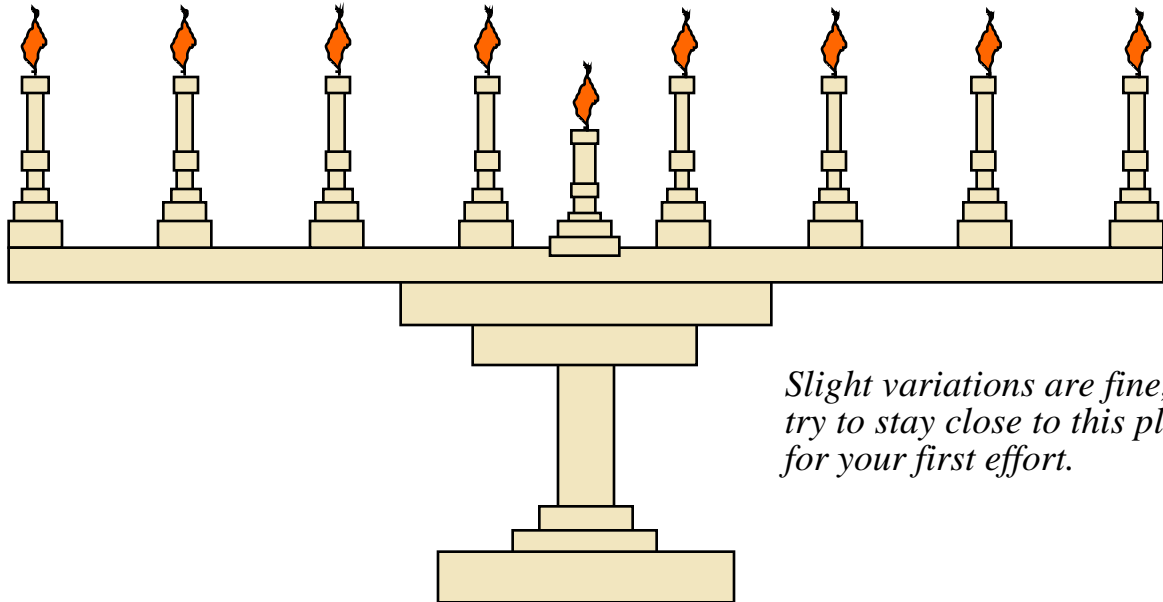


Drawings with Repetitive Figures



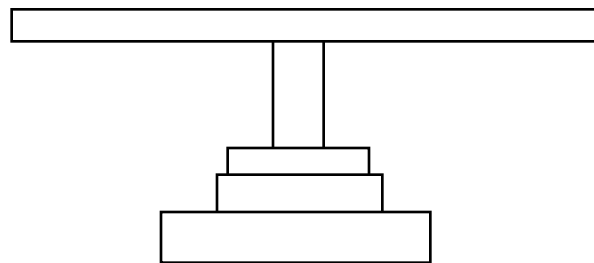
Slight variations are fine, but try to stay close to this plan for your first effort.

*Note: It's a good idea to read over the whole lesson before working at the computer.

Here is a model of the final product you'll be creating:

This drawing is fairly simple to make if you understand how the candles in their holders are assembled and distributed evenly upon the horizontal bar. Let the power of the computer and Apple/ClarisWorks do it!

1. Open a ClarisWorks Drawing document
 - Build the base
 - keep it simple, build with basic B/W rectangles to begin with.

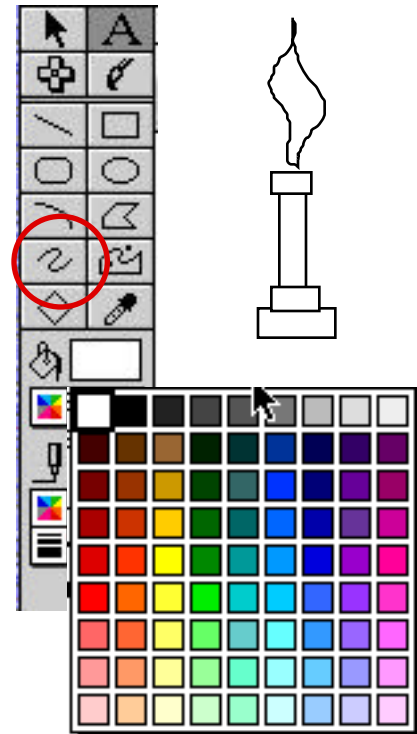
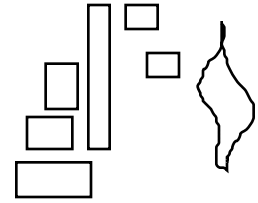


The base should spread across the width of the page.

2. If you found that it was somewhat difficult to position the rectangles exactly as you intended, it's because Apple/ClarisWorks aligns objects to its grid. But you can fix that.
 - Pull down the **Options** menu to **Turn Autogrid Off**.
 - Once you have done that, adjust the position of the rectangles more to your liking.

Drawings with Repetitive Figures

3. Assemble the candle parts
 - You can make the candle anywhere (away from the base parts, and move it to its position later).
 - Draw a simple vertical rectangle
 - Draw a rectangle at the candle's base, overlapping the bottom slightly.
 - If you don't like the position or shape, use the arrow tool and adjust the position of the rectangles by clicking on their handles (to resize them), or near their center to move the whole shape.
 - Draw the flame with the freehand line tool (it looks like a backwards "S"). This may be the toughest part to draw. "Do overs" are fine. Just click on the *outline* of the flame and press the **delete** key to remove it and try again.



