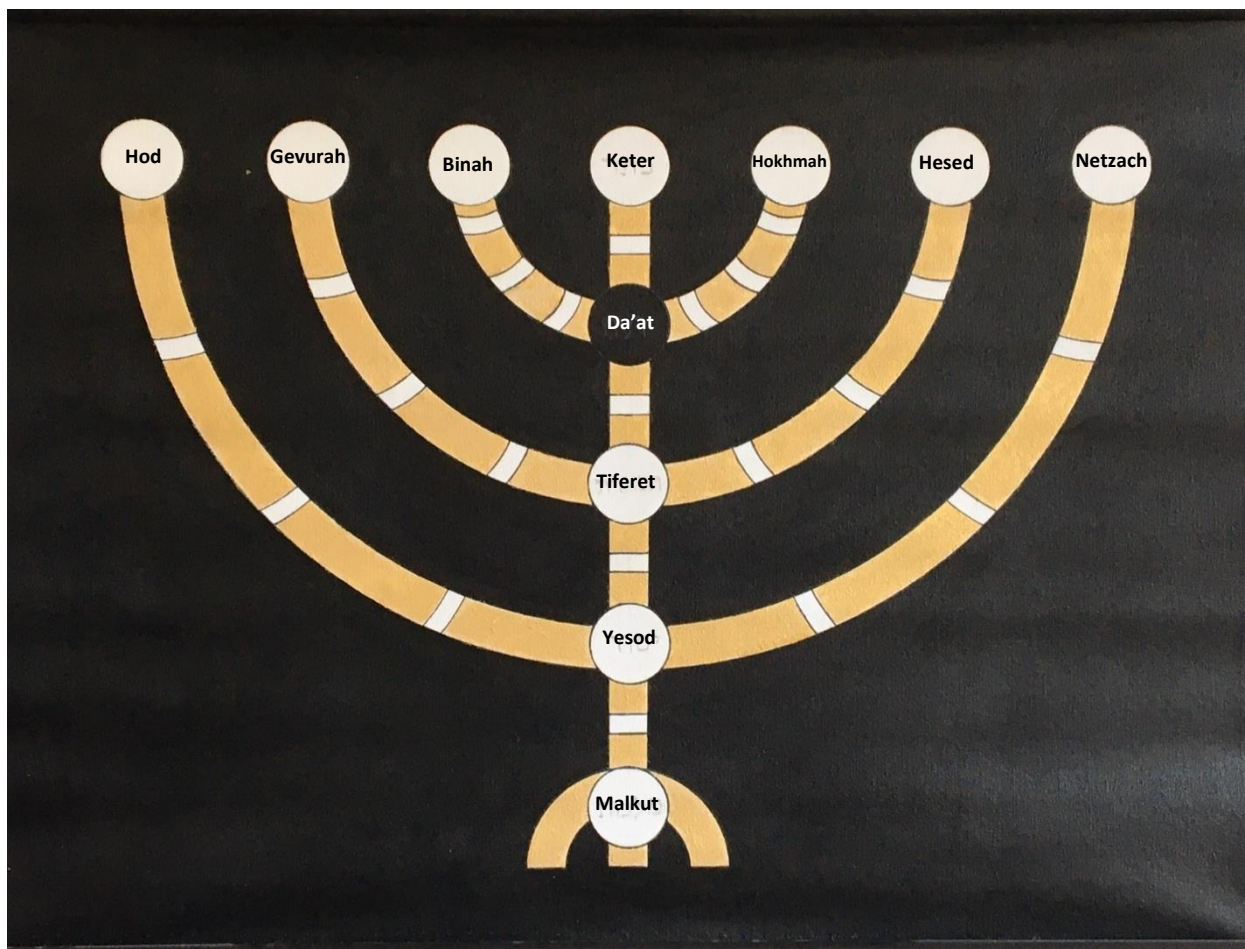


How To Draw a Diagram of The Menorah



A completed Menorah with labels added on computer (Mahtab Clark, 2017)

The diagram of the Tree of Life probably evolved around 700 years ago while the present form of the Jacob's Ladder only came into the public domain in the 1970's even though its origins can be traced back a thousand years to Oman.

