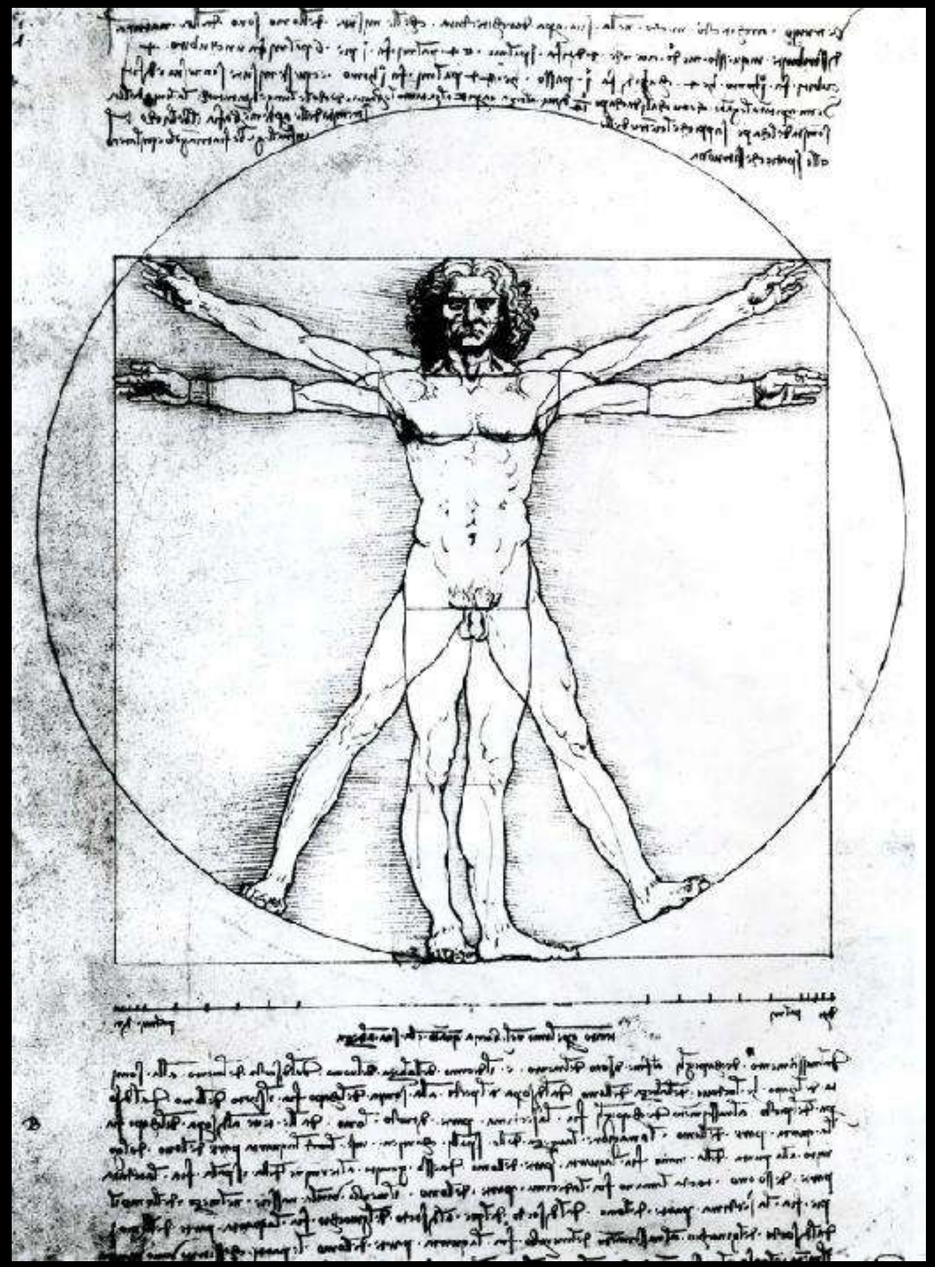
Golden Ratio vs Fibonacci Sequence

Golden Ratio

It is the ratio of a line segment cut into two pieces of different lengths such that the ratio of the whole segment to that of the longer segment is equal to the ratio of the longer segment to the shorter segment. The origin of this number can be traced back to Euclid, who mentions it as the “extreme and mean ratio” in the Elements. In terms of present day algebra, letting the length of the shorter segment be one unit and the length of the longer segment be x units gives rise to the equation $(x + 1)/x = x/1$; this may be rearranged to form the quadratic equation $x2 – x – 1 = 0$, for which the positive solution is $x = (1 + \text{Square root of} \sqrt{5})/2$, the golden ratio.

