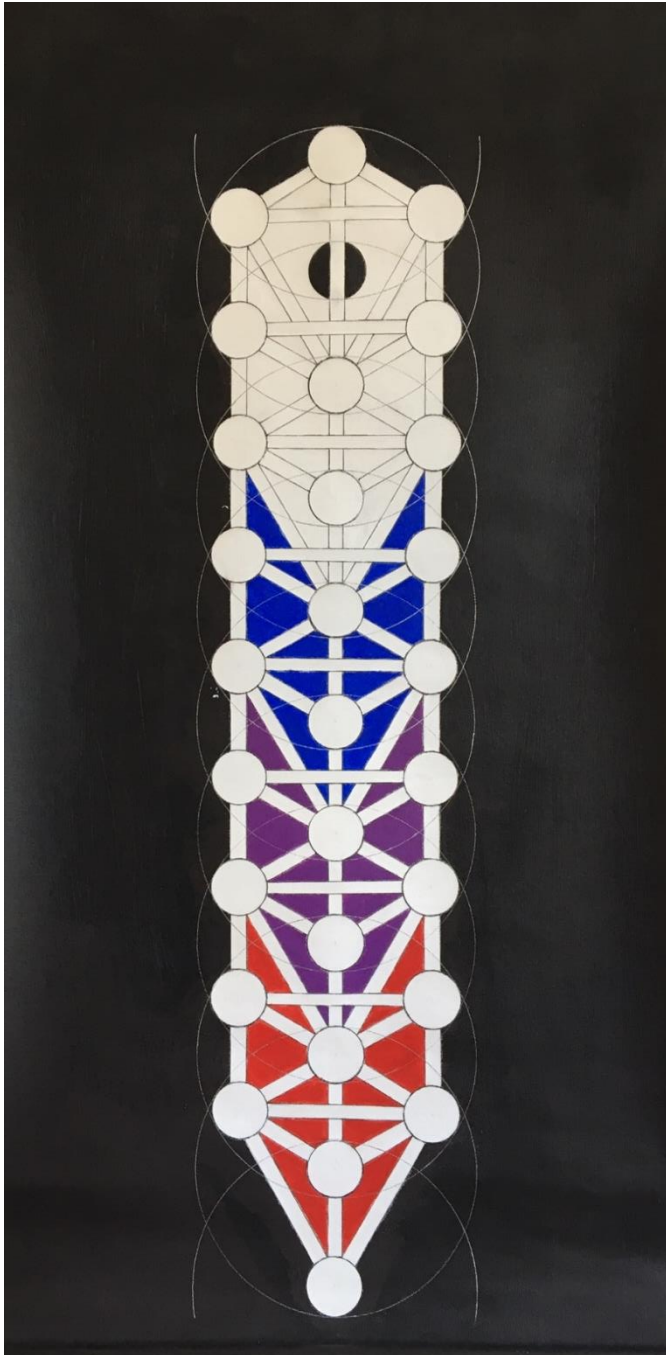


How To Draw a Diagram of Jacob's Ladder



A completed Jacob's Ladder ready to be labelled
(Mahtab Clark, 2009)

