## Drawing Planetary Seals from the Kameas

Agrippa of Nettesheim describes in his Occult Philosophy seven different magical squares of numbers or kameas associated with the seven planets. Together with these are given characters of spirits and intelligences, as well as seals of the planets ${ }^{1}$. How the characters and seals are drawn from the kameas is not explained Agrippa's work. In the occult curriculum of the Golden Dawn the method of drawing characters of spirits and intelligences from the kameas is described ${ }^{2}$. However, the planetary seals are explained as "symmetrical design(s) so arranged that its lines pass through every number in the square". This claim can be falsified by some investigation.

The unknown method of drawing planetary seals from the kameas led me to some sleepless nights where I tried to deduce the method. I actually found a very plausible method for the even-numbered kameas (those with $4 \times 4,6 \times 6$ and $8 \times 8$ entries). After even more sleepless nights I also found a method for the odd-numbered kameas, but this method seemed less likely to be correct. Later I learned that K. A. Nowotny had found a method for the even-numbered kameas that is the same as mine in essence ${ }^{3}$. However, he had no good explanation for the oddnumbered kamea seals. The methods I found will be described in this article.

The kameas are squares with numbers or the corresponding Hebrew letters in them. The numbers used are the numbers from 1 to $n$, where $n$ is the number of entries in the kamea. The number of entries in the kamea is equal to the square of the number of entries in each side of the kamea. Thus the kamea with 16 entries is called the $4 \times 4$ kamea. The letters or
numbers are placed in such a way that the sum of every row, every column or every diagonal is the same. For example the sums in the following $4 \times 4$ kamea are 34 .

| 4 | 14 | 15 | 1 |
| :---: | :---: | :---: | :---: |
| 9 | 7 | 6 | 12 |
| 5 | 11 | 10 | 8 |
| 16 | 2 | 3 | 13 |

Now, every kamea with $3 \times 3$ entries to $9 x 9$ entries are associated with one of the seven arcane planets. This is due to the sephirothic correspondence of the planets. Thus Saturn that corresponds to the $3^{\text {rd }}$ sephiroth Binah, is associated with the $3 \times 3$ kamea; Jupiter that corresponds to the $4^{\text {th }}$ sephiroth Chesed is associated with the $4 \times 4$ kamea, and so on.

To draw the seal of Jupiter from the $4 \times 4$ kamea, simply count from 1 to16 (number of entries in the kamea), while pointing one entry at the time. A good place to start the counting is in the upper right entry of the kamea, and then count to the left. When the end of the row is reached, precede with the row underneath, starting at the right. Each time the number counted is the same as the number in the entry, mark the entry. The $4 \times 4$ kamea will then look like this:

| $\underline{4}$ | 14 | 15 | $\underline{1}$ |
| :---: | :---: | :---: | :---: |
| 9 | $\underline{7}$ | $\underline{6}$ | 12 |
| 5 | $\underline{11}$ | $\underline{10}$ | 8 |
| $\underline{16}$ | 2 | 3 | $\underline{13}$ |

Now, draw lines between the marked entries, the shortest possible distance. The kamea will now look like this:


Then you may count from the lower left entry to the right. The rest of the entries will then be marked. Drawing a line the shortest possible distance between the entries, will give this figure:


Counting in any other directions will not give any more marked entries.

By adding small circles at the end of the straight lines, we will have the seal of Jupiter:


The method becomes even more convincing when the complex seal of the Sun is drawn from the $6 \times 6$ kamea.

| 6 | 32 | 3 | 34 | 35 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 11 | 27 | 28 | 8 | 30 |
| 19 | 14 | 16 | 15 | 23 | 24 |
| 18 | 20 | 22 | 21 | 17 | 13 |
| 25 | 29 | 10 | 9 | 26 | 12 |
| 36 | 5 | 33 | 4 | 2 | 31 |

Counting from upper right (to the left) will give:

| $\mathbf{6}$ | 32 | 3 | 34 | 35 | $\underline{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 1 | 27 | 28 | $\underline{8}$ | 30 |
| 19 | 14 | 1 | 15 | 23 | 24 |
| 18 | 20 | 22 | 21 | 17 | 13 |
| 25 | 29 | 10 | 9 | 26 | 12 |
| 36 | 5 | 33 | 4 | 2 | 31 |

Counting from the lower right (to the left) will give:


Counting from the upper left (to the right) will give:


Counting from the lower left (to the left) will give:


Thus we have the seal of the Sun:


The seal of Mercury is drawn from the $8 x 8$ kamea in the same way:

| 8 | 58 | 59 | 5 | 4 | 62 | 63 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49 | 15 | 14 | 52 | 53 | 11 | 10 | 56 |
| 41 | 23 | 22 | 44 | 45 | 19 | 18 | 58 |
| 32 | 34 | 35 | 29 | 28 | 38 | 39 | 25 |
| 40 | 26 | 27 | 37 | 36 | 30 | 31 | 33 |
| 17 | 47 | 46 | 20 | 21 | 43 | 42 | 24 |
| 9 | 55 | 54 | 12 | 13 | 51 | 50 | 16 |
| 64 | 2 | 3 | 61 | 60 | 6 | 7 | 57 |