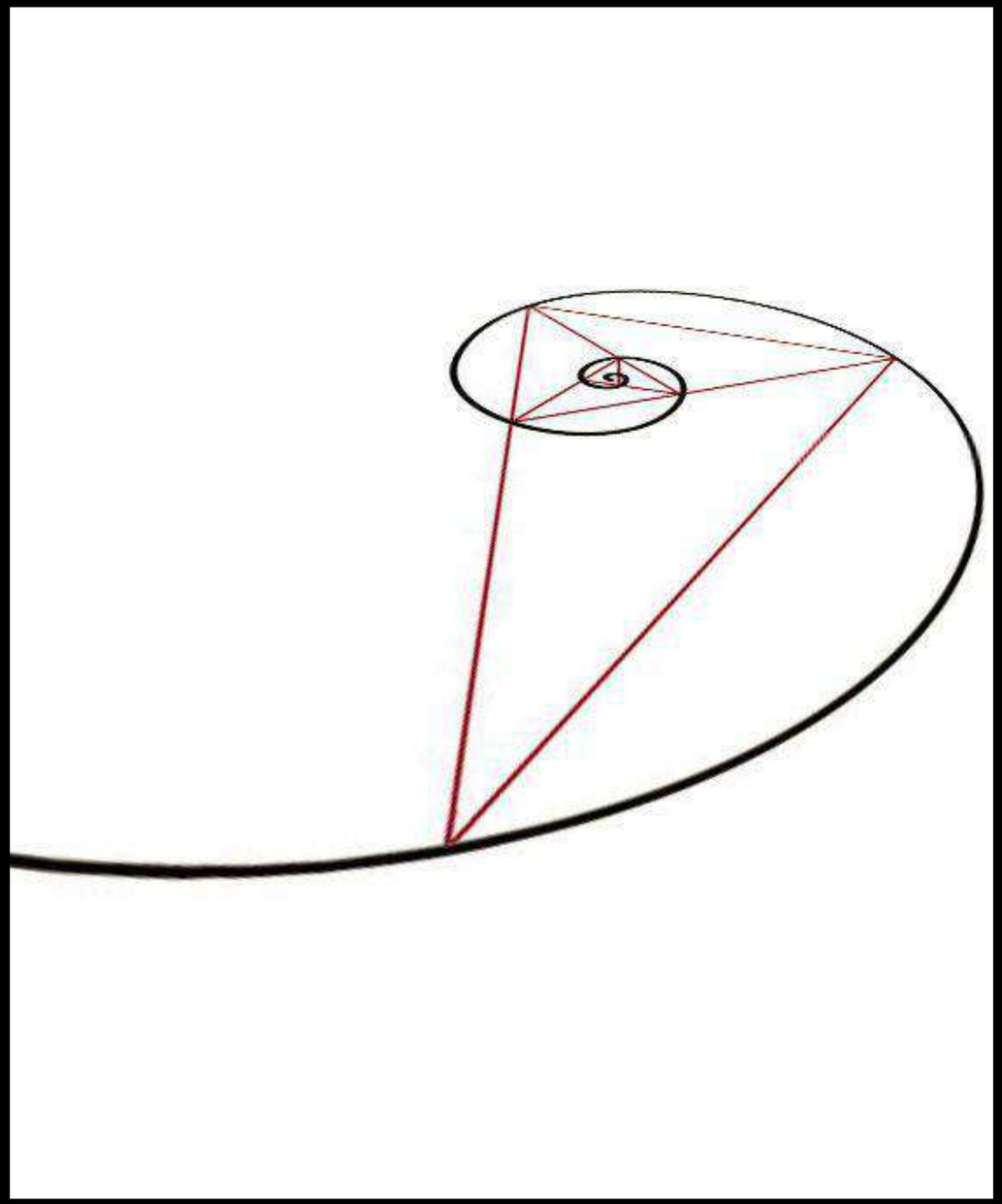
The work of the Italian polymath Leonardo da Vinci and the publication of *De divina proportione* (1509; *Divine Proportion*), written by the Italian mathematician Luca Pacioli and illustrated by Leonardo.



