

From an Amateur's Perspective

My interest in microscopes and other optical instruments has been with me from a very early age. As a nine year old I owned a very small student's instrument, with one of each objective and ocular lenses. It had no focussing mechanism, just a chromed brass tube sliding through a split body. It did have a revolving mirror below, however, for projecting light through a slide.

The microscope came in a wooden box about nine or ten inches long with a sliding lid and was complete with a selection of prepared slides, the majority of which were, and still remain, a complete mystery to me, but made for very interesting viewing nonetheless. I spent many happy hours on sunny days looking at the slides with the microscope placed on my bedroom window sill, the mirror set to collect as much light as possible.

I have no idea how I came by my microscope, it must have been a present for either Christmas or a birthday, and I can't remember which. Sadly, neither can I remember what subsequently happened to it. How the years take their toll! I wish that I had that microscope now! It would hold pride of place in my small collection.



My interest in scientific instruments subsequently formed the basis of my career. I am an instrumentation engineer working in the nuclear waste management industry in Cumbria. Occasionally, my work entails developing and building bespoke instruments. Mostly, these are used for monitoring and measuring variables in legacy nuclear waste from the cold war period, but sadly, few of these instruments are based on those optical technologies that are so dear to me. Most of my time is spent in selecting sensing instruments, flow, level, temperature, analysis and pressure etc. and connecting these to process computers of one flavour or another.

As an adult, I was very surprised to learn that I am ancestrally related to the Rev Joseph Bancroft Reade BA FRS, a founding Member of the original London Microscopical Society, which later, on award of a Royal Charter, became the Royal Microscopical Society of which he was a President and of which I am proud to be a member.

J. B. Reade was a pioneer of photography, and was also a keen amateur microscopist. Much has been written about his taking the stand as a defence witness in a celebrated court case involving Mr Fox Talbot. J. B. Reade had independently carried out similar experiments to Fox Talbot and supported the right of Mr Fox Talbot's Patent for chemically fixing photographs using silver nitrate (Reade had experimented using Gallic acid to fix images on chrome leather). Reade regularly corresponded with Herschel, Dolland and Lord Byron amongst others. What times for him to be alive in!

I currently own three microscopes, all of good amateur, if not professional quality, a digital compound research microscope (up to 1600 x), a digital stereo microscope (up to 80 x), and a digital mono instrument of intermediate magnification.

What do I use them for? The sad fact is, not much! I do have an abiding interest in the mutating effects of Beta and Gamma radiation on the various algae types present in highly active nuclear waste storage ponds, but gathering (and viewing) samples would be prohibited under the Ionising Radiation Regulations, 1999 and frankly would be too dangerous on a personal level to seriously contemplate. I have no aspirations to become another Madame Curie, and I'm certain that my managers wouldn't be best pleased with me sampling highly active nuclear waste either!

Microscopy is a means to an end, a microscope is nothing more than a sophisticated instrument used to achieve a result, the sight of a process, an image. For me, being interested in and collecting microscopes for their inherent technical qualities is an end in itself. I have no real need for them, there is nothing in my professional life that really needs to be investigated or recorded at a microscopical level. No research to do, no answers to be found. I have to confess that I find this to be totally frustrating and often wish that I could apply my knowledge of these instruments, such as it is, at a more practical level.

I really should be grateful that my little student's microscope set me on my career path all of those years ago. It has served me well.

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Biography

Malcolm Reade is a 61 year old Fellow of the Institution of Engineering Designers, and a Member of the South African Institute of Measurement and Control. He lives in a village to the north of Northwich in Cheshire with his wife of 31 years, Carol.