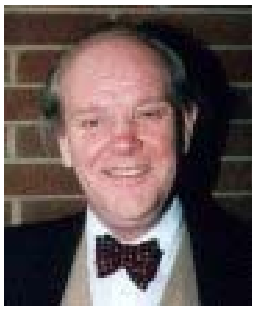
Society for the History of Astronomy News

Issue 1 - November 2002

Message From The President

By Dr. Allan Chapman



It was with a genuine sense of delight and honour that I accepted the Society for the History of Astronomy's invitation to become its Inaugural President. For while I have been concerned with the history of astronomy since childhood, I never dreamt that I would ever have been Honorary President of such a Society.

But what is the value of the history of astronomy? I would argue that, without a coherent sense of our past, human beings are deprived of any real awareness of where we stand within the wider process of human culture. And to understand modern astronomy – just like understanding contemporary politics, art, or medicine – we need to know where we have come from. Otherwise, we become blinkered and self-obsessed, believing that we are the only people that matter. History – in the widest, noblest sense – therefore, teaches us our place.

Yet what should historians of astronomy do? Perhaps the most important thing which we must do is divest ourselves of any romantic or quaint views of the past. While it is true that the history of astronomy is full of curious, exotic, and seemingly larger-than-life figures, we must be careful not to see the history of science simply in terms of the heroic or the sensational. Far more important is our growing understanding of why certain types of people, be they Galileo, Sir William Herschel, or Edwin Hubble, flourished at particular times in the past, *real* historical scholarship is concerned with *context*. When we read historical books, undertake original pieces of research into particular astronomers, or prepare talks for societies, we must never lose sight of how a particular person, discovery, or technological innovation fits into the wider picture. History is pre-eminently about a depth of understanding in time, and true greatness or originality takes on an especial significance when seen in relation to other things.

And what, one might ask, are these 'other things'? I would argue that we must seek to understand astronomy not simply with reference to itself, such as linking one discovery to another, but in relation to the broader social and historical culture within which developments took place. Why, for instance, were so many clergymen active in astronomy before 1900? Why were Continental European astronomy's personnel very largely paid professionals, whereas the science in Britain was controlled by 'Grand Amateurs'? And what technical factors limited the development of cosmology before 1800? Historians of astronomy, therefore, are not simply astronomers with a passing interest in the 'old days', but rather people with a broad and open-minded curiosity about those forces which drove human endeavour in the past.

Yet with all these broad historical caveats taken into account, how should a historian of astronomy set about his or her work on a practical level, and what should they look for?

At the most fundamental level, the historian must make an accurate record of surviving astronomical material, for without solid and verifiable facts, there is no history. Do you know of an astronomically-connected ruin, historic building, or artefact that has somehow evaded the historical record? If so, record it. Observatories, houses, instruments, and the like need to be carefully measured, photographed, and sketched. It is amazing how may such places there are still awaiting historical investigation. I personally have seen 'time capsule' observatories – sometimes the workplaces of distinguished astronomers – left untouched for over a century. I have also seen people living in elegantly converted observatories, and used to know a man who rescued the mahogany mount of a Herschel reflecting telescope from the hallway of a house where it was being used as an umbrella stand. On drawing the owners attention to the significance of the umbrella stand, he was allowed to buy it – along with the tube, mirror and other bits that had been put in the attic – for a fiver.

So always be on the lookout for interesting artefacts, and after obtaining an owner's permission, be quick to add solid facts to the historical record. In this respect the Society's own archive housed in the Institute of Astronomy, Cambridge, can become a valuable resource for the future.

And just as one might record buildings and objects, so one can also catalogue, conserve, and publish astronomical manuscripts that turn up in all sorts of unlikely places. A couple of years ago, for instance, when I was visiting a church in the depths of the Suffolk countryside, one of the Church Wardens drew my attention to a thick bundle of letters written by one of the most famous of all Victorian astronomers, which had lain in a cupboard in the vestry for 150 years! There is an enormous amount of documentary material out there – surviving observing books, letters, charts, and the like – and it is our job to bring then out of the darkness and into the light.

And when historians write up their findings for record of publication, they should always remember to cite their original sources fully and clearly. For just as a scientist would never dream of presenting conclusions without also citing the full observational or experimental evidences upon which those conclusions are based, so the historian must be equally thorough. Never simply say that some piece of information came from an 'old book'. Always record and cite its full details: when the book or manuscript was first written or published, its exact title, and where it is currently deposited. Transparency and retrievability of primary research data is crucial. For a

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historian's published claims and conclusions are made *stronger*, not weaker, by inviting others to verify his or her results.

Then in addition to speaking to each other as fellow historians of astronomy, we must always remember that it is our duty to communicate the importance of historical understanding to the wider public, both within and without the astronomical community. We live, after all, at a time when people are fascinated by all kinds of history, and whether our medium of communication is talks to societies, writing, television, radio, or the internet, we should not forget that people out there are fascinated by the history of science. And it is our business to inform them, clearly, precisely, and with enthusiasm.

An Aladdin's Cave of Information The A2A project from the Public Records Office

By Roger Jones

Scattered around the country in local record offices, libraries, museums and universities are several hundred repositories containing archives dating back as far as 900AD. Visiting any of them to carry out research can be an arduous and sometimes fruitless task. However, help is now at hand. The Public Record Office together with the British Library and 180 other institutions have set up a website called A2A (Access to Archives). It currently contains almost 4 million catalogue entries, each catalogue containing from one to many hundreds of individual documents. Some of the catalogues describe individual files or documents in great detail, others give only summary information. Archives may be in various other formats, including paper files, parchment documents, bound volumes, maps, plans, audio and video recordings and photographs.

So what can you expect to find ? Here are one or two random sample results from a search for "Astronomer":

Hertfordshire Records Office has information on Henry Andrews, astronomer, including an engraving ref. D/EC1/ Z12/625.

Also from Hertfordshire a file on Mark Beaufoy, astronomer. Ref.D/Egr/22

From Bedfordshire a file on Major Ernest Howard of Haynes, astronomer. Ref. Z.866/2/4

From the West Yorkshire Archive Service, in the John Edwards manuscripts:
'Directions for making the best composition for the metals of reflecting telescopes...' and *'An account of the cause and cure of the tremors particularly affecting reflecting telescopes...',* with remarks by Neville Maskelyne, the Astronomer Royal.