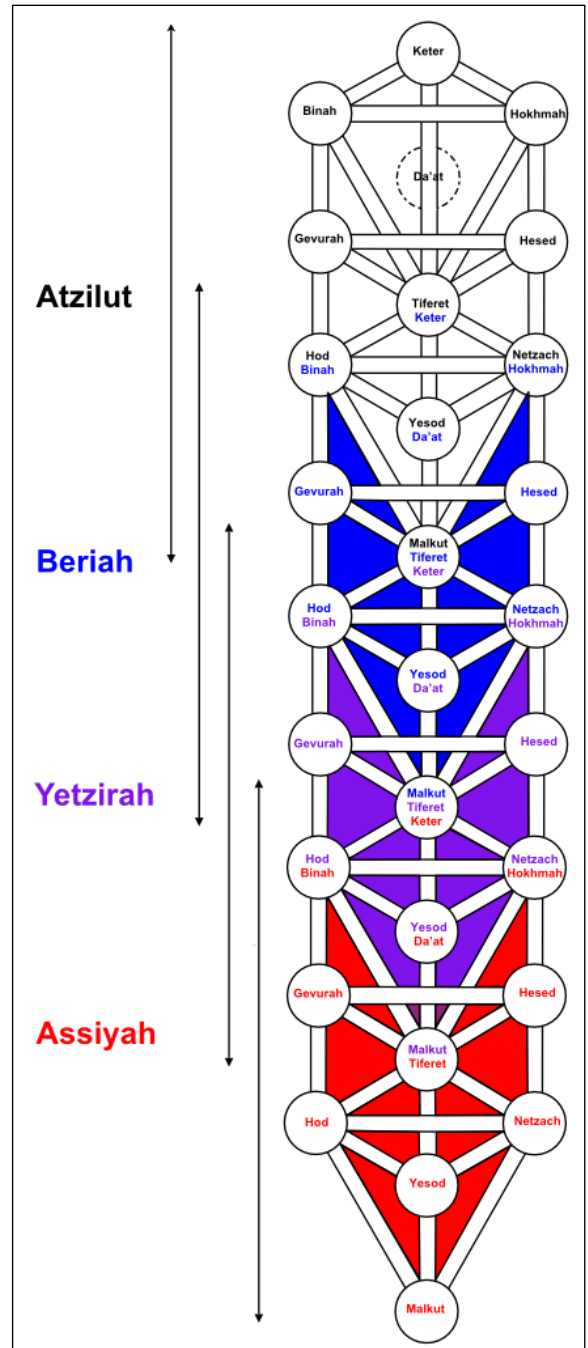


Diagram of Jacob's Ladder showing the Sefirot in each of the four worlds.

Have you already constructed the single Tree of Life diagram? If not, you may want to consider doing that first.

The Ladder is considerably more complex as it shows how all four worlds overlay each other. Most people – but not all – choose to draw the Tree first. If you are ready for the challenge of constructing a Jacob's Ladder then read on!

The picture on the left of the first page shows what you are going to create – you will then be able to add descriptions to each Sefirah.

The diagram on the right of the first page is to help you navigate through these instructions where reference will be made to the names of the Sefirot and the world in which they are placed.

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

Ensure that the canvas is cut with four straight edges – the canvas represents Eternity and the Jacob's Ladder is the Universe which is created within it.

Use masking tape to secure the canvas 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.

Make a point halfway across the top and bottom edges 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.

At a point 14 cm from the top of the canvas on the centre line draw a circle of 2 cm radius. (Figure 1).

Draw a further ten 2 cm radius circles on the centre lines at intervals of 8 cm. The second circle from the top should have a broken line rather than a solid line if you wish to leave this white in the final product.

This circle will become the Da'at of Atzilut and there are many discussions about whether this should be coloured black or white.

If it is black then it is consistent with the usual colouring of Da'at which is an access point to the next world above.

However, since Atzilut is the highest world and passing through the Da'at of that world (eventually) is where we become unified with God it is maintained that white is a more appropriate colour. If you check through the books of Ze'ev ben Shimon Halevi you will find he uses diagrams with both options.

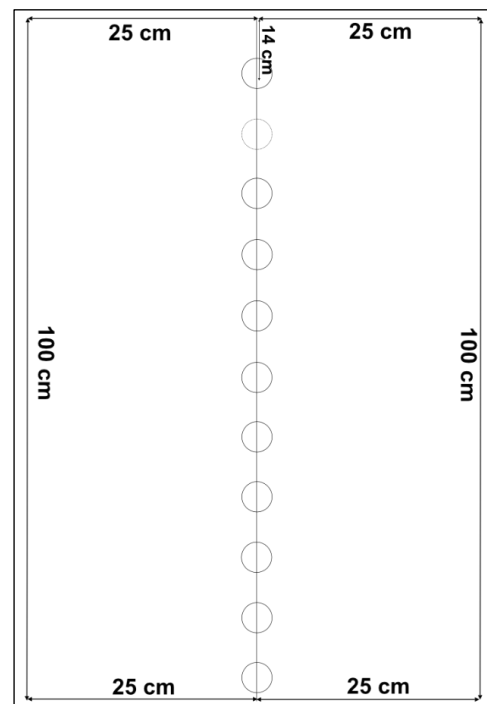


Figure 1

Open the compasses to a radius of 8 cm and draw circles from the centre of each of the middle nine circles on the central column and a half circle from the centre of the top circle on the central column. (Figure 2).

The large circles intersect with each other at nine points either side of the central column. Draw 2 cm radius circles on these eighteen points to create the remaining Sefirot. (Figure 3).

