

Annette Tingstad's *Quality and Method: Rising Pictures in the Evaluation of Food Quality*

A Book Review by Barry Lia

Imagine of Elmer Fudd stooped over a table, diligently working on a paint-by-numbers picture. Bugs Bunny saunters up, drops a few blobs of paint on a sheet, begins to swirl them around, pauses a moment to eye it all, and then proceeds to whip the colored shapes into the figure of a gorgeous rabbit-dame he'd pictured in the swirling pattern. Out comes flustered Elmer's shotgun!

Those of us working with biodynamics may at times feel the shotgun of scientific criticism aimed at us. This book about one of the anthroposophically-based image-forming methods of scientific investigation will serve as a valuable aid in facing this challenge.

Quality and Method: Rising Pictures in the Evaluation of Food Quality, is based upon the dissertation the author wrote at a mainstream institution, the Royal Veterinary and Agricultural University in Copenhagen. Following her education in pharmacy, Annette Tingstad's search for complementary medical knowledge led her to Järna, Sweden and the laboratories of Weleda AB. Finding greater opportunities for grant support within agriculture than in pharmaceutical research, and already impressed with Ursula Balzer-Graf's successful work in the field, she chose to study whether the rising picture method (a direct translation of *Steigbildmethode*, a sort of paper chromatography also known as capillary dynamolysis) could become a scientifically accepted method for food quality assessment. She could otherwise find no good scientific methods to demonstrate differences in crops and products grown biodynamically, organically, and conventionally.

Given the book's academic form of exposition, this may not suit every biodynamic farmer's taste. However, it will be especially valuable for those who train practitioners and for others involved in college-level instruction who aim for more than the teaching of conventional scientific methodology. Having worked in mainstream science myself, I can say that my cartoon analogy is not entirely inapt. Practicing science is a bit like doing paint-by-numbers, and not simply because so much of it is a mathematical rendering of measurable quantities. In routine science, one's line of thinking is pretty much outlined by textbook education and the literature of one's peers. You are mostly just filling in the spaces. Nevertheless, a paint-by-numbers picture can be attractive.

On the other hand, my daffy analogy falls short when it

comes to Bugs' painting style. One may recognize it as the "wet-on-wet" method such as my wife teaches, in which the artist holds back and keeps reworking a simple color composition until it speaks for itself and suggests the form and theme for the picture. It stands here for a "reading of nature," which is the goal in the rising picture method and other "Goethean" methods.

These approaches to knowing just don't come as easily as everything always does for Bugs. The philosophical and epistemological hurdles are substantial.

As is necessary in presenting an unorthodox methodology, Tingstad addresses theoretical issues before outlining her investigations to her scientific audience. Even if you are not interested in the rising picture method itself, there is value in the author's presentation of the issues that underlie a holistic assessment of food quality and in her treatment of scientific methodology. There is also a very well-illustrated journeyman's-level exposition of Goethean methodology. In the appendices, she provides a handy one-page introduction to anthroposophy and a fine summary article on Bockemühl's work on plant metamorphosis methodology. Throughout the book, Tingstad adeptly handles presentations for a mainstream audience of Steiner's extension of Goethean science. In particular, she offers an excellent apologia in regard to biodynamic agriculture in the discussion section of her interview investigation.

In my biodynamic training Andrew Lorand impressed upon me the ill effects arising from the separation of technique and morality in modern science. Tingstad incorporates an ethical consideration into her critique of both food quality assessment and of scientific methodology. Hopefully, wider exposure to the unorthodox Goethean, phenomenological, and hermeneutical approaches she deftly outlines can aid us all in bringing an ethical dimension back into science and technology. This half of the book supplies a rewarding framework for readers grappling with such issues.

For those interested in the rising picture method in particular, this is undoubtedly the best resource available in the English language. It is superbly illustrated with well laid-out color images. The WALA-method procedure employed is explained step-by-step. The history of the method is given in detail and the state of the field is portrayed through a series of interviews with leading practitioners – both

those successful with its application and those less enamored with the approach. You can follow the author's interpretation of her own experiment and be schooled by a more expert interpretation of the data. You can even follow the author's daring venture to apply modern digital image analysis techniques to quantify the qualitative distinctions considered significant phenomenologically.

How does one investigate "the living?" Even the father of modern chemical agriculture, Justus von Liebig – cited by Tingstad – asserted that, "The inorganic energies are only servants to this higher energy." What exactly is pictured in the physical rising picture? One interviewee points out that a good picture may be obtained even when an active ingredient is shown to be missing using conventional analytical methods. Yet the author shows that the method can indeed be used to distinguish biodynamic, organic, and conventional crops from each other even in double-blind experiments. However, it takes a well-trained eye to do so, one that has learned to distinguish many picture "types" in the range of phenomena presented by various series of rising pictures. Tingstad rightly likens this to medical diagnosis rather than analysis. In one instance, different batches of carrots are compared on the basis of "leaf type" and "root type" and "maturity". We don't learn what causes the specific types of pictures to form, or what these phenomenological categories tell us of the conventional nutritional substances that are normally the subject of food quality analyses. We do know, however, that these non-analytical pictures do correlate with differences between growing methods that are affiliated with the broader, more holistic range of food qualities with which we should be concerned – touching ultimately upon even ecological and social health.

Something is pictured figuratively by this method. If these studies serve only to substantiate that there are differences, that's an important foot in the door for us. As Tingstad maintains, there "can be more than one path to the goal in scientific research." Otherwise it's likely the old adage will continue to prevail in food quality research: if all one has is a hammer, everything looks like a nail.

Tingstad hopes that her work will lead to further interdisciplinary studies to validate this and the other image-forming methods. At the close of his own survey of capillary dynamolysis work, David Heaf asks "will a new generation of investigators come forward willing to cultivate the necessary observational skills" for this non-analytical method to be productive (<www.anth.org.uk/Science/capillary_dynamolysis.htm>). No one can naively saunter up like Bugs Bunny in my tongue-in-cheek analogy and perform this form of intuitive perception. This book provides honest encouragement both for future researchers and for institutions that dare to lower the shotgun when we ask, "Eh, what's up Doc?" Whatever your judgment of the value of the rising picture method itself, we should all profit from a reading of this masterful exposition of anthroposophically-oriented methodology addressed to a mainstream scientific audience.

Barry Lia, Ph.D., is a member of the Oregon Biodynamic Group and is helping to organize a prep-making community in Washington state. He trained in biodynamics with Dr. Andrew Lorand. Together with his wife, Janet, he has led several workshops introducing biodynamics locally and in the Seattle-area Waldorf teacher-training program. They campaign for the Sunfield Farm\Land for Learning project (<www.sunfieldfarm.org>).

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