The archives are being added to daily, and A2A recommend you return frequently. So before you spend time and money dashing off to some distant record office or history centre, check out A2A. Files you never knew existed may only be a few mouse clicks away. The website can be found at www.a2a.pro.gov.uk/

MEMBER'S COMPETITION

Design a Logo for the Society for the History of Astronomy

Following a suggestion made by Madeline Cox at our Foundation Meeting, Council has agreed that the society should have its own unique logo.

This is a call to all our budding artists out there to design an SHA logo, submit it to Council for consideration and, if suitable, eventual adoption by the society. The closing date for entries is 2002 31st December and the winner will receive an 1891 edition of Sir Robert Ball's enchanting book ' The Story of the Heavens' as a prize.

Competition entrants should be mindful of the following criteria:

- Your entry should be unique to the society and certainly NOT in breach of any copyright.
- The logo should reflect the broad aims of the society.
- It should be simple and memorable - but not rude!!
- Entry is open to all SHA members, but if a member of Council enters the competition, that member will automatically be disqualified from the adjudication process.
- Council reserves the right not to adopt any of the entries, including the winning entry, as the eventual official logo. If the winning logo is formally adopted, however, that logo shall become the copyright of the society and not of the designer.

The winning design will be announced and displayed at the 2003 Annual General Meeting.

Send your entries to the Treasurer
(address details on back page)

SHA At The BAA Exhibition Meeting

Ken Goward, Bill Barton & Stuart Williams presented a fine stand on behalf of the SHA at the BAA Exhibition Meeting on the 21st September, which was held at Teaching Laboratories of the Cavendish Laboratories, Madingley Road, Cambridge.

Ken Goward (left) and Bill Barton (right) and the SHA Display.

SHA Member Martin Lunn MBE. and the Aurora Books display.

Brockhurst: A Small Twentieth-Century Observatory

By Sir Patrick Moore, CBE, FRS.

Brockhurst Observatory, 1937, by Patrick Moore.

Brockhurst Observatory, at East Grinstead in Sussex, cannot claim to have been a major institution. Its largest telescope was a Bush 24-inch reflector, but much of the work was carried out with a 6 1/8 inch refractor, and by one man, William Sadler Franks (1851-1935). Yet some useful results came from it, and it deserves to be remembered. The location 51° 7' 27" N. 2° 27 E.

It was set up in the first decade of the twentieth century by F.J. Hanbury, senior partner in the famous firm of Allan and Hanbury. Hanbury was very wealthy, and bought a lovely old house on the boundary between East Grinstead and the village of Ashurst Wood in West Sussex. He was a noted horticulturalist, and specialised in orchids; his orchid-houses were world famous, and were tended by a large staff. The Observatory was set up in the grounds, and was attractive; there was one main building, with a dome for the refractor as well as a transit instrument and an observing room. The Cooke telescope was optically excellent, with a conventional falling-weights drive; there was an accurate clock, and a small library.

As observer, Hanbury engaged W.S. Franks, who had been born in Newark on 26 April 1851 and had become an enthusiastic astronomer, though he never attended University. He specialised in observations of star colours, and his first major contribution was "Catalogue of the Colours of 3890 Stars", communicated to the Royal Astronomical Society in 1878 by Rev. T. W. Webb. Subsequently he became director of the Star Colours Section of the Liverpool Astronomical Society (then a national rather than a local organization). The Liverpool society collapsed suddenly, and was to all intents and purposes succeeded by the British Astronomical Association, founded in 1890. Franks joined the BAA in 1891, and directed its Star Colour Section for some years. In view of the small telescopes involved (many of them refractors) the estimates were surprisingly accurate, and several lists were issued, though with the rise of spectroscopy the Section faded away. Franks retained his interest in the subject, and in 1921 undertook a revision of the colours of 6000 stars [1], at the request of the Vatican Observatory. Meanwhile he had spent some time as assistant to Isaac Roberts at a private observatory in Crowborough in Sussex (1892-1904). He assisted John Franklin-Adams in the preparation of the famous star charts, and in 1910 accepted Hanbury's invitation to take charge at the Brockhurst Observatory.

Franks made his own programme of observations – mainly concerned with star colours; various papers were published, and in 1923 the FAS Council awarded him the Jackson-Gwilt medal. Otherwise, Franks's duties were more or less limited to making the telescopes available to Hanbury's house guests, of which there were many. The 24 inch Bush reflector was housed in a separate observatory, but was always the secondary instrument, and was taken down in 1930.

The work at Brockhurst was not confined to star colours; Franks was concerned largely with micrometrical measurements of double stars, and indeed this was probably the most important contribution. Between 1914 and 1920, in particular, thousands of measurements were made. Neither was photography neglected, and in fact Franks' last paper, published in 1930, dealt with Barnard's dark nebulae.

Franks died on 19 June 1935, at the age of eighty-five. I had been observing with him, and very much to my surprise Hanbury invited me to take charge of the Observatory. Despite my tender years (I was aged fourteen) I hope that I carried out my duties efficiently; at any rate Hanbury seemed to think so, and I was able to use the Cooke refractor to make contributions to the lunar and planetary sections of the BAA.

Hanbury died in early 1939, and the Observatory was dismantled; the Cooke refractor was sold for £40 – a sum which was, to my great regret, out of my range. Franks observing books were handed over to me at the request of his relations, I correlated them and handed them over to the BAA.

Trees now grow over the site of the Brockhurst Observatory, but it played a rôle, albeit a minor one, and I at least will remember it with great affection.

References

1. FRANKS, W.S. and HAGEN, J. Catalogue of Star Colours Specola Vaticana, 1923

2. MOORE, P. William Sadler Franks. Jnl. BAA, 112, No. 4, 2002

2003 SUBSCRIPTIONS

Members are reminded that subscriptions become due again on 1st January for the whole of 2003, our first 'normal' year of operation. To renew, please forward a cheque to the Treasurer along with your name, Founder Membership number and a stamped & addressed envelope (make cheques payable to; Society for the History of Astronomy). The 2003 membership card, which will contain our programme of events for the 2003 session, will be forwarded directly after your payment is received.

Subscription rates:

Ordinary £20
Family £25
Concession £15
Corporate £15
Overseas postage supplement £5

Please note that we are unable to accept credit card payments.
Cheques must be in £s Sterling.

