



DAVID DUNLAP DOINGS

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THE NEXT NUMBER OF THE DOINGS WILL BE IN SEPTEMBER

POSITION AVAILABLE

Due to the departure of Betty Herbst a research assistant position will become available at the David Dunlap Observatory in September. Work involves iris photometry of plates obtained with the 200-inch and with the KPNO and CTIO 4-m Telescopes; reduction of photoelectric observations and making drawings for journal articles and slides. Preference will be given to wives of graduate students. If you are interested phone Dr. Sidney van den Bergh at 884-9562.

EDITORIAL

My Brush With Royalty

Whenever the Queen comes to Canada I tend to recall my experience with another "royal" family who claimed among other things, relationship with the House of Windsor.

In 1932, having been awarded a Ph.D. from McGill in Physics, I was also awarded an Exhibition of 1851 Fellowship worth £250 p.a., tenable anywhere in Europe but preferably in England. I chose Imperial College where Alfred Fowler had his spectroscopy laboratory which, during its heyday, was quite famous for laboratory astrophysics. Actually, as it turned out Fowler was near retirement and not in the best of health, and he had little contact with his students. While it wasn't thus, the best choice, I was granted a year's extension to work at Yerkes.

In those days going abroad for a post-doc was a long-term undertaking. Travel by ship from Montreal to London took ten days, and hardly any student could afford the time or the money to come home during his two-year fellowship tenure. My father had died a few years earlier leaving my mother quite alone except for me. She was then well on in her 60's and I could see that the thought of being completely alone for two years was bothering her terribly. I persuaded her to rent her house and come with me to London, a proposal which she accepted as the lesser of two evils.

When we got to London we engaged temporary accommodation at a small "temperance" hotel in Earl's Court and set about to look for a "flat". Chiswick being only a few stops on the Underground beyond Earl's Court, we got off there one day and found, almost next door to the station, the office of an "estate agent". Did he have any flats listed which might suit us? Well, yes, maybe; there was the lower half of 69 Barrowgate Road, quite nice really: reception room, two bedrooms, kitchen and bath. But I could sense some reservation, and finally he came out with it: the owners, now living in the flat which they hoped to rent out, were, to say the least, queer. There was the old lady and her son and two daughters, all three in their twenties. Some kind of European royalty, he understood, but quite harmless, he thought. He said we could go around anyway and take a look; no harm in that.

We went. Actually the house was quite nice. No central heating, of course, just coal and gas fires in some of the rooms, but in those days central heating was almost unknown in English

middle-class houses. Her Royal Highness the Princess von Dembinska was quite a pleasant, stout, garrulous lady with a very broad Scottish accent. Princess Madelaine was quite a handsome girl, her sister, Princess Olga, a little on the dumpy side but quite pleasant. H.R.H. Prince Eric gave every appearance of being retarded. It was immediately obvious that they took the Royal Highness bit very seriously and expected their friends and acquaintances to use Princess and Prince as forms of address. H.R.H. the Princess senior apparently earned the odd pound as a seer, and the girls worked as private guides for tourists; Prince Eric did nothing. They were renting the upper flat to a young B.B.C. pianist and his wife, and, once having let the lower flat, they proposed to move to their other London accommodation which was, they said, "chambers" in the Temple which was theirs on indefinite lease from the Barristers' Association, the late Prince having been a barrister of such standing as to have this coveted privilege.

All four talking almost simultaneously, they told us the long and almost unbelievable story of the von Dembinski family. It was a Polish family, they said, of great antiquity. (They claimed direct lineage from King Canute and in that way relationship with the English Royal Family). Until nearly the time of the death of H.R.H. the Prince von Dembinski he had been merely a Count and his wife a Countess. Then by the death of a co-lineal relative they suddenly inherited the titles of Prince and Princess and the claim to the Polish throne and to a large tract of land in Poland. They were realistic enough to admit that the Polish throne was beyond reclaiming, but they were very much in earnest about the land which they said was being improperly held by a French syndicate. The late Prince had filed suit against these French gangsters who felt thereby so threatened that they set about to terrorize the family - faces at the windows and all that sort of thing.