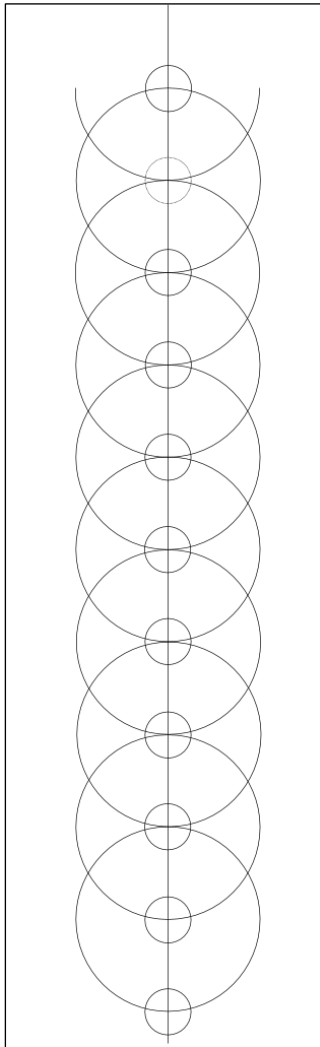


Figure 2

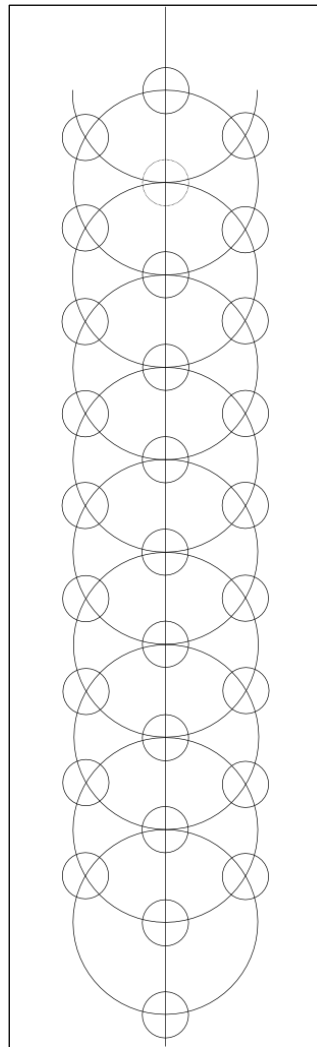


Figure 3

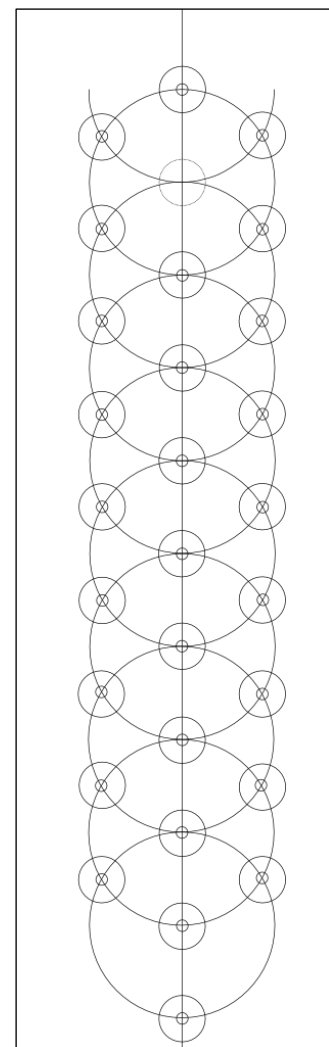


Figure 4

Close the compasses to 0.5 cm and draw 0.5 cm radius circles from the centre of each Sefirah - keep the pencil faint (Figure 4).

The next step is to draw the paths.

This is a more intricate operation than drawing the paths in a diagram of the single Tree. Jacob's Ladder has 70 paths and 60 triads compared with 22 paths and 18 triads on a single Tree.

The diagram on the right of the first page shows how some of the Sefirot overlay each other - eleven Sefirot have an equivalent in one of the other worlds while two Sefirot have equivalents in two other worlds. Only fifteen Sefirot on the Ladder exist in a single world.

The first paths to draw are the horizontal paths. Begin by joining the Hokhmah and Binah of Atzilut. Place the ruler across the top of the small circle in Hokhmah and the corresponding point in Binah.

Figure 5 shows the line drawn in full to identify the start and finish points but, when making the Ladder in practice, it is better to draw only the portion between the edges of the two Sefirot.

This reduces the amount of pencil marks which need to be erased and gives you a cleaner finish if you leave the paths and Sefirot unpainted or reduces the chance that these marks will show through if you decide to apply white paint

Repeat this procedure at the bottom of the inner circles in Hokhmah and Binah then join the eight corresponding pairs of Sefirot as you work your way down the Ladder (Figure 5).