NB. Under our Constitutional arrangements, subscriptions not received by 31st March will be assumed ***to mean resignation.***

The Dead Astronomers Society *or, researching local astronomy history*

by Stuart Williams FRAS LRPS

Researching the local history of astronomy is a labour of love, as is amateur astronomy – certainly, there's no money in it, but if you're prepared to persevere it is a source of endless fascination (and sometimes frustration!). This article is, hopefully, something of a brief introduction to the joys of such research, and how to get into it. It is aimed at newcomers to the field, so I hope experienced researchers will bear with me!

I fell into this type of research pretty much by accident. Having trained and qualified as a professional photographer while at College (back in the year dot!), I one day found myself years later being appointed to a job applying those skills to local history research, at Walsall Local History Centre in the West Midlands of England. Having dabbled in amateur astronomy back in the days of my misspent youth, and being fascinated by the great astronomers of the Victorian period especially, there could be no more natural way of learning the ropes of local history research in my new job than to see if I could find anything out about local astronomers, and so it came to pass.

In the course of that first research I had the good fortune to discover the small but locally important legacy left behind in the Borough Archives by one William Henry Robinson FRAS (1847 – 1926), a great populariser of science and especially astronomy in Walsall and Birmingham in the late Victorian and Edwardian periods. His many friends who had shared his interest were to prove much more difficult to track down, however, except for one – the great Victorian equivalent of Patrick Moore, Sir Robert Stawell Ball, who was a good friend of Robinson and visited Walsall regularly.

The study of Robinson's local activities, and what little I could discover of his friendship with Sir Robert, was to become something of an obsession for years afterward. It was to lead me into contact with one of the most well-known astronomy historians in the UK, Dr. Allan Chapman of Wadham College, Oxford, and to the foundation of the new Society for the History of Astronomy. But more of that later.

At the outset, there are a few questions we must ask about researching the history of astronomy at the local level; they are Why, Who, Where, What and How – outlined more fully below!

Why research local astronomy history?

A good question, which could easily be answered 'because it's there', but more accurately ought to be 'because it isn't there', since so little is known of the local history of astronomy.

Let's face it, the majority of professional and academic historians, quite understandably, have focused their attention over the years on the 'big guns' of astronomy, those who have made the earth-shattering discoveries, proposed the great theories, built the giant telescopes and founded the major observatories. The 'little guys – and gals' who assisted the great men (and latterly great women, as the field of both astronomy and history has become less male-dominated), who built the small telescopes, designed the instruments and did the donkey work of computing, administrating and publishing the work, have tended to fall into obscurity. And of course the amateur researchers and observers, builders of local observatories, organisers of societies, craftsmen and women, etc, have tended to escape the notice of those in search of larger fry while scouring the great libraries and national archives which, by and large, hold little about local history.

There are great, gaping holes in the regional and local history of astronomy in the UK, as Dr. Allan Chapman discovered when writing his remarkable book 'The Victorian Amateur Astronomer'. While there are flourishing hotbeds of this kind of research in a number of places across the nation, in many cases literally nothing has come to light in many towns, cities and villages on this subject – until now. In my experience, this doesn't mean that there is nothing to find; simply that the research hasn't been done, or the sources are obscure or not indexed. In researching local history, luck, dedication, hard work and the skills of a veritable Sherlock Holmes need to be applied, as local records are often patchy or simply not indexed for astronomy and astronomers.

Herein lies the challenge, particularly for the budding amateur historian. There are fascinating and often unique discoveries to be made in the local history of astronomy and astronomers – perhaps more so than even in observational astronomy, where it is so often the case that scientifically important discoveries may still be made by the dedicated amateur. After all, how many of us have a realistic chance of discovering a new comet, asteroid or supernova, under cloudy, light-polluted skies and with limited equipment? A select few will, yes, and they are to be applauded. We can all, however, make worthwhile and unique discoveries in local history, simply by visiting our local or county record offices and local studies libraries and applying that most advanced of research tools – our brains. The only equipment needed being a notebook, a pencil and perhaps a camera. The possibilities are endless.

Who can do the research?

Understandably, people may be a little daunted by the prospect of beginning a project if they have no experience of research, and where they may quite literally be 'boldly going where no-one has gone before'. Put simply, though, anyone can do research into local astronomy history. It simply takes patience, time and a willingness to learn.

You do not need a history degree, you do not need to be a professional, and you do not need to spend pots of cash. As thousands of those who have taken up the hobby in the past twenty years have discovered, you really can start from scratch in local history, and both make significant discoveries and get a great deal of pleasure from the work. A few good books and a little time spent learning the ropes will be helpful, but you really can 'have a go' right away.

You do need to be able to spend time delving through documents in record offices and libraries, taking notes and writing them up later, and visiting places where historical activity has taken place, such as the homes of astronomers, the sites of still extant or defunct observatories, etc and ideally making a photographic record of them. You also need to be meticulous in your note-taking, and carefully document your sources, especially if you propose to submit work for publication.

The great thing is of course that you do not have to wait for a clear sky or a dry day to do this research, and you can fit it in between all the other activities we have to undertake in our

busy, modern lives. If you are retired, theoretically at least you can 'go to town' on your research, and spend as much time as you like on digging up fascinating facts and obscure details, but life is rarely that simple, and it is just as well that the sources available have, by and large, by now found well-deserved homes in secure accommodation run by town, city and county archives services. The documents, whether they be recent or ancient, will be waiting patiently for you whenever you can spare the time to visit them, never fear.

Where can information be found?

The first thing to do when taking up historical research is to find out where your sources of information are, and how to access them. There are, of course, national archives such as the Public Record Office, but these are often of little help to the local historian. The real goldmines are the local studies libraries, town, borough and city record offices, and most often the county record offices. These are the places you will need to seek out and learn how to use. Not all areas have their own local record office, but in such cases the county record office is the place to visit. In any case, contact your local library or council and they will advise you where to go.

You would also be well-advised to visit your local astronomical society or scientific or philosophical society, since much local knowledge may be had from these groups, especially those few which have been around for over a hundred years. The two main national societies for astronomers – the British Astronomical Association and the Royal Astronomical Society – also have collections of documents, sometimes section records, and of course in the case of the RAS especially, great and long-established libraries. Although these are national societies, their members have always been scattered across the nation, and so they often have information relevant to local astronomy. For instance, I soon discovered useful information on the previously mentioned William Henry Robinson in the collections of both BAA and RAS. He was a Fellow of the latter, and was instrumental in organising the Midland Branch of the BAA in the Edwardian period. So all of these groups can be of great assistance, though you can never guarantee success – records may not have survived, or they may have been lost over the years. Luck is still important.

