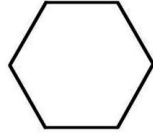


THE SIGIL HIERARCHY (Part 1)

Cherry Gilchrist 1982
Saros Publications

The sigils can be viewed as a sequence, unfolding from the simplest structure to the most complex. The sequence has four levels, as follows.

1. The simplest sigil is



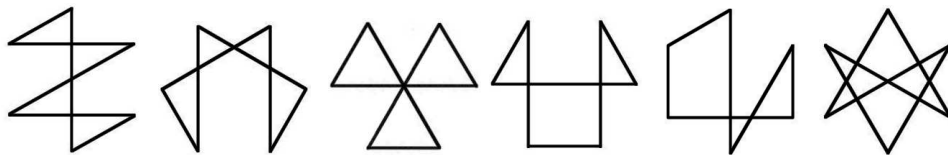
It has no lines crossed over; it defines only one space and therefore may be termed the fundamental, or basic sigil.

2. If a pair of points is swapped on this basic sigil, three sigils may arise, depending upon which pairs are exchanged. They are:

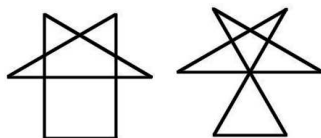



These form the second level of the hierarchy.

3. Following the same procedure, exchanging any pair of points on any of the three sigils shown above, another set of sigils arises. The sigils which may appear and are different to those of level 2 or 1 (and are therefore more complex) are:













4. The six sigils above can produce a final set of two sigils, which are:










Thus the sequence has moved from the simplest sigil:  to the most complex pair, achieved by swapping three sets of points in succession.

Affinities within the hierarchy




Although the sigil at level 1 can turn into any of the three sigils at level 2, it does not follow that all sigils at level 2 can change into all those at level 3, and nor can all sigils at level 3 turn into both those at level 4. Diagram 1 shows the internal relationships between the levels. It is worth noting that  in level 3 is only reached by , and that  can only be reached by . Additionally,  may change into  at level 4 but not ;  may change into  but not .

Pair Exchanges

One sigil can frequently turn into another by more than one different pair swap. Thus  can turn into  by any one of six exchanges, and  become  through four different ways. On Diagram Two the hierarchy is drawn out to show the numbers of different ways in which sigil transformations from level to level can be achieved. There is the possibility of sigil change within levels, too, such as in level 2 where, for instance,  can change into  in two ways, but cannot change at all into . However, that is outside the scope of the present analysis.

PATHWAYS











I have shown how the fundamental sigil changes into one of the two most complex through a series of transformations. I am going to call each one of these possible developments a *pathway*. To clarify the definition further, a pathway is a sequence of four sigils, one for each level. Each pathway represents a direct progression from level 1 to level 4.

The number of pathways is determined by the affinities within the hierarchy. There are 18 pathways in all, and these are shown on Diagram 3. Thus we may say that there are 18 possible ways in which  may transform to  or .




Pair exchanges on pathways

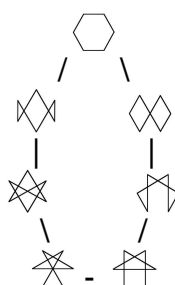
The number of ways in which a path may be completed depends upon the number of ways in which each sigil on the path may change into the next. For a sequence of sigils, there will be three transformations and each may be achieved through more than one pair exchange in many cases. The number of ways in which a pathway can be completed is therefore the result of multiplying these three numbers together.







'Outward' and 'Inward' Journeys







It must be realised that the ways in which sigil X changes into sigil Y may not be the same in number as the way in which sigil Y changes into sigil X. Thus, for example,  may change into  in 6 different ways, but  to  in only two ways. It follows from this that the number of ways in which a path can be completed will be different according to whether the journey is an 'outward' one, from  to  or , or whether it is an 'inward' one, from  or  to . On Diagram 3 the pathways are shown in both directions, and the different numbers of possible pair exchanges listed. It is most interesting to note that the 'outward' journeys each have six times more possible pair exchanges than their 'inward' counterparts.









CYCLES

If it is possible for the sigil sequence to move from the simplest sigil  to one of the most complex –  or  – then it is also possible for it to return to its starting point via another pathway and thus complete a cycle. For example:





It can be seen that a cycle such as this is composed of two pathways. A complete cycle needs to contain 7 sigils, including both  and  at level 4. The transformation which takes place between these is the climax of the cycle; without this, if only one of these two sigils were included then the sequence would merely fall back on itself, even if different sigils were shown at level 3 or 2. The change from  to  or from  to  initiates the second half of the cycle.

