

Forward

It is a pleasure and an honor to offer a few words of forward to Brian Warner's guide to photometry. In his preface, he makes a considerable point about amateurs and professionals, and those who dare or deign to step across the line supposedly dividing the two. Here I would like to make a few observations about the two monikers, and suggest that there is not, or at least should not be, a distinction between "amateur" and "professional." In preparing these remarks I referred to *Websters New Collegiate Dictionary* (1960 edition; not so new anymore, but that was when my collegiate experience began):

am´a-teur, *n.* [F., fr. L. *amator* lover, fr. *amare* to love.] 1. One who cultivates a particular pursuit, study, or science, from taste, without pursuing it professionally; also, a dabbler. 2. In sports and esp. athletics, one who is not rated as a professional.

Well... a "dabbler" eh? "not rated as a professional"? No wonder we have an identity problem here. Somehow in my youth as an amateur astronomer I missed this connotation of the term. To me, the meaning of the term amateur was dominated by its root, "to love", that is, one who does what he does out of love of the subject, not out of remuneration (to the extent one can get away with that). In that context, most "professional" astronomers I know are also "amateurs": they love what they are doing and choose the profession primarily for that reason, not how much money they can earn. Indeed, I have often advised students that if they are smart enough to eke out a living in astronomy they are smart enough to get rich quick in some other field, thereby freeing themselves a bit later in life to become a "gentleman astronomer."

This brings me to another perspective on "amateur" versus "professional." Most folks need to earn a living somehow, so almost every "amateur" astronomer is a "professional" at something else. And curiously, most of us who call ourselves "professional" astronomers are amateurs in other fields that are essential to our pursuits. This basic fact of life further blurs the distinction between amateur and professional, in any field. Indeed, my own graduate training is as a theoretician. I have never taken a single course in observational astronomy. So as an observer, I'm one of you, an amateur, self-taught in my own backyard. Another conspicuous example is computer programming. "The other Brian Warner," author of this book, is a professional when it comes to software development, and writing for that matter, talents many of my "professional" astronomer colleagues sorely lack. A result of this is that there are software packages out there, written by professional software writers for the amateur community that are far more powerful, efficient and user-friendly than their "pro" counterparts. The people who wrote them may be "amateur" astronomers, but they are highly professional in their computer skills. Amateurs now have at their disposal computer tools for telescope pointing, focusing, data taking and reduction that far surpass what is in use at most professional observatories. You'll find several such packages mentioned and described in this book.

I'll now turn to a bit of history. In the late 1990's, my colleague Ted Howell and I noted that there was a dearth of activity among American amateur astronomers in minor planet (asteroid) observing, compared to various overseas observers, notably in Japan and Italy. Ted had just been to an amateur meeting in Italy and was favorably impressed by their organization and activities. We decided to organize a meeting of amateurs and professionals engaged in aster-

oid observations to try to stimulate interest in the amateur community in the United States. The meeting was hosted at Lowell Observatory in Flagstaff, AZ, 23-24 April, 1999. I think we were successful in stimulating interest.

During the meeting, it became apparent, to me at least, that a key to amateur participation was the availability of understandable and user-friendly computer tools. At that time, amateur participation in asteroid work was mainly in astrometry, aided by the program *Astrometrica*, written by Herbert Raab of Linz, Austria. This program allowed amateurs to do positional astrometry on asteroids in a friendly environment without having to fully understand every detail of the process (*n.b.*, this is not the same as "in a state of ignorance"!). At the time of the Flagstaff meeting, I commented that in order to get amateurs involved in photometric observations of asteroids, what was needed was a *Photometrica* program.

In the years since that time, *Photometrica*, admittedly not by that name, has been written, in fact in several versions, as cited in this book. One is Warner's own *Canopus* program, and this book serves as a companion for observers who want to learn the game of asteroid or variable star photometry, using either *Canopus* or one of the several other options mentioned in the book. I think with the development of these user-friendly programs, and now with the publication of this book, CCD photometry for amateurs has come of age, and I look forward to the contributions that will inevitably follow.

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*There is also "another" Alan Harris (also engaged in asteroid research, in Berlin, Germany). In this case we are both Alan William Harris, so a middle initial doesn't differentiate. I refuse to identify him as "the other" Alan Harris, as I think neither should suffer a diminutive term. The same goes for Brian Warner.