What sources are there?

Most record offices will hold collections of what we term primary and secondary sources of information.

Primary sources may include original manuscripts, documents and archive collections, censuses, electoral registers, unpublished maps and plans, typescripts, photographs, postcards, tape recordings, film and video footage, etc. Basically anything that is unique or original, not printed unless unique, nor published.

Secondary sources can comprise books, directories, journals, magazines, articles, theses, obituaries, illustrations, newspapers, printed maps, etc. Primarily anything that is not unique, work which has been done previously or published, and reproductions of original materials such as maps, printed images etc.

These sources will often be indexed at a basic level so that when you visit a record office or local studies library, you will be directed to existing indexes, and you will be expected to search for items yourself. Advice will always be available, but remember you need to do the work yourself, and often you will find that no-one else has ever asked about local astronomers, so you may have to dig deeper than expected! Often there will be nothing in the indexes on astronomers, so you may need to apply lateral thinking and check for records of local clubs and societies, schools and colleges, and newspaper reports. Again, patience and luck are your two main aids.

Other things to look for are old maps – typically the County Series Ordnance Survey c.1885 – 1938. If there has been an observatory locally, it may be marked on such maps. If you know where an astronomer has lived, you may find his or her observatory marked on a map, or indeed if there is a local collection of building plans, on the plans for their house. If the observatory has been associated with a local school, college or university, seek out the records of that institution. Even local council planning minutes may be a useful source.

Local collections of old photographs may hold useful images and sometimes associated information. In my case I was able to find period photographs of the business premises and one of the homes of William Henry Robinson, but I was also able to discover pictures of a local windmill which I found from a newscutting had been converted into an amateur observatory in the 1920's. Remember, just because it isn't in the index under 'astronomy', don't give up. The information is out there!

How to do the research?

The techniques of research are simple, though the details are often anything but! However, in short: collect and store carefully – note everything, and where everything has come from! If you see anything of interest, even if it has no immediate connection, note it down so you can come back to it later. Catalogue and list your research materials as you collect them. Summarise the facts so you can see an overview. Decide the chronology – ask advice if dates are not documented, especially with photographs. Tell the story – in fact, decide what it is before you even begin to write up your final research. Write and re-write – the first draft of any work is rarely the best, and you need to decide what to put in, and what to leave out, but tell the story truthfully, and if you are not sure, say so. List your sources and references in detail. You may need to go back to do further research, and such details will be essential for publication and to validate your work.

Be prepared for research: have all the necessary tools for note-taking and copying. Bear in mind normal requirements when visiting record offices – you will normally not be permitted to use pens due to potential damage to documents and books, so take a supply of pencils or propelling pencils with leads, and don't forget your notebooks. Remember there may not be room to use, or power available for, your laptop computer. Photocopying may be possible, but if the document or book may be damaged, or if it is copyright, copying may be refused or limited. Plan your visit in advance and take any information you already have from other sources or previous visits. Find out if you need to book before travelling!

Photography on location is also important. Take a good camera, and make sure you are familiar with its use. Use conventional film, as the problems of preservation of digital images have yet to be satisfactorily addressed. Bear in mind that black and white will last much longer than colour, as colour dyes fade much more quickly with time and exposure to light and pollutants in the air.

What should you do with completed research?

Deposit and donate your finished work, whether published or not, back to the record offices, libraries and institutions where you did your research. They will be glad to receive it, and it will be of great use to future enquirers, as public access will be granted unless you specify otherwise.

Circulate your research to an interested audience, to peer groups and societies, whether astronomical or historical. Why not give a talk on your discoveries?

Publish your work. If it is of an academic standard, original, well-researched and with full references and bibliography, do not be afraid to submit it to learned or society journals, astronomical or historical. New work is always of interest, and you will gain valuable experience in the process. If you prefer to write less formal articles, try the popular journals and the commercial astronomical magazines as well as local club newsletters etc. The magazines may even pay you a modest amount for your contribution! Remember, too, good quality illustrations will always make an article more appealing, but don't fall foul of copyright law by using other people's pictures without permission.

If you have enough information, and it is of sufficient interest, a book is always a possibility, though the market is small and specialised. Traditional commercial publishing can be difficult to get into, though opportunities are greater for amateur work now than they have been. Be aware that unless you are famous, well-established or incredibly prolific that you are never likely to be able to make a living from astronomy history writing, though. Do it for the pleasure of seeing your work in print, and you won't go far wrong. For small local publications, there is always the possibility of self-publishing if you can afford it, it is much cheaper now with the advent of digital booklet printing. But bear in mind it will take some time to sell such work, and you will have to pay for it up front and market it yourself. If you can interest your local or national astronomical or historical society in publishing your work, however, this may be the best way to go, since it will be promoted and sold to an audience appreciative of the subject and always looking for new work.

On the other hand, if you simply wish to get your work to a wider audience and are not interested in making money, why not consider free electronic publishing on the internet? If you have some expertise with computers and internet access, or if you can persuade a knowledgeable friend to assist you, it is simple enough to set up a web site and publish your work there, as web pages, electronic books or Portable Document Format (PDF) files. Once you have publicised your site through the search engines and told people on the several electronic forums that exist about your work, the world is, literally, your oyster.

How can your research be preserved for posterity?

Once the work is finished, and your material gathered together, how can it be preserved for posterity? Well, publishing, as discussed above, is one way of making sure there are many copies of your work in circulation. In any event, you need to make more than one copy and ensure they are stored at different locations – in case your house burns down, for instance!

Donating your original research and material to your local or county record office, and to relevant national societies, libraries and record offices, is the primary method of preservation, however. They will generally have facilities to preserve documents under controlled conditions, facilities which private citizens generally do not have. If you are keen to be able to retrieve material, you can always negotiate a deposit agreement that guarantees access to you as the owner. You should also make an agreement as to how you wish them to respect your copyright, i.e. making copies readily available for private study and research, or referring all enquirers to you for written permission before copying. Remember, you hold copyright in any original work during your lifetime and for 70 years after your death, whether published or not, under European law.

