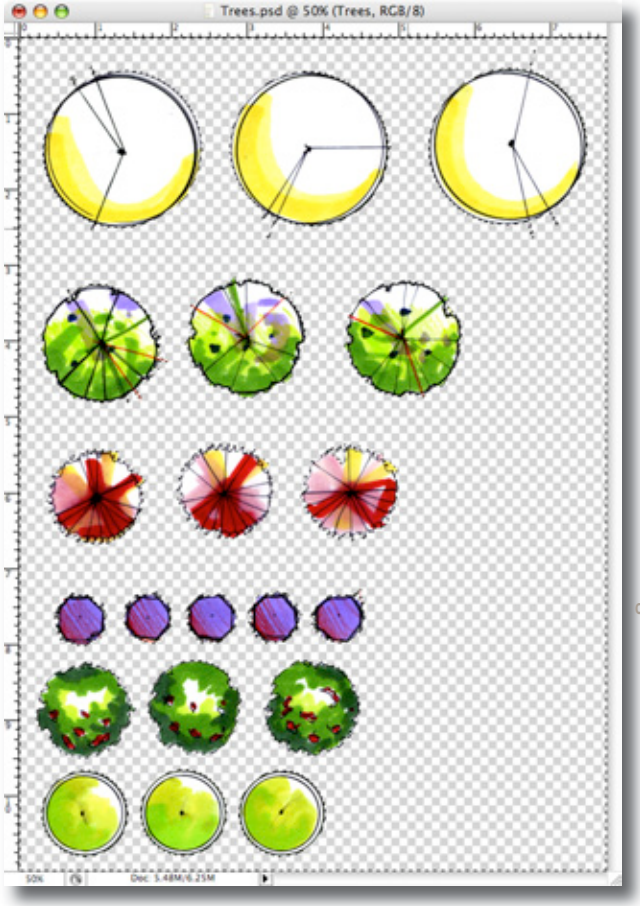


Figure D-8

ENTOURAGE

7 The next step is to open the file (File>Open) where the entourage will be used. In this case it's the planting plan from the last tutorial.

Figure D-9

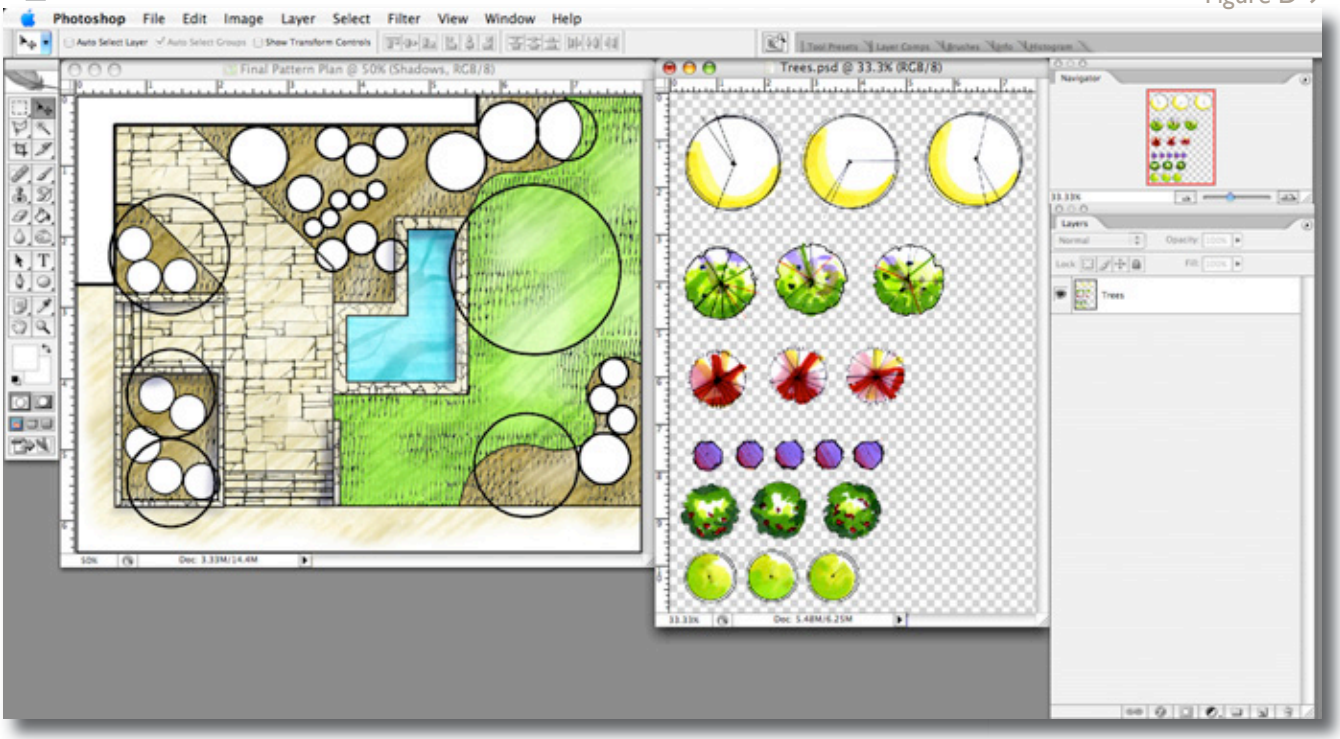
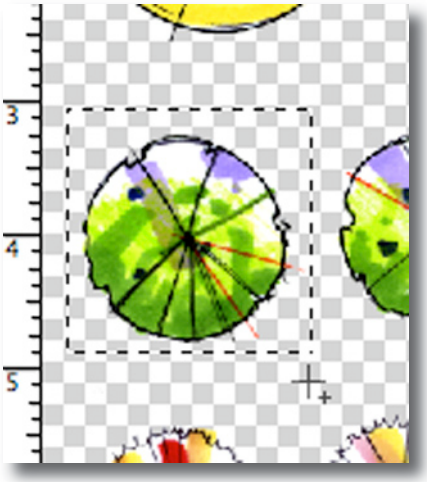


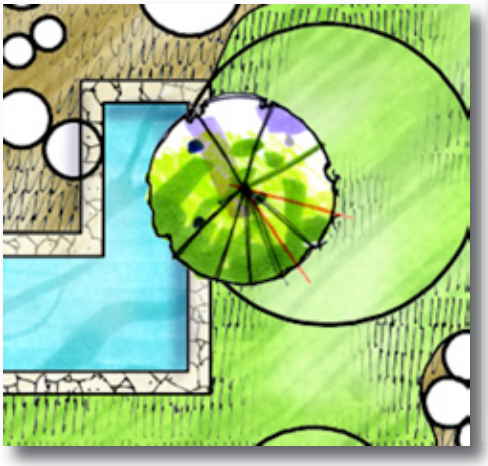
Figure D-10

8 The rest of the work is just a bit of clicking and dragging. First draw a rectangular selection around the first tree to be transferred by clicking and dragging with the RECTANGULAR SELECTION TOOL. Ensure the selection encompasses the whole tree to be used and doesn't overlap any of the others.



