



The British Astronomical Association Historical Section

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From the Director

Mike Frost

The next meeting of the Historical Section will take place on Saturday 8 June 2019, at the Mencap Centre, Enborne Gate, Newbury, RG14 6AT. This is the meeting place of Newbury Astronomical Society, who will be hosting us for the day. There is ample parking in the Centre, which is 1 km from Newbury Station. There are not many eating establishments close to the Mencap Centre, so the price of the ticket will include both refreshments and lunch. So we would be grateful if you would book in advance, but we will also be happy to see attendees who turn up unannounced on the day.

Our speaker line-up is:

Dr Stuart Eves (Surrey Satellite Technology) – William Herschel and the Rings of Uranus

The textbooks claim that the ring system of Uranus was discovered during an occultation experiment in 1777. Stuart's presentation will propose that William Herschel may actually deserve the credit for discovering the Epsilon ring in 1789, and will suggest a variety of mechanisms that may explain the lack of observations over the intervening period.

Eddie Carpenter –

The History of Visual Aids in Astronomy since 1800

Eddie will be talking about the visual aids that were used in the 1825-1940 era and showing a selection of them. The talk will be delivered using a magic lantern.

Bill Barton –

Fiammetta Wilson: Musician and Astronomer

You may have seen Bill's recent excellent paper on Alice Grace Cook, co-director of the BAA Meteor Section during the First World War. Bill has also done research on the other co-director, Fiammetta Wilson, and has unearthed extraordinary, previously unpublished detail on Fiammetta's life. How did Helen Frances Worthington of Lowestoft become Fiammetta Wilson, prolific meteor observer and leader of a mandolin orchestra?

Dr Sian Prosser –

How to do Research in Astronomical History

Who better to tell us about how to research astronomical history than the librarian of the Royal

Astronomical Society? Sian Prosser will give us tips on the many resources available both online and in the RAS's superb library in Burlington House.

Bob Mizon (Commission for Dark Skies) – The History of the Dark Sky Movement

Bob will take us through the battle for darker skies that has been waged in a growing number of countries since the late 1980s. If Liechtenstein can pass laws on protecting the sky, surely the UK can!

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You may recall that last year we moved the section website 'in-house'. We are now in the process of adding more content to the site.

Among other things, we have a complete archive of back-issues of this newsletter, from 2010 onwards. To my surprise, Richard McKim informed me that there had been a previous incarnation of the newsletter, *Urania and Clio*, edited by my predecessor Anthony Kinder, which had a short run in the mid-1990s. Richard had back copies of this newsletter, which he scanned, and these are now also accessible from the 'section publications' page on the section website. They make an interesting read – many of the resources detailed are still relevant.

At the Christmas meeting last year, Bill Barton approached me with another proposal to develop the site, inspired by the RAS website. This contains an Obituaries section, with links to the obituaries of former RAS members. Bill proposed that we do the same for the BAA. This is possible because, like many other publications, the *Journal* is archived to the indispensable NASA ADS (Astrophysics Data System) website, and the comprehensive *Journal* indexes show us where to look in ADS for any given obituary. In future we will be linking to copies of these obituaries held on the BAA website, but for now ADS will do.

So, over the next few months, we will be adding links to all the JBAA obituaries, indexed in alphabetical order. Please take a moment to look at (and use!) this resource. We welcome feedback on any links which have gone astray, and if there is a particular obituary you would like a link to, we can probably add the link by request. I'm very grateful to Bill for meticulously chasing down the links for all the indexed obituaries. Well done sir!

We have other ideas to add content, which we'll be developing as time permits. Please contact me if you have thoughts.

*

Just before Christmas, we learned of the passing of Dr George Wilkins. George was a senior principal scientific officer at the Royal Greenwich Observatory when it was located at Herstmonceux Castle, near Hailsham in Sussex. He eventually became director of the Nautical Almanac Office, which was incorporated into, and yet separate from, the RGO. George wrote an entertaining paper for *The Antiquarian Astronomer* about his career, and in particular his time at the RGO. The paper paints a very appealing picture of the social life at Herstmonceux.

George retired to Seaton, Devon, and was involved with the Norman Lockyer Observatory in Sidmouth, which he showed me round in 2006. George helped me greatly in my own researches into Lockyer, who was born in Rugby, the town where I live. He generously provided me with primary source information from the Lockyer archives at Exeter University, and patiently answered queries from me about Lockyer's career after he had left Warwickshire. George himself published papers about Lockyer and his family, and Lockyer's researches into meteorology.

Lee Macdonald, who also knew George, writes further about him later on in this newsletter.