Beware of poor quality storage materials – sticky photo albums, PVC sleeves and binders, wooden and cardboard boxes and certain types of plastics, as well as high humidity and temperature changes can all damage documents, books and photographs over time, as can handling. If in doubt, take advice from a record office conservator.

The End?

You could of course put all your research, photographs and drawings in a shoebox under the bed and forget it – but that would be such a waste, wouldn't it?
And if, when the time comes, your family has to make plans to dispose of your possessions after you have passed on, be sure you've made provision for any research still in your possession - make a will!

So much fascinating history has gone into a skip or a car boot sale following a house clearance, it would be so sad for your work to go the same way, when you have the opportunity to make a real contribution to the history of astronomy. Why not pop down to your local record office or library now, and help bring the forgotten past back to life?

Lost Worlds – The History Is Out There…

By Kenneth J Goward FRAS

We are privileged and proud, as a society, to have some of the most respected historians of astronomy listed within our membership. The 'down side', if there ever could be such a thing, is that amateurs in the field of researching and recording of our astronomical heritage may feel a little daunted in the presence of illustrious peers. Please don't be and whilst, for example, professional colleagues may be best placed to revise and refine our knowledge of Copernicus, Kepler, or even Tycho Brahe's prosthesis, they are not usually in a position to delve into the life and times of local amateur astronomer 'Joe Bloggs' of wherever and *his* unsung personal contribution to our understanding of the heavens. The history of astronomy has a broad canvas and, just as in observational astronomy, it is the amateurs who are best placed to paint in the knowledge gaps that professionals have little opportunity to.

The location and history of untold numbers of private observatories, their instruments and observers is one such field in which the amateur historian of astronomy can make a major contribution. The subject offers a rich seam of untapped history that will otherwise be lost in the mists of time as the people involved pass on and edifices decay. Elsewhere in this organ, SHA vice President Sir Patrick Moore with his customary eloquence and enthusiasm describes the history of Brock-

hurst Observatory and his personal association with it. The observatory was dismantled in 1939 and now a wooded area, thanks to Sir Patrick its memory is preserved for posterity. Also within these pages, our secretary Stuart Williams describes his own research into the astronomical connections of Highgate Windmill near to his home. I should like to build upon this theme by citing two further examples of original research:

Thomas Bush and his Observatory [1.]

An amateur astronomer in Nottingham, Patrick Fleckney, was involved in a community local history project in the early 90's, when he came across an observatory marked on an 1881 OS map of the Mapperley area of Nottingham. Having done some research, he discovered it belonged to a baker called Thomas Bush, who exhibited a homemade 13" reflector at the Working Men's Exhibition in London in 1870. His instrument stole the show and won Bush a Gold medal, a spectroscope and a solar eyepiece from the 7th Astronomer Royal, Sir George Biddell Airy. He was elected a fellow of the RAS in 1873 and published work on stellar and planetary astronomy. Bush used the spectroscope to great effect, when he observed the Great Comet of 1881, detecting carbon and other elements in its tail. He later became paid astronomer to Lord Forester at his observatory at Willey Park, Shropshire, which was equipped with an 8" refractor. Upon retirement in 1909, Bush designed and built a remarkable 24" f4 reflector, which he took to his retirement home in Sussex, where he died in 1928, aged 88. [2]

The Athenaeum Club observatory, Bury St Edmunds

The 4" refractor at the Athenaeum Observatory, Bury St Edmunds. Photo Ken Goward.

In common with many towns, the better off Victorian inhabitants of the Suffolk market town of Bury St Edmunds sought to broaden their horizons by means of the formation of countless clubs and institutions thus came into being the town's Athenaeum Club. Part and parcel of that broadening of horizons was a desire to bring the wonders of science to a wider audience and that desire manifested in the provision of a fully equipped astronomical observatory. The club minutes indicate the authorisation to build an observatory in 1858 and, by 1861, the annual report shows that in excess of 500 visitors had visited the observatory to view the heavens. A charmingly Victorian description of the observatory appears in the 1867 minutes, *'A capital observatory has been built on the roof, and an excellent telescope mounted therein, for the accommodation of such members as delight in the study of the heavenly bodies'.*

Over the ensuing years the observatory was increasingly less utilised until the club appointed a Hon Astronomer in 1916 to breathe new life into their asset – the Rev Harold Buckton of the nearby parish of Fornham St Martin. Buckton made photographic observations of the Moon and projected images of the Sun. Rev Buckton was the archetypal well-educated gentleman of the cloth, blessed with the wherewithal to indulge in hobbies ranging from Microscopy to Entomology. Unfortunately, it would seems that members of the opposite sex featured within his 'hobby portfolio' – "no young female servant was safe at the rectory" said one of his descendants, and Buckton was removed under a cloud from Fornham in the early 1930's!

Rev Harold Buckton in retirement whilst living at St Dieniols Library near Wrexham. Photo courtesy of his grandson, David Buckton.

After Buckton's controversial departure from the area, the observatory was again little used and almost forgotten about. Few inhabitants of the town know of its existence (although the well-known modern amateur astronomer, Martin Mobberly, recalls using the observatory in his school days) and its relative inaccessibility from the main building via a perilous secret stairway has ensured its survival to the present day. I came to hear of the observatory via an obscure reference to it in a newspaper, which lead me to embark upon a highly enjoyable, albeit as yet unfinished research thread. Complete with all its original fittings and accessories, the observatory is a fantastic 'time capsule', although access is nowadays granted for exceptional reasons only. The future of the observatory and its contents are uncertain, the fabric of the building around it is very dilapidated and – may - have to be pulled down for safety reasons. However, access was granted to fellow SHA member Garry Coleman and I recently in order to video, photograph, measure and catalogue the observatory for posterity.

The above excellent examples of original research, combined with personal knowledge, amply illustrate what can be achieved and without which may eventually have led to the loss of some wonderful facets of astronomical history.

How much more can you find out there?

1. This section was compiled by Madeline Cox
2. See 'The Victorian Amateur Astronomer' P 200 – 203 Allan Chapman

From the Earth to the Moon – Highgate Windmill, Walsall

By Stuart Williams, FRAS LRPS

(Left) Highgate Windmill tower and cottage, c1938, photograph courtesy Walsall Local History Centre. (Right) details of the tower by Stuart Williams, 2001.