9 Select the MOVE TOOL from the toolbox, click and drag while holding down the Alt/Option key on the keyboard inside the rectangular selection area. This will allow a copy of the tree into to be dragged over to the opened planting plan file.

Figure D-11



10 The copied tree will create it's own new layer in the planting plan file, in this case Layer 1. In order for the tree to be visible above the ground layers make certain that the layer containing the tree is the first in the list of layers in the LAYERS WINDOW. If it's not simply click and drag the layer containing the tree to the top of the LAYERS WINDOW. It is also helpful to rename this layer "Trees" by double clicking on the layer 1 name and typing "Trees".

Figure D-12

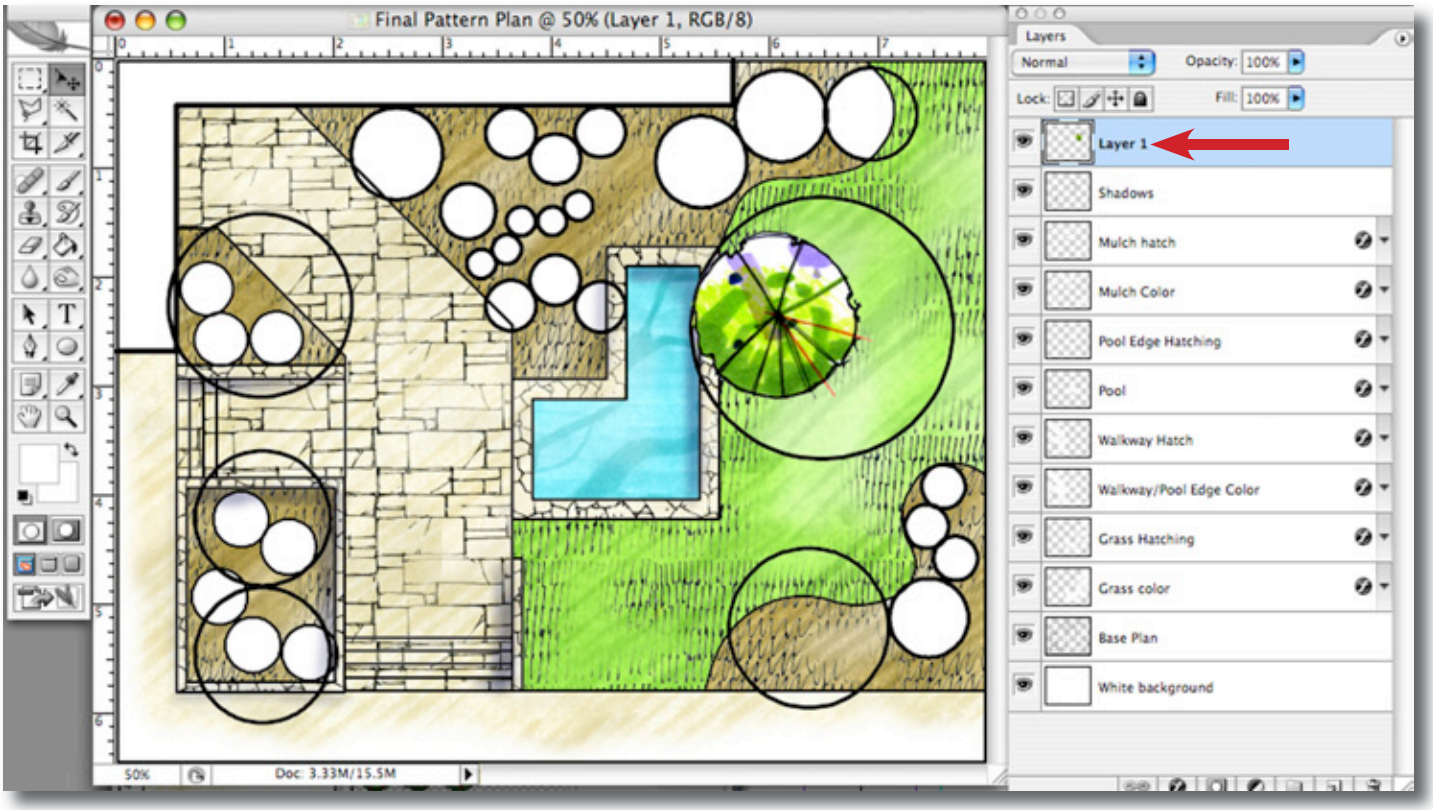
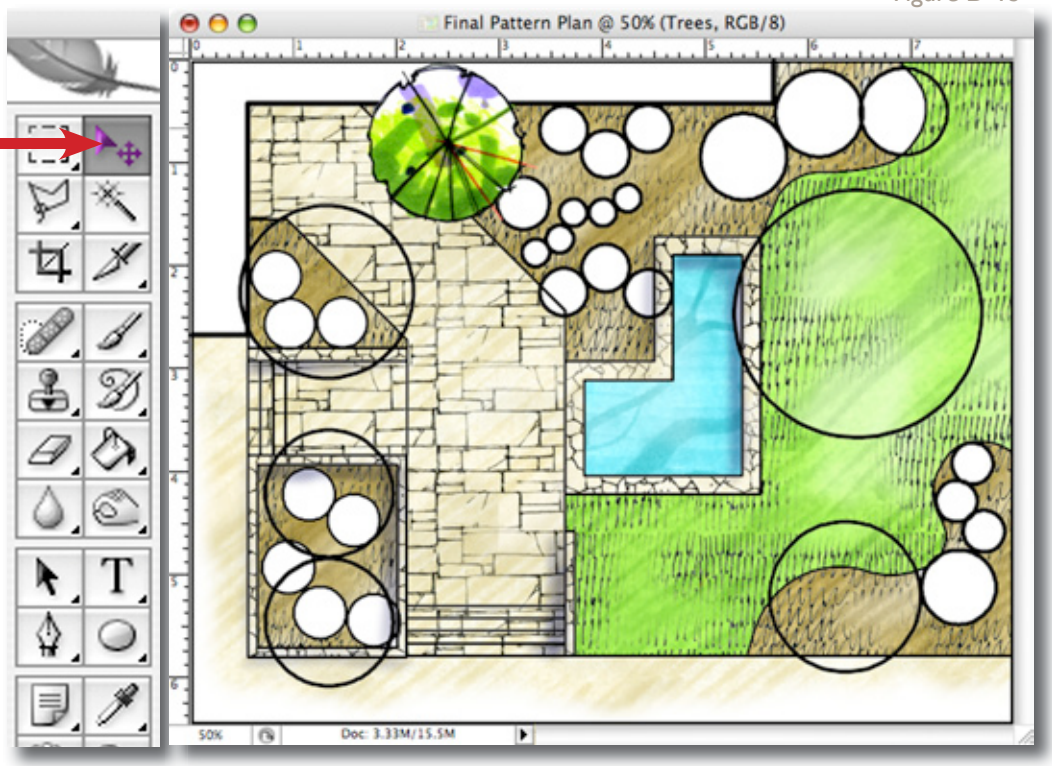


Figure D-13

11 Select the MOVE TOOL from the toolbox once again. Ensure that the layer containing the tree (in this case the "Tree" layer) is the selected layer (highlighted blue in the layers window). This will make certain you will be moving the tree and not something else. Click and drag with the MOVE TOOL to position the copied tree into the appropriate location, in this case the shrub closest to the house entrance.



