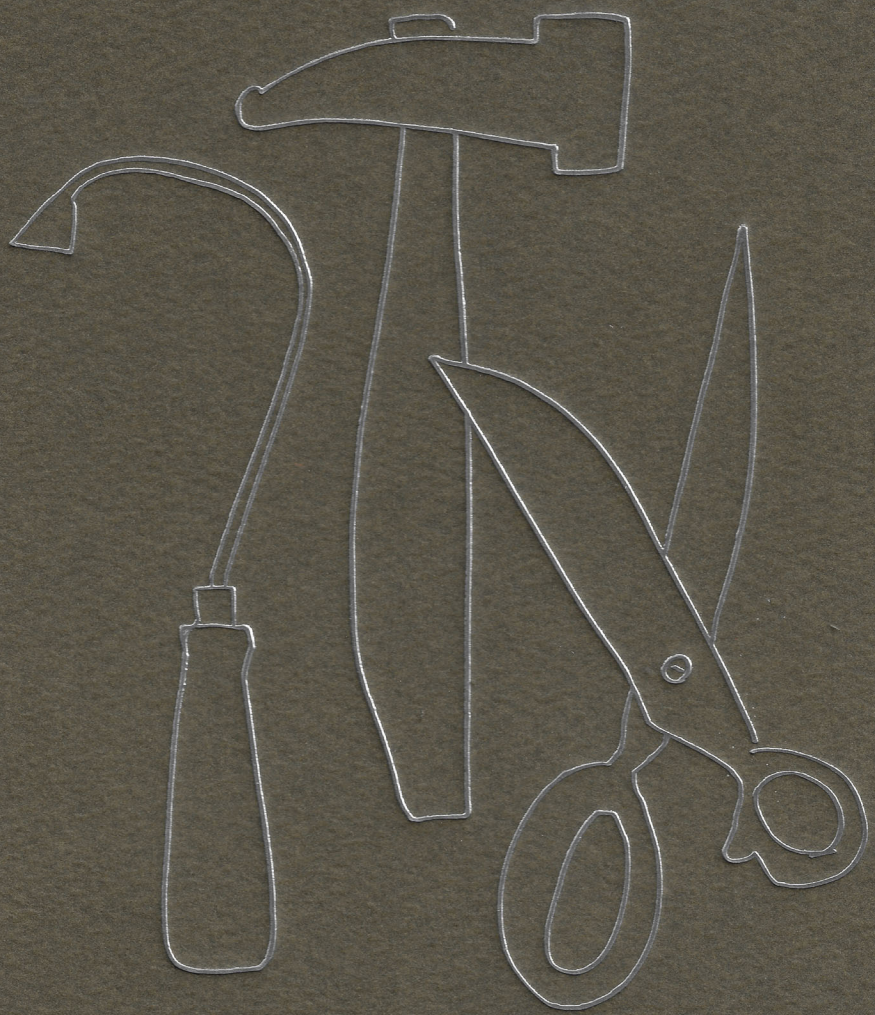
# THE STORY OF TOOLS

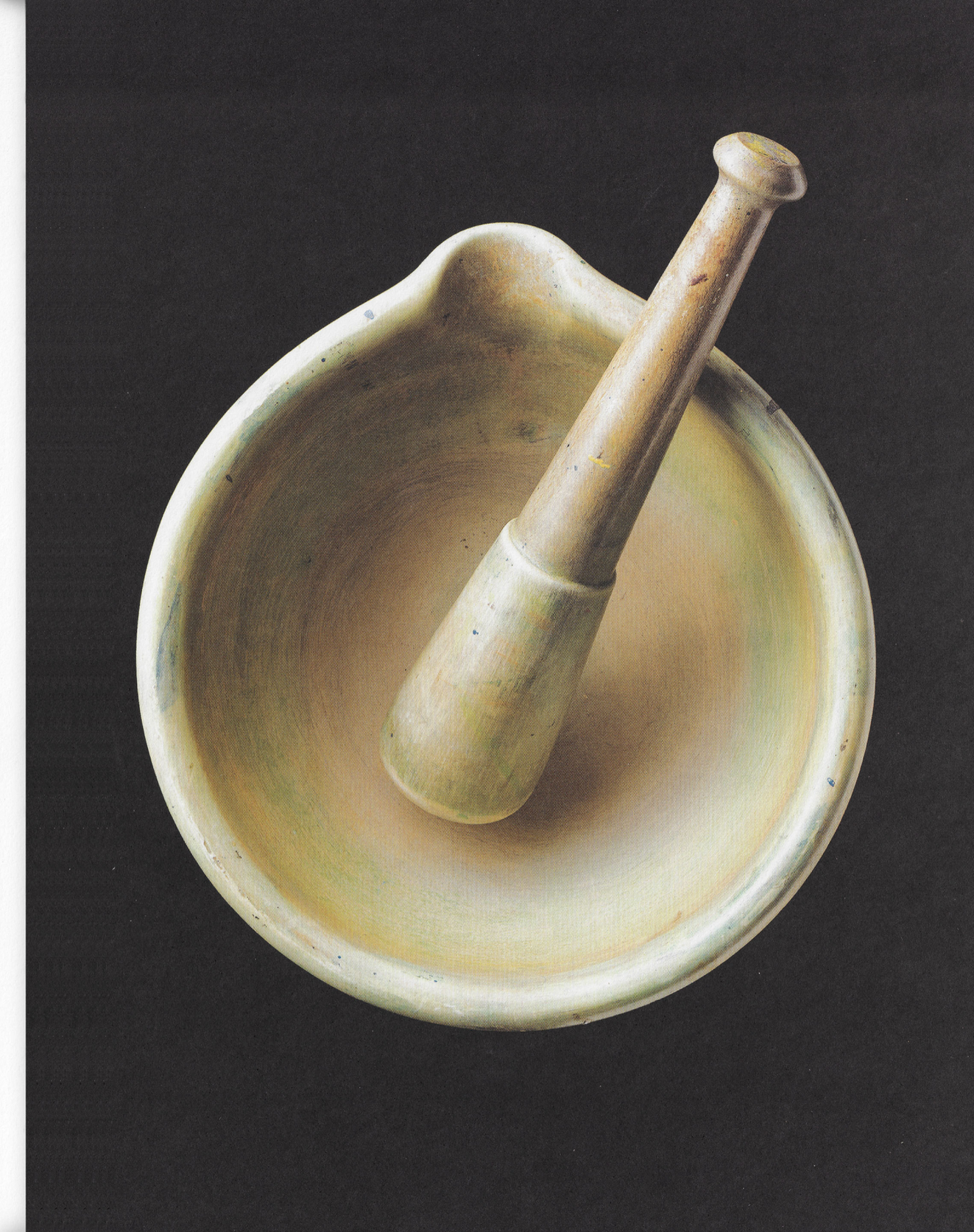
*A celebration of the beauty and craftsmanship behind the tools of handmade trades*