Counting from upper right to the left:

| 8 | 58 | 59 | 5 | 4 | 62 | 263 | 63 | $\underline{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49 | 5 | 14 | -52 | 53 | N | 12 | 10 | 56 |
| 41 | 23 | 2 | 44 | 45 | 19 | 9 | 18 | 58 |
| 32 | 34 | 35 | 2e | 28 | 38 | 839 | 39 | 2 |
| 40 | 26 | 27 | 37 | 36 | 630 | 031 | 31 | 33 |
| 17 | 4 | 46 | 20 | 21 | 43 | 342 | 42 | 24 |
| 9 | 58 | 34 | 12 | 13 | 1351 | 130 | 5 | 16 |
| 64 | 2 |  | ¢1 | 68 | 16 | 67 | 7 | 37 |

Counting from the lower left to the right:


Making the seal of Mercury:


The seals drawn in this way have a much stronger resemblance with the seals drawn in the work of Agrippa than the later ones in The Golden Dawn by Regardie. This supports that the method deduced is correct.

It is far more difficult to extract planetary seals from the odd-numbered kameas. In fact I am fairly sure that the method I have found for these kameas is not correct.

Anyway, to draw seals from the $5 \times 5,7 \times 7$ and

9x9 kameas, we need to count in a different pattern than with the even-numbered ones. The counting pattern for the $5 \times 5$ kamea is like this:


When numbered, the counting pattern looks like this:

| 11 | 6 | 7 | 2 | 3 |
| :---: | :---: | :---: | :---: | :---: |
| 16 | 12 | 1 | 8 | 4 |
| 17 | 21 | 13 | 5 | 9 |
| 22 | 18 | 25 | 14 | 10 |
| 23 | 24 | 19 | 20 | 15 |

Now, the $5 \times 5$ kamea looks like this:

| 11 | 24 | 7 | 20 | 3 |
| :---: | :---: | :---: | :---: | :---: |
| 4 | 12 | 25 | 8 | 16 |
| 17 | 5 | 13 | 21 | 9 |
| 10 | 18 | 1 | 14 | 22 |
| 23 | 6 | 19 | 2 | 15 |

By use of the counting pattern, marking entries when number counted mach the number in the entry, these entries will be marked:

| $\underline{11}$ | 24 | $\underline{7}$ | 20 | $\underline{3}$ |
| :---: | :---: | :---: | :---: | :---: |
| 4 | $\underline{12}$ | 25 | $\underline{8}$ | 16 |
| $\underline{17}$ | 5 | $\underline{13}$ | 21 | $\underline{9}$ |
| 10 | $\underline{18}$ | $\underline{1}$ | $\underline{14}$ | 22 |
| $\underline{23}$ | $\underline{6}$ | $\underline{19}$ | $\underline{2}$ | $\underline{15}$ |

To make the method work we now have to apply some other rules.

Fist, any line outside the diagonal cross has to go through three entries or more. Second, any line outside the diagonal cross has to go through entries within the same interval of 10 ( 0 to 9,10 to 19 etc.).

Therefore 7 and 9 is not used in the following figure, but 17 and 19 can be incorporated in the diagonal cross. Tracing lines the shortest possible distance and following the rules above, makes this figure:

| 14 | 24 | 7 | 20 | $\underline{B}$ |
| :---: | :---: | :---: | :---: | :---: |
| 4 | 2 | 25 | $\underline{8}$ | 16 |
| 17 | 5 | $\boxed{2}$ | 21 | 9 |
| 10 | 2 | 1 | 4 | 22 |
| 27 | 6 | $\underline{4}$ | 2 | $\underline{2}$ |

Counting in the other direction, like this:


Will mark these entries on the kamea:

| 11 | $\underline{24}$ | 7 | $\underline{20}$ | 3 |
| :---: | :---: | :---: | :---: | :---: |
| 4 | 12 | $\underline{25}$ | 8 | 16 |
| 17 | 5 | 13 | 21 | 9 |
| 10 | 18 | $\underline{1}$ | 14 | 22 |
| 23 | 6 | 19 | $\underline{2}$ | 15 |

Making the figure look like this:


Why there is no line through 6,1 and 2 is difficult to explain, maybe it is because the space is already occupied by a line.

Counting like this:

will mark the numbers 16,21 and 22 on the kamea. The 21 and 22 cannot be used to draw any lines, because of the rules described above, but the 16 can be incorporated in the diagonal cross in the same way as 17 and 19 .

Notice how the line goes outside the centres of the 22 and 9 entries, not incorporating them in this line:


4,5 and 10 are also marked by the former counting, but are not used in the figure because of the rules implied above.