The Menorah (candlestick) is much older than either of these diagrams and yet provides the prototype for them both with directions for its construction being found in verses 31-37 of the 25th chapter of the book of Exodus.

This was the teaching tool which was carried around by the Children of Israel in the desert and which was used to instruct them in the laws of life.

31. And you shall make a candlestick of pure gold; of beaten work shall the candlestick be made, even its base and its shaft; its cups, its knops and its flowers, shall be of one piece with it.

32. And there shall be six branches going out of the sides thereof: three branches of the candlestick out of the one side thereof, and three branches of the candlestick out of the other side thereof;

33. three cups made like almond-blossoms in one branch; and three cups made like almond-blossoms in the other branch, a knop and a flower; so for the six branches going out of the candlestick,

34. And in the candlestick four cups made like almond blossoms, the knops thereof and the flowers thereof.

35. And a knop under two branches of one piece with it, and a knop under two branches of one piece with it, and a knop under two branches of one piece with it, for the six branches going out of the candlestick.

36. Their knops and their branches shall be of one piece with it.; the whole of it one beaten work of pure gold.

37. And you shall make the lamps thereof, seven; and they shall light the lamps thereof, to give light over against it.

The features of the design show its Kabbalistic significance and correspondences with the later diagrams.

The Menorah was to be made from one piece of gold which symbolises the unity of God. The central column of the Menorah is echoed by the central column of the Tree of Life diagram while the cups on the six branches form the three pairs of Sefirot found on the side pillars of the Tree.

The number of decorations total 22 – the same as the number of paths on the Tree of Life and the same number of letters as are contained in the Hebrew alphabet.

The picture on the first page shows what you are going to create.

The names of the Sefirot have been included on the picture at the beginning of these instructions as reference will be made to them through the following text.

A list of the equipment and materials you will need is at the end of these instructions.

Ensure the canvas is cut with four straight edges and secure it to the smooth side of a sheet of hardboard. Pins can be used as an alternative form of fastening which makes life a little easier in the final stages of the construction but can sometimes make the canvas feel a less secure surface on which to work.

These instructions are for a diagram using a canvas size 64 cm x 48 cm.

Make a point at 32 cm – halfway - across the top and bottom edges (you are working in “landscape” rather than “portrait” format for this diagram) and draw a straight line between them. Keep this and the succeeding lines faint as they will be erased subsequently and the fainter the lines the less likely that they will show through white paint.

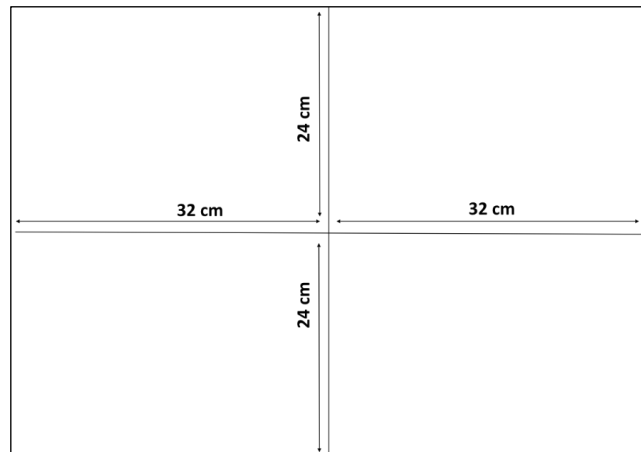


Figure 1. The first step is to locate the centre point of the canvas

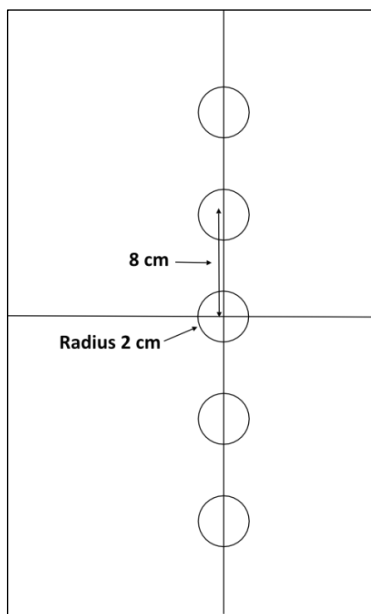


Figure 2. The central column is formed by drawing five 2 cm radius circles with their centre points 8 cm apart.

