

Two New Leeuwenhoek Microscopes?

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Microscopes made by the Dutch pioneer Antony van Leeuwenhoek have intrigued me since I was a teenager. Although all of his microscopes are now believed to be accounted for, two more may have possibly been discovered. One is a small silver object in a box of oddments found in the desk of a dying silver merchant, and the other is no more than a scrap of dirty metal dredged from a Dutch canal.

Both items were immediately brought to my attention for an opinion. The silver one is intriguing. There are others that are similar and are known to be from Leeuwenhoek's own hand, but there are many existing forgeries and replicas. Currently, it is undergoing metallurgical analysis, but the new owners are not yet willing to say more publicly.

The second example is made of brass and was offered for sale on eBay as a "weird kind of drawing instrument." It had been dug out of mud that had been dredged when the canals were being serviced in Delft, the Netherlands. As soon as it appeared on eBay, the microscopist community became intrigued as it seemed to have the thrice-perforated handle characteristic of many Leeuwenhoek microscopes. One collector succeeded in buying it — and then the trail went cold. The seller wrote back saying that it had been lost and he was returning the money. I was asked what the buyer should do next, and I said he should contact his lawyer. If he has paid for it, then it is likely his property, whether "lost" or not. The seller then changed his mind and said the microscope had, after all, been found. He sent it in the mail.

Is this microscope genuine? It was found in Delft, where Leeuwenhoek lived and worked, and although dirty from buried in mud for centuries, it is remarkably similar to a brass Leeuwenhoek microscope in



This is a surviving example of the many silver microscopes that Leeuwenhoek made. It was privately purchased by a collector at a major London auction house. A similar example sold in 2009 for more than half a million dollars ("Editorial: Rare Leeuwenhoek Bids for History," *The Microscope*, 57:1, ii, 2009).

the collection at Leiden. Either way, we are faced with two interesting relics that require study and could perhaps be genuine artifacts. Such a discovery has not happened for decades. A protocol to determine whether such items are truly genuine is needed.

It was an adventure to find out what had happened to the original Leeuwenhoek microscopes that originally led me in 1981 to the Royal Society in London, where I discovered Leeuwenhoek's original specimens hidden in their collections and neglected for more than 300 years (*The Microscope*, 59:1, pp 11–19, 2011). Now, being on the trail of two new Leeuwenhoek microscopes is incredibly intriguing and exciting. If we can solve the question of genuineness, the matter will be a great moment of scientific history.



This curious picture was found on eBay last December. The object seems to be similar to a Leeuwenhoek microscope, with the body plate twisted through 90 degrees. It was described by the eBay vendor as a "weird drawing instrument." After selling it, the vendor insisted it had been lost, but later found it and sent it to the buyer.



The "weird drawing instrument" turned out to be a brass Leeuwenhoek microscope. It had been buried in mud from a canal in Delft for some 330 years, leaving the metal discolored and blackened. Brian J. Ford has been analyzing it at Cambridge University and says that it has all the characteristics of the genuine instrument. Energy dispersive X-ray spectroscopy is being done on the brass alloy, which may provide a signature to compare it against other microscopes and reveal the elemental composition of the glass lens, the surface of which is severely scraped.