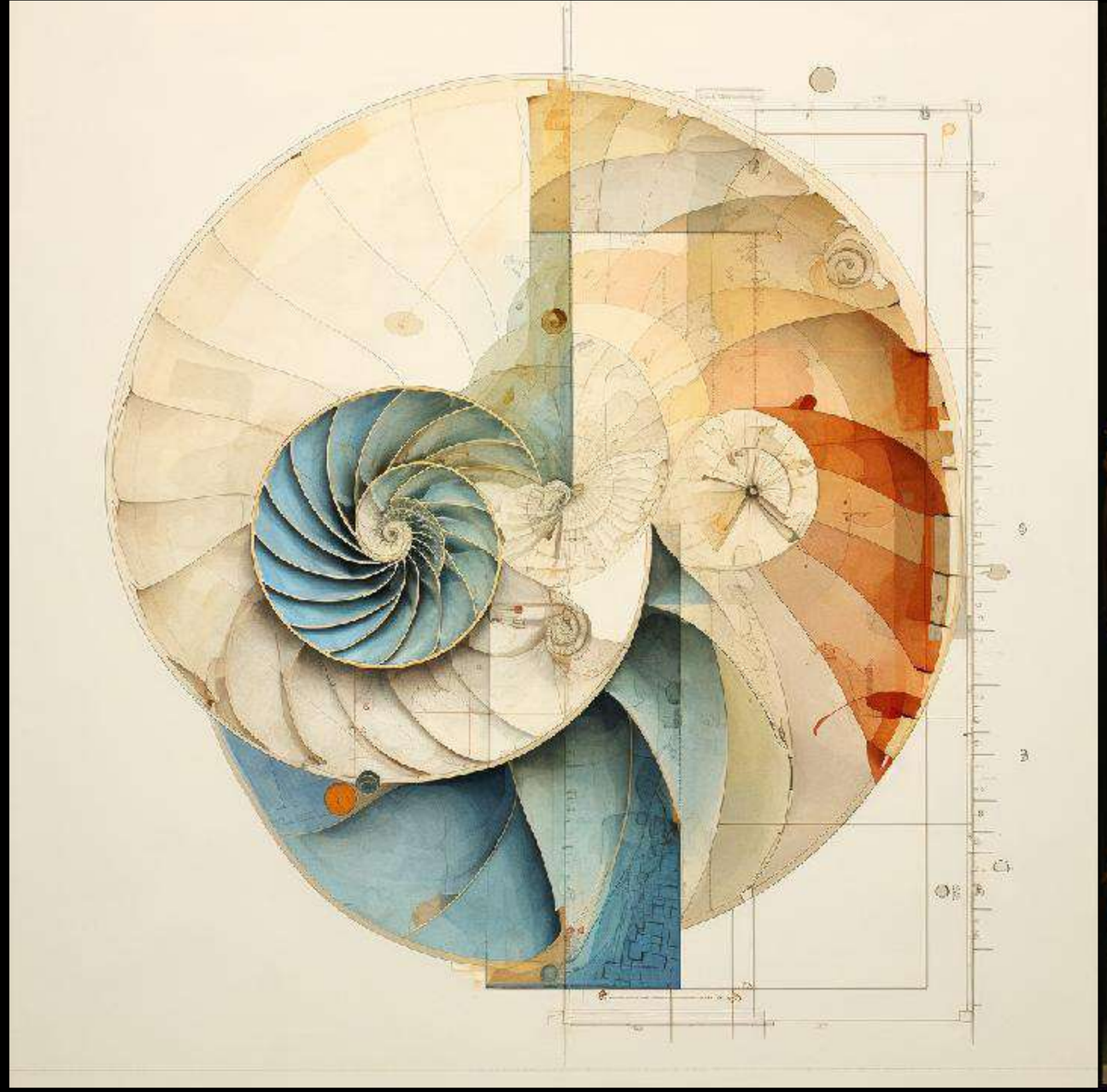
Fibonacci Sequence

The Fibonacci Sequence is a type series where each number is the sum of the two that precede it. It starts from 0 and 1 usually. The Fibonacci sequence is given by 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, and so on. The numbers in the Fibonacci sequence are also called Fibonacci numbers.

Though the formula for the Golden Ratio is different from the Fibonacci Sequence, the resulting images are similar because they both result in an ever increasing size starting at the center. Golden Ratio has to do with the relationship of two segments of a line one bigger than the other the Fibonacci Sequence is a chain of numbers ever increasing in size. Both graph out as enlarging spirals. But as you'll see in the following images, Midjouney does interpret them slightly differently.