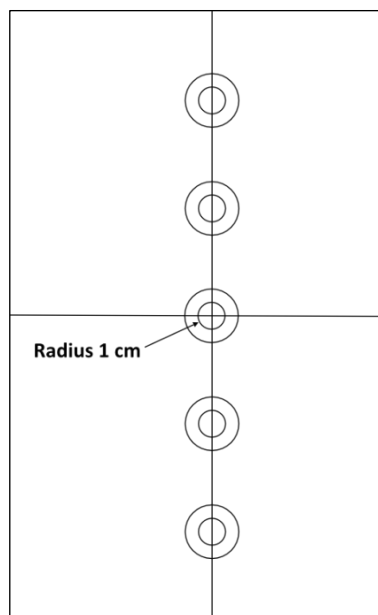


Figure 3. The inner circles of 1 cm radius

Now do the same for the shorter edges at 24 cm and draw a line between them so that you have located the centre of the canvas where the two line intersect (Figure 1).

At the centre point of the canvas draw a circle of 2 cm radius.

Open compasses to 8cm and mark the next two intersections above this circle.

Draw 2 cm radius circles on each of these four

points (Figure 2). Note that Figures 2 and 3 have been cropped and only show the central part of the canvas.

Now draw 1 cm radius circles from the centre points of each of the 2 cm circles you have already drawn (Figure 3).

Place a ruler along the edges of the five inner circles and draw two lines to form the shaft of the Menorah (Figure 4).

To draw the base firstly open the compasses to 5 cm and place the point where the top of the lowest circle (Malkut) crosses the central vertical line.

Mark the intersection with the vertical line 1 cm below the circle with the compasses and then draw a semicircle from that point passing across the top of Malkut.

Close the compasses to 3 cm and draw another semicircle from the same point.

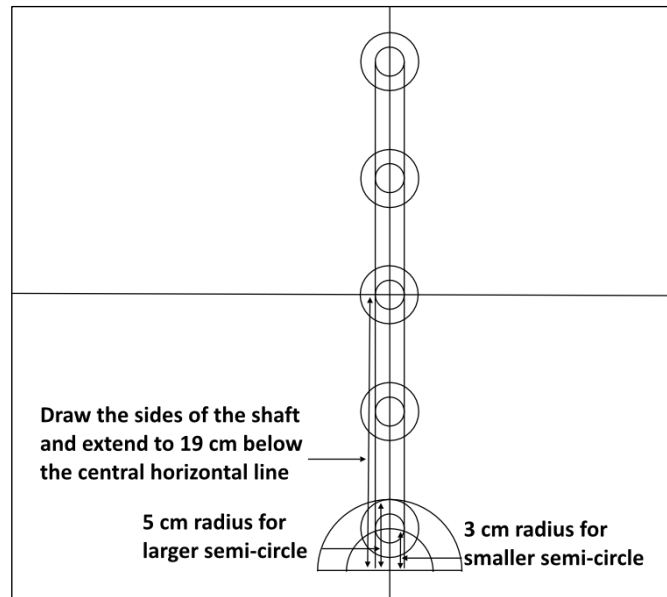


Figure 4. Constructing the shaft and base

Extend the two vertical lines which form the shaft of the Menorah to points which are 19 cm below the central horizontal line. Join these two points and take the line across each side to close the arch between the two semicircles which you have drawn.