4. Color in each part of the candle using the bucket fill tool (this is the color wheel that is directly below the bucket fill. The rectangle to its right shows you the color you've selected). You will see the pallet of colors pop up when you hold the button down over the color wheel. Release on the color you want.
 - The reason for doing this now, is that you're about to duplicate the candle 8 more times, and by filling the candle parts beforehand, you won't have to apply the fills to each candle individually later.
5. Group the rectangles, candle and flame
 - With the arrow tool, drag a selection rectangle around the parts that make up the candle. You should see several sets of handles (many black squares) when you release the mouse button.
 - Pull down the **Arrange** menu to **Group**. You should then see only one set of handles (4 total black squarish dots)
6. Make nine candles total
 - Make sure the candle is selected. Pull down the **Edit** menu to **Duplicate** (or press command-**D**) eight times to make 9 candles.

Drawings with Repetitive Figures

- Drag* (press the mouse button over an object and move) one candle to the left end of the support bar and another to the right end. Spread the remaining candles between the end ones. Spread them out with irregular spacing, some higher and others lower. Do this *purposefully*, so that you can see Apple/ClarisWorks perfectly align them!

- Surround all the candles with a selection rectangle (or hold down the shift key down and click on each candle until all are selected)

- Pull down the **Arrange** menu to **Align Objects**. In the dialog box that appears, you will see two sets of alignment options and a sample window with three example rectangles that will move to show you the effect of your choices.

- Among the “**Top to Bottom**” options, choose “**Align Bottom Edges.**” You will see the boxes all drop to the bottom of the sample area.

- Among the “**Left to Right**” options, choose “**Distribute Space.**” You will see the space between the three boxes even out.

- Click **OK**. You should now see the nine candles aligned at their bases and spread out evenly.

7. All of the candles will move together if you click on one and drag them to their position on top of the supporting bar.
 •click on the center candle and resize it taller or shorter, as you wish

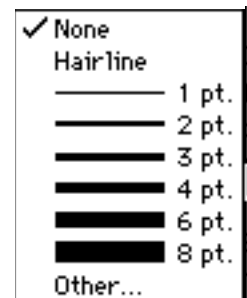


8. You could fill in each part of the base rectangles individually, or you can change their appearance together. To do that, do the following:

- using the arrow tool, drag a selection rectangle around all the base parts
- with all the base parts selected, go to the **Arrange** menu and pull down to **Group**.



9. Under the bucket fill, choose a color from the color wheel (and a pattern from its pop up pallet, if you wish), or you can choose a gradient fill. The B/W gradient fills give the appearance of finished silver.

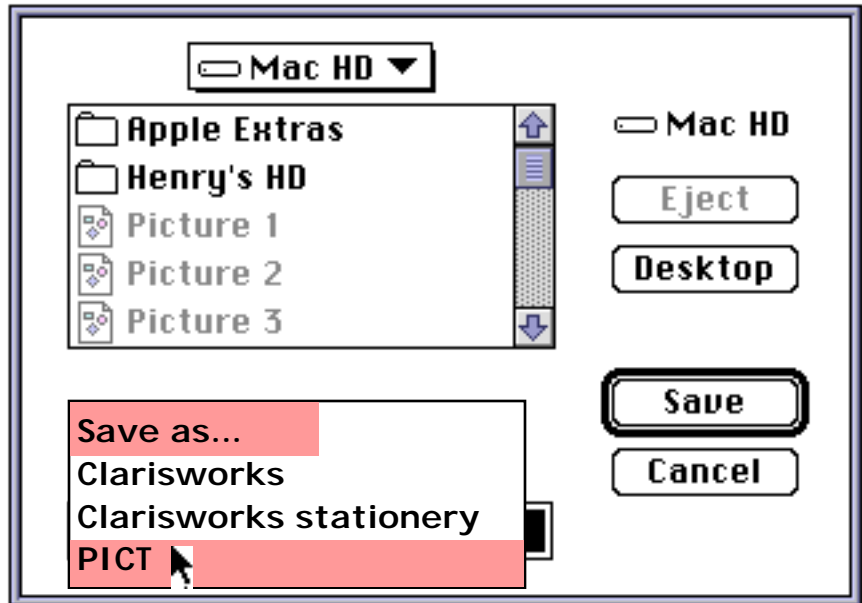


10. Under the pen tool, you can change the thickness of

Drawings with Repetitive Figures

the lines that form the edges of the rectangles, or eliminate them with "none", if you wish.

11. Group entire illustration
 - pull down the **Edit** menu to **Select All**. Every object (or group of objects) will be selected
 - pull down the **Arrange** menu and pull down to **Group**.



12. Save illustration as a **PICT** file (you can also save as a JPEG file in AppleWorks using the same procedure)
 - pull down the **File** menu to **Save** or **Save as...**
 - name the file "Menorah" or some other name you'd like
 - click and hold down the mouse button on the "**Save as... Claris/AppleWorks**" pop up menu and pull down to **PICT**
 - choose the location where you'd like to save the file (your disk, the Desktop, a folder on the computer, etc...)
13. Now you can Insert your Menorah PICT into any Claris/AppleWorks document, or almost any other writing, drawing or painting program.