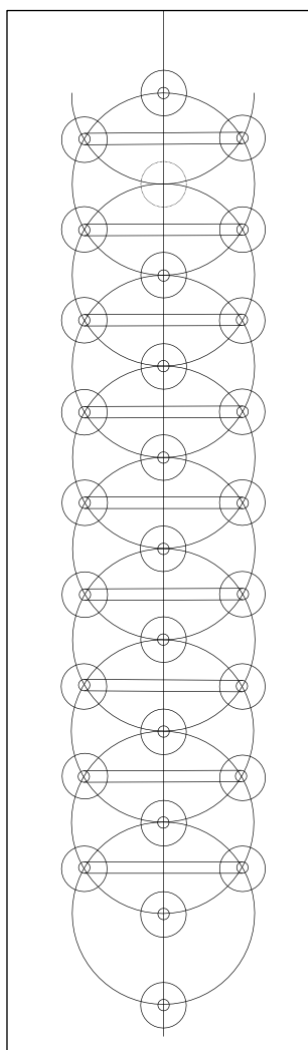


Figure 5

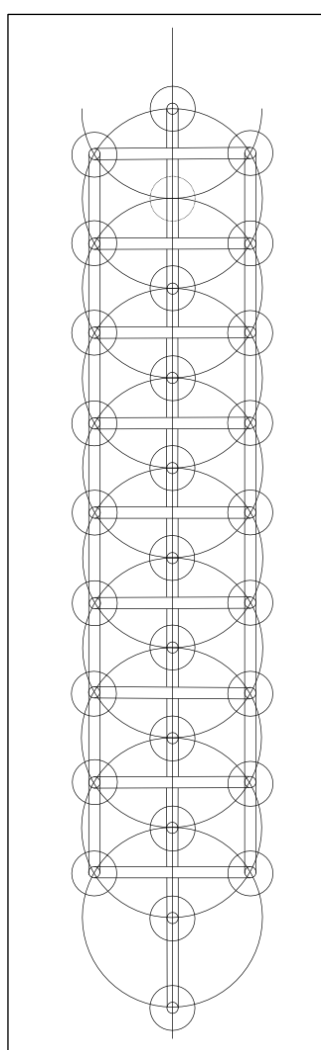


Figure 6

Start the process of drawing the vertical lines by placing the ruler along the outer edge of the small circles in the left pillar Sefirot. If you have drawn these accurately then the ruler should just pass along the edge of all of them. If one of the circles looks out of alignment then you can consider redrawing it which will give you better accuracy when you come to complete the diagonal paths.

Draw along the edge of the ruler to create the outer edge of the paths on the left column avoiding continuance of the line through the Sefirot if possible.

Repeat this process for the right side of the left hand pillar and the two vertical lines which form the paths on the right pillar.

The process for making the paths on the central pillar is the same with the additional requirement to break the vertical lines at each horizontal path which should all remain continuous.

You should now have a diagram which looks as Figure 6.

There is an important reason for the horizontal lines not to be interrupted. The 22 paths of the diagram for a single Tree symbolise the 22 letters of the Hebrew alphabet which are divided into three categories.

The sounds made by what are known as the three mother letters represent the extremes of activity (“sh”), passivity (“mm” with closed lips), and consciousness (the silent letter “aleph”). These three mother letters (which are the most important or fundamental) are symbolised by the three horizontal paths of a single Tree which should be continuous. The same principle applies to the overlapping Trees in the Jacob’s Ladder.

In each single Tree there are seven vertical paths representing the seven Hebrew letters known as Doubles which can make two sounds according to the way the text is punctuated.

The remaining twelve paths of a single Tree represent the twelve “Single” letters of the Hebrew alphabet.

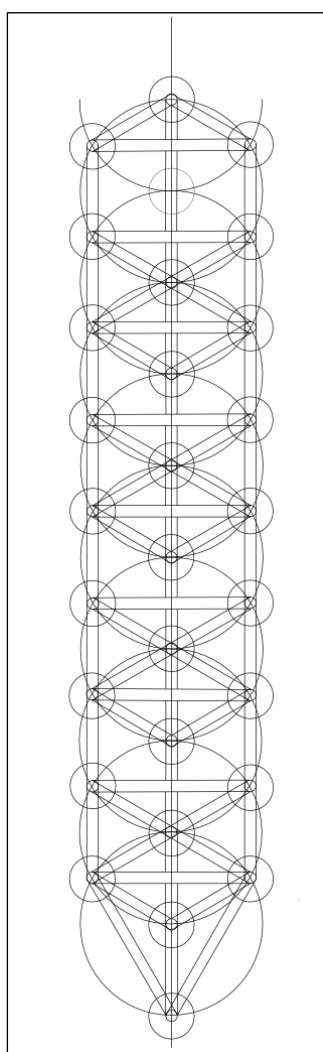


Figure 7

Now it is time to draw the diagonal paths which probably requires the highest level of concentration in the whole exercise.