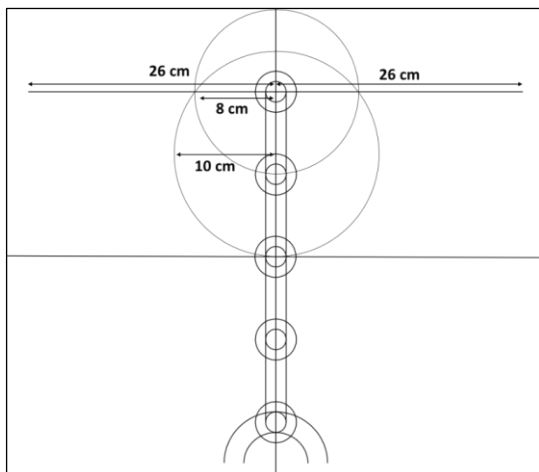


Figure 5. Preparation for drawing the branches

From the centre of Keter lightly draw an 8 cm radius circle. (Figure 5).

Open compasses to 10 cm and, centred on the top of Da'at, mark the intersections with the 8 cm circle drawn from the centre of Keter.

Draw a straight line through the centre of Keter and the two intersections of the circles shown in Figure 5. The line should be extended so that it is 52 cm in length with the centre of Keter as the midpoint.

Open compasses to 8 cm and mark the next two intersections on each side of the horizontal line beyond those you have just marked. Draw two circles on each of these six points of 2 cm and 1 cm radius (Figure 6).

Erase the 10 cm radius circle centred on the top of Da'at and the top half of the 8 cm radius circle centre on Keter.

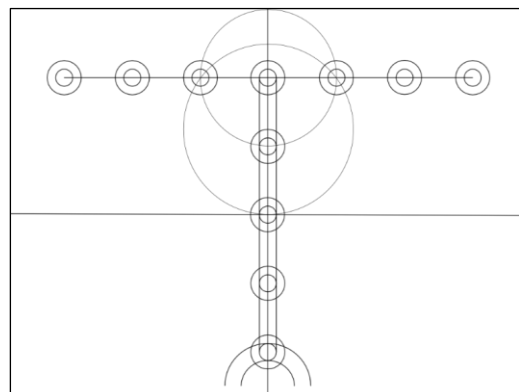


Figure 6. The bowls which hold the candles are now in place

Join the edges of Hokhmah, Binah and Da'at with arcs of 7cm and 9 cm radius from the centre of Keter.

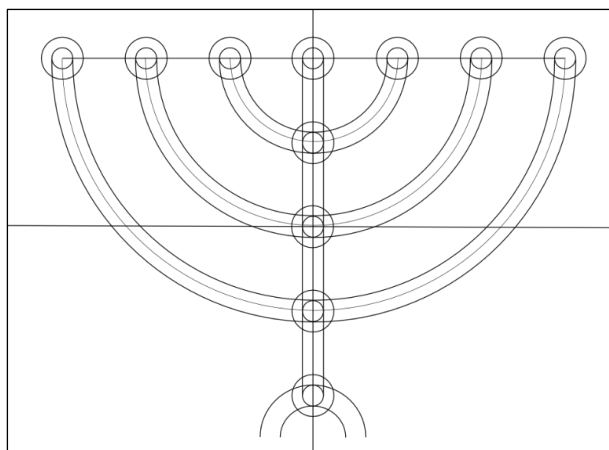


Figure 7. The Menorah is now completely drawn except for the decorations.

In order to draw the outer two branches of the Menorah you will need to fit the extension arm to the compasses.

Join the edge of Hesed, Tiferet and Gevurah with arcs of 15 cm and 17 cm radius from the centre of Keter. Draw a light line with a radius of 16 cm from the centre of Hesed to the centre of Gevurah through the centre of Tiferet.

Join the edge of Netzach, Hod and Yesod with arcs of 23 cm and 25 cm from the centre of Keter. Draw a light

line with radius 24 cm from the centre of Netzach to the centre of Hod through the centre of Yesod. You should now have a diagram as shown in Figure 7.

When drawing the decorations the easiest way is to complete the first decoration on each of the outer branches, then the second on each of the outer branches and so on rather than drawing all of each branch in succession. This will minimise the number of times you need to open and close the compasses.

Drawing the decorations requires considerable concentration to ensure the correct measurements are used as well as a steady hand when drawing large circles using the extension arm on the compasses.

From centre of Hod draw arcs across the path at a radius of 8.9 cm and 9.9 cm. (See Table below). Find the intersection on the mid line of the path at a radius of 9.4 cm from Hod (Figure 8).