12 The tree is now in the proper location but it is way too large for the scale of the plan. In order to fix this go under (Edit>Transform>Scale). Again make sure the layer containing the tree is the actively selected layer in the layers window.

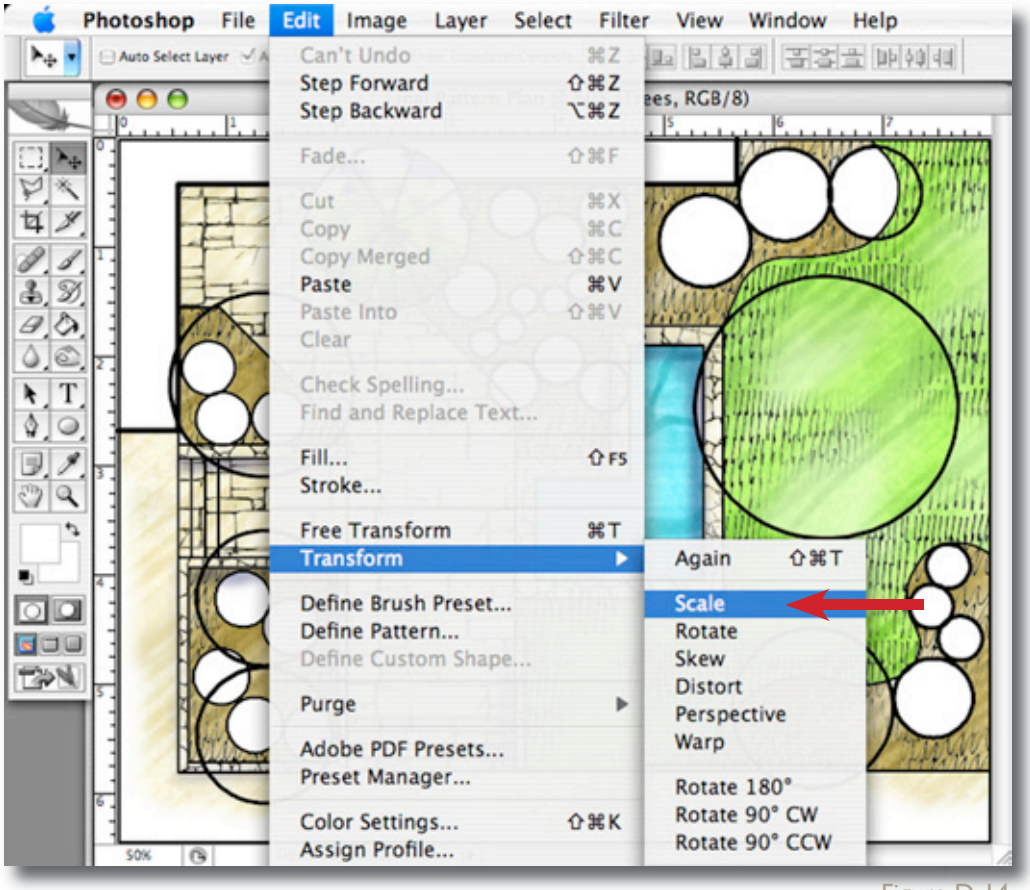
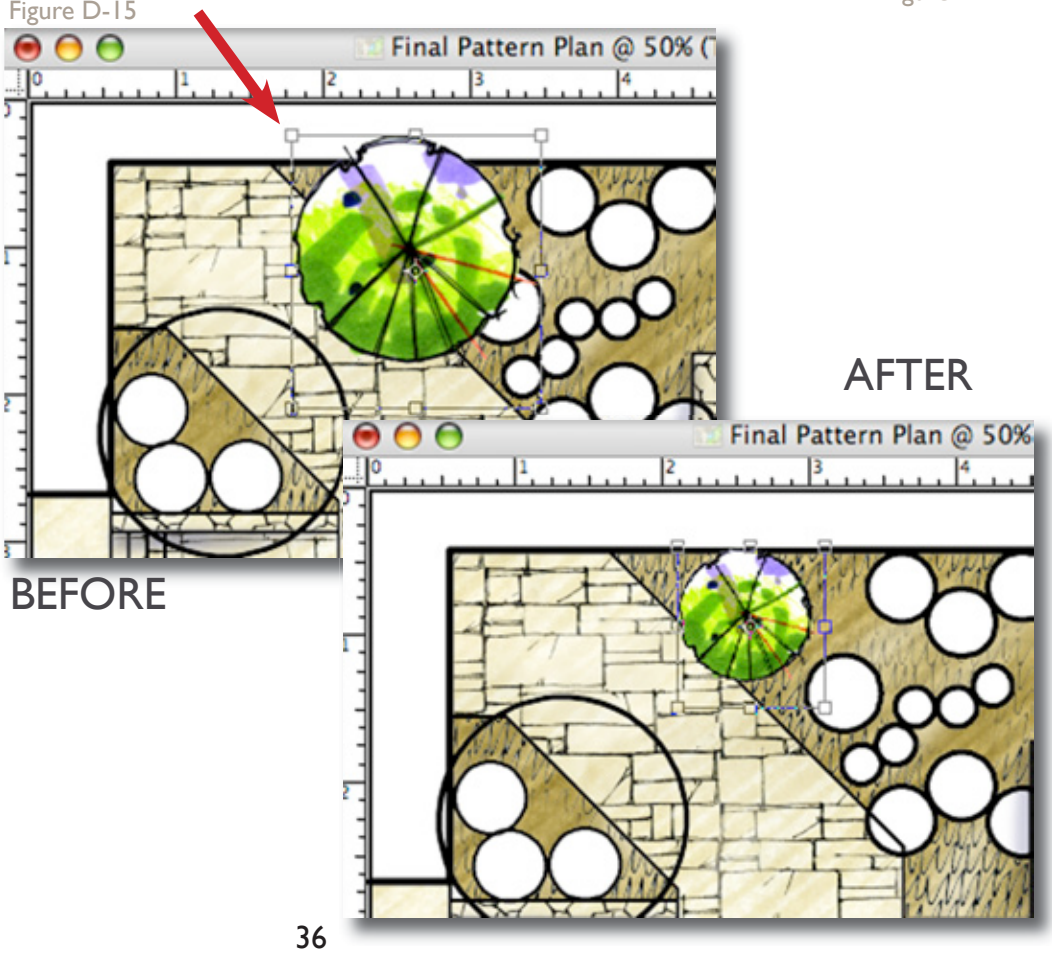


