



Set in stone

Pietra dura flowered under the Florentine Medicis, but there's only one man in Britain creating these precious-stone mosaics today. Octavia Pollock meets Thomas Greenaway

Photographs by Mark Williamson



Above: Restoring a table designed by William Burges in about 1867 from Lotherton Hall, West Yorkshire. *Below:* Green Russian malachite and verde Valle d'Aosta in a parrot's plumage



Preceding pages: Thomas Greenaway searches for the colours hidden in the stones. *Above:* Fitting pieces for a damaged Florentine table

UNDER the dust in the old stables, colours gleam. Evening-sky blue, deepest black, frog-pond green, turquoise and pale pink as translucent as fairy wings. Shelves are crammed with lumps of rock in all sizes, some with cut faces that shine with jewel shades when Thomas Greenaway sprays a mist of water onto them. An unassuming figure with a wide smile and quiet enthusiasm, he's the only person in the UK who can look at this selection and see what could be created.

He's a master of *pietra dura*, 'hard stone' in Italian, cutting stones into a jigsaw of shapes and fitting them together to create an image. *Commasso*, or Florentine mosaic, was developed under Cosimo de Medici and

his son Grand Duke Ferdinando I in 16th-century Florence, where the Galleria dei Lavori, now the Opificio delle Pietre Dure (the Workshop for Hard Stone) was founded in 1588. It's still open, together with a museum.

Widely collected by those on the Grand Tour until the age of mass production, *pietra dura* adorns many country houses and museums, particularly Charlecote Park, Warwickshire, and the V&A. One of the greatest pieces ever created, the Badminton Cabinet, made for the 3rd Duke of Beaufort and sold for £19 million in 2004, was a key inspiration for Thomas.

Marquetry is *pietra dura*'s natural cousin and it was working with wood that first claimed Thomas's attention. 'I started at the Chippendale School of Furniture in East

Lothian,' he says. 'We learnt lots of different techniques—veneer, carving and so on—but I particularly loved marquetry. Then, I went to Florence with Art History Abroad, to one of the few remaining workshops where they teach the techniques as they were done in the 16th century. I was sitting next to a Michelangelo of *pietra dura*.'

In his Northamptonshire workshop, once a carriage house and pleasantly warm thanks to recently installed underfloor heating, is a mix of new and ancient tools. Lurking against one wall is a formidable mechanical saw from California, on the far side is a huge polisher and, in good light under a window, is a desk sporting a selection of tiny diamond files, made bespoke in Italy and Germany.

Polishing reveals the stones' full glory, black marble changing from dusty chalkboard to jet

In the centre of the room is a tool that's changed little since the 16th century. It's an *archetto* bow saw, a half-moon of chestnut steamed into shape and strung with a length of smooth iron wire. With this, intricate figures are cut, the stone held firm by a clamp and turned as needed, so the sawing is in the same direction. The cutting ability comes from carborundum paste, a semi-liquid emery board that allows the wire to

gradually work its way through the stone. Once cut, the craftsman files off the last nooks and crannies, coaxing delicate patterns from jasper, porphyry, agate or quartz.

Each piece is cut with its sides angled, so that, although the visible edges meet precisely, with not a hair space between them, the reverse of the piece has troughs to receive the adhesive, made by Thomas from a mixture of beeswax and pine resin. 'It's lovely to work with because it's natural,' he notes.

To reach the delicate stage, he must extract thin slices of stone from large rocks, thinner pieces being backed by slate to reduce the risk of breakage. This is where the big mechanical saw proves invaluable. 'Cutting a slice from a block of Egyptian porphyry can take three hours even with

the saw,' he explains. 'In the old days, two men with a bow saw would have taken days.'

Where it makes sense, Thomas has no objection to 21st-century technology and even creates his own tools where necessary; this being such an esoteric world, few can be bought off the shelf and not many places make such specialised machines, hence looking as far afield as California. If something goes wrong, it's also difficult to find someone to fix it: 'You have to be a designer, geologist and an engineer, too.'

Finally, on the giant polisher, tables up to 6ft long can be smoothed with magnesite and diamond plates in ever-finer grades. 'Pieces must be kept absolutely free of grit,' the craftsman points out, 'as a scratch can take hours to remove.' Smaller pieces are polished ➤



Precision is all: unlike mosaic, where grouting is visible, pietra-dura technique involves filing the tiniest pieces so that they fit perfectly together, without any perceptible space

by hand in circular motions with a block of agate and carborundum paste. It's at this stage that the colours are revealed in their full glory, black marble changing from dusty chalkboard to jet.

As it's an unavoidably painstaking process—a 4in by 6in panel might take two weeks to complete—even Florence is suffering from a dearth of apprentices. 'The surviving craftsmen are mostly 70 or 80 years old,' laments Thomas. 'It's been passed down generations, but people don't have the patience any more. The recession bit badly and some are just doing tombstones now. It's so sad, considering the skills they have.' To help reverse the decline, he hopes to open a workshop, running short courses and taking on apprentices.

Thomas spent nearly four years in different Florentine workshops before setting up on his own. He regularly fulfils private orders, from paperweights of an orange-tip butterfly set in black marble to panels for the lids of jewellery boxes, such as a shooting scene for his sister's wedding present, a rotating chessboard/backgammon table and even



Just 10in by 8½in, the coat of arms set in the new tomb of Richard III was created with 350 individually cut pieces of stone

panels for superyachts. A paperweight is about £350 and jewellery boxes start at £4,000.

At the suggestion of The Prince of Wales, whom he met at the INTBAU Excellence Awards in 2015, where he received an honourable mention, he joined the Art Workers' Guild. 'It can be a benefit working with other makers, such as stone carvers and lettering designers.'

Thomas's public commissions include a Latin inscription in Westminster Cathedral to commemorate the inaugural visit of Pope Benedict XVI to England in 2010, each letter cut by hand from Egyptian porphyry. Next is the restoration of a Tudor rose on the floor of the House of Lords, for which he will use some of the last pieces of Duke's



Thomas cuts stone with an archetto bow saw, a method used by 16th-century masters

an image,' explains Thomas. 'Sometimes, I look for the stone to create a picture.'

He will cut templates of paper into the shape needed and search myriad shards for the shading of leaves (*verde d'Arno*), a Florentine street (*orobico*), a lapwing's plumage (*Africano*) or a stag (*paesina*). For a winter sky, he might choose a piece of transparent onyx painted blue on the reverse or, for the centre of a conch-shell lily, agate backed with gold leaf. The delicacy can be extraordinary, such as onyx only 1mm thick for a dragonfly's wings.

Regular trips to quarries in Italy and quarrymen who know what he's looking for

keep his shelves full. Some stones are increasingly rare: 'It's very hard to find black marble without veining now,' he reveals. 'You have to be able to see what a rock will be like inside.'

On a trip to the Pitti Palace in Florence, the young Thomas found 'everyone else was looking at the paintings, but I was looking at the pietra-dura floor'. He adds, wonderingly: 'They used to do pietra-dura relief work, too, but that technique is all but lost.' If anyone can revive it, it will be this dedicated artist of stone. *Greenaway Mosaics (01327 861378; www.greenawaymosaics.com)*



This chessboard, which uses flourite and green porphyry among others, rotates to reveal a backgammon board

Mind your beeswax

A variation on jigsaw *commesso* is *intarsio* work. As in a late-16th-century Roman marble table top that Thomas restored, it involves drilling holes to the requisite depth, chiselling out the remaining stone, filing an inlay to fit, filling the hole with hot beeswax and dropping in the stone. 'The beeswax dries in about 10 seconds, so you have to be very quick before it goes hard.'