Figure 7 shows the completion of the short diagonal paths. Using the same technique as you used for the vertical paths find the top edge of the small circle inside the Gevurah of Atzilut (refer to the diagram on the right of the front page if necessary).

Bring the ruler across the top of the small circles inside the Tiferet of Atzilut and the Netzach of Atzilut and create the paths between each pair of Sefirot. As with the vertical columns, I have left in the full line although it is better to not draw inside the Sefirot.

Repeat this diagonal on alternate Sefirot as you descend the Ladder and then complete the criss-cross pattern by drawing four diagonals from the other side. Starting at the top of the small circle inside the Hesed of Atzilut, join it to the small circles inside the Tiferet of Atzilut and Hod of Atzilut.

Draw another three diagonals start at alternate Sefirot on the right pillar as you descend the Ladder.

Create the top two paths of the Ladder by drawing from the top of the small circle inside the Keter of Atzilut to the top of the small circles inside the Hokhmah of Atzilut and Binah of Atzilut. Complete these paths by drawing lines between the bottoms of the same small circles.

Starting at the Hod of Atzilut, draw a path in the same way to the Yesod of Atzilut) – do *not* continue across to the right pillar. Draw from top to top and bottom to bottom of the small circles.

Repeat this on the remaining three other positions on the left hand side of the Ladder and complete the pairings by drawing paths in the corresponding positions on the right hand side.

The bottom two diagonals join different points so be careful here. Place the ruler from the *left* of the small circle in the Hod of Assiyah to the *left* of the small circle in the bottom circle on the middle column (Malkut of Assiyah).

Move the ruler to the *right* side of these small circles to form the other side of this path then draw the corresponding path from the Netzach of Assiyah to the Malkut of Assiyah – left to left and right to right. (Figure 7a).

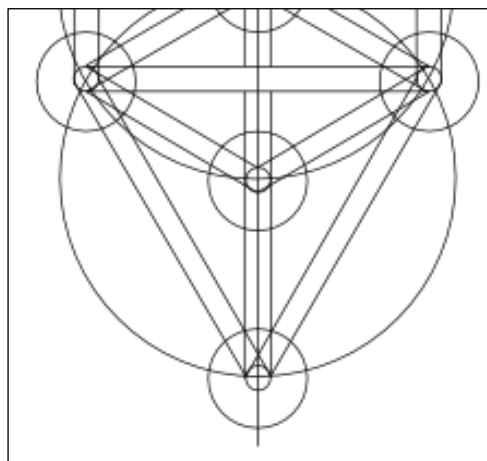


Figure 7a

The second set of diagonals are now inserted as shown in Figure 8. This calls for even greater care than the first set of diagonals as you need to break each diagonal line when you come to a horizontal line.

Begin by placing the ruler from the left of the small circle in the Binah of Atzilut to the left of the small circle in the Tiferet of Atzilut and draw the line between them remembering to stop for the horizontal line. Move the ruler to the right of these two small circles and complete the path in the same way.

Draw the corresponding paths starting at alternate circles on the left side of the Ladder remembering to stop for the horizontal lines and then complete the right hand paths in the same way.

You should now have a completed Ladder as shown in Figure 8.

Erase the large construction circles and the central line on the middle column – Figure 9.

Finally, erase any pencil marks which have been left inside the Sefirot so that you are left with a clean Ladder (Figure 10).

The pencilled circles and paths can now be inked in.

If you ink at this stage it makes it easier to apply the first coat of paint as you have will have a clearer line to guide your brush although you will probably need to re-ink after you have painted the triads. If you prefer to save some time at this stage then you can just ink the lines once when the painting is completed.

Personally, I have found it more helpful to ink now and then re-ink after all the Sefirot, paths and triads have been painted. The extra time involved is rewarded with a better finish.