Figure D-14

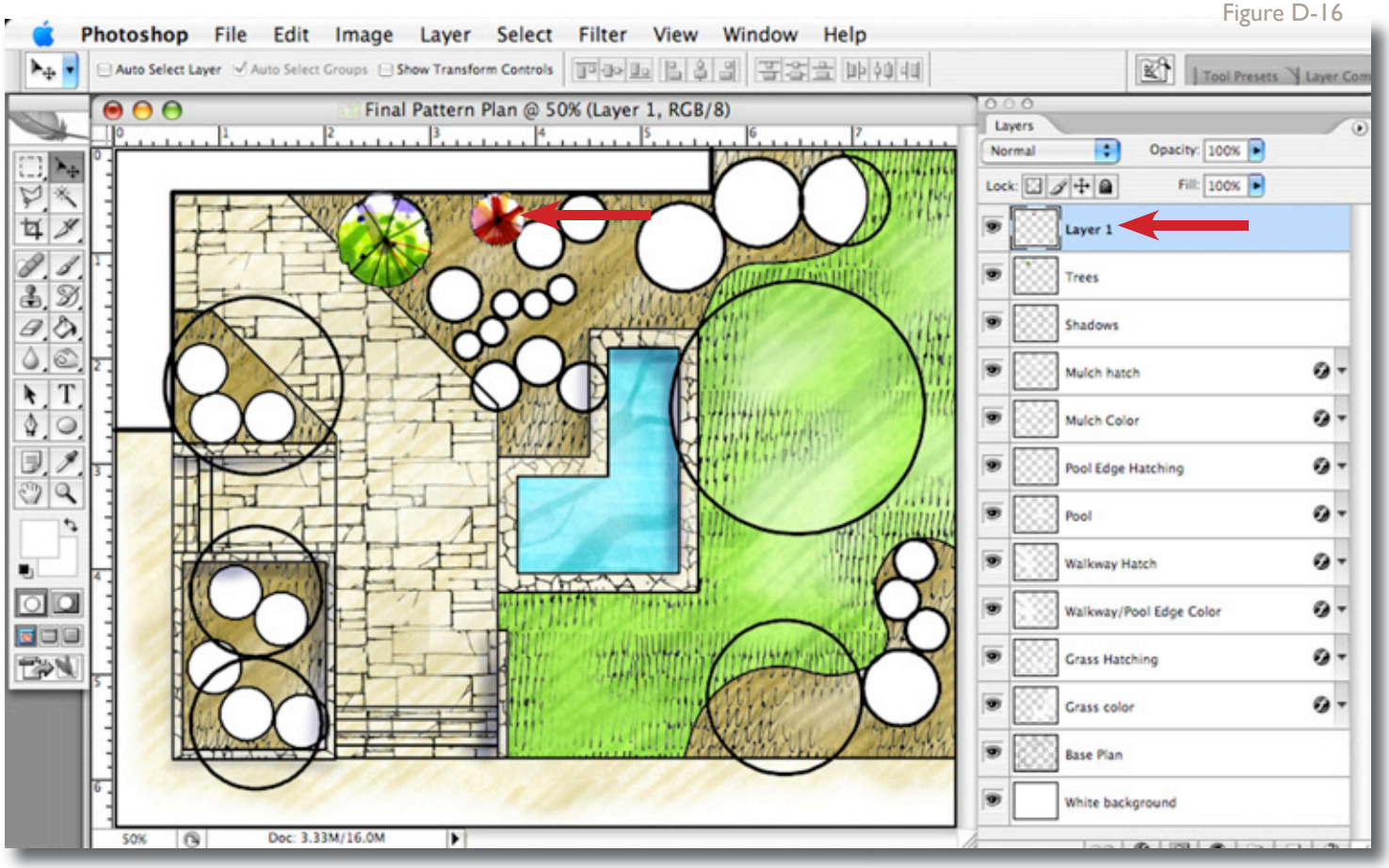
Figure D-15

13 The transform box will appear around the tree. By clicking and dragging any one of the small corner boxes while holding down the Shift key on the keyboard it is possible to scale the tree without any distortion. In this case the tree was scaled down until it was just barely bigger than the original outline for the shrub in the planting plan. Once the tree is the appropriate size press enter to accept the changes.



14 When the drag and drop procedure is repeated for a second type of tree Photoshop once again places the tree on its own layer. Drawings often contains hundreds of trees and having each on its own layer can make a file so large it slows down the computer plus it also makes the file hard to navigate because it's impossible to remember which tree is on which layer. In order to solve this problem once the second tree (and each subsequent tree after it) is dragged into place and scaled appropriately, ensure LAYER 1 (the layer with the most recently added tree) is at the top of all the layers in the LAYERS WINDOW.

Figure D-16



15 To place the new tree onto the same layer with the first tree, click the small arrow in the upper right corner of the LAYERS WINDOW. Then select MERGE DOWN from the fly out menu. Preforming this function after each tree is placed and sized keeps all the trees on the same layer and prevents the file size from becoming to large for the computer to handle.

