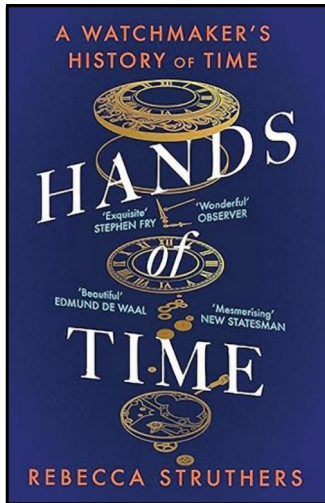


Hands of Time by Rebecca Struthers review by Mol Smith



Rarely have I read a book of such wisdom, knowledge and of such deeply profound human thoughts and reflections. I'm certain that hobbyist microscopists, sharing as they do - curious, bright minds, will enjoy reading this book as much as I did. I was so bowled over that I contacted Rebecca, the author, and found her warm, helpful, and willing to assist me in writing this

article. Does it have anything to do with microscopy? Yes. At its root, it's a story of both current day and historical micro-engineering; requiring instruments to magnify watch and clock parts either at a macro or micro-level: loupes and microscopes.

Rebecca takes us on a journey, one she began at nineteen years of age as she trained to be a watchmaker, and carries us through the ages of history where the vehicle is mankind's fascination with time and his/her attempts to record its passage accurately. I would argue for example that Stonehenge is a timepiece, possibly one of the first constructed to realise the start and end of seasons, and aid food collection and winter hibernation.

From early attempts to make water clocks in the 11th century to atomic clocks accurate to one second, plus or minus, in a one hundred million years, the journey sweeps us onto the hands of famous and notorious historical figures: John Calvin, King Charlemagne, Charles I & II, Christopher Columbus, Oliver Cromwell, Queen Elizabeth, to name but a few.



She takes us into the very heart of the mechanics, the issues and problems that watchmakers had to address to increase accuracy and reduce wear and tear.

But she does so with two minds; one which works precise and logically, and the other with soul and human emotions...

"I've spent a large portion of my life feeling guilty: for not working hard enough, for oversleeping. Even on holiday I struggle to relax, because of the guilt of not working. I doubt that my ancient ancestors, living in caves carving star charts, felt the same sharp pang shame when they took a moment to relax."

"Every watch is unique. Even those made in vast quantities in contemporary factories. Once a watch has been worn, it will pick up traces of its owner's life: the adventures they've been on together, the daily wear, the special occasions it's been brought out for, or even the time it's been sat in its box. That is why, when a watch arrives in our workshop, I start a systematic process of inspection to make sure I capture any and all of the faults it has picked up over the years."



Craig & Rebecca

Rebecca explains the process of dismantling a watch, cleaning each part, checking it for wear, tear, damage, and bodged repairs. She is mindful that she is holding in parts, an object often precious to its owner, or one of great age and significance. She, along with her watchmaker husband, Craig, describe their work shop, the tools they use, and the long struggle to get their

business up, funded, and running.

I think almost every reader, either interested in world history per se or watches and clockwork, will discover extraordinary telling which takes you into the events of history at the same time as putting you inside Rebecca's head and behind her eyes.

Clever, simplified illustrations of exploded watches, the verge escape movement and there are full colour photographs including one of a Lebombo bone from 44,000 years ago. It is, Rebecca explains, carved from a finger-sized piece of baboon fibula, and is considered to be the earliest potential timepiece discovered to-date. It has etched into its surface twenty-nine notches, dividing thirty spaces which is an average lunar month. It has wear patterns, meaning it was regularly used, and is clear evidence of calculation linked to the passing of a lunar orbit: a month.

For a microscopist, most of those involved with the hobby probably look at animal or plant life, but increasingly our lives are being enhanced or moved away from the natural world by (made better or worse?) the introduction of technologies, which miniaturise the machines and electronic accessories that we now employ and new generations take for granted. This is a pyramid industrial system where we make machines and tie them to computer systems to work at a micro level beyond the capability of our eyes and hand movements. But when you look at watches from previous centuries in detail and observe them close-up, you can only bow and salute the incredible craftsmanship of the watchmakers who made them.

I think both Rebecca and her husband are like many expert watchmakers: they preserve the skill and creations of brilliant artisans and micro-engineers of the past.

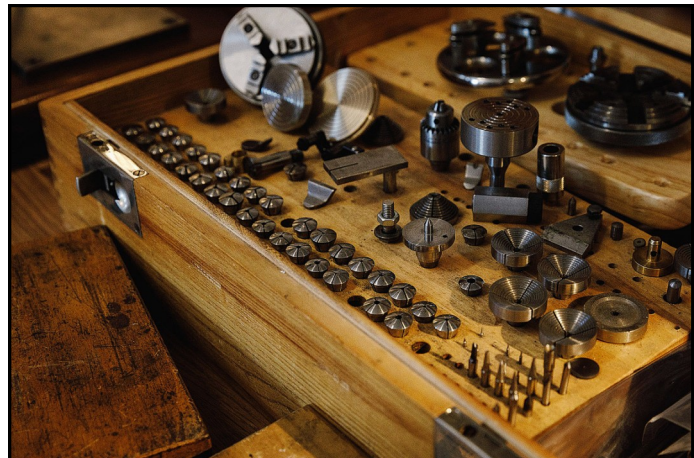
Rebecca explains how many of the tools and equipment required to both repair watches, create new parts, or make brand new watches necessitates locating old machines and repairing them to do a professional job.

I contacted Rebecca hoping to get a response but thinking in my heart that she would be too busy to reply. I was stunned and full of admiration for her when she replied within a few hours despite her and Craig about to go on a huge journey to Australia and give presentations there.

I asked her some question and she kindly answered them for me:

1) How long, cumulatively, did it take to do the extra research and write your book? Best guestimate.

Most of the book was written over the course of 3 years, although chapter 5 which covers the subject I



chose for my PhD was the product of nearly 15 years of research.

2) If you had life all over again, would you have chosen a different path?

I wouldn't have met my amazing husband if it wasn't for watchmaking, so there's definitely nothing I'd rather be doing!

3) Do you use a microscope or just a loupe in your work?

I do most work through loupes of varying magnification depending on the scale of the work. For

very fine jobs and inspection work we use microscopes too.

4) What are your thoughts between wind-up watches and contemporary electronic watches? Too broad, I know, so preference for what type do you prefer to wear and why?

I love the romance and ingenuity of mechanical watches, which is why I choose to make them, but I love the ease and affordability of electronic watches. My favourite brand for wearing around the workshop is Casio. I love how durable they are and that I don't need to worry about knocking or scratching them.

5) Favourite fictional film or book? (H.G. Wells time machine, The Time Traveller's Wife, to get you started)

There are so many! Mary Shelley's Frankenstein has a soft spot in my heart as it was the first work of fiction I read after many years of solely reading for research. The idea of reading purely for pleasure felt very decadent and it was an incredible book to get started again with. I love anything with complex and flawed characters, and, stories that capture both the beauty and brutality of life.

I hope that helps. If you have any other questions please do let me know!

To see Craig and Rebecca in an introductory film, click on the QR code below.

video



Website

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Web version here