Take care with the Da'at of Azilut – if you are painting it black then there is no line at the top or bottom of Da'at across the central column. If you are leaving it white then there is a dotted line across the top and bottom.

Building a Kabbalistic diagram is an active meditation. The diagram you create will show your psychological and spiritual state at that time. It also becomes a tool for contemplation once you have hung it on a wall.

The greater your awareness while working, the more you will get out of the exercise. Pay special attention to areas which work well or which you find particularly difficult.

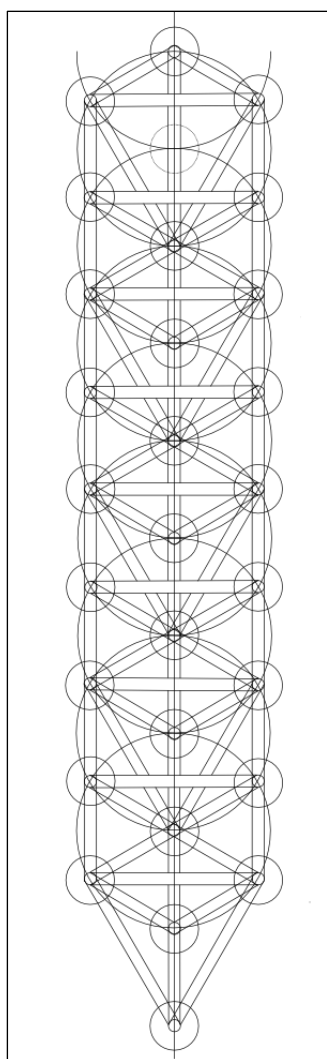


Figure 8

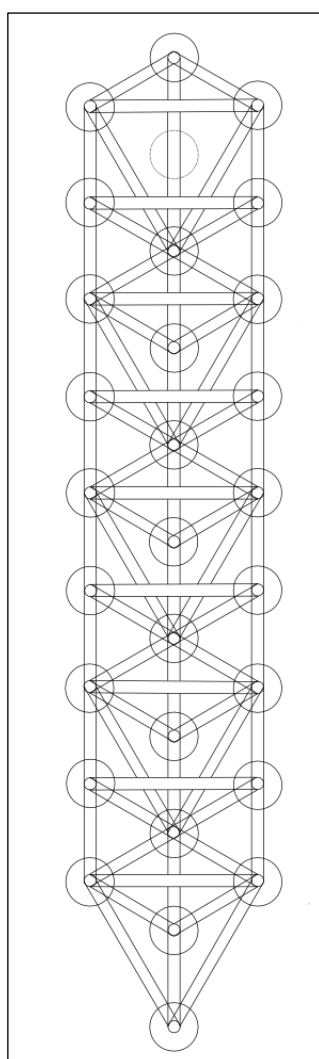


Figure 9

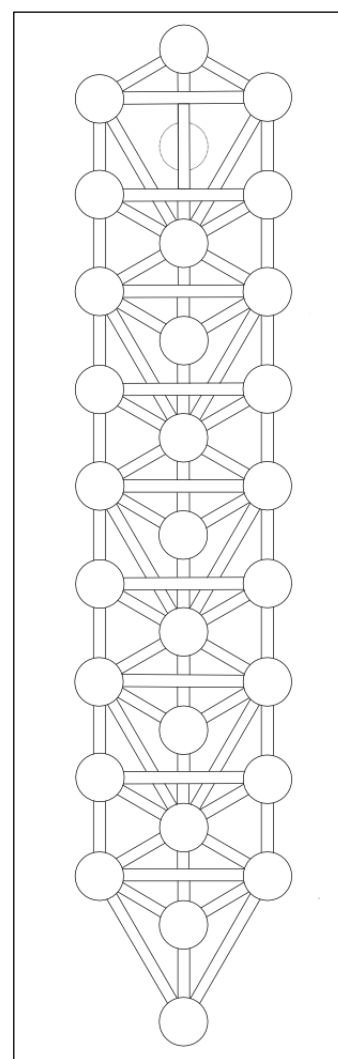


Figure 10

This diagram is of the four worlds which comprise the universe. Atzilut (potential), Beriah (ideas, creation, spirit), Yetzirah (forms) and Assiyah (physical, action).

Consider which world you find easiest to construct – if you are happiest drawing the lower part of the Ladder then you may be an “earth type” more at home with the physical world. If you have difficulty with the watery world of Yetzirah then it could indicate that expressing your feelings is more of a challenge.