By adding some circles, the seal of Mars is produced:


A similar counting pattern is used on the 7 x 7 kamea:


Counting in different directions, applying the rules, the figure made on the $7 \times 7$ kamea looks like this:

| $\underline{2}$ | 47 | 1 19 | 4180 | 35 | A |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | $\underline{2}$ |  | $1{ }^{4}+2$ | 14 | 29 |
| 36 | $\underline{6}$ | 4 | 4 L 18 | 36 | 12 |
| 13 | 1 | 7 | 12. 43 | 19 | 37 |
| 30 | 14 | 32 | 18 | 44 | 20 |
| 21 | 38 | G | 33 L | 区 | 45 |
|  | 15 |  | -134 |  | * |

Making the seal of Venus:


Again one has to make some exceptions from the rules, or there would have been a line through 43,44 and 45 . The reason why a cross is chosen through $41,42,48$ and 49 , instead of a circle, may simply be artistic freedom.

A similar counting pattern applied on the 9 x 9 kamea will mark these entries:

| $\underline{37}$ | 78 | $\underline{29}$ | 70 | $\underline{21}$ | 62 | $\underline{13}$ | 54 | $\underline{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | $\underline{38}$ | 79 | $\underline{30}$ | 71 | $\underline{22}$ | 63 | $\underline{14}$ | 46 |
| $\underline{47}$ | 7 | $\underline{39}$ | 80 | $\underline{31}$ | 72 | $\underline{23}$ | 55 | $\underline{15}$ |
| 16 | $\underline{48}$ | 8 | $\underline{40}$ | 81 | $\underline{32}$ | 64 | $\underline{24}$ | 56 |
| $\underline{57}$ | 17 | $\underline{49}$ | 9 | $\underline{41}$ | 73 | $\underline{33}$ | 65 | $\underline{25}$ |
| 26 | $\underline{58}$ | 18 | $\underline{50}$ | 1 | $\underline{42}$ | 74 | $\underline{34}$ | 66 |
| $\underline{67}$ | 27 | $\underline{59}$ | 10 | $\underline{51}$ | 2 | $\underline{43}$ | 75 | $\underline{35}$ |
| 36 | $\underline{68}$ | 19 | $\underline{60}$ | 11 | $\underline{52}$ | 3 | $\underline{44}$ | 76 |
| $\underline{77}$ | 28 | $\underline{69}$ | 20 | $\underline{61}$ | 12 | $\underline{53}$ | 4 | $\underline{45}$ |

With some goodwill and ignoring the former rules, this figure can be traced:


With some circles added, we have the seal of Luna:


Concerning the $3 \times 3$ kamea, none of the above methods make the seal of Saturn. It seems that the seal is drawn from the $3 \times 3$ kamea simply by tracing lines in a chronological fashion through the numbers in the kamea, tree numbers at the time. Thus one line is
traced through 1,2 and 3 , one line through 4, 5 and 6 , and one line through 7, 8 and 9 , like this:

| 4 | 9 | 2 |
| :--- | :--- | :--- |
| 3 | 5 | 7 |
| 8 | 1 | 6 |




What is all this good for?
From my own experience, I have found the planetary seals to be quite powerful symbols. Not only have they been used by magicians for centuries and therefore according to some schools of thought, been stuffed with power. They are also, in the same way as the pentagram and the hexagram, symbols of mathematical origin. The symmetry and harmony of mathematical figures is a wellestablished tool in the western magical tradition, and in my opinion such figures are the best suited for invoking powers from the world of ideas.

If not absolutely necessary, it is in our interest to draw the seals as correctly as possible to maximize their potential in magical work. To do this it is essential to know the correct way of drawing the seals from the kameas.

I am fairly sure the correct way has been found for the even-numbered kameas. The method suggested for the odd-numbered ones however, have too many weaknesses. If anyone could find a better and simpler method, I would be quite happy. But one word of warning: Do not embark on this if you are not ready to invest a lot of time. These riddles can be quite obsessive.

Finally I will include a seal drawn from a $10 \times 10$ kamea using the method for even-numbered kameas. Only one counting direction is used to keep the seal simple and symmetric. This seal may be used in workings of Malkuth and Terra.

| 10 | 9 | 93 | 94 | 5 | 96 | 97 | 98 | 2 | 1 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 11 | 19 | 18 | 84 | 86 | 85 | 87 | 13 | 12 | 90 |
| 71 | 22 | 28 | 27 | 75 | 76 | 24 | 23 | 79 | 80 |
| 61 | 62 | 33 | 37 | 35 | 36 | 34 | 68 | 69 | 70 |
| 50 | 52 | 53 | 44 | 46 | 45 | 57 | 58 | 59 | 41 |
| 60 | 42 | 43 | 54 | 56 | 55 | 47 | 48 | 49 | 51 |
| 40 | 39 | 63 | 67 | 66 | 65 | 64 | 38 | 32 | 31 |
| 21 | 72 | 78 | 77 | 26 | 25 | 74 | 73 | 29 | 30 |
| 81 | 89 | 88 | 17 | 15 | 16 | 14 | 83 | 82 | 20 |
| 100 | 99 | 8 | 4 | 95 | 6 | 7 | 3 | 92 | 91 |

## References

1. Nettesheym, H.C.A.a. De Occulta Philosophia Libri Tres, (1533).
2. Regardie, I. The Golden Dawn, p. 496501 (Llewellyn Publications, 1998).
3. Nowotny, K.A. The construction of Certain Seals and Characters in the Work of Agrippa of Nettesheim. Journal of the Wartburg and Courtauld Institutes (1949).
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