The Grave of James Bradley, Third Astronomer Royal

Nick White

The third Astronomer Royal, James Bradley (1693-1762), was born in Sherborne in Gloucestershire and died in that county also, at Chalford near Stroud, in 1762. He is buried at Holy Trinity Church in the small market town of Minchinhampton that is situated not very far from Chalford. His grave is located north of, and somewhat in line with, the north transept.



Figure 1. Holy Trinity Church, Minchinhampton, near Stroud. (Photograph by Nick White.)

My knowledge of Bradley's life, his birth and death, was practically non-existent until the summer of 2018 when I started considering the possibility of

repeating his originally ground-breaking measurements of the aberration of starlight, one of the discoveries for which Bradley is famous. At around the same time and coincidental to this, I had been uncovering information about a Victorian astronomer of Stroud named William Cowle. In doing so, I had been put in contact with a local historian named Barry Harrison who had been researching Bradley and Charles Mason, and who had previously researched the physicist John Canton, all three having been born in or near Stroud.

It was as a result of these investigations that I became aware of Bradley being buried not very far from where I live and so I decided to visit his grave in order to seek inspiration for my attempt to measure the aberration of starlight (alas to no avail thus far).

(As an aside, it is worth noting that Nathaniel Bliss (fourth Astronomer Royal) was also born near Stroud and that the careers of Bradley, Mason and Bliss overlapped in the field of astronomy, and also overlapped with Canton's career, although whether or not they had dealings with Canton is unknown to me).



Figure 2. Location of the plaque and its translation (top) and a close-up view of the plaque (bottom). (Photograph by Nick White.)

Figure 1 shows a view of Holy Trinity Church from the north side. Inside the church, located just inside the southern transept, is a plaque which was once attached to the tomb of Bradley and which has an inscription in Latin. Figure 2 shows the location of the plaque and its translation inside the church, and a close-up view of the plaque, while Figure 3 shows a close-up view of the translation. The translation of the plaque reads as follows:-

‘Within this Tomb
James Bradley, Professor of Divine Theology, Fellow of the Royal Society of London, and Member of the Academies of France, Berlin, and St Petersburg; Astronomer Royal, and Savilian Professor of Astronomy at Oxford. A man of so fruitful a diligence and so acute an intellect in the cultivation of knowledge of the natural world and particularly in the investigation of its deepest mysteries, that all who the world over zealously applied themselves to the same most honourable studies gladly deferred to him. Yet he was of such remarkable modesty that he alone seemed to be unaware in what high regard he was held among the severest of critics. He died on the third day before the Ides of July [13th] in 1762 in the seventieth year of his age.’

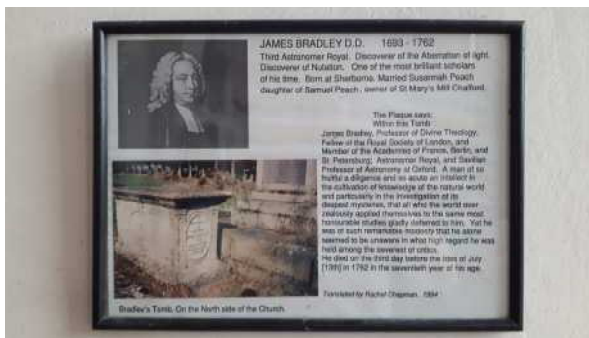


Figure 3. Translation of the plaque. (Photograph by Nick White.)

Finally, Figure 4 shows the tomb itself. The inscription on the tomb reads ‘TO THE MEMORY OF THE REVD JAMES BRADLEY D.D. 1693 – 1762 Astronomer Royal 1742 – 1762’. The inscription is becoming a little bit faded and would benefit from some minor restoration, but generally speaking the tomb is in a reasonable condition. The church is easily found in the centre of Minchinhampton and there is ample parking should anyone wish to visit the grave, noting that Minchinhampton and the nearby common are located in an attractive region of the Cotswolds.



Figure 4. The tomb of James Bradley. (Photograph by Nick White.)

Dr George Wilkins – an appreciation

Lee Macdonald

As Mike Frost has mentioned in his Editorial, Dr George Wilkins, former Superintendent of HM Nautical Almanac Office, died shortly before Christmas 2018. He was 89 years old. George joined the staff of the Royal Greenwich Observatory at Herstmonceux in 1951, while it was still in the process of moving from its traditional home at Greenwich. He retired in 1989, mere months before the RGO relocated to Cambridge, and so his scientific career was almost exactly concurrent with the Royal Observatory’s time in Sussex.