Now draw the next decoration with paths at a radius of 8.9 cm and 9.9 cm from the central point on the first decoration.

Repeat this process from the second decoration so that there are three decorations in total between Hod and Yesod.

Using the same measurements insert the same decorations on the outside right branch – the path from Netzach to Yesod.

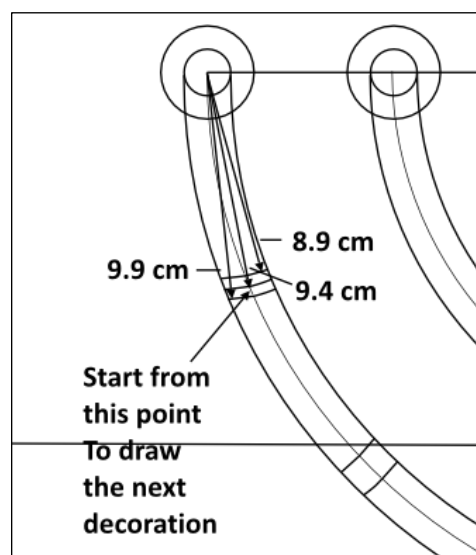


Figure 8. The distance from the middle of one decoration to the next is shown in the second row of the table below.

Add decorations to the other four branches in the same way using the measurements from the table below.

Branches	Hokhmah – Binah	Hesed - Gevurah	Netzach - Hod
Radius of Decoration from centre of Sefirah			
Inner edge	2.6 cm	5.8 cm	8.9 cm
Middle of decoration	3.1 cm	6.3 cm	9.4 cm
Outer edge	3.6 cm	6.8 cm	9.9 cm

To draw the horizontal decorations on the shaft measure 3.5 cm along the line which forms the left side of the shaft from the point where it meets the horizontal line running through the centre of the Sefirot. (Figure 9).

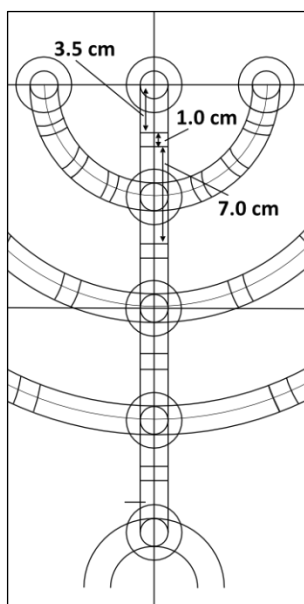


Figure 9. Inserting the decorations on the shaft.

Do the same on the right hand side of the shaft and draw a line across the shaft to form the edge of the path.

Measure a further 1 cm on each side of the shaft and draw another line across to complete the path.

The top edge of the next horizontal decoration will be a further 7 cm down the shaft. Continue in this fashion until you have completed all four horizontal decorations.

You should now have a completed Menorah (Figure 10). Use a black pen to ink over all the pencil lines. This is quite a lengthy process which will require to use the compasses with an extension arm again. Ensure you find the arcs for each of the decorations by placing the point of the compasses in the centre of one of the decorations on either side of it. Once you have finished inking you can erase all the pencil markings inside the Sefirot as well the long horizontal and vertical construction lines.

It's time to paint your Menorah - I suggest a simple design. The Menorah itself should be gold; I think the circles are best kept white and I have always painted the decorations white as well. You could perhaps experiment with a different shade of gold from the candlestick for the decorations.

As with the Tree and Ladder, some people may prefer to leave the Sefirot and decorations unpainted but my personal preference is to make them white. The brightness of the white paint will give meaning to the Sefirot at the top of diagram which would represent fire when candles are placed in the Menorah and lit.

Although *Menorah* is a generic Hebrew word for candlestick (it derives from the word Ne'ir meaning light) it is sometimes mistakenly used to refer to the Chanukiah which is used to celebrate the festival of Chanukah. The Chanukiah has nine branches rather than seven and its use is confined to this festival.