We did rent their flat and we saw a fair amount of the von Dembinskis during the year that we stayed there. They never let down their delusion (if that is what it was) but they were extraordinarily kind to us. The girls invited me to a party where I met many of their friends - very nice young English people who seemed to accept the von D.'s at their own evaluation. Also they had me to dinner at their chambers in the Temple - so that was real enough. Once they showed me a document which stated that the Princesses Madelaine and Olga von Dembinska were entitled to wear the White Rose of England (whatever that was). Phony or not, to tell the truth, I rather liked them, particularly Madelaine and Olga who gave every indication of being wholesome, well-bred and charming young English women.

When I left England I lost track of the family and never heard the name again - except once. Years later a friend in England sent me a second-section front-page story entitled "Polish Princess a Crossing Guard". There was a big picture of Madelaine standing beside her little hut and holding up a huge stop sign at a railroad level crossing. Then followed the old story that I knew so well - the Royal House of von Dembinski, the claim to the throne, the land claim, the villainous French syndicate. And all in a jocular tone.

Sic transit gloria mundi!

OBSERVING

At Las Campanas

Recent observers with the 24-inch have been Christine Clement, May 21 to June 8, Karl Kamper, June 14 - July 1.

Bob Garrison had observed April 29 to May 10, taking spectra of bright stars at 67 A/mm for fundamental classification work, a joint project with W.W. Morgan of Yerkes Observatory.

At Palomar

Sidney van den Bergh observed for nine nights (June 27 - July 6) at Palomar. All seven of his nights on the 200-inch were photometric. He noted with pleasure that the Hale Observatories have followed our example and painted the domes at Palomar with Ti O paint. He reports that the 200-inch dome looks spectacular from a great distance.

At Steward

Jose Maza and Peter Martin observed May 22-26.

By Airborne Telescope

Bob McLaren of DDO has been collaborating with Professor Charles Townes and his students at the University of California at Berkeley in making spectroscopic observations in the far-infrared region of the spectrum at wavelengths around 100 microns. They are using NASA's G.P. Kuiper Airborne Observatory - a 36-inch telescope which operates at stratospheric altitudes from a large jet aircraft. The group is particularly interested in studying far-infrared emission lines from HII regions. So far this year, they have had two observing sessions, each consisting of two eight-hour flights. Some of the objects which have been studied are M42, M17, M8 and W3. Bob reports that one good thing about observing from an altitude of 41,000 feet is that the weather is always clear.

Sidney van den Bergh Discovers New SN Remnant

On plates obtained in May at the prime focus of the 4-m telescope of CTIO, Sidney van den Bergh has discovered delicate wisps of filamentary nebulosity about 10' NW of the centre of the radio position of the Lupus supernova

of 1006 AD. (The object, which reached $V = -8$, was the brightest supernova of recorded history.) Red and blue plates show that the nebulosity is equally bright in $H\alpha$ and [OIII]. The overall length of the system of filaments, which lie entirely within the radio remnant, is about 9'. The thickness of the filaments ranges from about 1" to 8". The morphology of the filaments is intermediate between that of S147 and SN1572 (Tycho).

COMINGS AND GOINGS

Tom Bolton and Tony Esteveens visited Victoria May 28 - June 2 to check on progress of new parts for the 74-inch telescope's spectrograph as reported in April. All is well.

On his way back from Chile in May Bob Garrison attended a meeting of the Spectrograph Working Group for the CFHT in Vancouver. He was in Hamilton on June 3 giving a talk on "Recent Work in Chile" to the RASC Centre there. Bob's sabbatical year which began on July 1 will include a month in Poland before the IAU, observing with the Canadian spectrograph at Torun and lecturing on spectral classification at Torun and Warsaw. After the IAU he will be mostly at Lick Observatory at Santa Cruz with excursions of a few weeks each to Vancouver, Berkeley, Hawaii and Chile.

