

The little things in life

India Windsor-Clive enjoys a project that merges science with crochet

There is something a little unusual to be found in Oxford University Museum of Natural History (OUMNH): crochet bacteria. The artist Elin Thomas has created a series of crochet works as part of the museum's current exhibition, *Bacterial World*.

We are hearing more and more about the secret lives of bacteria in and around us, and how these tiny organisms are important for understanding ourselves, their microworlds dictating our macroworld. There are as many bacterial cells in our bodies as human cells, and they make up an important part of our microbiome – a vast array of microorganisms residing in our bodies and using our food as a source of nutrients. In return, these bacteria help us digest food, maintain our immune systems and keep dangerous bacteria at bay – they secrete slime and toxins that kill off other bacterial colonies that could compete for food and space.

Though bacteria are so minute that they are invisible to the naked eye, some have been captured and cultured for *Bacterial World*. Artificially grown, their colonies can be scaled up to form visualised living cities with beautiful and complex structures as they attempt to dominate and compete to survive.

OUMNH's exhibitions officer Kelly Richards told me about their experiment to grow bacteria: "[We asked] visitors to take part in a simple experiment. With the help of microbiologist Rachael Wilkinson, we took items such as coins, keys and jewellery and touched them lightly against agar plates – dishes containing a nutrient-rich jelly that aids bacterial growth. The agar plates were then given to Nicole Stoesser, a clinical

microbiologist at the John Radcliffe Hospital, who grew them in the safe environment of the laboratory."

Paul Smith, the director of the museum, added: "Some people chose their mobile phone or something in their pocket like a coin; other people were a bit more sentimental and embedded their engagement rings."

Thomas then interpreted these bacterial colonies on Petri dishes in crochet, needle felting and stitch as part of the arts component of the exhibition. The result is a series of intricate replicas of these fascinating formations, with a sensitive use of colour and shape.

Thomas is a visual artist based in Bristol. Having started out creating large-scale paintings, she turned to embroidery for temporary respite after experiencing skin and respiratory reactions to the chemicals in oil paints and painting mediums. Inspired by the Hyperbolic Crochet Coral Reef project started by Margaret Wertheim – a fusion of art, science, mathematics and craft that has become one of the largest community art projects in the world – Thomas realised what could be achieved with crochet. "I found there is a huge interest in crochet that mimics natural forms, especially coral and hyperbolic designs," she said. "Creating coral forms out of crochet is really a no-brainer because of the vast sculptural and colour possibilities of the art form." Using more accessible and local subjects, she started making pieces based on observational studies of moulds, lichens and fungal formations. And more recently, microorganisms: "I've had the opportunity to work under laboratory conditions and discover in more detail the amazing world of microbes," Thomas said, and "drilling down further into this microscopic world is opening up new directions."

Using photographs or ethically collected specimens, and working with natural fibres including wool, cotton and raw linen, Thomas deploys colour and shape with two basic stitches to create her work. The repetitive nature of crocheting results in neat and regular stitching, which she has to constantly disrupt to create something organic and natural-looking. It is a fine balance between the realistic and the handcrafted, as she explains: "It's at this point for me that there is a creative tension between visual accuracy and purely aesthetic considerations."

Elin Thomas's work presents a homage to our natural structures and environments, replicating their textures, patterns, colours and behaviours exquisitely in a wonderful coming together of art and science. **R**



Crocheted Petri dish by artist Elin Thomas
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Bacterial World runs until 28 May 2019 at the Oxford University Museum of Natural History.

www.oum.ox.ac.uk/bacterialworld/

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