George had a distinguished career in the Nautical Almanac Office, a body that had long been a separate office under the Admiralty (also the RGO’s parent body until 1965), but which was re-absorbed into the RGO in 1949. George’s own account of his career at Herstmonceux, published in the 2008 issue of *The Antiquarian Astronomer*, recounts how when he joined the NAO the staff were still using hand-driven Brunsviga calculating machines and National Accounting machines that were effectively modern versions of Charles Babbage’s ‘Difference Engine’. Also in this era, some rooms in Herstmonceux Castle were being used for ‘rating’ – that is, testing for accuracy – marine chronometers, still an essential instrument for navigation. George was appointed Superintendent of the NAO in 1971 and also served as head of the Almanacs and Time Division of the RGO from 1974 until 1989. From 1978 to 1988 he was chairman of an international working group on determining the rotation of the Earth, which resulted in the establishment of the International Earth Rotation Service, the organisation that inserts occasional leap seconds into the calendar to counteract the secular slowing down of the Earth’s rotation.

George Wilkins was a classic example of a scientist who, after retirement, took a serious interest in the history of the discipline in which he had spent his professional career. After retiring from Herstmonceux, he moved to Devon, where took a leading role in the newly-resurrected Norman Lockyer Observatory near Sidmouth. He researched and published on the life of Norman Lockyer and his family: his articles are among the best secondary sources we have on Lockyer’s early life and family background.

Given the coincidence of his career with the life of the RGO and NAO at Herstmonceux, there could have been few insiders better qualified to write about the history of the Royal Observatory in Sussex than George. His paper in *The Antiquarian Astronomer* is just the tip of the iceberg of his writing on the subject, for he has also deposited with the RGO Archives at Cambridge University Library a document titled *A personal history of the Royal Greenwich Observatory at Herstmonceux Castle, 1948-1990*. The first volume alone runs to more than 200 pages and covers the complete history of the RGO at Herstmonceux from the 1940s to the 1990s. A second volume, with appendices on topics like staff structure and

instruments, runs to 119 pages. Both volumes are accessible online and can be downloaded at:-

<http://www.lib.cam.ac.uk/collections/departments/manuscripts-university-archives/significant-archival-collections/royal-0>

These volumes are the most detailed history of the RGO's Herstmonceux years that I am aware of and they might well be George's most important contribution to the history of astronomy.

George was very helpful to me personally back in 2008, when I was researching the history of the 98-inch Isaac Newton Telescope. This telescope was built at the RGO Herstmonceux site in 1967 and was used there until 1979, when it was dismantled and removed to the clearer skies of La Palma. George let me scan some excellent slides he had taken of the INT dome under construction during the 1960s – and one of the telescope being dismantled in 1979. George was a keen sportsman throughout his life, and it was indicative of his continuing physical energy that when I tried to telephone him prior to my 2008 visit, when he was about 79 years old, his wife explained that he was unable to come to the telephone at the moment on the grounds that he was out playing tennis.

With the passing of George Wilkins, we have lost not only one of this country's leading navigational astronomers, but also a major historian of modern astronomy.

The Thompson 30-inch reflector at Herstmonceux – Part 2

Gerald North

In Part 1 of this article [see Newsletter No. 17, Autumn 2018] I covered my arrival and initial preparations at the buildings of the Royal Greenwich Observatory at Herstmonceux. I also covered something of the history of the 30-inch Thompson reflector housed in Dome A and took a detailed look at its present configuration and the spectrograph that is arranged on three floors of the building external to the telescope. Since the first part of this article was published some months ago, it might help your enjoyment of what follows to re-read that first part before continuing. In this final part I pick up the story of a typical night's experience observing with the Thompson reflector from me having arrived in Dome A and telephoning the Duty Security Officer to let him know that I am on site...

Moonshine and the Thompson

'...See you later, Martin'. I put the telephone down and walk across the observing floor to the dome controls and start the motors that begin the bi-parting shutters slowly opening. They will automatically stop when the dome slit is fully open, so while this is happening I get busy, first removing the big lid from the front of the telescope (making use of a small stepladder),

unclamping the tube in declination and heaving it into position to point at the zenith, then opening and locking open the coudé doors and reaching in to remove the cover from the tertiary mirror (but the primary and secondary mirrors are already exposed). Next I go to the great tripod situated behind the telescope and let the cover over the fourth mirror flap open (operated via a pull-cord), then remove the cover over the entrance hole of the spectrograph head.

The shutters have nearly finished opening and the change in the air inside the dome is noticeable as I pick up the box of photographic plates and head down the stairs to the mezzanine level. There, on a small control box affixed to the telescope's footings, is the selector knob that I turn to switch on the telescope's RA drive. It has first to be switched to 'mains' for at least a minute, so I next put the plate box down in the small plate-loading enclosure.

I check the settings on the electronics stack (for instance the comparison spectrum tube settings) and then enter the light-tight spectrograph enclosure to open all of the several covers (including the cover of the collimating mirror on the ground floor – opened via a pull-cord). I also check that the correct grating is still in place and that the angle is set to 30° which ensures that my desired range of wavelength – spanning about 1600 Å (160 nm), centred on roughly 4350 Å (435 nm) – will appear on the processed plate.