Bob Watson who has been with us during six months sabbatical leave from the University of Tasmania left for home with his family June 29, returning by way of Kansas for a visit with Mrs. Watson's parents.

On July 2 René Racine made a last call at the Observatory with a large van to pick up his files en route to the new Racine home on the Richelieu River at 326 rue Beaulac, St. Hilaire, P.Q.

Preceding the RASC General Assembly in Calgary May 21-24, Don Fernie was in Vancouver May 18 talking to the RASC on "Incidents En Route to the Solar Parallax", and in Victoria on May 19 speaking on the same topic to the RASC there and on "The Historical Denial of Interstellar Matter" at the DAO. At Calgary he delivered his presidential address on "Quasars: The Continuing Enigma" and stepped down from the RASC presidency. At the same meeting John Percy was elected First Vice President.

The following attended the CAS meeting in Penticton June 16-19: Helen Hogg (after-dinner talk on bringing astronomy to the public), Don MacRae, John Percy (paper and review paper on Education in Astronomy), René Racine, Ernie Seaquist (paper), Dave Turner (paper), Sidney van den Bergh (review paper on Centaurus A).

Bob McLaren (co-author of 2 papers) and Phil Teillet (paper) attended the AAS meeting in Haverford, Pa. in June. Sidney van den Bergh, though not attending, was co-author of a paper.

SEMINARS

Tenth June Institute

The tenth June Institutes was held this year on June 8-11. Following a pattern which has evolved over the years, four distinguished astronomers gave mini-courses on four assorted topics - four lectures each. This year's selection of speakers and topics were particularly well chosen and offered something for everyone's taste without being so highly specialized as to leave anyone floundering. Evidence of this was provided by the steadiness of the attendance which held up throughout all the lectures to the very end at something in the neighbourhood of 80-90, about 50 from out of town and 30+ locals.

The social functions were equally well attended: Peter and Liz Martin's welcome party, the Observatory visit and Open House of Don and Betty MacRae, GASA's party in the Physics Lounge and the dinner in Hart House.

Our thanks are owing to many persons of the Teaching and Support Staffs and Student Body, particularly John Percy, Esther Salve and Steve Shore and to the excellent speakers: Miroslav Plavec, Donald Lynden-Bell, James Gunn and Joseph Veverka - in order of their on-stage appearance each day.

As President John Evans said in his little speech of welcome, this format has many advantages over the large society meetings and international conferences.

JUNE

Tues. 29th
DDO 4 p.m.

Dr. Andrew Odell, Northern Iowa University,
"Evolutionary Models of Spica".

Round-up

Several speakers of the past three months seem to have escaped listing in DDD:

Prof. E.M. Purcell, Harvard, "Life at Low Reynolds Number"

Dr. N. Tariq, Waterloo, "An Exact Solution of the Einstein-Maxwell Equations"

Dr. John Lester, Harvard, "An Analysis of the Ultraviolet Spectrum of the Helium-rich Star HR 3089"

PAPERS SUBMITTED IN JUNE AND JULY

S. van den Bergh	The Optical Remnant of the Lupus Supernova of +1006
P.P. Kronberg and M. Normandin	New Evidence on the Origin of Rotation Measures in Extragalactic Radio Sources
D. Turner	New Determinations of R in Open Clusters
S. Shore and C.T. Bolton	An Oblique Rotator Model for the Helium Variable Sigma Orionis E

Error in May DDD

The paper listed on p. 5 by M.H. Liller and H.S. Hogg was entitled "The Variable Stars in the Globular Cluster NGC 5634".