Think, too, about any particular Sefirah or path you find difficult to construct or which requires redrawing because there was an error at the first attempt. The issues that arise during the course of physically constructing a Kabbalistic diagram can provide rich insights into areas which need attention in our psychological or spiritual growth.

Building a Jacob’s Ladder is probably best done over two days although some people may prefer to take a little longer. I’d advise completing it in less than the five years which it took me to finish on one occasion - some of the focus was lost, to put it mildly...

Although you can construct a Kabbalistic Diagram in your own home, much is gained if the opportunity arises to do the work as part of a group. Such groups are usually quite small – a

ratio of one tutor to six students works well – and the various members of the group may well be engaged on different designs which adds to the richness of the experience.

These workshops often allow time for students to discuss their progress in constructing the diagrams and seeing a collection of these newly completed pieces of sacred geometry hanging on a wall for temporary display at the end of the workshop is a special moment for tutor and students.

It is now time to colour the triads. Alternatively, you can firstly paint the paths and Sefirot white and then colour the triads. The black surround will also need to be painted.

It usually takes two coats of acrylic paint to get a good finish, perhaps three for some areas. As of July 2020 I only recall two or three Trees or Ladders out of more than one hundred whose construction I have supervised which have needed just one coat of paint.



Figure 11. Work in Progress. The triads and path have been completed and the black surround is now being added. Work outwards from the Ladder to avoid getting covered in paint. When the border is dry, a second coat of paint may be applied to the Sefirot, triads and paths.

Remember that if you paint the black surround before the Ladder you will need to let the paint dry before you can work inside the Ladder. A good place to stop at the end of day one is to finish the black surround and then paint the Ladder on day two.

Alternatively, if you are able, get the first coat of the colours on in the Sefirot, triads and paths by the end of the first day. Apply a second coat at the start of the second day and then paint the black border. You will need to let the border dry before applying the second coat but you can deal with the carpentry (see below) while this is happening.

If you are mixing colours it is better to be able to apply two coats on the same day so that the mixture doesn't dry overnight – you may not be able to recreate the same colour mix on a second day.

Refer to the diagrams at the beginning of the instructions and colour the triads as follows:

- Atzilut - upper and lower faces both **white**.
- Beriah - lower face (same as upper face of Yetzirah) plus upper side triads (Tiferet-Binah-Gevurah and Tiferet-Hokhmah-Hesed) - **blue**.
- Lower face of Yetzirah (same as upper face of Assiyah) plus upper side triads - **purple**.
- Lower face of Assiyah plus upper side triads – **red** (scarlet).

It is quite easy to become confused about which colour needs to go in which triad. It's a good idea to put a small spot of the colour into the triad before you paint it completely in order to make sure you use the correct colour for the rest of the triad.

The colour scheme follows that which was laid out for the construction of the Tabernacle and the ephod, the robe of the High Priest:

*“And you shall make a screen for the door of the Tent, of **blue**, and **purple**, and **scarlet**, and **fine twined linen**, the work of the weaver in colours.” (Exodus 26:36)*

*“And for the gate of the court shall be a screen of twenty cubits of **blue**, and **purple**, and **scarlet**, and **fine twined linen**, the work of the weaver in colours.” (Exodus 27:16).*

*“And he made the veil of **blue**, and **purple**, and **scarlet**, and **fine twined linen**.....” (Exodus 36:35).*

*“And he made the ephod of veil of gold, **blue**, and **purple**, and **scarlet**, and **fine twined linen**.....” (Exodus 39:2).*

The gold mentioned in the construction of the ephod is customarily represented in the diagram of Jacob’s Ladder by the lettering which is applied in gold above it (see below).

Once the triads, paths and Sefirot have been painted use a black marker pen to redraw the edges of the paths and the Sefirot to give a clearer definition.

Be particularly careful when re-working the paths and Sefirot with a black pen that you don’t drag the ruler (which may well have taken some of the ink) over the clean paintwork. Similarly, label the Sefirot from top to bottom to avoid smudging what has been written with an unwary nudge of the hand.

Paint the surround of the diagram in black which represents the infinity in which the universe is created. Apply a second coat if necessary.

Draw two semi-circles of 10 cm. radius centred on the top and bottom Sefirot of the central column halting the semi-circle when you reach a point level to the top or bottom of the Ladder. Use a silver marker pen for this and the succeeding circles which will fit into the extended compass arm. You will need to make sure you have an attachment which allows you to insert a pen into the compasses rather than the carbon lead.

Draw nine 10 cm radius circles centred on the remaining nine Sefirot of the central column.