Next I unclamp the brass plate holder and take it into the plate-loading enclosure. Switching on the extremely dim red 'safety' light and closing the door behind me, I then transfer a plate from my box to the holder. I have to be very careful of two things. One is that I must make sure that I put the plate in the holder emulsion side upwards in the near-darkness. I have to let a finger gently rub one corner of the plate to detect the silky feel of the emulsion side. Then I carefully lay the plate the correct way uppermost in the brass holder.

When the top is placed on the plate holder, the glass actually flexes, bending into an arc with the emulsion face convex on the outward-facing side. That is because the optics of the camera system produce a curved focal plane. That inconvenience is tolerated because the optical design of the system does generate the great benefit of a very linear representation of the spectrum on the plate (at 10 angstrom per millimetre = 1 nm per millimetre for the grating I use, along the whole length of the plate). So the second thing I have to be careful of is to go very gently in pushing the cover into place and turning the brass fixing buckles in a way that does not break the plate. After making sure the dark slide is firmly in place over the front of the holder I can exit the loading enclosure.

Passing the telescope's RA drive control, I now change the setting to 'amplifier' so the telescope is now being driven at the sidereal rate very accurately by a signal that is delivered via underground cable from the atomic clock in the Time Department over on the western side of the castle estate. The signal amplifier had to first warm up and stabilize before it could take the current load for the motor, which is why I had to wait at least a minute before engaging it after start-up.

Entering the light-tight spectrograph enclosure once more, I now fix and lock the plate holder back into its proper place. At this stage I leave the dark slide in place. It is now time to go back upstairs.

Once more on the observing floor, I switch off the dome's bright strip lights (leaving the dimmer wall lights on for the moment), turn the dome lead isolator control, unplug the heavy dome lead and stash it along a section of the narrow dome-ring shelf. Then I press the button to rotate the dome in the direction I want. I hear the several powerful induction motors whirr-up to speed and the dome rumbles as it begins to move. I watch as the strip of sky I can see through the open dome slit changes. I judge when to take my finger off the button so that after about three seconds more the dome rumbles to a stop at the correct place for the telescope to view my chosen target.

I set about training the telescope on the Moon and moments later I am standing at the acquisition eyepiece beneath the tripod gantry viewing the Moon's great plains, rugged mountains and stark craters (see Figure 12). The lunar image is very bright since it is formed at a magnification of less than $\times 7$ per inch of telescope aperture, so I leave the dim wall lights on at this stage. The view of the Moon I am looking at is a little unfamiliar compared to that through my own Newtonian telescopes at home. For one thing there are an odd number of reflections, so the image is mirror-reversed. For another, the complicated configuration of the light path means that the image is rather 'tipped over' (neither north nor south directly upwards) and indeed the image slowly rotates during the night as the telescope tracks on its target. Still, I soon got used to that in practice and never had any trouble in navigating the lunar surface.

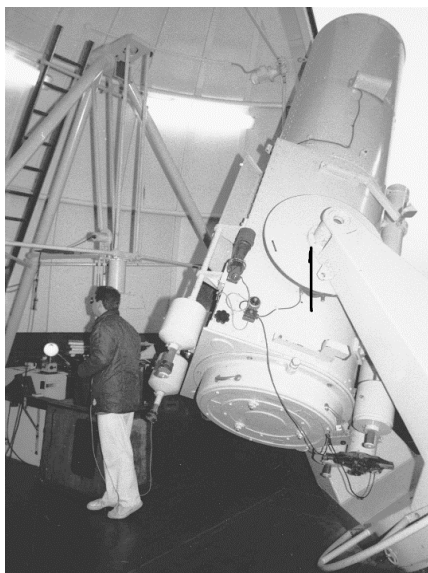


Figure 12

If setting everything out as I have done here gives the impression that all this preparation must take most of the evening, then please let me correct that impression. The equipment is all so conveniently arranged and of such good quality that all that I have

been describing here has actually taken just a mere few minutes to enact since first entering the dome!

What happens in the next period of time, though, is dependent on my research programme. In fact for lunar work I would normally also have the Yapp 36-inch (0.9 m) reflector set up in the nearby Dome B. If that seems silly, I should say that it takes mere moments to move along the gallery from one telescope dome to the next – but since this (already overly long) article is about the Thompson telescope rather than my research, I will now fast-forward to the point that I have moved the image of a particular feature, let us say it is a section of the north wall of the crater Plato, to the centre of the square defined by the overlapping sets of crosswires and I am ready to take a spectrum.

