

The power of ten

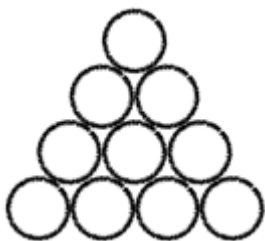
Description

Ten is a good number. Ten of anything implies that the set is complete and finished. This, at least, is the account given by scholar Indra McEwen of the Pythagorean legacy on which the architectural theorist Marcus Vitruvius Pollio (c. 70-15BC) drew in writing his *Ten Books of Architecture*.

McEwen argues that the division of Vitruvius's text into ten is contrived, and the content could have been otherwise divided. But the ancient Roman scholar was bound to aim for ten, as the number reflected the perfection of nature.

Whereas we moderns might think that we count in tens because we happen to have ten fingers, for the Pythagoreans the fact that we have ten fingers is evidence that the number ten inheres within the perfection of the natural world. The human body participates in that perfection.

Ten is also convenient. Ten cylindrical objects, like scrolls, stack to make a perfect equilateral triangle. So ten books, as scrolls, stack nicely on the shelf of the ancient librarian.

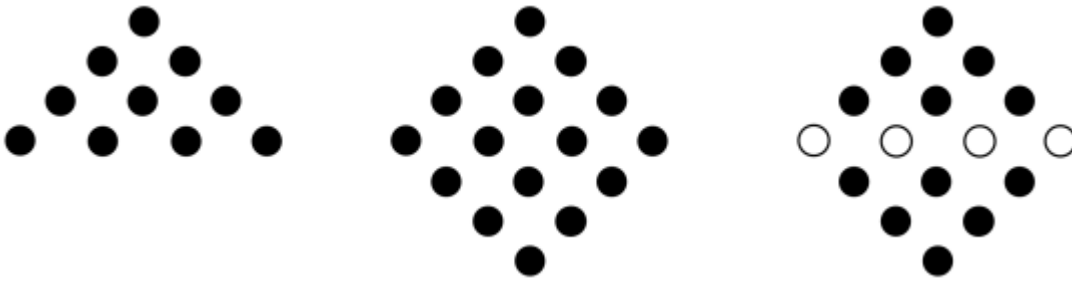


Tetractys and tetrad

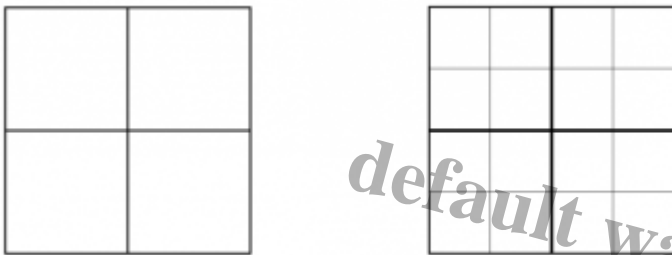
To the Pythagoreans, this configuration made up the *tetractys*, the sum of four numbers $1+2+3+4=10$ and is "the source of all things" (according to the OED). The configuration conveniently delivers both threeness (it makes a triangle) and fourness (four items to a side).

Instead of scrolls, think of pebbles. If these are spaced in squares then you get a right angled triangle, which is on the way to forming a *double tetractys*, a 4×4 square with 16 elements, also forming two

sets of six.



The *double tetractys* is just a four square grid, with each quadrant divided again into 4.



Vitruvius makes frequent reference to the convenience of this grid as the basis of Roman city planning, especially if aligned with the four cardinal directions.

Needless to say the grid is the basis of many organisational schemas. So *triadomania* (see [earlier post](#)) does not exempt its adherents from *tetrarchy*, ruled by four. Here are some famous fours in no particular order.

- north, south, east, west
- earth, air, fire, water
- town, city, school, cloister (Patrick Geddes)
- earth, sky, gods, mortals (Heidegger)
- material, formal, efficient, final (Aristotle's four causes)
- Matthew, Mark, Luke, John (New Testament)
- man, lion, ox, eagle (Ezekiel's vision of the faces of 4 cherubim)
- blood, toil, tears, sweat (Churchill on the new Bank of England £5 note)
- phlegmatic, melancholic, sanguine, choleric (the four temperaments)
- up, down, right, left

In his justification for trichotomizing the concept of the sign, C.S. Peirce wrote:

“Perhaps I might begin by noticing how different numbers have found their champions. Two was extolled by Pater Ramus, Four by Pythagoras, Five by Sir Thomas Brown, and so on. For my part, I am determined foe of no innocent number; I respect and esteem them all their several ways; but I am forced to confess to a leaning to the number three in philosophy” (247).

Wherever there is three, four lurks close by, abetted by the number ten. See posts: [Triadomania](#) and [Semiotic shock](#).

Reference

- McEwen, Indra. 2003. *Vitruvius: Writing the Body of Architecture*. Cambridge, Mass.: MIT Press
- Peirce, Charles Sanders. 1992. A guess at the riddle. In Nathan Houser, and Christine Kloesel (eds.), *The Essential Peirce, Selected Philosophical Writings Volume 1 (1867-1893)*: 245-279. Bloomington, IN: Indiana University Press.

Category

1. Architecture

Tags

1. Peirce
2. triad
3. Vitruvius

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