It doesn't really matter in which order you paint the various components of the diagram. The majority of your time will be spent on the black background as there is so much edging to do. Make sure you work outwards from the centre so that you minimise the risk of dragging your hand over wet black paint on to an area which is going to be white or gold.

Repaint any areas which you feel need to be repainted and then re-ink the borders of the Sefirot, paths and decorations if you wish – the Menorah will probably benefit greatly from re-inking.

Measure the two pieces of wood against the top and bottom of the canvas and cut to size with a hacksaw. Sandpaper the rollers all over then paint black and allow to dry – this takes about twenty minutes. Glue the rollers to the canvas and then fix the cord through the canvas to the top piece of wood with a drawing pin on either side.

I developed this design in 1999-2000 having already made diagrams of the Tree of Life and Jacob's Ladder and wanted to work on something else in the same way. The Menorah was an obvious candidate once its scheme was explained to me and especially as the portions from the Torah and Prophets which I had read at my Barmitzvah at the age of thirteen both concerned the Menorah.

This design has remained unchanged since then except for the base. The current base – a great improvement on the original - was designed by Mahtab Clark in 2017.

Supervising the construction of Kabbalistic diagrams in small groups of people has been a most fulfilling part of Kabbalah for me for more than twenty years. I am particularly grateful to those who took part in the workshops between 2012 and 2017 at Hawkwood College during the annual Summer Schools of the Toledano School of Kabbalah whose dedication, expertise and willingness to learn created many moments of joy.

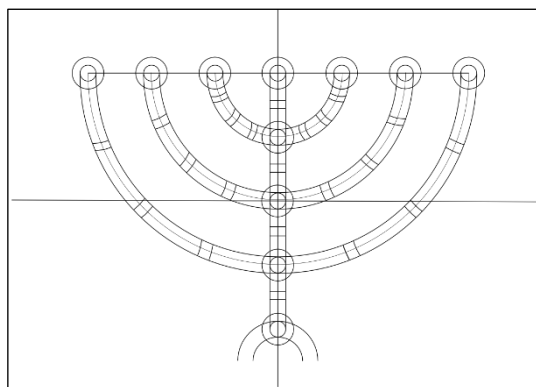


Figure 10. All the drawing has now been completed.

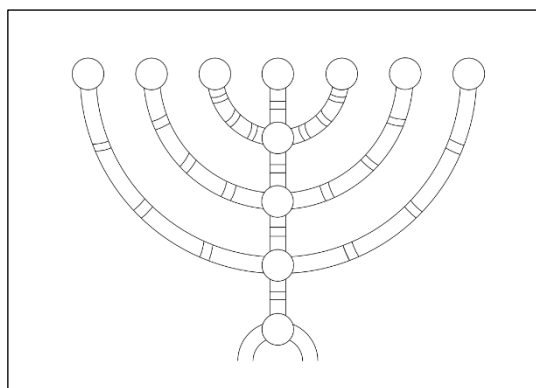
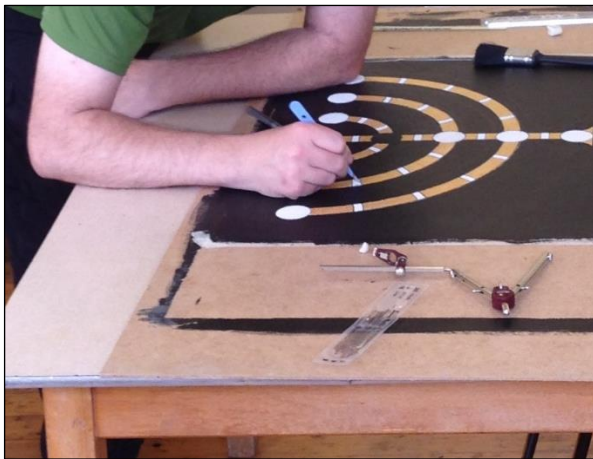


Figure 11. The finished product with all construction lines removed – ready for painting.



Removing paint which has strayed into the wrong area with a small blade. Note the compasses with an extension arm which will have been used to draw the two largest branches of the Menorah.



Tree Drawing Workshop 2014 – although this Menorah diagram was designed in 2000 this was the first time it was made in a Tree Drawing Workshop.