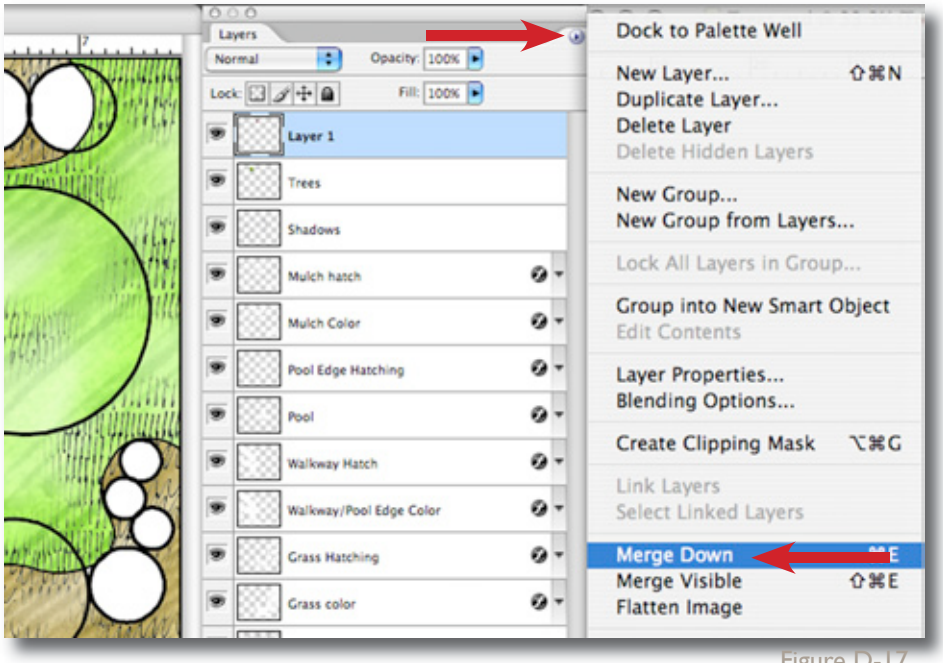


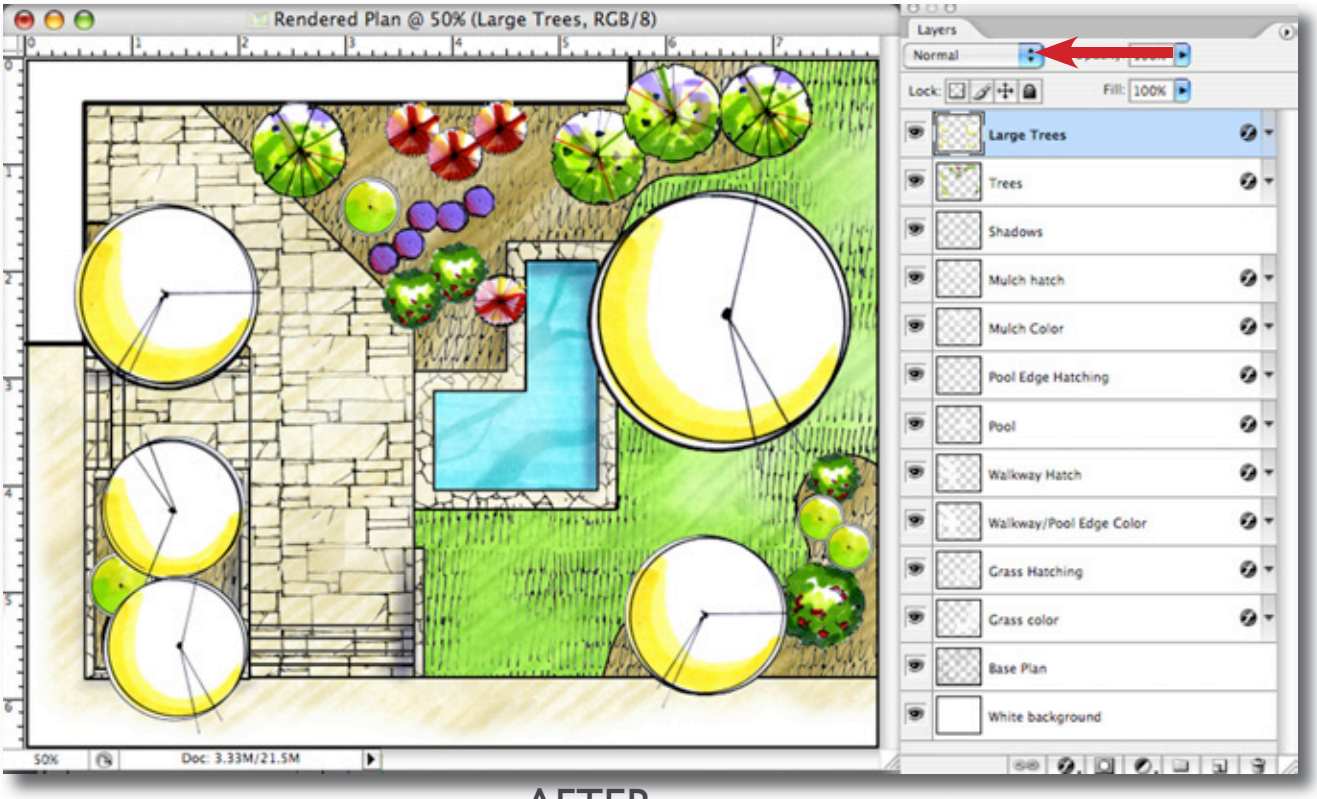
Figure D-17

ENTOURAGE

16 In some instances it is helpful to keep some entourage elements on their own separate layer. In this particular case the large trees were put on a separate layer labeled "Large Trees". This layer was placed on top of all the others. The BLEND MODE of this layer was then changed from NORMAL to MULTIPLY in the layers window. This allowed plant material underneath the large trees to show through.