Do not despair if your Jacob’s Ladder doesn’t look perfect. You have been working on the canvas at very close range and, when it is hung on a wall, these apparent blemishes will be hardly noticeable.

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 no more than 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.

The following can be written in Hebrew above the Ladder on the black border.

At the top – אֵין - Ain - nothing

Below that – אֵין סוֹף - Ain Soph - without end

Below that - **אור אין סוף** - Aur Ain Soph - the endless light.

Label the Sefirot and other parts of the diagram with appropriate names and qualities.

The scheme in the following table works well but you can adapt to suit your own preferences or particular aspects of the various Sefirot on which you want to focus.

When labelling the Sefirot remember that many of them overlap between two or three worlds and you will need to leave enough space to cater for this. Using different colour ink, equivalent to the colours in which the worlds have been painted is also a good idea to make things clearer.



Figure 12. Computer generated gold lettering at the top of a Jacob's Ladder – this can be fixed to the canvas using ordinary glue.

<u>Sefirah</u>	<u>Translation</u>	<u>Atzilut</u> <u>(Names of God)</u>	<u>Beriah</u> <u>(Archangels)</u>	<u>Yetzirah</u> <u>(Planets)</u>	<u>Assiyah</u> <u>(Body)</u>
כתר Keter	Crown	אהיה Ehyeh	Metatron	Neptune ¹	Nature
חכמה Hokhmah	Wisdom	יהוה Yahveh	Raziel	Uranus ²	Life
בינה Binah	Understanding	אלהים Elohim	Zaphkiel	Saturn	Organic Organisation
(דעת) (Da'at)	Knowledge	-	-	Pluto	-
חסד Hesed	Lovingkindness ³	אל El	Zadkiel	Jupiter	Katabolic Processes
גבורה Gevurah	Strength ⁴	יה Yah	Samael	Mars	Anabolic Processes
תפארת Tiferet	Beauty	יהוה אלהים Yahveh Elohim	Michael	Sun	Central Nervous System
נצח Netzach	Eternity	יהוה צבאות Yahveh Ts'va'ot	Hanael/Uriel	Venus	Motility
הוד Hod	Reverberation	אלהים צבאות Elohim Ts'va'ot	Raphael	Mercury	Communication Systems
יסוד Yesod	Foundation	אל חי שדי El Hai Shaddai	Gabriel	Moon	Autonomic Nervous Systems
מלכות Malkut	Kingdom	אדני Adonai	Sandalphon	Ascendant	Special Sense Organs & Skin

¹ Known as the "First Swirlings" (Reshit Halgalgalim - ראשית הגלגלים) before the discovery of Neptune.

² The whole zodiac was placed at Hokhmah before the discovery of Uranus.

Materials and Equipment

1. One sheet of hardboard

The standard size is 1220 mm x 607 mm x 3mm.

2. Masking Tape

3. One sheet of medium weight acrylic canvas – 100 cm x 50 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 various triads. Some people also prefer a flat brush for painting up against the lines on the diagram. You will also need a larger brush e.g. 38mm for painting the large area surrounding the Ladder.

12. Paints

You will need the following colours:

- Red
- Blue
- Purple
- White
- Black

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.

Exactly what shade you use or what you mix is up to you but the four worlds should be recognisable as red, purple, blue and white.

The red almost always only needs one coat. The blue and purple benefit greatly from having a small amount of white mixed with them which makes them more opaque on the canvas. You may still need two coats for these but it will reduce the tendency for them 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 Ladder which symbolises the Universe itself. 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 paths and Sefirot of the Ladder. 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.

If you are just planning to build one Ladder (or Tree) then a 35 ml or 50 ml tube of each of the colours will be more than sufficient.

You will need a bigger pot of white paint – 250 ml is more than enough.

A 500 ml pot of black is plenty for one Ladder or Tree – 250 ml is probably sufficient.

13. Silver pen

You will need this for drawing the final nine circles and two semi-circles. This stage is the final test of how accurate your work has been. Each circle should just brush the edge of every Sefirah it passes. No Tree is perfect just as no human is perfect or we wouldn’t still be here. There is no end to the making of Kabbalistic diagrams.

14. A Gold Pen (optional)

This is for writing the lettering above the Ladder. If you are not confident with your Hebrew calligraphy then you may prefer to produce the Hebrew by computer.

15. 50 cm of 17 mm diameter wood dowling for the bottom of the Ladder

16. 50 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 Ladder 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)