When I was a child there was a truism that anyone could make something (a rabbit hutch, say) or mend something (a bicycle) if they had a classical education. It was felt that using intellectual tools – parsing a bit of Latin history, constructing an argument – was training enough for taking on the material world. Learning gave you a steady approach to the tricksiness of the world of things. Lurking behind this belief was an attitude of de haut en bas; condescension towards those working with their hands.

This annoyed me. Partly because I could only stumble through my Latin lessons but mostly because my afternoons were spent in a pottery workshop learning to throw pots. It was clear to me – a white apron over my school uniform as I kneaded the clay to take out the air bubbles and give it the right consistency, pulled the long twisted wire made from rabbit snares, divided it into 4oz balls and sat at my kick wheel in the corner readying myself for my hours of practice – that this was different from classroom learning.

Centring the clay, bringing this small ball into perfect receptivity for throwing, involved a ripple of different movements from hand and wrist, an inclination in the head and neck, a slight tautening in the shoulders. It was a sort of learning that I could not articulate.
All through school I read and I made pots. I read the great British potter Bernard Leach’s *A Potter’s Book* (1940) until my copy broke its spine, studying its diagram of the layout for a proper workshop until I could walk round my imagined future workplace. I read William Morris and John Ruskin. In 1980, I left school and went to Japan to visit venerable potters. Back home I became an apprentice and then took myself off to study English at university. Books and pots, head and hand. I was searching for the place where someone, anyone, writes about that epiphany where you see what you have made and it is different from what you had conceived. I was searching for a description of how an object can displace a bit of the world. I was avid. I wanted someone to write a description of *Homo faber*, the maker of things. I wanted a story of making told without the penumbra of romanticising how hard it is, without nostalgia.

Then in 1988, in my first proper studio at the end of a street of terraced houses on the edge of Sheffield, close to the dereliction of the old steelworks, I read Primo Levi’s *The Wrench* (1978). It was a strange time to be doing so, as Sheffield razed one factory after another, brick dust choking the road to Attercliffe, the valley where the world’s steel had been made.

I’d read Levi’s *If This is a Man* (published in English in 1958), his great, Protean retelling of his time in Auschwitz, the anatomising of what survival entails. Like so many I had fallen for his lucidity, his sense of responsibility for his story and his need to tell it in adamantine prose.

But *The Wrench* was a different kind of book, part travelogue, part essay on what it was to be a maker. It was a series of interlinked stories told over a glass of vodka by Faussone, a fictional rigger of cranes and bridges, to an unnamed chemist, a writer, a listener, like Levi.

Faussone has spent his working life erecting complex structures in inhospitable places – Alaska, Russia, on the banks of a flooding river in India, dependent on others but ultimately alone at the top of some crane beset by wind and rain.

Rigging, he says, “is a job that a person has to work out on his own, with his own head and, even better, with his own hands”. That is why he has contempt for shoddiness, the lack of attention to the specificity of one moment in one place with a material, the way each plate has to fix on to each bracket in a particular way.

For Faussone is someone who has a complex, adult, relationship with materials, who can explain why you get worried by some encounters with an object or a structure – how you develop a bodily response. He works on a bridge in India, and intuits that there is something awry before the bridge develops the vibration that literally shakes it apart. Material is not inert. Yes, responds the chemist Levi, his interlocutor: “Although I had never hammered metal plate. I did have an old acquaintance with copper, marked by love and by hatred, by silent, furious battles, enthusiasm and weariness, victory and defeat, resulting in more and more refined knowledge, as happens also with people if you live with them over a long time and finally can predict their words and movements.”

Here, at last, was a book structured round structure. It was a conversation about how you took one part of learning and took it to another job. This made sense of how deeply connected the hand and the head really are. It articulated for me the way that I would throw a dozen porcelain pots and look at them, affectionately perhaps but also with a dispassionate eye, and plan the next dozen. It understood how I knew when dipping a pot into a bucket of glaze or listening to the sound of the flames when firing my kiln that there is something out of balance.
And, above all, there was a feeling that Levi was not speaking for people who make things. He doesn’t explicate or translate technical terms. In *The Wrench*, Faussone’s voice is clear and unhurried, paced in response to the real complexities and real pleasures that he encounters. Alongside him is Levi with his “specific challenge: I have a double experience – a chemist in the world’s eyes, and feeling, on the contrary a writer’s blood in my veins.”

And I remembered this in 2006, when I was given the greatest commission of my life so far – to make something for the Ceramics Galleries of the Victoria and Albert Museum (V&A). When the invitation to make something for the gallery was first mooted, I was sent huge architectural floor plans and elevations. I picked up a red pen and did a ring around the dome. Here, went the scribble, this is where I want to work. It began with the combination of a gesture of a pen and the plans of this austere bit of Edwardian architecture. There are ceramics in the walls and floors in the V&A. Why not in a dome too?

