Art tied up

Ravelling, Unravelling
Royal Institution of Great Britain, London
Until 28 May 2009.

A chance meeting between artist Naheed Raza and mathematician Steven Bishop led to Raza's recent year-long residency in the mathematics department at University College London. Four of her resulting works, on show this month at the Royal Institution of Great Britain, examine knotted structures and the parts they play in the body and in disease, as well as in mathematical theory.

In *Nidus 1–4*, four tiny, prototype bronze casts of tangled blood vessels resemble intricate jewellery. These malformations can impede blood flow to tissues and are implicated in neurological diseases such as Alzheimer's, Creutzfeldt-Jakob and Parkinson's, and in epilepsy.

Mile of String is a rigid three-dimensional structure, made by twisting a single length of twine so that it holds a complex, coral-like form under its own tension. It evokes both Albert Einstein's concept of warped space-time and the folded and coiled structures of proteins and DNA.

For *Silk*, Raza filmed a golden orb-weaver spider. Her focus shifts between close-up shots of the spider extruding silk and hypnotic footage of its web, pulsating in the breeze. The high tensile strength of spider silk has led to its being investigated as a biomaterial that could provide a scaffold for the formation of new body tissues.

The fourth work is a digital animation produced in collaboration with Carl Fairweather. *Ravel* shows twisting, coiling ropes (pictured below) that undergo ever more complex permutations while being pulled into a vortex.

Raza says that "there is a convergent ground for fruitful dialogue about knotting as a recurring motif in science and medicine, art and culture". ■

Colin Martin is a writer based in London, UK.

N.RAZA/C. FAIRWEATHER