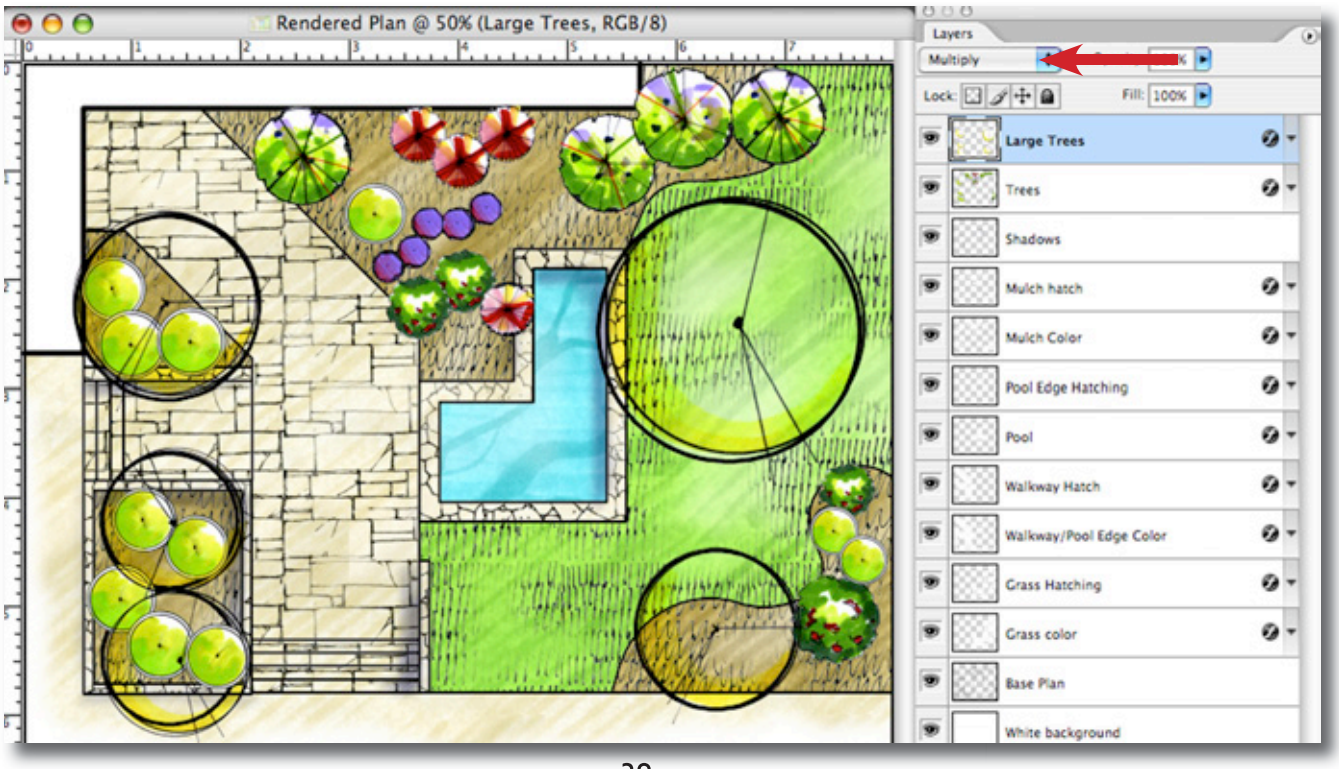
BEFORE

Figure D-18



AFTER

Figure D-19



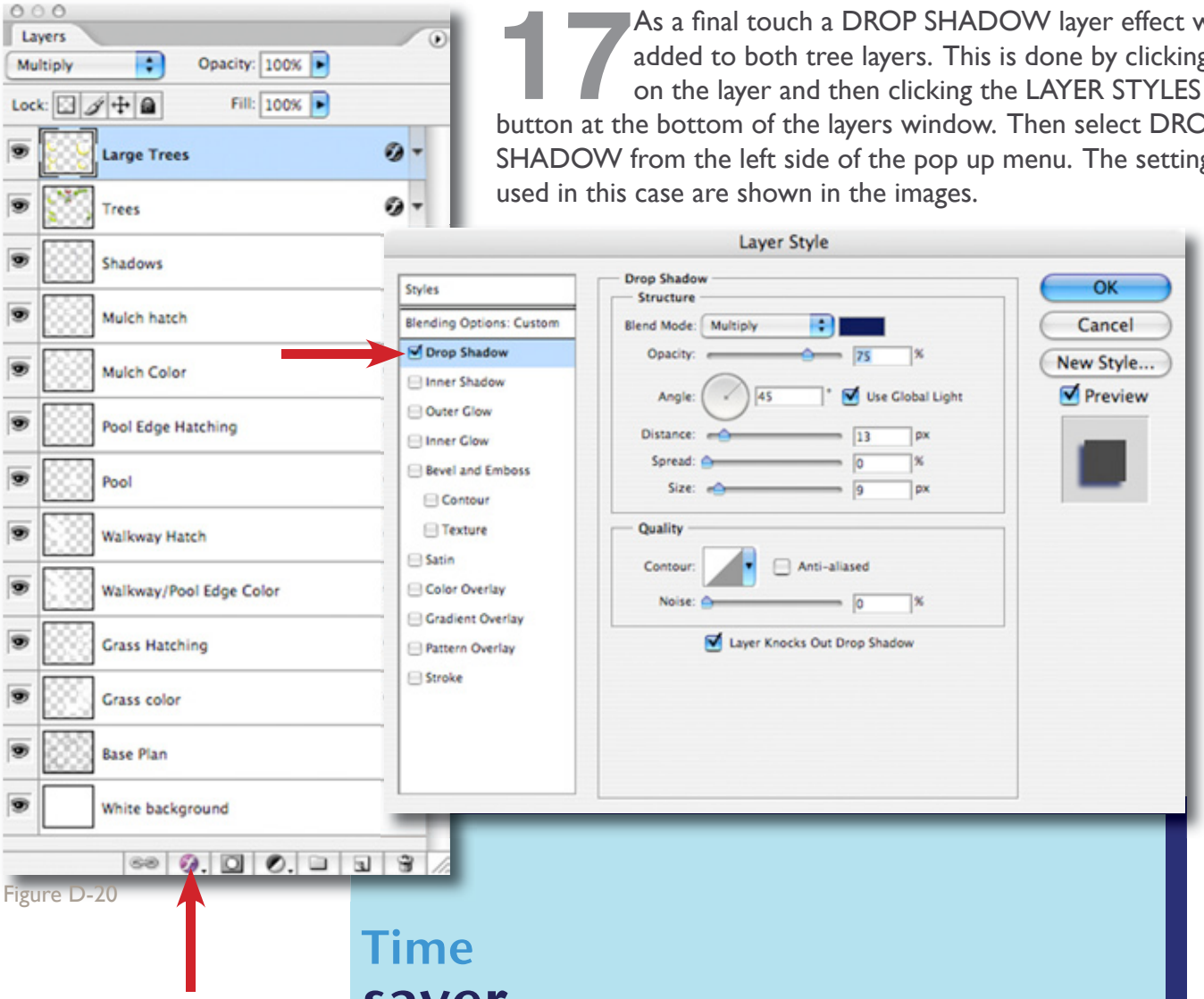


Figure D-20

17 As a final touch a DROP SHADOW layer effect was added to both tree layers. This is done by clicking on the layer and then clicking the LAYER STYLES button at the bottom of the layers window. Then select DROP SHADOW from the left side of the pop up menu. The settings used in this case are shown in the images.

Time saver

Once a given piece of entourage has been dragged into place and sized, select it by drawing a rectangular selection around using the RECTANGULAR SELECTION TOOL. Then select the MOVE TOOL. Holding down the Alt/Option while dragging with the move tool will produce a copy of the selected item on the same layer that can be moved into place. This is helpful when rendering a group of items that are the same such as a group of shrubs.

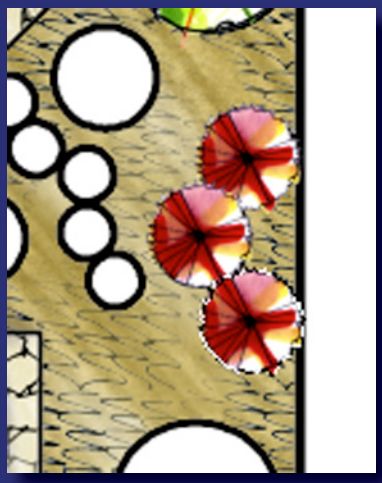


Figure D-21

LEVELS OF DETAIL:

This guidebook has focused mainly on the conceptual stage of landscape architecture rendering. The drag and drop entourage method can however be used at nearly every stage of the design process. The graphic below illustrates the different types of entourage that can be present at different points during the design phase. It shows the gradient from simple CAD like graphics used early on all the way up to the photorealistic images typically seen on final graphics. The drag and drop entourage method can save time and effort no matter what stage of the design process the user happens to be in.