Prompt: Golden Ratio —s 50

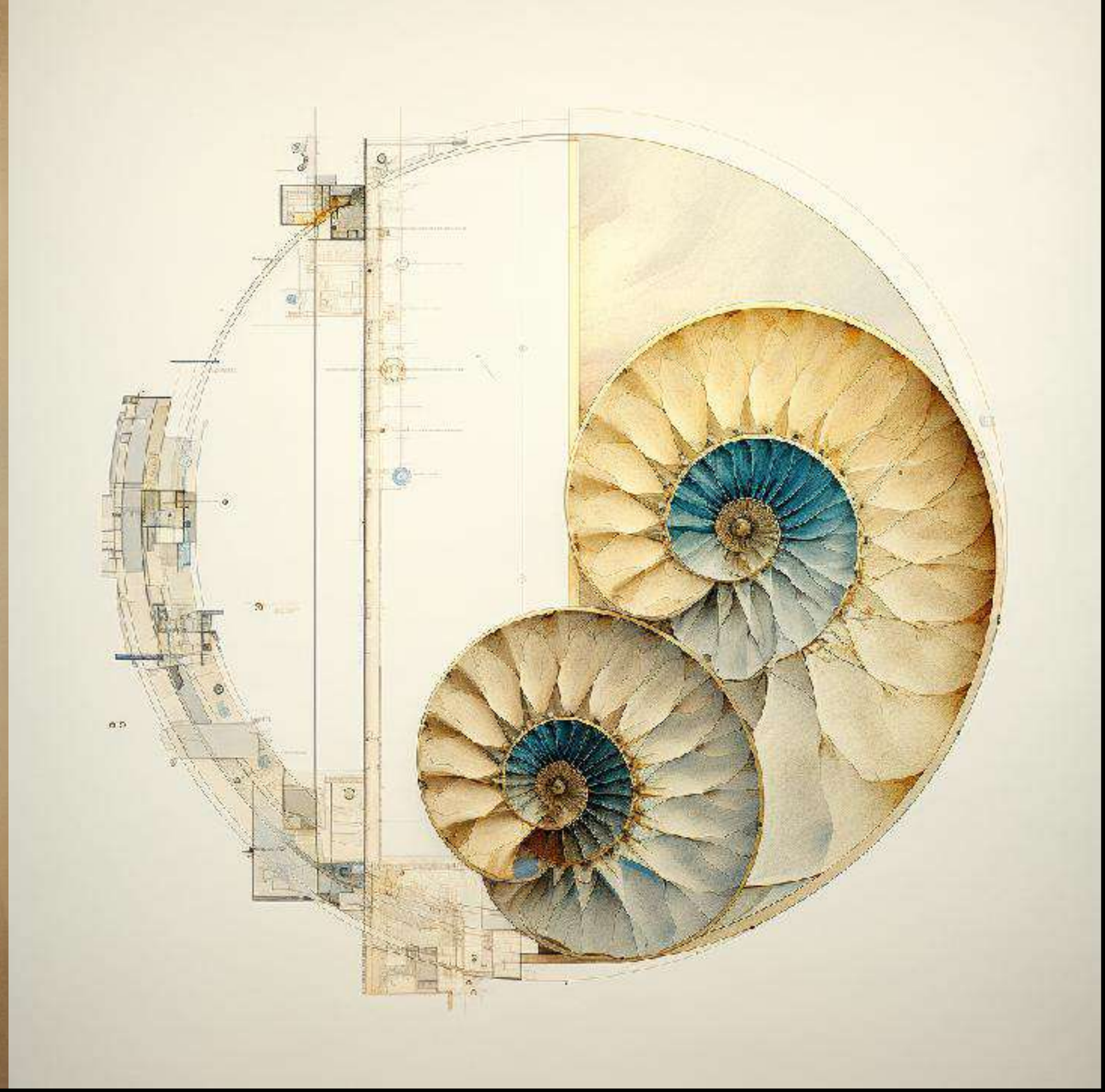


Prompt: Golden Ratio —s 50

Prompt: Fibonacci Sequence --s 50

Prompt: Fibonacci Sequence --s 50

Prompt: Golden Ratio —s 100



Prompt: Golden Ratio —s 100