LETTER TO THE EDITOR

Esteemed Editor - Dear Sir:

We realize that in this day of modern marriage and modern living, life can be difficult for those who try and assign names to newly-married couples. However, you may rest assured that we have followed standard convention and both of us use the surname Harris in all cases, contrary to what was published in the "Comings and Goings" of your May issue. We remain ...

your devoted readers,

*Gretchen L.H. Harris
William E. Harris*

P.S.

We also want to tell you how much we enjoy reading all parts of the DDD - with special honors to your regular articles and Don Fernie's Final Item. They are thoroughly entertaining and informative. We're adding this as a postscript since we didn't wish to spoil the above by saying anything nice.

Gretchen and Bill,

Our sincere apology. At the same time we welcome you both back to Ontario - to our sister University, McMaster in Hamilton, where we understand Bill is appointed Assistant Professor to head up an astronomy group to which we trust Gretchen will also be contributing. Congratulations. Ed.

P O T P O U R R I

HSH Honoured - again

Helen Hogg has received what many would regard as the highest honour of her career. She has been selected to become Companion of the Order of Canada, the most senior rank in the Order of Canada to which she was named as Member some years ago. The honour will be conferred in Ottawa in the fall.

Resignations

Warren and Mary Magill have resigned their positions as photographer and research assistant respectively in order to make a new life in Nova Scotia. At a party on June 30 they were presented with a pair of binoculars and good wishes from their many friends.

Appointments

The vacant position on the teaching staff at Erindale has been filled by the appointment of John Lester as Assistant Professor. John received his Ph.D. from Chicago in 1972 after completed a thesis under the supervision of Dr. Mihalas; since then he has been working at the Center for Astrophysics at Harvard.

Helen Hogg and Jack Heard have formally retired and have been named Professores Emeriti. Neither proposes to make any drastic changes in work habits.

Karl Kamper has been appointed to the staff and will add the duties of photographer to his research programs.

Finishes Book

Don Fernie, never having been away, has "returned" from his sabbatical leave - which has been very successful inasmuch as he has completed the writing of his book. It is an informal, non-technical account of astronomers' travels in the eighteenth and nineteenth centuries, to be published by Clarke Irwin in the fall under the title of "The Whisper and the Vision: Voyages of the Astronomers". In many ways, Don says, it is an expansion of some of his Final Item columns; as such it will be awaited eagerly by his many enthusiastic readers. Don was awarded a grant from the Ontario Arts Council towards the completion of the book.

Born

To Bill (Ph.D. 1967) and Victoria (M.Sc. 1967) Sherwood, at Bonn, a daughter, Kimberley Jane on July 6.

Weddings

Former students Dave Hanes (Ph.D. 1976) and Roslyn Shemilt (M.Sc. 1974) were married in Hamilton on July 3rd. Serge Pineault (Ph.D. 1975) was married in Paris on June 12.

HB Assistant

John Perkins is working during the month of July for John Percy as assistant editor of the Observer's Handbook.

Stan Jeffers Engaged

We learn with pleasure that Stan Jeffers, erstwhile PDF at DDO and now on staff at York (though still a frequent visitor to us), is engaged to be married to Phillipa (Pip) Harper, an English girl who is now teaching Fine Arts in the Cawthra Park High School.

New Grad Students

Joan Wrobel has been here since May working with Sidney van den Bergh, and Donna Jean Zubrod has recently arrived to begin work with Tom Bolton.

Staggering News

From the business section of the Globe and Mail for July 8: Curved Space Ltd. has been placed in bankruptcy.

FINAL ITEM

The Catherine Barton Scandal

It is generally agreed by scientists and non-scientists alike that Isaac Newton was one of the greatest intellects ever to have lived. This singular attribute is what makes the details of Newton's personality and his conduct of his everyday life of particular interest. Did the possession of such an intellect in any way alter or make less human Newton's approach to the vicissitudes of life?

