



# stone carving



*Letter carving.*

## what is it?

It's working stone as a craft or an art, in 3 areas:

- traditional masonry work – cutting regular blocks and making repairs to stone buildings, including arches, foliage etc., notably on old churches and cathedrals
- figurative, decorative, artistic forms / sculpture
- letter carving, for memorials, commemorative wall plaques or gravestones

The oldest stone carvings known are the 'Venus' figurines, some over 30,000 years old, and one (although contested) that is around 800,000 years old, which would, if true, mean that it was made by *Homo erectus* rather than *Homo sapiens*!

Stone carving for buildings, sculptures and lettering has been practised by all civilisations, and includes some of the most famous cultural artifacts in history, like the Pyramids, Michelangelo's *David* and the reliefs of Angkor Wat. By the 1940s and 50s, people like Henry Moore and Barbara Hepworth were experimenting with more fluid, abstract forms of sculpture.

**Types of stone:** there are hundreds of different types of stone, from extremely hard granite, through intermediate stones like marble and sandstone to soft stones like alabaster and soapstone. There are many different colours too, and all require different tools and techniques, and are suitable for different purposes and locations.

Most building work has historically involved local stone (as it was difficult to transport until the arrival of the railways), and that depends on the local geology – for example: granite in Cornwall and parts of Wales; limestone in a belt from Gloucestershire to Lincolnshire, including the Cotswolds; slate in Cornwall and north-west Wales; shale in mid-Wales; sandstone in the Midlands and North; alabaster near Nottingham

and in south Wales, near Barry; chalk and flint in south-east England.

The amount of detail depends on the stone – it's difficult to get much detail with granite, for example, but in marble, Italian Renaissance sculptors were able to capture intricate details.

## what are the benefits?

You can find your stone locally without having to pay for it – directly from nature, or from stone quarries that provide pieces for kitchen worktops, but who may be happy to give away smaller offcuts. In north-west Wales you can find slabs of slate at old, disused slate works, or even just on the side of a hill; they can be used for relief carving work. You can even use pebbles picked up from a beach for very small jobs. Even if you buy larger pieces, stone is not a very expensive material to work with. A one-tonne block might cost around £100, including delivery if not too far.

Stone is a natural material, and often you'll be using the waste from another product. It's also very durable, if you choose the right stone (granite, limestone or sandstone for outside work), and your work could potentially be around for thousands of years as a piece of art or architecture.

You don't need many tools or much workshop space – it can be done outdoors, or in a small studio or garden shed.



*The Venus of Hohlefels, at least 35,000 years old, one of 144 ancient carved Venus figurines, mostly from stone, but also from bone, ivory or fired clay; they are among the most ancient examples of prehistoric art.*



Stone carver repairing stone decorations for Canterbury Cathedral.

## what can I do?

To work in masonry/building repair, you'll need a City & Guilds with a relevant college and/or an apprenticeship. Some cathedrals have their own works departments, training sculptors for repairs. Once you're trained, there'll be plenty of work.

With letter carving, you'll need some formal, but not necessarily expensive training for layout and design. There's an increasing demand for the personal touch, rather than machine-cut gravestones, memorial plaques, house names etc. Memorials by Artists has a database of letter carvers and can discuss needs for memorials.

For more artistic sculptural work, go on courses to learn how to use tools, after which you're limited only by your imagination. It may be easier to start working in 2 dimensions. Make a design on a flat stone and cut into it to make a relief sculpture.

To sell your work, you'll need to exhibit. There's a demand for smaller pieces, which may take a couple of hours and can fetch £50 or so. Larger commissions are listed by of the Royal British Society of Sculptors - but it's difficult to make a living unless you make a name for yourself.

**Tools & equipment:** you'll need stone, a set of chisels, a wooden mallet and pencil & ruler for design work. For letter carving, there are little metal hammers called 'dummies'. For larger pieces, you'll need to be able to collect / move the stone. A vehicle with an open back or trailer is useful, and anything over 60kg will require lifting gear. To work on large stones you may need

power tools, such as an angle grinder with a diamond disk, and/or a pneumatic hammer. Search online for stone tool suppliers.

With granite, your chisels won't stay sharp – it's more about pulverising rather than cutting it. For other stones, you'll need chisels with fire-hardened or tungsten-carbide tips, and a sharpening stone to keep your chisels sharp.

With small pieces, use an old trouser leg filled with sand and tied off at each end to cushion the stone and make sure it doesn't move. For larger pieces you can make a table called a 'banker' from 3x2 timber with planking on top - something sturdy that doesn't mind being bashed around a bit. Again, sandbags hold jobs and stop movement.

If working indoors, you might need a table lamp to direct light to where you need it, but with larger pieces, or if there will be lots of dust, you may want to work outdoors, possibly under a gazebo.

**Health & safety:** get gear from builders' merchants, including strong boots (steel toecaps if working with large stones), goggles, leather gloves, face-masks (to keep sandstone and granite dust out of your lungs, as it's silica, which is carcinogenic; but limestones and marbles are less aggressive, as they're lime-based rather than sand-based), ear protection (if using power tools), high-visibility vest and hard hat if visiting quarries.

**Techniques:** to remove large volumes of stone, use a 'point' (pointed chisel). Make grooves from left to right, then top to bottom to remove stone quickly (by hand). To refine the shape, use a toothed chisel, then a flat chisel to smooth off the ridges made by the previous chisels. Then rub with old bits of carborundum (silicon carbide) grinding wheels to smooth down areas even more. Then various grades of sandpaper, and finally, depending on the finish you want, wet and dry paper. You can polish granite or marble, but sandstones are too gritty for a polished surface.

## resources

- [lowimpact.org/stone-carving](http://lowimpact.org/stone-carving) for more information, links & books, including:
- Joel Fisher, *Stone: Legacy & Inspiration for Art*
- Andrew Hibberd, *Letter Carving*
- Cami Santamera, *Sculpture in Stone*
- [memorialsbyartists.co.uk](http://memorialsbyartists.co.uk), letter carvers listings
- [rbs.org.uk](http://rbs.org.uk), Royal British Society of Sculptors
- [visual-arts-cork.com/sculpture/stone.htm](http://visual-arts-cork.com/sculpture/stone.htm), history of sculpture back to the stone age

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