



### **'A Fibonacci's spiral'**

Exhibited as part of *Intersections* installed at the Market Place Art Centre, Armagh, April 2012

### **Artist Statement**

1, 1, 2, 3, 5, 8, 13, 21, ... is the beginning of Leonardo Fibonacci's number sequence. This recurrent sequence was originally published in 1202 in Fibonacci's book *Liber Abaci*. The sequence is also related to the golden ratio and pi. The golden ratio and pi is approximated by the ratio of consecutive Fibonacci numbers, with the approximation increasing in accuracy further along the sequence. Fibonacci's numbers can be seen throughout nature, in the numbers of petals on flowers, the breeding habits of rabbits, the shape of snail shells and the curve of spiral galaxies. The sequence has also been used throughout history to draw the golden rectangle and approximations of a logarithmic spiral.

The artwork uses a triangular construction of Fibonacci's sequence, which gives two spiral arms instead of the usual one. The side measurement of each of the constructing triangles, correspond to Fibonacci numbers yet similarly to the usual single spiral they have a relationship to square numbers. 1, 1, 4, 9, 25, 64, 169, 441, ....

The artwork utilises both colour and texture.

Kathryn Nelson