Bearing on that question is the enigma, perhaps scandal, of Catherine Barton. Baldly stated, the scandal was this: Catherine Barton was Newton's niece, and for some years she lived in the bachelor household of the Earl of Halifax, who was Newton's chief political benefactor. The enigma is that it remains unclear whether she was Halifax's housekeeper, secretly-married wife, or mistress. Rumour held to the latter, in which case did Newton simply turn a blind eye to the situation in order not to upset his own career in public office, or worse - as some claimed - did he actively prostitute his niece to Halifax to further that career?

The eighteenth century rather resembled our own in terms of relaxed moral standards, but then, as now, the peccadilloes of cabinet ministers and senior public figures were of no little importance. To the Victorians, who came between, it was a matter of wild outrage, and for years such eminent figures as David Brewster, Augustus de Morgan, Thomas Macaulay, and others engaged in hot debate over the details of the Barton affair. de Morgan was moved to write an entire book in impassioned defence of Newton, and it is from his shoals of turgid prose that I have tried to distil the details of what happened.

Halifax was born Charles Montague, and as such he entered Trinity College, Cambridge in 1679 at the age of eighteen. Here he met Newton, then Lucasian Professor of Mathematics, and nineteen years Montague's senior. Newton befriended the young Montague and was evidently of considerable help to him during his university years, which presumably was at least the initial reason for Montague helping Newton in later years when, as the Earl of Halifax, he had become Chancellor of the Exchequer. At the age of twenty-seven Montague married a woman some twenty years his senior, the Countess Dowager of Manchester, a widow and already mother of nine. It was evidently a marriage of convenience, aimed at furthering Montague's career, but it brought him a good deal of ridicule, such as his being under "the tutelage of a venerable matron". The lady died ten years later, and Montague settled down to a life that can only be guessed at behind various biographers' genteelisms. But terms such as 'notorious', 'dissolute', 'libertine' crop up frequently elsewhere, and the Duchess of Marlborough said of him: "He was a frightful figure, and yet pretended to be a lover; and followed several beauties who laughed at him for it." Clearly Montague had an eye for pretty women.

With the publication of his great Principia in 1687 Newton's academic career was over. Although he would continue scientific work on and off for years to come, it is clear that now, aged 44, he made a conscious decision to embark on a career in politics and public service. He sat in Parliament for two short terms as MP for Cambridge University, but as such he was completely undistinguished and was defeated in a third try at election. At which point Montague, now a cabinet minister, came forward with an offer to make Newton Comptroller of the London Mint. Newton felt sufficiently sure of their relationship to decline this lesser post, and held out until he was offered the Wardenship of the Mint in March of 1695. Clearly he was ambitious and had considerable pull with Montague, for he was shortly appointed Master of the Mint, and arranged to have Edmond Halley appointed to the Chester Mint and John Locke, the philosopher, appointed to the Board of Trade.

So it was that when Newton accepted the Wardenship he left Cambridge and went to live in London, taking up residence in a house on the south side of Leicester Square (known then as Leicester's Fields) at the corner of St. Martin's Street.

Within a year or two he was joined by his favourite niece, Catherine, then aged about 18. (Technically she was his half-niece, granddaughter of his mother and step-father.) Newton had some extraordinarily hard things to say about others of his nieces and nephews, but he had been very fond of Catherine from her early childhood, had personally taken her education in hand, and - with Montague! - had arranged a small income for her. Now she had come to see life in the great city and presumably keep house for her uncle.

By 1706, however, when she was 26 and described by several (particularly Jonathan Swift, who knew her well) as witty and beautiful, she had left Newton's home, and although, perhaps significantly, none of her acquaintances recorded unequivocally where she was living, it is clear from many small clues that for most of the years 1706 to 1715 she lived in Montague's house.