Prompt: Fibonacci Sequence --s 100

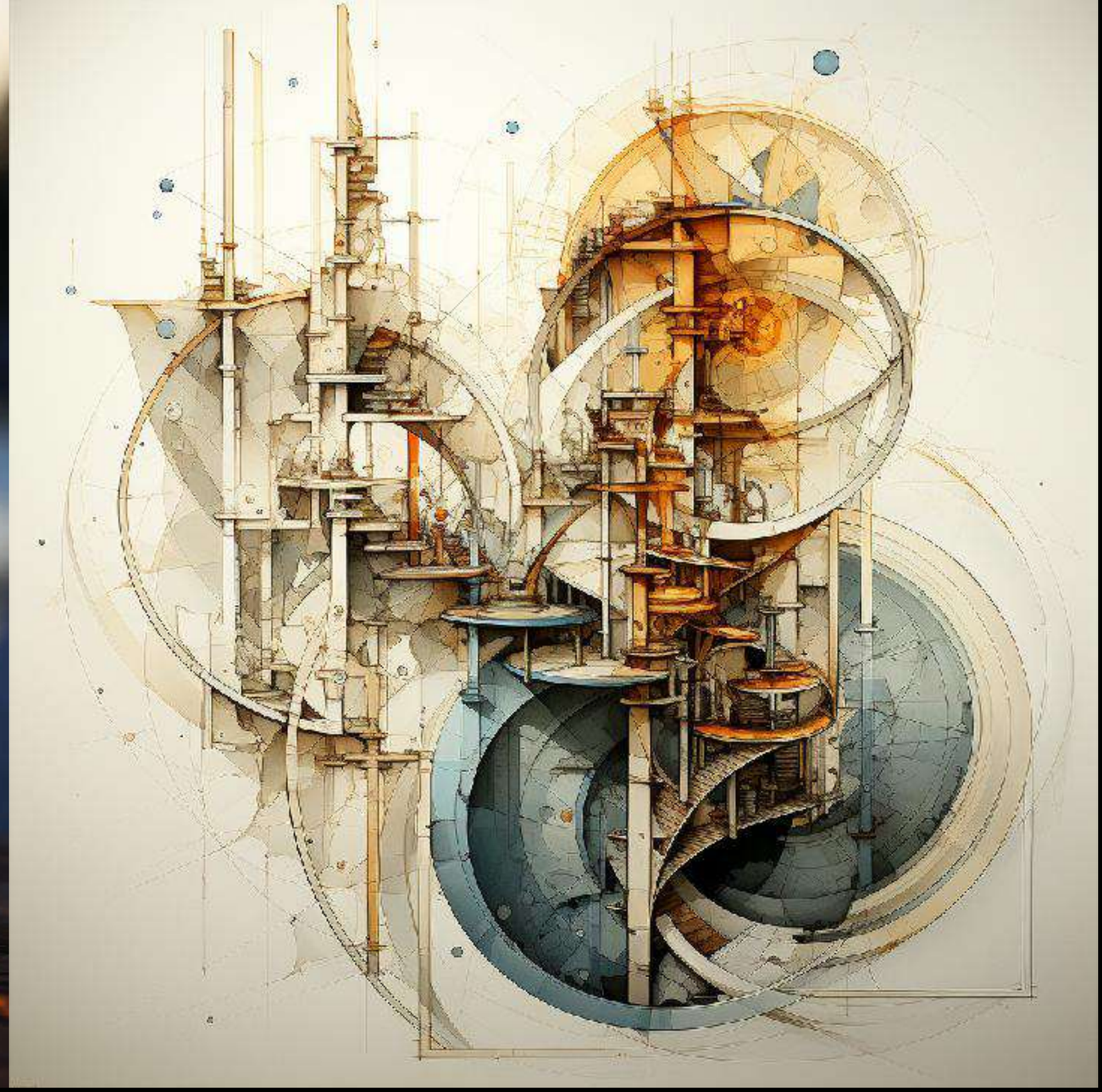
Prompt: Fibonacci Sequence --s 100

Prompt: Golden Ratio —s 250

Prompt: Golden Ratio —s 250

Prompt: Fibonacci Sequence --s 250

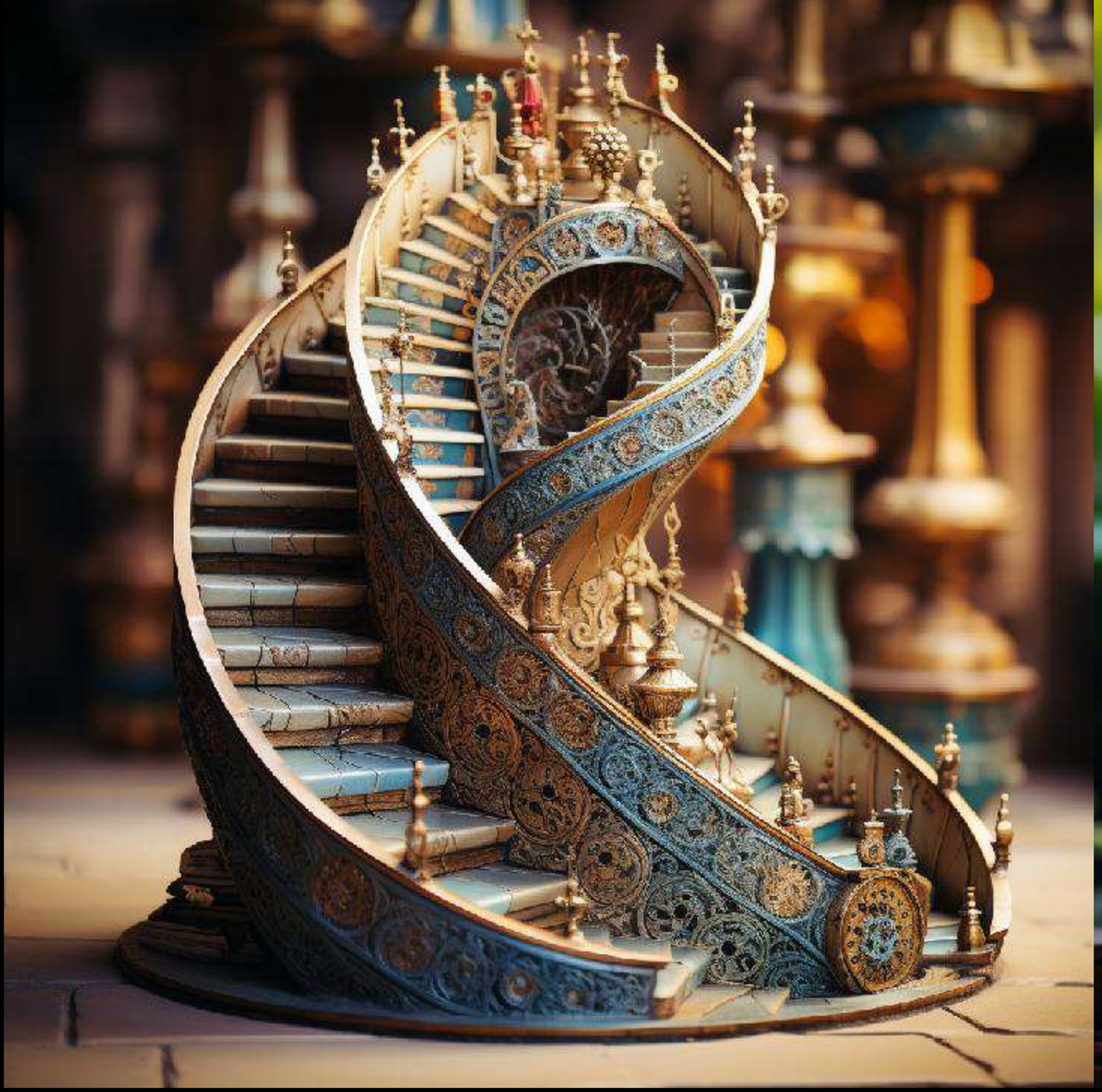