The porcelain vessels are held on a red shelf. I wanted the shelf to be in metal – a proper material like a steel engineering beam rather than a bit of spray-painted medium-density fibreboard (MDF). Partly out of respect for the solidity of the building itself, but mostly because I think you can sense when something is sham. I had started working with placing porcelain in lead-lined boxes and on steel shelves and was intrigued by how well the two materials worked together. These two kinds of density are a provocative combination.

I wanted this red scribble of a shelf to float above the cornice, away from the dome, so that there was this mass of porcelain held in space.

How do you make a gesture in space? So began a huge process of consultation with the curators and then with architects and surveyors. Nothing was off limits, they said, and so we stood and looked up from the entrance hall, through the interstice in the coffered ceiling in the entrance hall off the Cromwell Road to find if you could actually see the cornice in the gallery where the porcelain would be.

We made a section of a maquette and tried out its position in the dome, balancing it from two scaffolding towers. During my first meeting with engineers in my studio, there was a lot of shaking heads. The stresses were too great. A shelf would tip or spin or twist. The dome was too weak. The shelf was too thin. We’d end up with a pile of shards on the floor of the gallery.

This was the first time I’d worked with engineers and I thought that this was the end, the dispatch of the dream. It was only the start. This great puzzle was thought through and worked on and the stresses were modelled and drawings issued for consultation. Could it be made in sections and rigged together so as to be invisible from the ground? We all put on hard hats and climbed spiral staircases and along ladders to see the outside of the dome – a spectral ellipse of plaster and lathe below us. Ten months later, on a blowy early day in summer, we stood in Aspinall’s factory on the coast near Lancaster looking at the finished metal shelf. It was ready to go off to be powder-coated and it was in its raw grey state, a beautiful arc, true to 2mm across the diameter of 12 metres, floating above the dusty factory floor on breeze blocks.

And there I realised that Levi was right: that it is through the hands that you learn the properties of the “grey of steel beams and plates, the actual heroes of his stories”. But that these materials needed a lifetime of thinking around. They are a start for conversation.
A week afterwards, the grey aluminium ring was lacquer red. We saw it being rigged from a scaffold 60ft above the entrance hall: a beautiful red ring held in only four places, floating in the dome. A wild red scribble in space, one that Faussone, the rigger of cranes might have understood.

“We agreed ... on the good things we have in common. On the advantage of being able to test yourself, not depending on others in the test, reflecting yourself in your work. On the pleasure of seeing your creature grow, beam after beam, bolt after bolt, solid, necessary, symmetrical, suited to its purpose; and when it’s finished you look at it and you think that perhaps it will live longer than you, and perhaps it will be of use to someone you don’t know, who doesn’t know you. Maybe, as an old man, you’ll be able to come back and look at it, and it will seem beautiful, and it doesn’t really matter so much that it will seem beautiful only to you, and you can say to yourself, ‘Maybe another man wouldn’t have brought it off.’ ”

The V&A was working to a tough deadline to open its new galleries. We had a week to install before the scaffold had to come out. By day we were placing the 425 porcelain bowls, dishes and jars into this beautiful structure, calibrating each part of the installation so that it echoed true. And at night I was at home trying to calibrate the final chapters of my family memoir *The Hare with Amber Eyes*. The publishers had an equally tough deadline.

The making of my written work had started five years earlier, in 2005, when I had begun a journey into the history of my Jewish family from Odessa to Tunbridge Wells through Paris and Vienna, using as a compass a collection of small Japanese carvings (*netsuke*) I had inherited. It was an attempt to find a voice for something that was unvoiced – the strange hiddenness of my Jewish family background. There were real problems for me in this. Some problems were emotional. How could I even dare to write about this when the experiences of other writers who had endured so much and written with such clarity – Joseph Roth, Stefan Zweig, Jean Améry and Levi himself – were in front of me? Some were practical – the records and traces of my family were buried across Europe. How could I use these inherited stories, anecdotes, memories from my grandmother, my father and uncle, newspaper clippings, photographs and construct a real story, rig a real, complex structure when all I had done before was to make basic shapes?

Before me, alongside me, were Levi’s stories of how you put something together without emotional falsity, how you think about representing structure. I wrote in the preface to *The Hare* about my anxiety that this family memoir could succumb to the lure of nostalgia, be more than a few stitched-together anecdotes. “Melancholy,” I wrote, “is a sort of default vagueness, a get-out clause, a smothering lack of focus. And this *netsuke* is a small, tough explosion of exactitude. It deserves this kind of exactitude in return.”

By using these real objects – small and tricky and beautiful – as a structure, telling their story with attention, I had a chance of making a different kind of book. It seemed worth the effort.

*Edmund de Waal is the author of ‘The Hare with Amber Eyes: A Hidden Inheritance’ (Vintage). He is taking part in Radio 3’s The Book that Changed Me’ season from March 14-18. De Waal’s essay on Primo Levis’ ‘The Wrench’ will be broadcast on March 15 at 11pm*