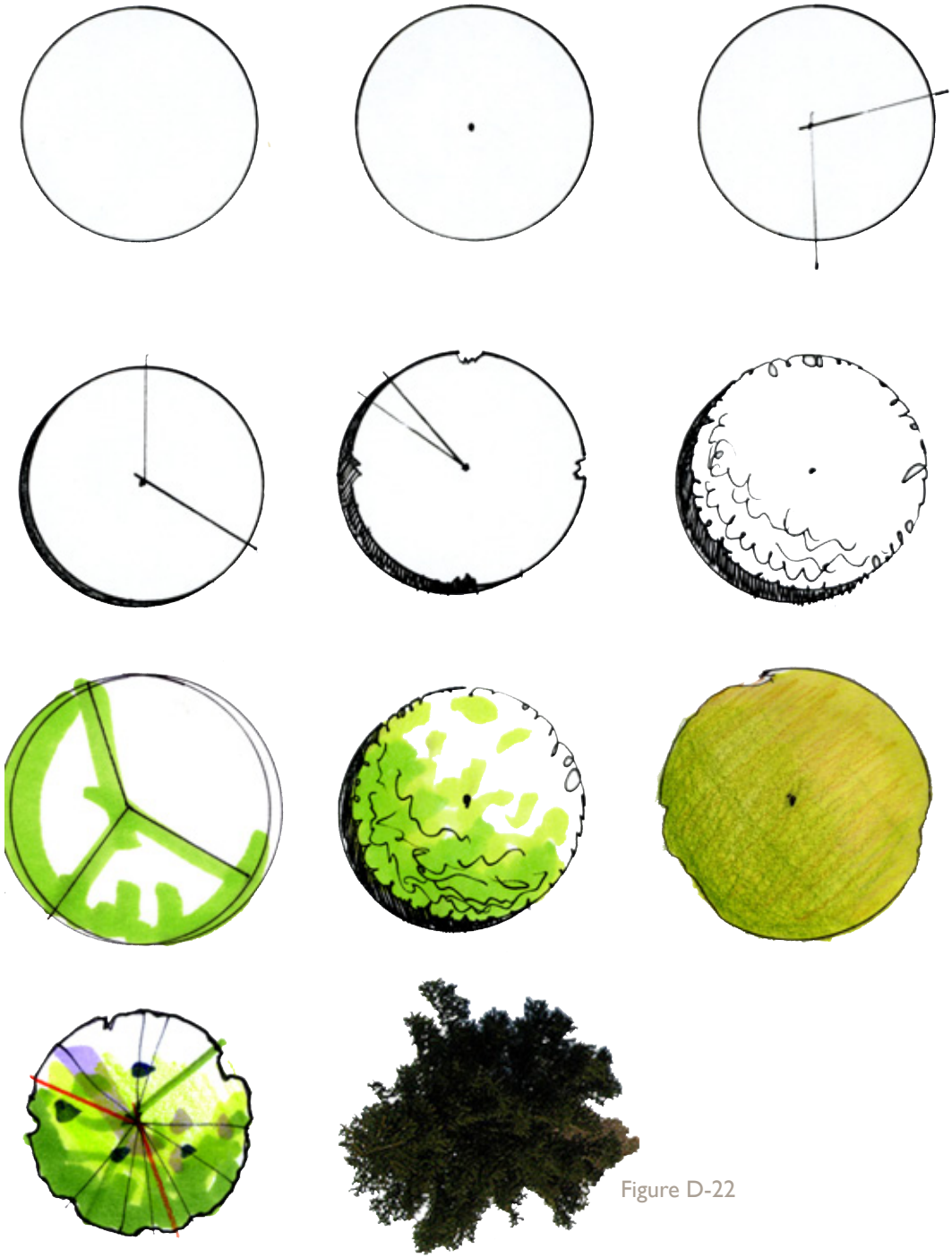


Figure D-22

CONCLUSION:

The digital rendering methods presented in the previous tutorials are meant to offer a quick, easily repeatable method of illustrative rendering. This is a method that produces images with the charm and character of those drawn by hand, while still offering the speed and revision capabilities of digital work. While a little bit of work is required early on, as pattern and entourage libraries grow the time saving quality of this method really becomes apparent. It is not however meant to be a permanent replacement for traditional hand rendering. In fact this method initially depends on hand rendered samples. Hand rendering is an extremely valuable skill that every student should practice until they master.

