Photographic Spectroscopy

I am one of the few members of the former IAU Working Group on Astronomical Photography who still practise photographic spectroscopy, and although the revamped WG is now fairly specific about where it believes the majority interests lie I hope nevertheless for exchanges of information about photography itself, the activity which we do still have in common. I was therefore particularly interested to read the first Newsletter from the WGWFI because it brought to the fore an important and topical Spectroscopic issue, namely archiving data.

The need to preserve observational data in some form is as acute, if not more so, in the realm of spectroscopy as it is in direct imaging, though since the WGWFI has a subcommittee devoted to that end there is no need to rehearse here the potential scientific benefits. A new Working Group on Spectroscopic Data Archives has recently been set up and is currently seeking formal recognition by the IAU; its brief, according to IAU Recommendation C13 published last July, is "to establish agreed means of archiving and distributing spectroscopic data". The organization of the new WG is a little unorthodox, in that it consists of a nucleus of 'workers', rather than a standard OC, but its rank and file membership is open without restriction; we cannot therefore circulate our wider membership with newsletters and the like, but trust that we will be able to gain an effective publicity through the media of allied and sympathetic — or even hostile — specialist groups.

The broad aim of the new WG is to build meaningful archives of spectra that can be made globally accessible. Its concern is not only with digital data from ground-based and space instruments but also with photographic spectra, wherever they are stored. The description 'meaningful' carries with it the implication that spectra can be used most efficiently and effectively by astronomers from different disciplines if they (the spectra) have already been stripped of their instrumental signatures and rendered detector-independent; though it will be necessary at the start to save all the raw data as they come off the telescope, in due course the archived data should be only those which are as completely reduced as the astronomer responsible would like. The WG will seek to achieve those ends by dint of gentle persuasion through the users — the astronomers — themselves, proffering the suggestion that that sort of archiving should prove immensely cost-effective and could therefore be subsumed by an observatory's operations as one of its essential facets.

At its first meeting held a few weeks ago the new WG tried to define the scope, and more especially the limits, of the various tasks which were perceived to lie within its brief. One grey area under discussion was that of objective prism spectra: should they be included as 'spectra', or would they not best be treated as 'wide-field' products and handled by people who are already experienced in the necessary techniques? When the matter of digitising Schmidt plates was discussed by Harvey MacGillivray in the WGWFI Newsletter he addressed the same question, and an ensuing correspondence with the Chairman has led to the resolve of the WGWFI's OC to keep spectra taken on wide-field plates strictly within the gamut of the WGWFI. However, since many observatory plate vaults contain both direct and spectroscopic plates, it would clearly be to the advantage of all the parties concerned (including at least a subgroup nominated by Commission 5 to catalogue historical collections of plates) if all the approaches to the relevant managements to investigate, examine, catalogue and possibly negotiate the ultimate re-housing of the contents were made at one and the same time. It will therefore be of considerable mutual benefit to the relevant WGs if they cooperate closely in this matter, and keep one another informed in general over the trials, tribulations and even successes of their respective efforts at establishing agreed means of archiving and distributing data.

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