Additionally, with a seven-fold cycle it is possible to include any of the 12 sigils (allowing for internal consistency in sequence). With a six-fold cycle it is not. For instance, since  cannot transform to , then the latter sigil would always have to be omitted in cycles containing  as the most complex sigil. With a seven-fold sigil, the starting point is , the culminating stage is  /  and the permutations at level 2 and 3 will be determined simply by the legitimate changes from one level to the next.

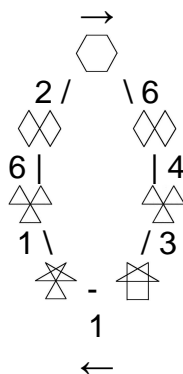
There are 81 basic sigil cycles. (9 x 9 pathways). These are shown on Diagram 4. As with the pathways, cycles can be abbreviated or extended by affecting additional changes within levels (eg.         etc.) but these are variations on the basic 81 themes.

Families in the Cycles

One way of classifying 'families' of sigils within the 81 cycles is to look for repeated sigils in each cycle. This is analysed on Diagram 4. To summarise:

- There are 48 cycles where each of the seven sigils is different.
- There are 23 cycles where sigils are repeated at level 2.
- There are 4 cycles where sigils are repeated at level 3.
- There are 6 cycles where each half 'mirrors' the other - (allowing for the fact that  and  will always differ.)

Another method of classification is to look at the numbers of pair changes possible within each cycle and to see which cycles show similar totals. It must be noted, as with the pathways, that the 'inward' half of the journey will refer to a different set of pair changes than the 'outward' half. In other words, it is necessary to decide which way the cycle is flowing, either clockwise or anti-clockwise and work out the numbers of changes accordingly. An example of a 'mirror image' cycle shows the differing numbers between similar sigils depending upon the direction of the flow.

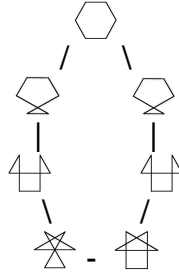


However, the total number of pair changes possible for each sigil remains the same, whichever direction the cycle operates in. This is due to the constant factor of the outward pathway containing 6 times as many pair change possibilities as the inward version.

The totals for each cycle are shown on the diagram. I advise anyone wishing to take this further to check my mathematics at this stage! According to my calculations, families of cycles by this method of classification arise as follows:

4 cycles with 864 possible pair changes
16 with 576
16 with 384
8 with 288
16 with 192
4 with 144
12 with 96
4 with 48
1 with 24

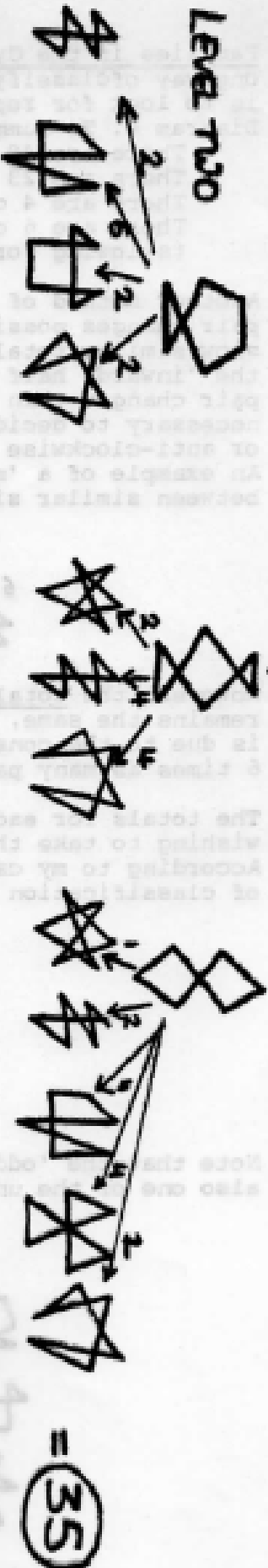
Note that the 'odd' cycle with only 24 possible pair changes is also one of the unusual 'mirror image' cycles.