hole & corner

# The Pestle and Mortar

*mix and match*



The pestle and mortar is one of the earliest existing hand-shaped tools known to have been used by man. Examples have been found dating back to 35,000BC, and the name derives from the Latin *pistillum* (a pounding instrument) and *mortarium* (a receptacle for pounding). Not much seems to have changed in the intervening years in terms of design, and most cultures seem to have developed their own, very similar versions – early examples can be found everywhere from Indian to Mayan communities.

The mortar is commonly made of a hard rock such as granite or basalt, while the pestle can be stone or wood. The modern Wedgwood mortar and pestle, which first came into use in the Western world in 1759 for pharmaceutical use, is made of a porcelain mortar and a wooden pestle tipped with porcelain at the head. It is traditionally linked with medicine and the grinding of natural materials to produce powders – although in modern usage it tends to be a kitchen utensil, used for mixing ingredients and producing pastes for cooking, or for grinding spices into powder – as well as husking and dehulling grain.

For Pedro da Costa Felgueiras, a world-renowned paint, lacquer and pigment expert who runs Lacquer Studios, the pestle and mortar is crucial for his work. 'I use it almost every day,' he says. 'I do not buy any ready-made paints, so it is an essential tool in the making of all my colours: be it for historic houses or newly designed pieces.'

To say he doesn't buy ready-made paints is something of an understatement: a large part of da Costa Felgueiras' work involves restoration projects that require not simply colour-matching but process-matching. In other words, if a historic house he is working on was originally painted with blue verditer distemper, he will recreate the colour using the original techniques: slaking the dry pigment in water overnight, grinding and mixing it with rabbit-skin glue. (In this particular case, it also needs to be kept warm and stirred constantly to render it liquid and applied to the wall very rapidly – meaning he will often work through the night.)

He will mix pigments and make paint using a large, acid-proof, ceramic, laboratory pestle and mortar – such as the one pictured on these pages, which is ideal because 'it's big, it's old, and it has years of patina from using it for over two decades. The interior is also smooth from its long-term use, which I think helps in the making of a better paint.'

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While some tools can take years to perfect, the pestle and mortar is such a simple, ancient and intuitive set of implements that it is the material it is used with that demands technical knowledge and understanding. 'Every pigment reacts differently,' says da Costa Felgueiras. 'So it is not so much about the tool itself as the conjunction of the pestle and mortar, and the medium: the pigments used and the strain required to make good paint. The skill is more about knowing which pigments to use, with the right media and knowhow. For example, if you grind lapis lazuli for too long, instead of a vibrant deep blue, you get a murky grey colour.'

For da Costa Felgueiras, this process is often instinctual and even hypnotic. 'I can almost get into a trance,' he says, 'as the beating of the pestle hitting on the mortar makes a sound akin to a gong in a Buddhist temple: thus putting me into a state of semi-meditation.' While the majority of the grinding work is done using a pestle and mortar, he will use other kitchen utensils to initially mix and crush the pigment at the outset of the paint-making process.

However committed he is to using the pestle and mortar for historical accuracy and its effectiveness, da Costa Felgueiras admits there can be distinct disadvantages too. 'It can be quite heavy,' he says, 'especially if it is full of lead paint.' It can also be impractical simply because of the scale of work he is required to carry out. 'Sometimes it's not big enough to make large batches of paint – especially when you are undertaking a project in one of the grand historic houses in Britain, and so you are obliged to repeat the process many times over. On the other hand, if I had a big industrial machine to make lead paint I would not be able to use it now, due to health and safety requirements. So, the challenge of using it is actually what makes it possible for me to still be able to provide lead paint for historic buildings.' Indeed, most large manufacturers have now stopped supplying it for this reason – meaning the old-fashioned process is the only way to produce the paint required.

Of course, there is another drawback in not buying your paint pre-mixed in a tin: 'Quite a bit of elbow grease is necessary in order to make it this way!'

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