Church Hill in Walsall, West Midlands is the highest and steepest section of a long ridge dropping gradually away towards the south, fading out before it reaches Broadway. Caldmore occupies the western flank of the ridge, and Highgate the crest and eastern side. Highgate enjoys long views to the south and east, and is separated from central Walsall and the partly industrialised Caldmore area by the lie of the land. It is also the location of one of the Borough's most interesting buildings - Highgate Windmill.

This windmill is unique in the Borough, being the only significant remains of this type of building. It is also important in local astronomy history, as it was once used as an amateur astronomical observatory!

The top of Highgate Road was once known as Windmill Lane, and is situated about a mile from St. Matthew's Church, to the south. The old miller's cottage adjoins, its gable flanking Highgate Road. The mill tower is Grade II Listed.

The remains of the mill, built around the beginning of the nineteenth century, tower strikingly above the surrounding houses. Although the sails are long gone and the upper section has been modified and added to over the years, the mill is still a remarkable sight – and all the more interesting because of its varied history. The tower has a slight taper until the later cylindrical portion is reached; it is roughly five storeys - some fifty feet - high, with a crenellated top, also added later.

Mentioned in Aris's Birmingham Gazette, Highgate Windmill came up for sale by Edward Rigby in both 1826 and 1828. We know that Thomas Jennings worked it from 1835 to 1841, and in 1841 the Midland Counties Herald shows it being advertised by local builder M. Salt with a shop and cottage. Shortly thereafter, it was purchased by Mr. Moses Eyland, founder of the famous Walsall firm of buckle and spectacle makers Eyland & Sons, Ltd, of Lower Rushall Street (that factory having been converted into apartments in recent years). His son Charles Eyland, Mayor of Walsall 1857 – 58, inherited the property, having left his house in Lichfield Street for Hope Cottage, which stood in its own grounds adjoining the mill. During the Eyland ownership the mill was worked by James Griffiths, who lived in the cottage opposite the malthouse, and it seems to have fallen into disuse between 1864 - 1868. After this Charles Eyland removed the mill machinery, including the two grindstones. Appreciating what a wonderful view could be obtained from the top storey of the tower, Mr. Eyland rebuilt, raised and comfortably furnished the top room, fitting a fireplace and laying a carpet. Often he would go up for a quiet smoke and to contemplate the fine panorama. To aid his viewing he arranged a mirror on the camera obscura principle, so that the four compass directions could be seen in one glass.

In 1890 Charles Eyland died, and the mill passed to Charles Newbold Eyland, who moved into Hope Cottage with his family. About 1919 the tower was struck by lightning, knocking down a piece of the parapet. One evening several men arrived claiming they had been asked to repair the roof. Their 'repairing' consisted of stripping the old place of its lead, and away they went with a haul worth many pounds, never to be seen again. Deprived of its protective covering the roof sprang a leak and the inside walls were marked. The gen-

eral soundness of the brickwork, however, remained a tribute to the workmanship of bricklayers in days gone by.

On the death of Charles Newbold Eyland in 1925, the mill was bought by George Skidmore of Sandwell Villa, Sandwell Street, a member of the firm of buckle makers of Windmill Street. At the time Mr. Skidmore was famed for his remarkable record in playing cricket for more than sixty years. Mr. Skidmore, who had for many years been interested in astronomy, supervised the rebuilding of the tower, re-pointing the brickwork and raising the parapet by about two feet, adding to the crenellations, so that it could be converted into an astronomical observatory. The floors were relaid with concrete on the oak beams, intending the construction to be more solid than ever, and new stairs were built. George Skidmore then installed a large equatorial refracting telescope, and at the time spoke with pride of its fine lens, its view finder, and its clockwork motor drive whereby it was possible to set the telescope on any star and ensure that it would be followed in its course across the heavens.

During the Second World War, Highgate Windmill's commanding position made it the natural choice for use as an observation post by local Air Raid Patrol wardens, and for years it was manned by them every night.

By the 1960's the mill had fallen into disrepair, becoming covered in ivy, and it appears to have changed little since then, though it is now much less overgrown. Today Highgate Windmill remains privately owned, and although not open to the public, it is a fascinating sight from Highgate Road and the footpath between there and Folly House Lane. The fact that it is so far the only historic private observatory discovered in the Walsall area also makes it uniquely interesting to local astronomy historians and astronomers alike. Are there more observatories out there?

Only time – and a lot of digging through the records at Walsall Local History Centre – will tell.

SHA Library

By Madeline Cox, Librarian

I am pleased to inform members that our lending library is now ready for business and will be launched at our Members Meeting in Birmingham on November 2nd. We have had an excellent response to our request for donations, as you can see from our catalogue. We would like to thank everyone who has kindly given items, especially Julian Ravest, who has offered to donate a large collection of RAS publications as well as books.

A library committee comprising of our Archivist Mark Hurn, Treasurer Ken Goward, Secretary Stuart Williams and myself has been set up to oversee policy and operations. I would be grateful if all members could read these policies and procedures before requesting items to borrow.

From 2003, we will be subscribing to the Journal for the History of Astronomy and will hopefully be able to purchase some items as well. We welcome suggestions from members, but please follow the guidelines in our policy document.

Please use the library and keep the donations coming in!

POLICY OF THE SHA LIBRARY

Aims

1. To provide a resource for members engaged in research for the Society.
2. To provide a postal loans service to members.
3. To encourage members to deposit copies of their own research for the benefit of other members.
4. To encourage the deposit of other suitable material from members, institutions, publishers, and other individuals.
5. To purchase suitable material as Society's funds allow.
6. To work in conjunction with the Society's Archivist and other Officers to further the aims of the Society.
7. To set up and maintain working relationships with other organizations with a common interest as required.

Management

1. A Library Committee shall decide Library policy and support the Library's activities.
2. The Librarian shall be responsible for the cataloging, maintenance, and loan of materials.
3. The Librarian shall keep members informed of material acquired and loans procedures.

Finances

1. The Library will be financed from the Society's funds.
2. The postal loans system will be self-financing.
3. The Library Committee will decide on any major acquisitions for the Library.
4. The Librarian shall be responsible for managing the library's day-to day loans finances and shall keep records for the Society's accounts.

Acquisitions Policy

1. To acquire publications and other material which reflect the aims of the Society and will directly benefit members in their research.
2. To seek the views of members as to suitable titles for purchase.
3. To acquire material which would be expensive for members to purchase themselves.