I slide the acquisition mirror out of the light path and take my seat at the guiding eyepiece. Figure 13 shows a posed daytime photograph of me sitting at that guiding eyepiece. I use the ultra-slow motion controls to bring the target over the slit. Then I leave my post to go downstairs to the mezzanine level. There I open up the spectrograph enclosure – and then turn off all the lights! Moving carefully, in total darkness, into the enclosure I feel for the plate holder. Got it - now I feel along it for the protruding small handle and pull it out as far as it will go. I have now slid open the dark slide. Any light coming through the spectrograph can now be recorded – but nothing is coming through just yet, of course.

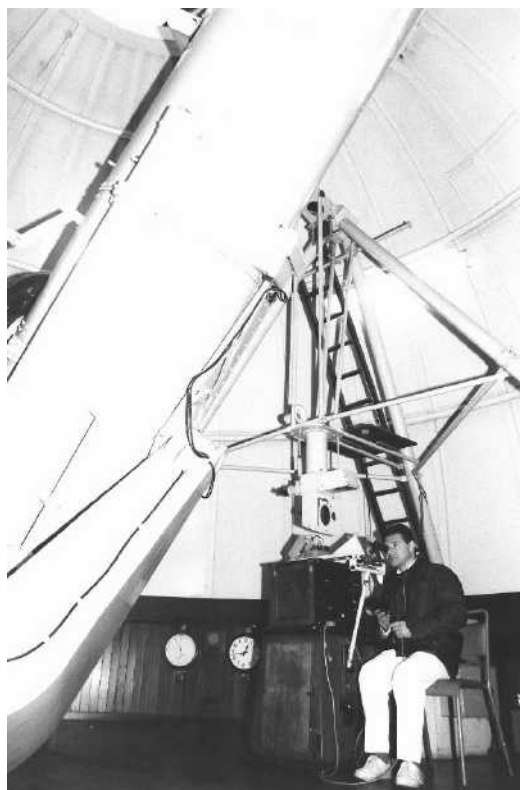


Figure 13

I move out of the enclosure and close its door. Then I feel my way to the door out of the mezzanine level and into the vestibule. I close it behind me and climb the stairs back onto the observing floor. I again take

my seat at the guiding eyepiece. The Moon moves quite rapidly in both declination and right ascension relative to the stars, so I have to re-trim the telescope's fine pointing to put the target feature back across the black line that defines the slit. In rapid succession I throw the override switch that turns off the wall lights, open the spectrograph shutter, press the button that initiates the first of the 25-second comparison spectrum burns, turn on the grey-scale instrument, and make a note of the time.

The correct exposure time depends on the subject. In the case of the Moon it also depends on its phase and the proximity of the selected feature to the terminator. Three minutes may be right for a lunar feature at the time of Full Moon, whereas twenty minutes might be more appropriate at times near First or Last Quarter Moon. In all cases I also have to allow for atmospheric transparency.

However long the exposure is in the case of the Moon, I have to be attentive and busy making corrections to the telescope's RA and declination. In the case of stellar spectroscopy, when a star is on the slits I hardly ever have to touch one of the ultra-slow motion controls because the telescope's tracking is amazingly good.

In the last minute of the exposure I press the button to initiate another 25-second comparison spectrum burn and, at the correct time, close the shutter and make a note of the time. However, the grey-scale exposure has to be 15 minutes and so this must continue even after the end of a shorter exposure to the celestial light.

Finally, when all is done at the spectrograph head controls, I go downstairs, re-enter the spectrograph enclosure in complete darkness, and finally close the plate-holder's dark slide. Then I can switch the lights on, unclamp the plate holder and take it into the plate-loading enclosure. I transfer the plate containing the first spectrum of the night to a special box, to await processing and load the next fresh plate into the holder.

I may collect several spectra in the one evening. Another wrong impression I might have given is of an observing session that is furiously busy and intense. Again it is thanks to the quality of the equipment that the whole experience was always thoroughly enjoyable and very much the opposite of fraught. If I was able to stay for a long session (I did many dusk-to-dawn sessions back in those days), then I could take a break part way through the night and avail myself of my stash of provisions in the rest room. I also made time for a very short chat with the Security Officer when he did his rounds. During a break I might even go for a short nocturnal stroll round the balconies of the domes to take in the wonderful atmosphere that the observatory had on a starry night. It was always with reluctance that I closed down for the night and drove home.

Mirabile Memorias

I would normally come back to the site during daylight hours to process the plates in the Dome A darkroom

using the specialist equipment and chemicals there. Subsequent to that, I would book some time on the fabulously expensive Perkin-Elmer Plate Density Scanning Instrument housed in a temperature-controlled basement room in the West Building across the other side of the castle grounds. The equipment and banks of control panels in that room looked like a studio-set that might be used in filming a 1970s science fiction television show – but all that is taking me beyond the subject of this article.

