## $\mathbb{T h e} \mathbb{C r i c o l o r ~ S t o m a t h i o n ~}$ (Archimedes' Square)



Equal color areas:

$\begin{array}{llllllllllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 & 16\end{array}$
$\begin{array}{llllllllllllllll}17 & 18 & 19 & 20 & 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 & 29 & 30 & 31 & 32\end{array}$


The Extended Concordance color regions analysis by Joe Marasco (page 19 of the Monograph)


The 20-page Monograph

| Set | Original <br> Variant <br> Number | Number of Regions with >1 Piece | Number of Pieces in Region |  |  |  |  | Number of Singles | N | R | S | Solutions $1072$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0 |  |  |  |  |  | 14 | 0 | 14 | 0 | 6 |
| 2 | 2 | 1 | 2 |  |  |  |  | 12 | 2 | 13 | 3 | 28 |
| 3 | 3 | 1 | 3 |  |  |  |  | 11 | 3 | 12 | 5 | 12 |
| 4 | 4 | 1 | 4 |  |  |  |  | 10 | 4 | 11 | 7 | 7 |
| 5 | 5 | 1 | 5 |  |  |  |  | 9 | 5 | 10 | 9 | 2 |
| 6 | 6 | 2 | 2 | 2 |  |  |  | 10 | 4 | 12 | 6 | 78 |
| 7 | 7 | 2 | 2 | 3 |  |  |  | 9 | 5 | 11 | 8 | 75 |
| 8 | 8 | 2 | 2 | 4 |  |  |  | 8 | 6 | 10 | 10 | 37 |
| 9 | 9 | 2 | 2 | 5 |  |  |  | 7 | 7 | 9 | 12 | 12 |
| 10 | 11 | 2 | 3 | 4 |  |  |  | 7 | 7 | 9 | 12 | 14 |
| 11 | 12 | 3 | 2 | 2 | 2 |  |  | 8 | 6 | 11 | 9 | 113 |
| 12 | 13 | 3 | 2 | 2 | 3 |  |  | 7 | 7 | 10 | 11 | 104 |
| 13 | 14 | 3 | 2 | 2 | 4 |  |  | 6 | 8 | 9 | 13 | 50 |
| 14 | 15 | 3 | 2 | 2 | 5 |  |  | 5 | 9 | 8 | 15 | 23 |
| 15 | 16 | 3 | 2 | 3 | 3 |  |  | 6 | 8 | 9 | 13 | 30 |
| 16 | 17 | 3 | 2 | 3 | 4 |  |  | 5 | 9 | 8 | 15 | 18 |
| 17 | 18 | 3 | 2 | 3 | 5 |  |  | 4 | 10 | 7 | 17 | 22 |
| 18 | 20 | 3 | 2 | 4 | 5 |  |  | 3 | 11 | 6 | 19 | 3 |
| 19 | 22 | 3 | 2 | 5 | 5 |  |  | 2 | 12 | 5 | 21 | 1 |
| 20 | 23 | 3 | 3 | 3 | 3 |  |  | 5 | 9 | 8 | 15 | 2 |
| 21 | 25 | 3 | 3 | 3 | 5 |  |  | 3 | 11 | 6 | 19 | 6 |
| 22 | 30 | 4 | 2 | 2 | 2 | 2 |  | 6 | 8 | 10 | 12 | 79 |
| 23 | 31 | 4 | 2 | 2 | 2 | 3 |  | 5 | 9 | 9 | 14 | 81 |
| 24 | 32 | 4 | 2 | 2 | 2 | 4 |  | 4 | 10 | 8 | 16 | 16 |
| 25 | 33 | 4 | 2 | 2 | 2 | 5 |  | 3 | 11 | 7 | 18 | 14 |
| 26 | 36 | 4 | 2 | 2 | 3 | 3 |  | 4 | 10 | 8 | 16 | 54 |
| 27 | 37 | 4 | 2 | 2 | 3 | 4 |  | 3 | 11 | 7 | 18 | 15 |
| 28 | 38 | 4 | 2 | 2 | 3 | 5 |  | 2 | 12 | 6 | 20 | 27 |
| 29 | 41 | 4 | 2 | 3 | 3 | 3 |  | 3 | 11 | 7 | 18 | 15 |
| 30 | 42 | 4 | 2 | 3 | 3 | 4 |  | 2 | 12 | 6 | 20 | 1 |
| 31 | 43 | 4 | 2 | 3 | 3 | 5 |  | 1 | 13 | 5 | 22 | 6 |
| 32 | 47 | 5 | 2 | 2 | 2 | 2 | 2 | 4 | 10 | 9 | 15 | 39 |
| 33 | 48 | 5 | 2 | 2 | 2 | 2 | 3 | 3 | 11 | 8 | 17 | 46 |
| 34 | 51 | 5 | 2 | 2 | 2 | 3 | 3 | 2 | 12 | 7 | 19 | 31 |
| 35 | 53 | 5 | 2 | 2 | 3 | 3 | 3 | 1 | 13 | 6 | 21 | 5 |

## Stomachion, the Quest by Kate Jones

What marvel of antiquity be this, This fabled square of 14 parts comprised? Behold the oldest puzzle ever told, Our heritage of mind, millennia old.

Now scholars scrambled to decode, with zest, Archimedes' much-prized Palimpsest, A scroll long lost, inscribed by ancient hands, A rarest find from Greek and Latin lands.

Then three-fold color sought to split the tiles That matchless equal areas beguile.
Five hundred thirty-six assemblies wait
Concordances and catalogs to mate
As solvers brave and eager in their sport
The joined and varied regions rightly sort.
That tale is told with elegance and charm
As Joe and team each gave a leg and arm.