THE COMPLETED IMAGE

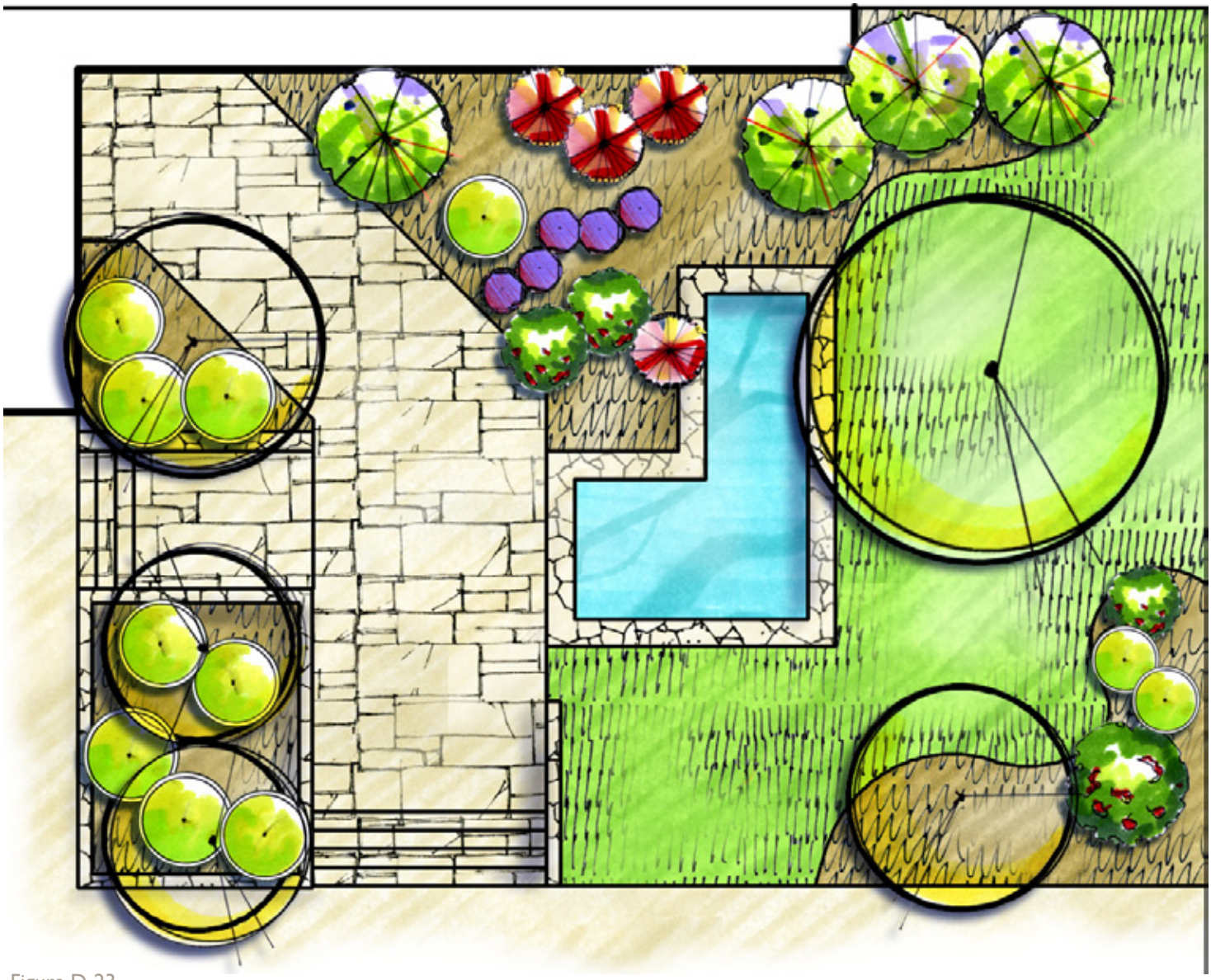


Figure D-23

Further exploration

While this guidebook has focused on using Photoshop to render 2D images, the method presented has even greater potential. The patterns created can be imported into a variety of other software programs such as Google Sketchup or Autocad. Applying the patterns in Sketchup and utilizing a "Sketchy Style" line type produces results pretty close to hand rendering. This effect can be seen in the simple image below. This a great area of further exploration. For information on how to do this see the help file of the particular program you are working with.

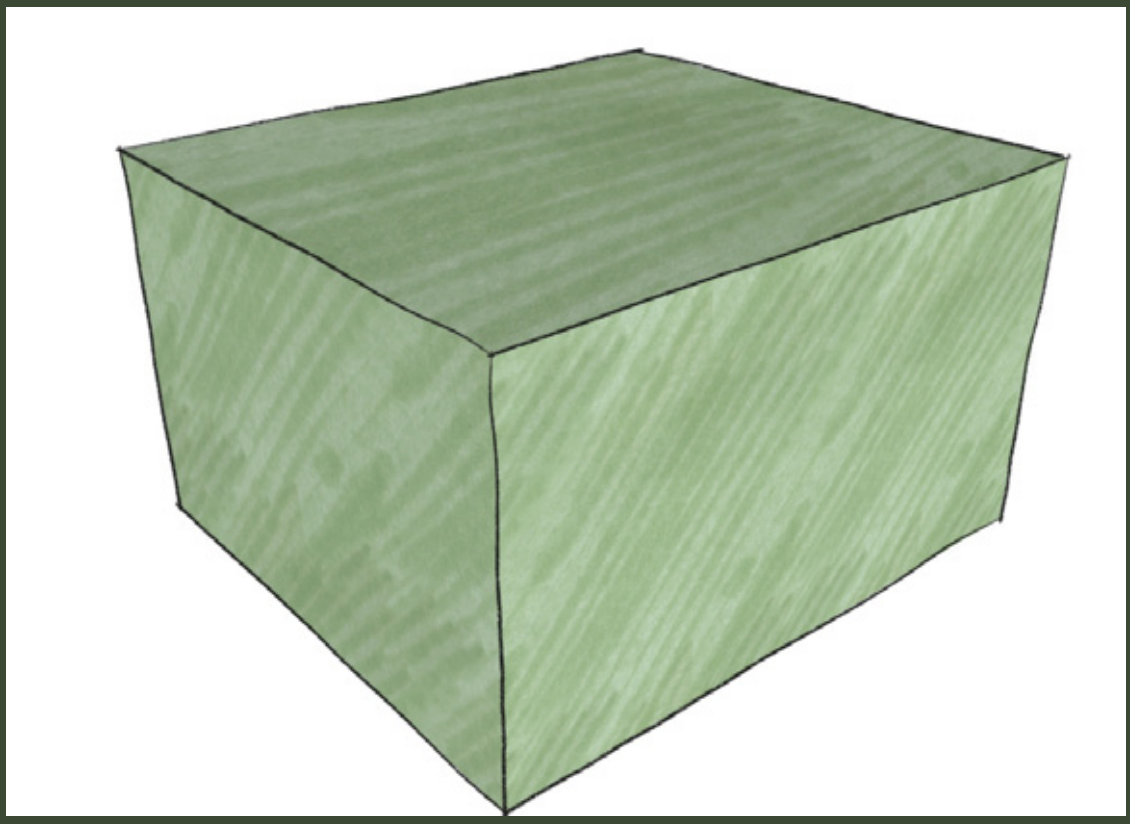


Figure D-24

GLOSSARY

Blend Mode- blend modes in digital image editing are used to determine how two Layers are blended into each other

Brushes Palette- contains numerous options for setting brush painting characteristics, such as color dynamics, brush shape dynamics, texture, and paint scattering. The Brushes palette also contains a panel from which the user can choose a brush tip preset.

Brush stroke- the mark left by a loaded (filled) brush on a surface. Brush strokes can be distinguished by their direction, thickness, TEXTURE, and quality. Some artists purposefully obscure individual brush strokes to achieve a smooth surface. Other artists make their brush strokes obvious to reveal the process of painting or to express movement or emotion.

DPI- Dots Per Inch. A measurement of output device resolution and quality. Measures the number of dots a printer can print per inch both horizontally and vertically.

Drop Shadow- in computer graphics, a drop shadow is a visual effect consisting of drawing that looks like the shadow of an object, giving the impression that the object is raised above the objects behind it.

Essential Techniques- a digital rendering technique applicable to landscape architecture that is time saving, easy to learn, easily repeatable and produces high quality results.

Export – To send data in digital format from one application to another.

Graphics- a pictorial device used for illustration.

Guidebook- something that offers basic information or instruction.

Illustrative- Serving to illustrate; explanatory.

Import – To receive data in digital format from one application to another.

Hand Drawn Images- Images that are drawn by hand without the aid of the computer. Those that are created using traditional media such as pencils, pens and markers.

Layers- allow the user to work on one element of an image without disturbing the others. Think of layers as sheets of acetate stacked one on top of the other. The user can see through transparent areas of a layer to the layers below.

Layer Styles- a variety of effects—such as shadows, glows, bevels, overlays, and strokes—that let the user quickly change the appearance of a layer's contents.

Levels- the ability to correct the tonal range and color balance of an image by adjusting intensity levels of image shadows, midtones, and highlights.

GLOSSARY

Merge Down- the act of merging a layer with the one directly beneath it in the layers dialogue window.

Multiply- is one of the most commonly used blending modes. In this mode, the value of the pixels in the foreground is multiplied by the value of the pixels in the background. It can be used for darkening images, creating shadows and fixing faded photographs. The white is ignored, the black remains unchanged and all the other colors become darker.

Pattern- a pattern is an image that is repeated, or tiled, when you use it to fill a layer or selection.

Photoshop- a graphics editing program developed and published by Adobe Systems.

Preset Manager- lets the user manage the libraries of preset brushes, swatches, gradients, styles, patterns, contours, custom shapes, and preset tools that come with Photoshop.

Rendering- the process of producing color illustrative architectural graphics: plans, elevations and perspectives.

Technique- ability to apply procedures or methods so as to affect a desired result.

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