Presented here in Figure 14 is an assembled set of photographic prints I made in sections along one of the plates from the high-resolution spectrograph. It happens to be of sunlight reflected from a short section of the north wall of the lunar crater Plato recorded in a 3-minute exposure on the night of 1985 March 5, when the Moon was close to full. In astronomy there is a 'red to the right' convention that should be observed in presenting spectra. So, here the wavelength range covered by these prints spans 3550 angstrom (355 nm) from the left-hand side of the bottom strip to 5040 angstrom (504 nm) at the right-hand side of the top strip.

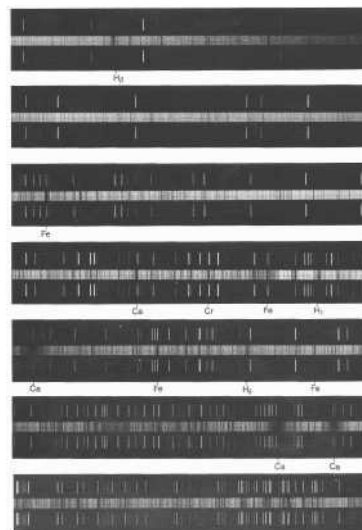


Figure 14

The central stripe is the lunar absorption spectrum and the lines above and below it are the emission lines of the iron-argon comparison source. The grey scale stripes appear below these spectra on the original plate, but I have not included them in the prints. In a way that spectrum is an example of the typical end product produced by the machine that comprises the Thompson reflector and its high-dispersion spectrograph, all contained within Dome A at Herstmonceux.

The Thompson reflector was a very useful instrument right from the time of its birth at the end of the nineteenth century and it remained so until the late twentieth century. During my time there I used all the working telescopes at Herstmonceux from 1985 until the RGO left the site in March 1990. Indeed, I was the last person to use those telescopes while still under the aegis of the RGO. I especially cherish the memories of my nights with that wonderful Thompson reflector.

V. A. Firsoff, Man of the Mountains

John Rosenfield

Editor's Note: This article by John Rosenfield is in response to Martin Mobberley's paper, 'The strange world of V. Axel Firsoff (1910-1981)', *JBA* Vol. 128, No. 3 (June 2018), pp. 141-156, and looks at Firsoff's interests in mountaineering and skiing.

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V. Axel Firsoff first came to the Cairngorms during the Second World War, he was convalescing. I will let the great man tell you the story in his own words: 'I first met the Cairngorm Mountains after several years of London, with its hustle, its teeming crowds, its fads and affectations, and lastly its bombs and sirens. The old hills came like a revelation; they restored me to vastness and solitude and helped me to place things human in proper perspective in the world.'

Alighting from the train at Kincaig, he was at first perplexed by the Highland accent of his host, but they travelled together, in driving rain, to the croft at Achlean, which lies about half way up Glen Feshie in the southern Cairngorms.

'It was a vast and lonely world, emptier it seemed to me even than the sub-Arctic uplands of Sweden, though the impression might have been largely due to the fresh contrast with London. I stayed there for about three months of late autumn and early winter. It was cold at times and very windy; there were not always enough rabbits to supplement the war-time rations, but whatever may have been lacking in amenity was more than amply made up for in kindness, friendliness and consideration.'

Firsoff began to explore his surroundings. 'In a spurt of eagerness I ran up the stalkers path covering the intervening three upward miles to Ciste Mhearad, in about an hour's time.' He failed to mention that 'upward' involves a climb of about 1200 feet!

'I was kicking out steps in the crisp firm snow with my thin "townee" shoes, which were soon filled with it, and had to be taken off time and again to remove the unwelcome wet layer from under my instep. In the end, however, I emerged...on Carn Ban Mor itself. On one side lay the deep blue world of Glen Feshie, on the other an extensive snow covered plateau with the white summits of Braeriach, Cairn Toul and Monadh Mor, which was to become my main gateway to the high Cairngorms in summer and winter alike. Of what lay beyond those summits there was no indication, and I had to wait for nearly a year before I was finally able to penetrate there.'

He remembered that he was convalescing and supposed to rest. He re-traced his steps, feeling his temperature rising. 'I was in bed with a temperature of 100 degrees, and in a state of half-consciousness I seemed to hear the bark of field guns, and the whine

and the thud of shells. By an odd co-incidence that was the night when in actual fact Monty's barrage was roaring away at distant El Alamein.'

But he did indeed go on to explore the rest of the Cairngorms massif, in summer and winter. And when he settled, for a while, in Shunem Cottage, he began to write it all down. His great work, *The Cairngorms on Foot and Ski*, was published in 1949 by Robert Hale Ltd, Bedford Square, London WC1. He had written two books during the war. In 1942 Lindsay Drummond published *The Tatra Mountains*, a collection of legends and customs of an area spanning parts of Poland and Czechoslovakia, as well as a description of the natural beauty of mountains. *Ski Tracks on the Battlefield*, published in 1943, was a tribute to the soldiers who fought on skis in campaigns in Finland, Russia, Norway and the Balkans.