Prompt: Fibonacci Sequence --s 250



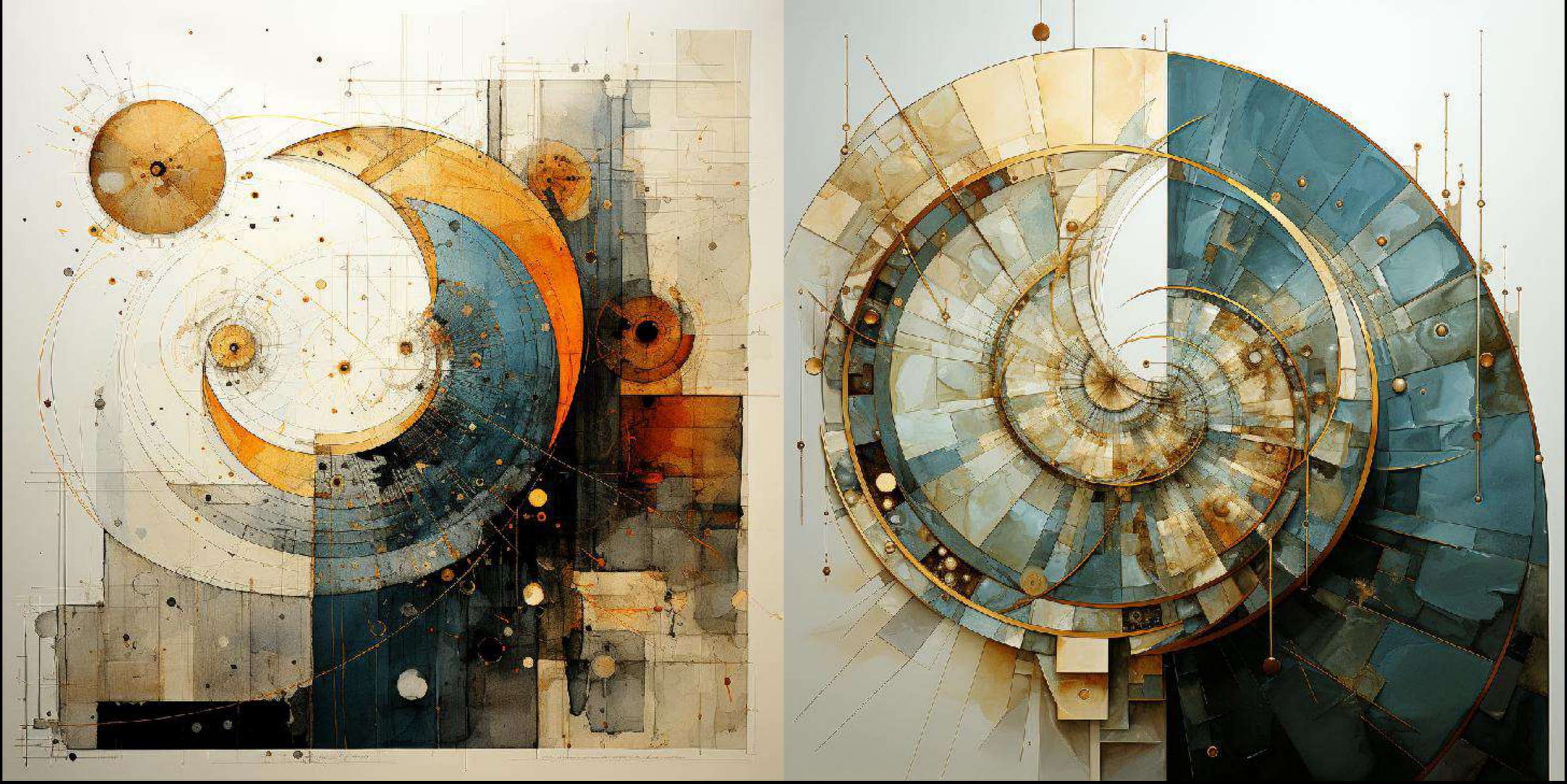
Prompt: Golden Ratio —s 500

Prompt: Golden Ratio —s 500

Prompt: Fibonacci Sequence --s 500



Prompt: Fibonacci Sequence --s 500

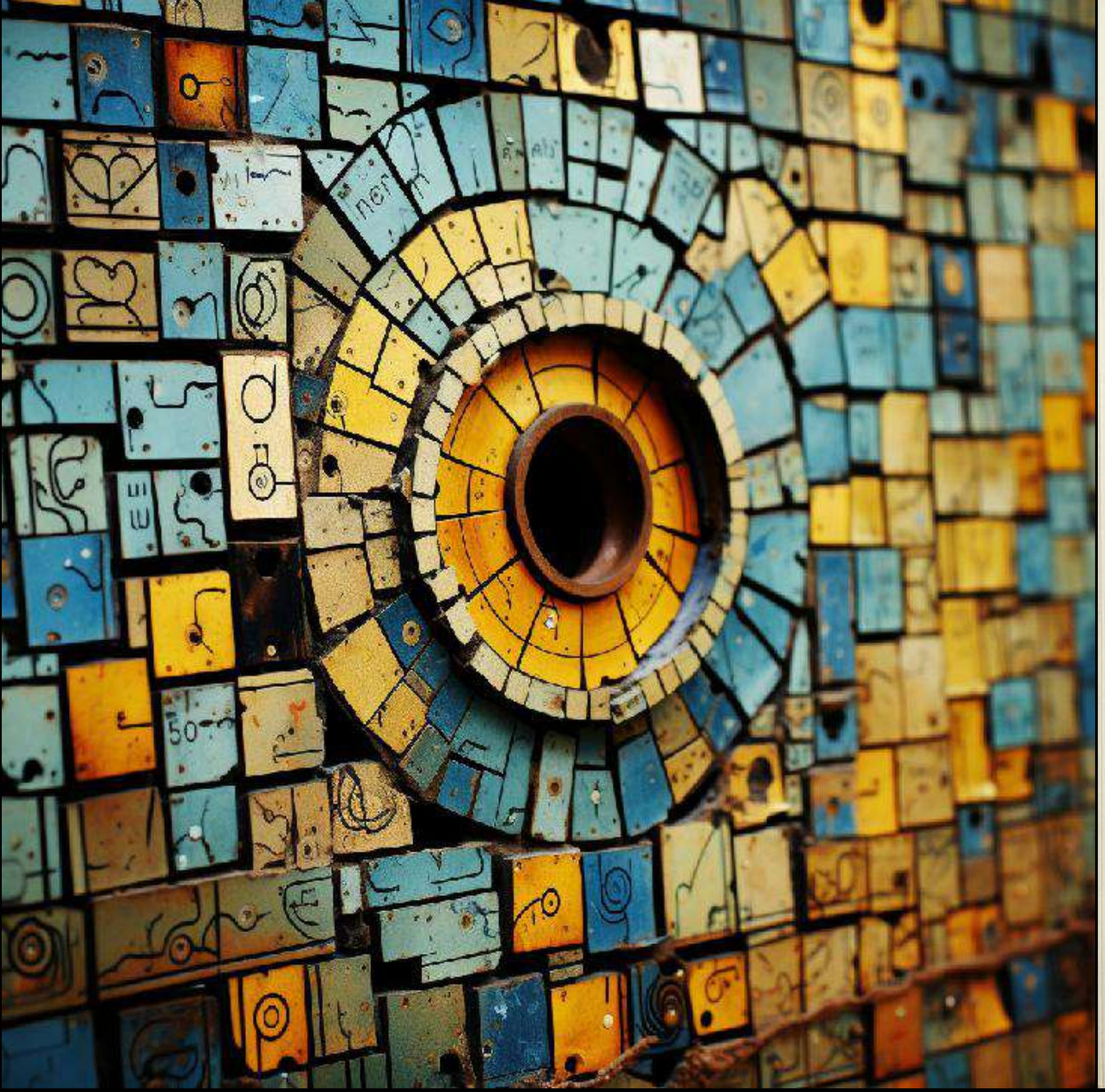