LEVEL ONE



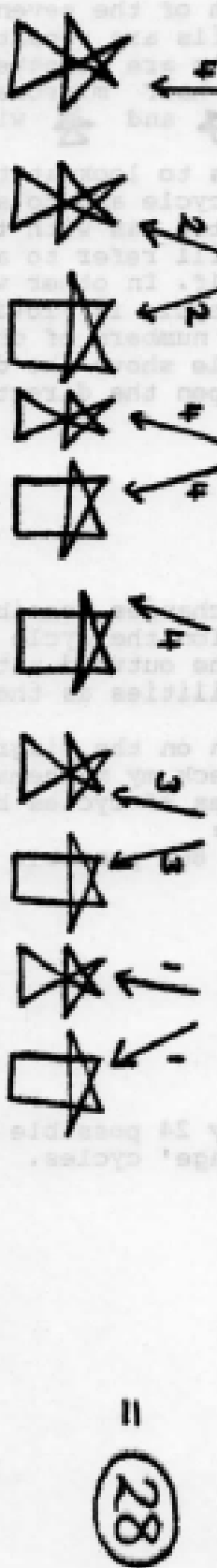
LEVEL TWO



LEVEL THREE



LEVEL FOUR

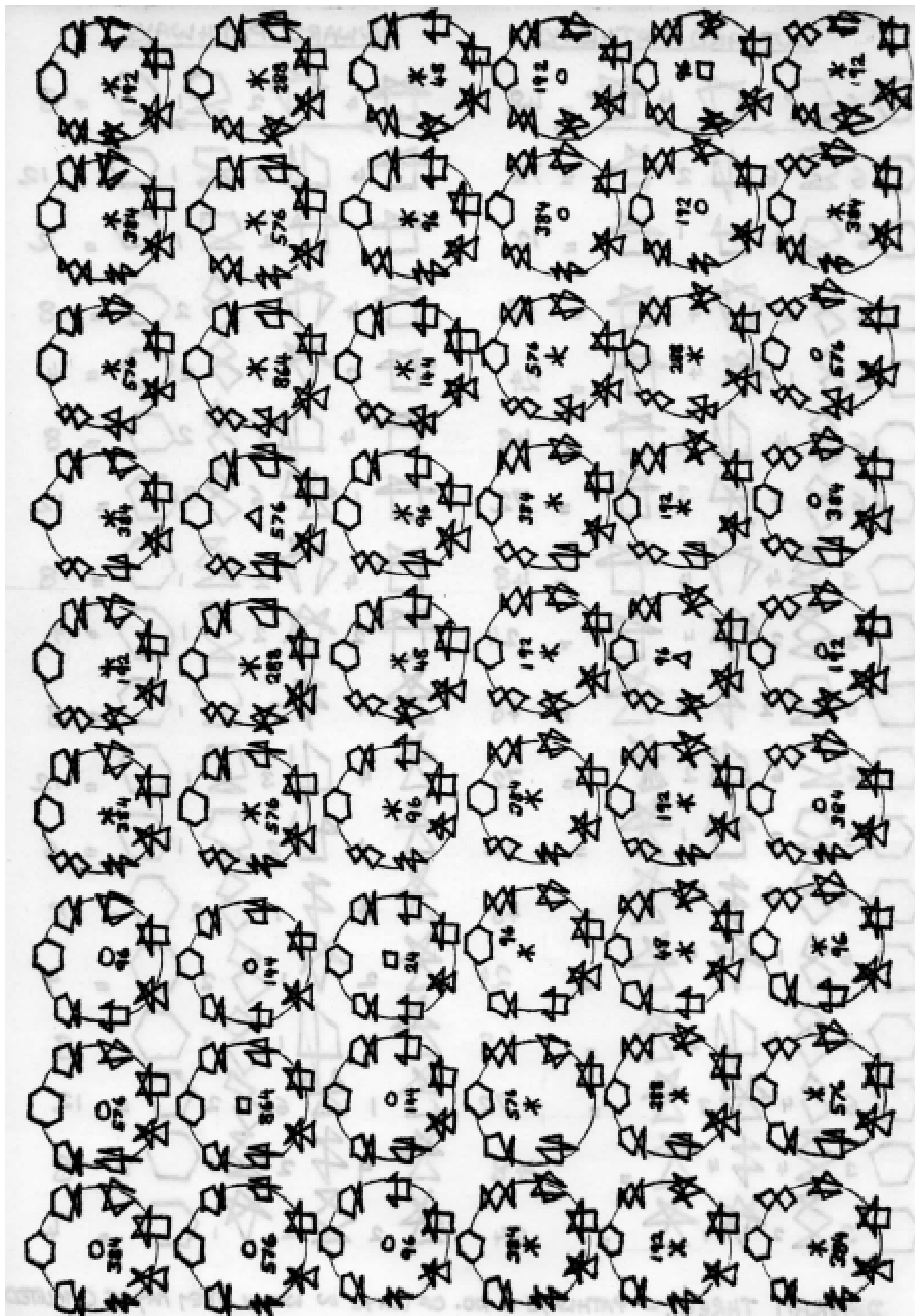


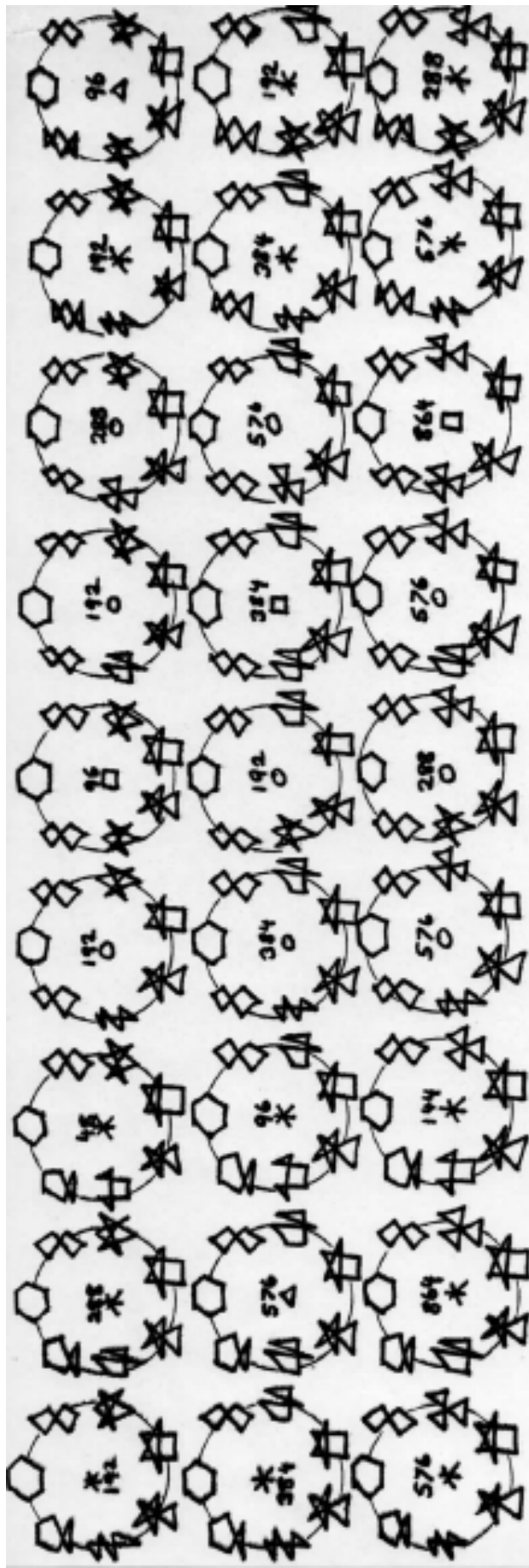
HIERARCHY SHOWING POSSIBLE TRANSFORMATIONS BETWEEN LEVELS

PLUS NUMBERS OF WAYS IN WHICH ONE SIGIL CAN CHANGE INTO ANOTHER

TOTAL = 78

DIAGRAM TWO





SIGIL CYCLES

- * = SIGIL CONSISTING OF SEVEN DIFFERENT SIGILS
CYCLE
- = CYCLE WHERE SIGILS ARE IDENTICAL AT LEVEL 2
- △ = CYCLE WHERE SIGILS ARE IDENTICAL AT LEVEL 3
- ◻ = 'MIRROR IMAGE' CYCLE WHERE SIGILS ARE IDENTICAL AT LEVELS 2 AND 3

THE NUMBER IN THE CENTRE OF EACH CYCLE = NUMBER OF DIFFERENT LAYS IN WHICH
THAT CYCLE MAY BE COMPLETED THROUGH
DIFFERENT SEQUENCES OF FIVE TRANSFORMATIONS

DIAGRAM FOUR