From these we may gather that all his life he had travelled, and that he was proficient in all the skills needed to live and move among the mountains.

The Cairngorms on Foot and Ski is a remarkable book in so many ways. In this area today it is regarded as one of the classics, as it paints a vivid and priceless picture of those who lived here in the days before the whole area was swamped by the phenomenal rise in the popularity of skiing which began in the 1960s. A copy will be deposited in the Cairngorms Archive.

The book also demonstrates the full range and extent of this remarkable man's interests and skills. In the winters he would tour the hills on skis, camping wherever it was safe to do so. When he chose to ski 'downhill' he would find suitable slopes with soft, powder snow and would treat himself to a wonderful day, walking back up, of course, he might often have 5 or 6 runs in a day! One picture in the book shows him immaculately dressed in collar and tie!

During summer days he would walk the hills and valleys of course, but his chapter entitled: 'In the World of Perpendicular Values' he leaves us in no doubt at all that his rock-climbing skills were formidable. The chapter is as good a basic guide to climbing in the Cairngorms as has ever been published. The chapter headings themselves will portray the book for you: 'The Lonesome Hills', 'Heathers and Weathers', 'The Arctic Heights', 'The Passing Giants of the Glens', and 'Studies in White'.

There is nothing in this book which would give the reader any indication at all of Firsoff's interest in astronomy. But sleeping, as he often did, under the stars on the mountain plateau, he would have witnessed skies so dark we of today may only dream about them.

Post-Script 1: Winter Olympics

Axel Firsoff's skiing prowess was such that he was one of the Trainers for the British team sent out to the Oslo Winter Games in 1952. He would certainly have been there, so it is worth our knowing a little about what happened. It was still too soon after the war, and Germany and Japan were not welcomed. But Portugal and New Zealand made their first appearances. Dick Button of the USA performed the first triple jump on

ice-skates. But the most decorated athlete was Hjalmar Anderson of Norway who won three out of the four speed-skating events. He was a truck driver by trade, which tells us something about just how distant Firsoff's world of the 1950s was from today.

Post-Script 2: On Ski in the Cairngorms

The decision had been taken to split Firsoff's great work in to two separate volumes. This one was published by W.& R. Chambers of Edinburgh in 1965. The Foreword was written by Alastair MacNab, editor of the Scottish Ski Club Journal: 'V Axel Firsoff has obviously enjoyed the time he has spent in this area and transmits this feeling in describing the many tours he has made. One is made to appreciate the vastness of the area and the many possibilities it has to offer to the ski tourer.

This is not the Cairngorms of the piste basher indeed the book presents the area as it would appear to the adventurer on skis'.

Firsoff himself wrote a new first chapter for this book while he was working as an instructor at Glenmore Lodge; it was entitled 'Then and Now'.

'All this has changed, it is almost a shock to an old-timer seeing an Easter train from the south jammed to capacity with skiers heading for Aviemore. It was Easter time 1964, 17 years after I had completed the manuscript for 'The Cairngorms on Foot and Ski', and 16 years since I had last been there. We had to carry our skis for three quarters of a mile or so from the car park to the Sheiling and the chair lift station. Tarmac has sliced through heath and pinewood. There are Ski schools galore, with Austrian, Norwegian, Swiss and French instructors and instructresses as well as some home grown ones.'

He talked of huts appearing on Cairn Gorm, and of developments in progress at Coylumbridge and Aviemore. He thought that the influx of skiers threatened Coire Cas and could foresee that new grounds would have to be opened up. Then his mind and memory led him to Braemar, Mar Estate and Inverey, on the other side of the mountains. Perhaps that was where he was longing to be once again.

We will leave the last words to the man himself, at the end of this new chapter: 'If anything it is more difficult to reach Glen Feshie now than it was 16 years ago, and no works of man on the present scale can alter the climate. Fierce winds still whip up snow-dust from the high tops in mid-winter, the hills are no lower, the rocks no less steep, the crossings no shorter.'

SHA Spring Conference 2019

The 2019 SHA Spring Conference will be a special two-day event at St Anne's College, Woodstock Road, Oxford OX2 6HS. The conference is a reciprocal event following the joint conference between the SHA and

the Société Astronomique de France (SAF) at Paris Observatory in 2017.

The provisional schedule is as follows:-

Friday 12 April

An expert guided walking tour to sites of historic astronomical interest in Oxford, including a behind-the-scenes visit to the History of Science Museum (hosted partly by BAA Historical Section Deputy Director Lee Macdonald) and a guided tour of the Radcliffe Observatory.