HOW TO BORROW MATERIAL FROM THE SHA LIBRARY

Before requesting material from the Library, please read the following notes carefully.

1. First, check that we have the item you want. An up-to-date list of stock held will be supplied on request, and will in any case be available on our website at: http://www.historyofastronomy.fsworld.co.uk/ or with the Newsletter. Additional bibliographical details can be supplied if required.
   We are unable to supply material from elsewhere, but advice can be given if required on how to access interlibrary loans from your local public library, for example, or from the British Library.
2. Requests may be made by post only, as pre-payment will be required, and should be on the official form provided (a copy is included in this Newsletter)
3. Members shall be responsible for all SHA material in

their possession, and will be expected to pay for any damage or losses incurred.

4. Fines will not be charged for overdue items, but members are requested to adhere to return dates. Loans may be extended if the item is not required by another reader. The service may be withdrawn from any member who persistently disregards return dates.
5. Items may be borrowed for one calendar month. The return date will be clearly stamped inside the item.
6. Loans will be restricted to members in the UK and Ireland, due to the costs involved in recovering lost items.
7. Please make sure you pack all items securely and supply the correct postage. **Postage will be second class recorded delivery, except for heavy items which may be sent 1st class only, to comply with Royal Mail rules.**
8. No items will be sent unless payment (in stamps) has been received beforehand. The required amount will be indicated next to each item in the stock list. This cost will reflect current postal charges.
9. The service may be withdrawn from any member who persistently breaks the rules.

SHA Archive

By Mark Hurn

Members of the Society for the History of Astronomy doubtlessly care about the past, but how much do they care about the present? What we do today is 'tomorrows history'. How often do we quickly move on from one project to another without thinking that our latest project might one day be an object of historical interest?

The formation of the SHA could be an historic event itself, particularly if, as we all hope, the Society thrives and does important work. As Archivist of the SHA I see 2002 as important as 1846, 1823 or 1781. Therefore, I see the retention and preservation of what we do now as important.

I see the Archive containing the key documents in the formation of the SHA, its published output and where possible the work of its members and supporters. It also may hold important information of interest or usefulness to members.

There are two strands to the work of an archive; preservation and access. If we just concentrated on preservation, we would simply become a 'time-capsule' awaiting discovery by archaeologists of the future. To be useful to our members we must temper preservation with access.

The Cambridge Observatory building where I work and have offered as a home to the SHA Archive has been around since 1823. It is a listed building and should provide a secure repository for the SHA. The SHA Archive will be held in a secure, alarmed room. Access will be provided by cataloguing SHA Archive items onto the Institute of Astronomy Library online catalogue:

http://www.ast.cam.ac.uk/~ioalib/homepage.html

This will allow members access to a listing of what is held in the Archive. Further access for reference or for copying will be through contact with myself and according to conditions expressed by those depositing items into the Archive.

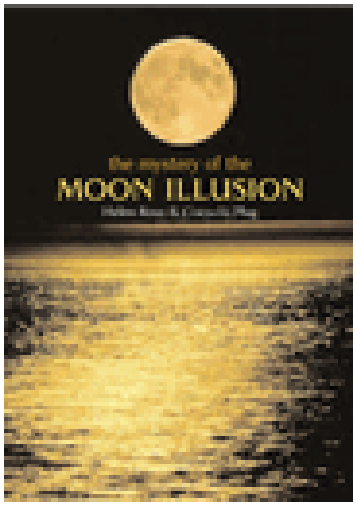
I am keen to make the Archive a valuable and useful benefit of SHA membership, but I do need members to think about preserving what they are doing now by donating items they think will be relevant.

Mark Hurn is Departmental Librarian at the Institute of Astronomy, University of Cambridge. He can be contacted on hurnm@ast.cam.ac.uk

The Mystery of the Moon Illusion

ROSS,H. & PLUG, C. Oxford University Press, 2002. 019850862X, RRP £29.95

A review by Madeline Cox, SHA Librarian



This scholarly book explores historical and contemporary explanations for the age-old mystery of why the moon appears larger when nearer the horizon than it does when higher in the sky. It is a puzzle that has fascinated astronomers, philosophers and writers on optics for centuries, for example, Aristotle, Ptolemy, Kepler, Descartes, and Huyghens.

Historically, astronomical explanations included real changes in the size of the moon and atmospheric refraction; optical ones image size changes within the eye. The present day emphasis is much more on examining perceptual size changes due to mechanisms within the brain, and this is the area of research of the present authors, who are leading psychologists in the field.

Each area of explanation – the astronomical, the optical, and the perceptual - is examined in detail, with results of experiments undertaken. The astronomical explanations are easily dismissed as improbable (we know the moon doesn't really grow smaller as it rises) , but how we perceive size is still open to research. Much of the book is taken up with examining modern theories of perception, and the authors admit there is still a need for further experimentation on different types of perceived distance and perceived size, which may give better clues to this ancient of mysteries, which has only been partially solved.

There is a useful summary at the end of each chapter as well as an appendix at the end of the book summarising scientific developments relating to the moon illusion. There is an extensive bibliography and the authors have obviously trawled far and wide in many disciplines in the course of their researches.

Although of interest to astronomers, it may well be hard going for the non-specialist amateur and will probably appeal more to professional experimental psychologists. It will probably be the definitive work on the subject for many years to come.

This book has been kindly donated to the Society Library by Oxford University Press.

The Index of SHA Member's Interests and Specialist Subjects

By Ken Goward

From Airy to the Zodiac, by way of Bidston observatory, Edmund Halley, Georges Lemartre, the discovery of Pluto, Stonehenge, Uranographia Britannica and Wiltshire astronomers. Such is the breadth and range of knowledge within our happy band – some (thus far) 170 listed subjects – and that doesn't include the myriad bytes of knowledge held by our esteemed President and Vice Presidents. Well, if the latter were included, we should need lord knows how much additional disc space!

The index, collated from completed membership application forms, is intended solely for the utility and edification of members, who may be embarking upon some new astro history research thread or who desire to know if others have already done so. It may be looked upon as a means of avoiding duplication of effort, although history is always open to revision, or even as a conduit through which research efforts may be shared.