Painting the Menorah only requires three colours but painting round the edges of the branches needs endurance and concentration – they would measure nearly five metres in a straight line!



Constructing a "Tree/Menorah Combination." An example of the finished product is hanging on the right hand side of the wall in the photograph above.



A "real" three dimensional Menorah (left). For reasons of space this Menorah has two decorations on the inner branches and four on the outer branches rather than three on each branch as specified in Exodus 25:35.

It was purchased at an antiques shop in Wallingford, 50 miles west of London, in early 1994, near to Carmel College, a Jewish Boarding School although it had no obvious connection to the school.

It cost £40 - £1 for each Sefirah of each of the Four Worlds. I bought it without hesitation after searching for more than a year and have used it as a teaching aid ever since.

The Menorah had originally been presented to the Reading Lodge of B'nai B'rith, a Jewish Charitable organisation, in 1952

Materials and Equipment

1. One sheet of hardboard

The standard size is 122 cm x 61 cm x 0.3 cm – it can be cut to a smaller size if more convenient providing the canvas will fit.

2. Masking Tape

3. One sheet of medium weight acrylic canvas – 64 cm x 48 cm.

4. HB pencil.

Some people also like a softer pencil – B or 2B.

5. Pencil sharpener.

6. 30 cm Perspex ruler with at least one bevelled edge

7. One metre ruler or a one metre continuous straight edge.

8. Eraser

On the soft side is better.

9. One good quality pair of compasses

I use eCobra or Rotoring. These should be capable of opening to 10 cm radius without an extension and an attachment which allows you to insert a pen.

10. A fine black pen.

I use a Staedtler 0.3 mm pigment liner but some people prefer a thicker line for this size of diagram so get a bigger pen – probably no more than 0.7 mm.

11. Paintbrushes

Which brushes you use is a matter of personal preference to some degree. Most people work with something like a Davinci size 10 (round). You may also like to use a smaller brush for getting in the corners of the paths between the decorations. You will also need a larger brush e.g. 38 mm for painting the large area surrounding the Menorah.

12. Paints

You will need the following colours:

- White
- Black
- Gold

I recommend spending a bit extra on good quality paints – I've found Winsor & Newton to be the best by some way but Liquitex also works well and is a less expensive option.

The gold benefits greatly from having a small amount of white mixed with it which makes it more opaque on the canvas although this will change the shade of gold in the

finished article. You may still need two coats but it will reduce the tendency for it to look streaky.

In recent years I've moved away from adding any water to make the paint easier to spread. Just a trickle, if you wish, will be enough.

Make sure the black paint is the blackest you can find – the blacker the surround the more it will point up the beauty of the Menorah which symbolises the Universe. Ivory Black or Lamp Black seem to be the darkest – I had trouble with Mars Black – but these names vary from brand to brand and it's worth checking with the staff in the art shop.

In theory, one coat of black paint should be sufficient but in practice it is very unusual not to put on a second coat.

By the same token, Titanium White is the whitest white which is what I always use.

Not everybody chooses to apply paint to the Sefirot and decorations of the Menorah. Some people prefer the natural look of the white canvas and it certainly saves time in construction if you take this approach. My preference is to use white paint and usually means two coats plus more for touching up any spots where it has been difficult to erase all the pencil markings.

15. 64 cm of 17 mm diameter wood dowling for the bottom of the Ladder

16. 64 cm of 21 mm x 3 mm wood beading for the top of the Ladder.

The size and shape of the wood has been tried and tested over the years but is in no sense obligatory. The dowling for the bottom does need to be heavy enough to keep the Menorah unfurled when it is hung.

17. Jam jar or similar

For black paint

18. Small trays or pallets

For other paints -you almost always need less paint than you think!

19. A small hacksaw

20. All purpose glue

21. Cotton buds and razor blade (or similar)

These are useful to have available for repair jobs such as removing any paint which gets into places it shouldn't! The first rule of Tree/Ladder Drawing is that there is almost no mistake which you make that cannot be repaired...

22. Scissors

23. Picture hanging cord

24. Drawing pins (thumb tacks)