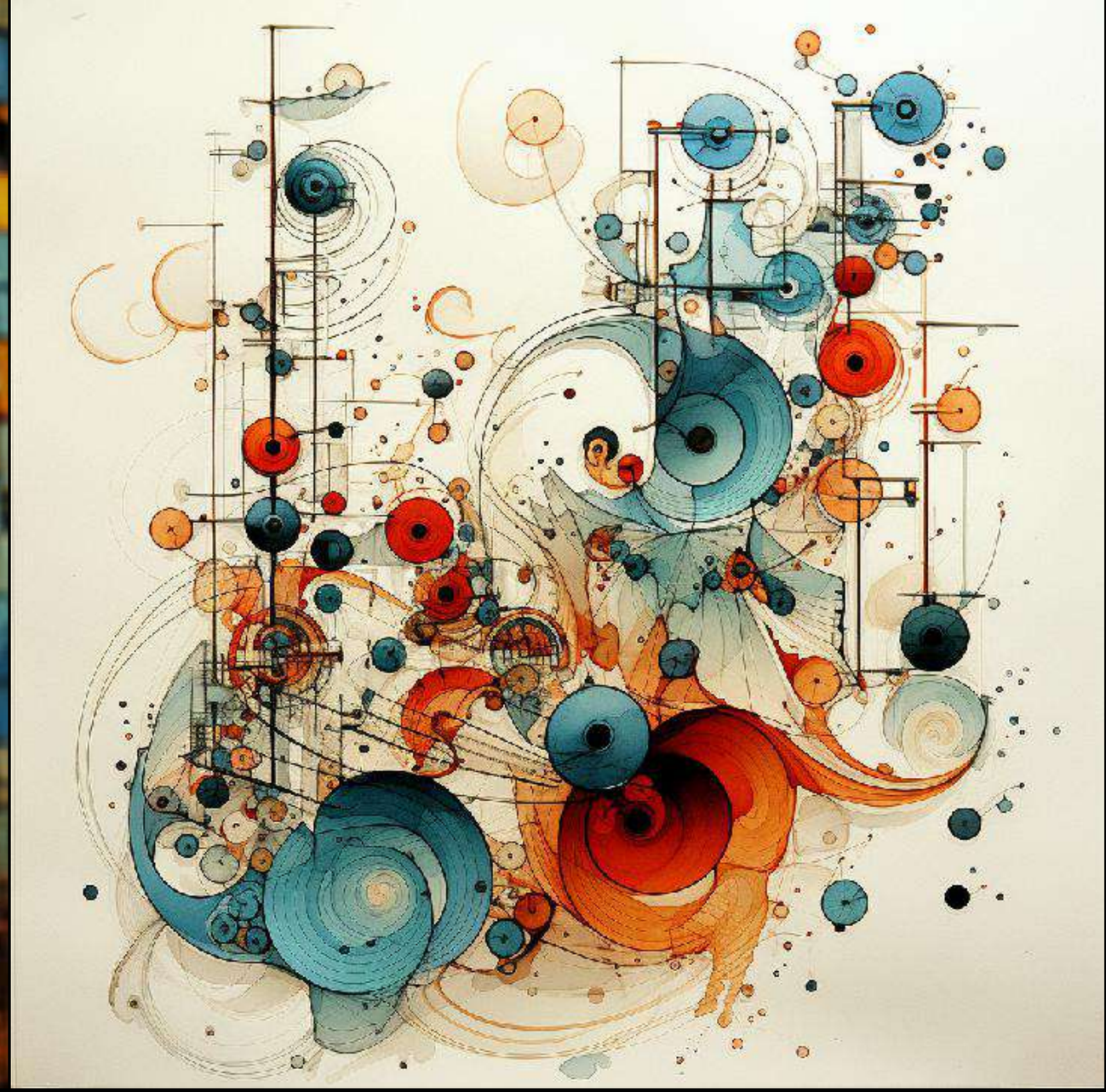
Prompt: Golden Ratio —s 750

Prompt: Golden Ratio —s 750

Prompt: Fibonacci Sequence --s 750

Prompt: Fibonacci Sequence --s 750



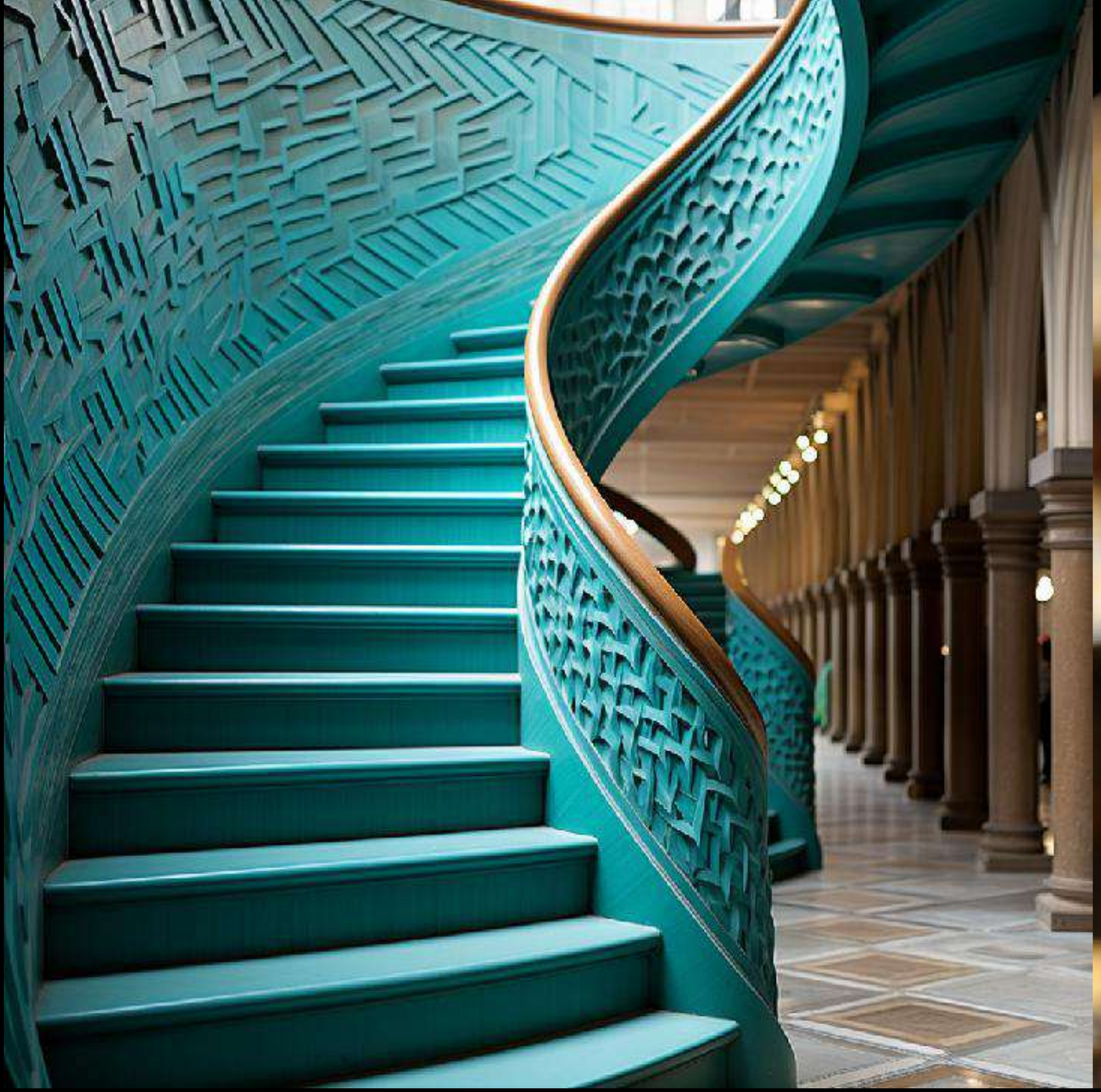


Prompt: Golden Ratio —s 1000 —c 100

Prompt: Golden Ratio —s 1000 —c 100

Prompt: Golden Ratio —s 1000 —c 100

Prompt: Golden Ratio —s 1000 —c 100



Prompt: Fibonacci Sequence --s 1000 --c 100

Prompt: Fibonacci Sequence --s 1000 --c 100

Prompt: Fibonacci Sequence --s 1000 --c 100