Saturday 13 April

The main SHA Spring Conference will include the following talks:-

William Sheehan: 'The Discovery of the Outer Planets'

Ian Ridpath: 'Pictures in the Sky: History of the Constellations'

Bob Bower: 'A tale of three Williams: Mirror making / testing methods of Herschel, Rosse and Lassell'

David Valls-Gabaud: 'Herschel's least known large telescope'

Suzanne Débarbat: 'Leverrier, Arago and the Bureau des Longitudes'

Jean-Claude Berçu: 'Comet Donati'

Eddie Carpenter: 'Isaac Roberts & Dorothea Klumpke'

Daniel Ravier: 'Use of a Jacob's Staff'

The fee for the Saturday conference will be £10 for SHA members and £15 for non-members. The Friday tour will be charged separately at £17.

Booking in advance is strongly encouraged – especially for the tour, which is limited to 30 persons and is likely to sell out. For more details and to pre-register, please contact Gerard Gilligan, email: meetings@shastro.org.uk.

For further details and updates on the SHA, see:-

<http://www.shastro.org.uk/>

Further dates for your diary

Saturday 29 June 2019 SHA Summer Picnic, Norman Lockyer Observatory, Sidmouth, Devon.

Saturday 26 October 2019 SHA Autumn Conference and AGM. For further details as they appear, see: <http://www.shastro.org.uk/>

B.A.A. Historical Section Meeting - Newbury

Saturday 8 June 2019

Mencap Centre, Enborne Gate, Newbury RG14 6AT

Our section meeting this year takes place on Saturday 8 June 2019, at the Mencap Centre, Enborne Gate, Newbury, RG14 6AT from 10:00 to 17:00 (doors open at 09:30).

The cost will be £10 for BAA members, members of affiliated societies, members of Newbury AS, and children under 16, and £15 for non-members. This includes refreshments and lunch.

Pre-book using the enclosed booking form or pay on the day.

Timetable:

09:30	Doors open
09:30 – 10:00	Refreshments & Registration
10:00 – 10:10	Introduction and Welcome – Mike Frost
10:10 – 11:05	Dr Stuart Eves – “William Herschel and the Rings of Uranus”
11:05 – 12:00	Eddie Carpenter – “The History of Visual Aids in Astronomy 1824-1940”
12:00 – 13:30	Lunch Break
13:30 – 13:35	Welcome back
13:35 – 14:30	Bill Barton – “Fiammetta Wilson – Musician and Astronomer”
14:30 – 15:25	Dr Sian Prosser – “How to do Research in Astronomical History”
15:25 – 15:50	Refreshments
15:50 – 16:50	Bob Mizon – “The History of the Dark Sky Movement”
17:00	Meeting Ends

The Mencap Centre is located 1 km from the centre of Newbury, a fifteen-minute walk from Newbury Station. There is plenty of free car parking in the grounds, but not many eating establishments nearby. The centre is the meeting place of Newbury Astronomical Society, who will be hosting us. Newbury AS are also meeting on the evening of Friday 7 June and anyone staying overnight is invited to come along.

We look forward to seeing you!

Mike Frost, B.A.A. Historical Section Director
Lee Macdonald, Deputy Section Director

BRITISH ASTRONOMICAL ASSOCIATION - HISTORICAL SECTION

2019 HISTORICAL SECTION MEETING

Saturday June 8th, 10.00 am

Mencap Centre, Newbury

Please complete the form below and return by **Friday May 30th 2019** to:
The British Astronomical Association, Burlington House, Piccadilly, London W1J ODU

You can also fax the form to 020 7439 4629, book by phone on 020 7734 4145 or e-mail this completed form to office@britastro.org (but remember that e-mails may not be secure)

Booking Form

Name:

Address:
(Only required if e-mail is not available)

Post Code: **E-mail:**

Contact Tel. No:

Accompanying Persons
(if any): _____

BAA Member? YES / NO

_____ BAA Member? YES / NO

	Places Required	Amount £
BAA MEMBERS Talks, Refreshments – £10 per person		
NON-MEMBERS Talks, Refreshments – £15 per person		

TOTAL £

PAYMENT METHOD Please ()

I enclose cheque or postal order made payable to:

THE BRITISH ASTRONOMICAL ASSOCIATION
OR

Please charge my **Visa / Mastercard / Switch / Delta / Maestro / Amex** account

CARD NUMBER

VALID FROM

EXPIRES

SECURITY

SWITCH ISSUE No.

/ /

NAME ON CARD

CARDHOLDER'S SIGNATURE

TOTAL

£

Event Organiser: Mike Frost

Email: frostma@aol.com