The mechanics of the system

A member may check the index through me to ascertain if anyone else may be working upon/has worked upon/has knowledge of/has indicated an interest in a particular facet of the history of astronomy. This may be done via (snail) mail, enclosing a stamped and addressed envelope, or E-mail to Ken Goward. A positive or negative response will be sent at the first available opportunity and, in the case of a positive response, the enquirer will receive the name, address, telephone number and or E-mail address of anyone listed under that subject heading. However, where the index shows a member listed under whatever subject who has declined to be listed on the SHA Register of Researchers, that member will be contacted by me in the first instance to see if they would accept an enquiry from another member. If they decline, that will be final and the initial enquirer will be notified of a negative result.

Caveats

- The index should be looked upon, to quote a phrase from a well loved TV quiz, as a 'starter for ten'.
- It cannot tell the enquirer how accurate, extensive or relevant is the information or knowledge held by another member.
- A particular subject heading could be too narrow a starting point for subjects, which may be encompassed under other headings. E.g., 'Arab astronomy' could be 'Islamic astronomy/instruments'. 'William Herschel' could also be 'Herschel family/Herschel telescopes' and so on! Try to frame your index search request accordingly…
- As with any system, it is only as good as the information supplied – if you begin down another thread of knowledge, please let me know so that the index may be kept up to date.

Please note also that, for the time being at least, the index is entirely separate from the UK wide history of astronomy survey currently being worked upon by Roger Jones and Stuart Williams.

Ultimate aim

Over time, and subject to regular revision and update, the index may become an invaluable tool in the SHA researchers armoury. **You are welcome to begin using it.**

Questionnaire on History of Amateur Astronomical Societies

A survey of the local history of amateur astronomical societies is currently underway, with the following aims.

1. To map the growth of local amateur astronomical societies
2. To identify key individuals and events associated with the spread of amateur local astronomical societies especially during the latter half of the 20th Century

In addition, the survey may have contemporary relevance to astronomical societies. In particular, it might help to identify significant types of event in the origin of astronomical societies, which may assist astronomical societies to publicise their future programmes and events.

All members of local astronomical societies are invited to participate. If you wish to do so, please complete a questionnaire which can be downloaded from the website of the Milton Keynes Astronomical Society: http://www.mkas.org.uk, or from the website of the Society for the History of Astronomy: http://www.historyofastronomy.fsworld.co.uk/
or from Mike Leggett, Amateur Astronomy Local History Project, 19 Matilda Gardens, Shenley Church End, Milton Keynes MK5 6HT, email mike-pat-leggett@shenley9.fsnet.co.uk

All completed questionnaires received by the deadline will be entered for a prize draw for a £10.00 book token.

Special Discounts For SHA Members

The following generous discounts have been offered to SHA members:

Journal for the History of Astronomy

The normal annual individual subscription is £39. With SHA member's discount the annual subscription will be just £25 Inc postage direct to member's addresses. **To take advantage of this offer, please subscribe via the Treasurer (address on right) - send your name and address details and payment - make cheques payable to 'Society for the History of Astronomy.** This offer is valid for volume 34 (2003) onwards.
NB. Existing JHA subscribers must renew via the Treasurer to take advantage of the offer.

Journal of Astronomical History and Heritage

The normal annual subscription is £14. With SHA member's discount the annual subscription is just £12. Members will have to mention that they are SHA members when subscribing direct to the publisher. Astral Press, PO Box 107, Wembley, WA 6913, Australia. E mail astral@iinet.au

Books published by Springer-Verlag

SHA members receive a 20% discount on all books - orders

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should be sent via their customer service dept in Germany (mention that you are an SHA member entitled to a 20% discount). Address: Springer Customer Service, Haberstabe 7, 69126 Heidelberg, Germany. E mail orders@springer.de

Aurora Books
SHA members receive a 25% discount on books purchased from Aurora - members must mention that they are SHA members when placing an order. Address: Martin Lunn MBE, Aurora Books, 6 Evelyn Crescent, Clifton, York, YO30 6DR
www.aurora-books.co.uk/

All in all, your SHA subscription offers REAL value for money if you take advantage of any or all of the above…

2003 Annual General Meeting & Conference

Council is delighted to announce that the society will hold its first Annual General Meeting & Conference in that most appropriate of venues, the Royal Observatory Greenwich on Saturday 22nd February 2003.

Subject to confirmation, we will meet 10AM at the Observatory where delegates will have the chance to visit the stores and view artefacts not normally on exhibition. SHA member, Gilbert Satterthwaite, the last Greenwich observer to make an official observation with the instrument, will also give a demonstration of the Airy Transit Circle. We then proceed to the National Maritime Museum lecture room where, after refreshments, the AGM will be held. Following lunch three short talks will be given by members before the mid afternoon refreshment break. Our first main Annual Conference Lecture entitled 'John Flamsteed, Astronomical Observator' will follow and this year's guest speaker will be SHA member Dr John Birks. Conference will close at 5PM. In accordance with our Constitution, admission to the AGM will be free, but a small charge will be made for members wishing to attend the Conference.

We are looking for volunteers to present short 15-minute papers on the work they are currently undertaking, or are planning. This is a fantastic way to make contacts with people doing similar work, or find connections you never knew existed between your project and someone else. It is also an opportunity to test out new ideas and share tips with fellow researchers. Any member interested in presenting a paper should send Emily Winterburn (address below) their name, title of paper, and a paragraph outlining the contents of the paper by the end of December 2002.

We are grateful to the National Maritime Museum for generously allowing the society to stage this event and for their considerable help in its planning and preparation, a Conference Booking form is enclosed with this newsletter – please book early! We look forward to a fascinating day, the first of many as our Annual Conference and AGM travels to appropriate venues throughout the country…

NB. Members wishing to present short papers should send their applications and sae to:
Emily Winterburn. Royal Observatory, Greenwich, London SE10 9NF

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General communications to the Society should be directed to the Secretary in the first instance.

SHA Website:
http://www.historyofastronomy.fsworld.co.uk

Editors Spot

Welcome to the first 'proper' SHA Newsletter. I hope that you find the content interesting and informative. Much thanks must go to all those that have contributed. Of course, this Newsletter is for you, the members, so if you have anything to communicate to the membership as a whole, small articles, letters or news please send it in.

Next edition of the Newsletter will be circulated in May 2003. Any items for inclusion should be sent to the Editor before the 14th April. Regrettably materials can only be returned if supplied with an S.A.E.