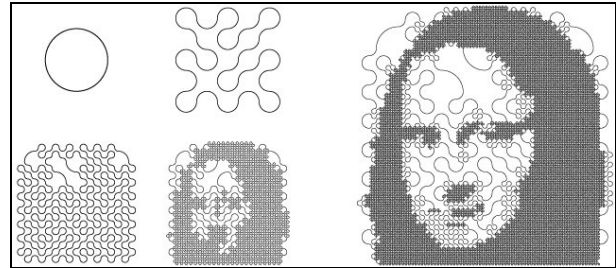


Truchet curves and surfaces

An LKL Maths-Art seminar by
Cameron Browne
Tuesday 11 March,
6.00 – 7.30pm
London Knowledge Lab, WC1N 3QS

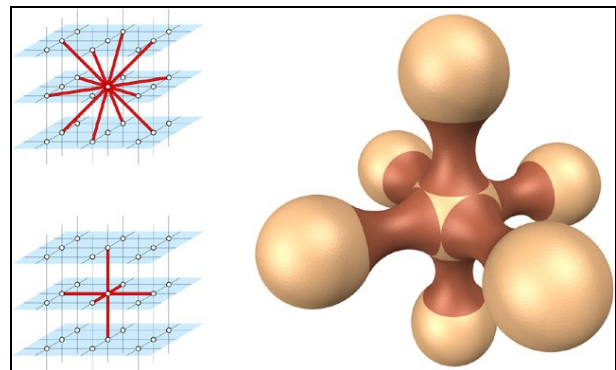
Three centuries ago, French clergyman Sebastien Truchet made a combinatorial study of a simple square tile that produced attractive patterns when arranged symmetrically within a grid. Two decades ago, a modified version of this tile was found to produce visually interesting results even when tiled randomly. This modified form has since become popularly known as the *Truchet tile* and provided a ready motif for many graphical works.

This talk will briefly cover the Truchet tile's history, basic construction, and its use in art, games and puzzles. *Truchet contours* (closed curves within a tiling) will be discussed, and a method presented for automatically filling a given area with a single Truchet contour, based upon a spanning tree of the underlying grid.



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Rules for adapting this method to multiresolution grids allow the development of multiresolution Truchet tilings suitable for artistic halftoning. The general concept will be extrapolated to three dimensions and the construction of Truchet surfaces discussed..



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Cameron Browne [www.cameronius.com] is an Australian software engineer interested in board games and graphics. He is currently working for SWiSHzone.com in Sydney.

All welcome. No registration or ticket required, but an email to lkl.maths.art@gmail.com is appreciated to assist with planning.

LKL Maths-Art seminar series

Website and archive: www.lkl.ac.uk/events/maths-art

This seminar is part of a regular series of maths-art seminars held at the London Knowledge Lab, usually on the second Tuesday of each month during term times. To receive email announcements about events, subscribe to the mailing list at www.dcs.bbk.ac.uk/mailman/listinfo/lkl-maths-art.

We propose these seminars as explorations of the connections between "mathematics" and "art", where both terms are understood broadly: art implies visual art (painting, drawing, sculpture, computer graphics, video), architecture, music, textile art, literature/poetry (and others), and mathematics implies both mathematics as a discipline and the related disciplines in science and engineering for which mathematics is an essential means of expression and communication.

Next seminars: **8th April**, Penelope Woolfitt, Geometry of Asian Trousers; **13th May**, [Speaker TBC]; **10th June**, Brian Wichmann, SQL and Tiling Patterns.

Seminars are normally video-recorded for viewing on the website.

The seminar organisers are John Sharp and Phillip Kent. We welcome your suggestions about speakers or topics for future seminars; email us at lkl.maths.art@gmail.com.

Getting to the London Knowledge Lab

Nearest tube stations are: Holborn (Central, Piccadilly lines), Russell Square (Piccadilly line). Approximately 10-15 minutes walk from either station.

