## The Newton Microscope: An Expanded Evaluation?

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Figure 1. Newton microscope in transport case as received

## Introduction

Part 1 of my paper on the Newton microscope was published in Micscape in July 2013. It was a review of folded-optics microscopes, with an emphasis on the earlier folded-optics microscopes of Keith Dunning and Rick Dickinson, the developers of the Newton (formerly the Millennium Health Microscope).

Owing to a number of unanticipated emergencies, I was unable to complete Part 2 when hoped. One of those emergencies found me in the cardiac and vascular critical care waiting room at a distant hospital. While there, I was able to use my smart phone and heard a Tom Talks presentation by Clay Shirley, "How Cognitive Surplus Will Change the World". The essence of that presentation was that there are about a trillion hours of surplus cognitive power available in the world, and that many folks are happy to contribute to society without financial gain. That is, they are pleased to contribute not because they are paid or their boss say they should, but because they want to.

Micscape is an excellent example of this "cognitive surplus" being put to excellent use, with David Walker, its editor and a frequent contributor being a prime example, as well as the authors of Micscape articles. All contribute their time and efforts without financial compensation.

Part 2 of the Newton microscope paper, including the Newton's evaluation, should be published next month. I had hoped to include the opinions of testers at the Liverpool School of Tropical Medicine; in that way the evaluation of the Newton in Part 2 could include assessments from multiple testers, not just a single evaluator, and would address the effectiveness of the Newton in meeting its original design goals in tropical medicine.

However, when I emailed Mr. Dickinson to obtain the name(s) of the Liverpool School testers, I found this information was company proprietary and could not be released to non-company personnel.

It was shortly after that, that I heard Mr. Shirley's talk. It occurred that there might be Micscape readers who would like to contribute to Micscape but do not have the time or energy to complete a full paper. That is, there may be a cognitive surplus among Micscape readers waiting to be applied to the Newton. Thus, to readers who have a Newton, if you would be kind enough to write to me with your impressions/evaluation of this microscope, I would be pleased to include your assessments in Part 2, and reference your contribution in that paper.

## **Stereo Microscopy**

Here we are dealing with a quite new instrument, one now available for purchase. So, multiple inputs if available, will help other readers make a more informed purchase decision, and provide a more balanced assessment. Papers dealing with historical microscopes do of not significantly impact new ventures, and there is often a considerable literature readily available.

If the cognitive surplus available from Micscape readers who have a Newton, can be harnessed for this paper, we should have a considerably expanded evaluation and one that expresses the opinion of multi-Micscape readers, rather than just the conclusion of the author.

So, should you like to contribute, I would be pleased to receive any inputs on the Newton, at the email below and, as noted, reference your contribution in the paper.

My focus here is on the Newton, but as many of you know, I am continuing a multipart series on stereomicroscopes, and also field portable instruments. Thus, if you have any additional inputs you would like to make in these areas, I would be pleased to receive them. Perhaps, the cognitive surplus of Micscape readers can help in these areas as well.

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Published in the online magazine Micscape, November 2013

www.microscopy-uk.org.uk

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Micscape is the on-line monthly magazine of the Microscopy UK web

site at

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