This is agreed upon by all who have investigated the question, and all are equally agreed (given Montague's reputation for a start) that she was not there merely as his housekeeper. For one thing, when Montague died in 1715 (aged 54) he left her the immense sum of £20,000 "as a token of the sincere love, affection, and esteem I have long had for her person, and as a small recompense for the pleasure and happiness I have had in her conversation". The wits of the day, particularly spiteful old John Flamsteed, made much of that word 'conversation', and indeed, in the language of the day it had much wider connotations than its modern usage of merely talk. It was, for instance, equally applied to companionship.

In any case, long before Montague died, the rumours had been flying. In 1710 a Mrs. Manley, described by de Morgan as a woman of no character but wide acquaintance, published a *roman-à-clef* in which a thinly disguised Catherine appeared as the mistress of a thinly disguised Montague. The book went through several printings in as many years, and was long the talk of London. Voltaire heard all about it during his four years in London, and although he was generally sympathetic towards Newton (it was directly due to Voltaire - of all people - that Newtonian mechanics finally came to be accepted in France), he couldn't resist a dig: "In my youth I thought that Newton made his fortune by his merit. No such thing. Isaac Newton had a very charming niece, Madame Conduitt [Catherine's eventual married name], who made a conquest of the minister Halifax. Fluxions and gravitation would have been of no use without a pretty niece." Voltaire, after all, was Voltaire!

de Morgan will have none of this. His theory is that Montague secretly married Catherine, the secrecy being insisted on because of the ridicule Montague had suffered over his first marriage. It hardly seems likely in view of the treatment they were both undergoing at the hands of the rumourmongers. And if Montague had so great a fear himself, why did he not at least reveal the true status in his will and so repair Catherine's reputation? Because, says de Morgan, he feared his will might be stolen and read before his death. In any case, the most careful search of civil and ecclesiastical records has never turned up any suggestion of a marriage.

Yet the mistress theory has its difficulties too. Jonathan Swift was an inveterate gossiper, always on the lookout for titillating morsels, and although he frequently met Catherine and Montague, he never once even hinted at any irregular

relationship between them. Furthermore, although a gossip, he had a very strong sense of social decorum (he became Dean of St. Patrick's Cathedral in Dublin), and almost certainly would have dropped the pair from his circle if he thought anything improper existed between them. An interesting point is that in his letters to others he always gives Catherine the title of 'Mrs'. However, that title was just then undergoing a change of usage. Previously it was applied to any adult woman, married or unmarried, while 'Miss' was reserved for young girls, rather like 'Master' is today reserved for young boys. Nevertheless, Swift in all his writings was always careful to follow the new usage then coming into fashion, where 'Mrs' referred only to a married woman. Did he perhaps believe Catherine to be married?

Two final points against the mistress theory: Newton could be worldly and tough and on occasion downright earthy, but the record does not show him to be tolerant of social misbehaviour. During the Barton affair he once wrote to a nephew of his, described by some as the most profligate clergyman of his day, upbraiding this individual for his behaviour in terms whose coarseness was exceeded only by their vehemence. Newton would hardly have done this if he himself was open to the charge of countenancing or even conniving at his niece's misdemeanours. The last point is the attitudes of the Barton and Montague families. They remained on very cordial terms both then and after; the Bartons named children after the Montagues, and the latter openly offered financial assistance to at least one of these children: hardly the customary reaction of an aristocratic family towards the family of one of their scion's clandestine mistresses.

There is one last tantalizing phrase from Newton himself. When Montague died, a letter from Newton to a relative of his noted "The circumstances in which I stand related to [Lord Halifax's] family will not suffer me to go abroad till his funeral is over." But those circumstances remain enigmatic.

Whatever they were, Catherine in 1717 married a wealthy MP, John Conduitt. They seem to have had a happy and socially prominent life together, and eventually had a child. Conduitt never once referred to his wife's earlier relationship with Montague.

The truth of the Barton-Montague alliance will probably never be known for certain. It matters little. For it is the sort of historical incident of which one might say as Newton once said of science itself: "Philosophy is such an impertinently litigious lady that a man had as good be engaged in lawsuits as have to do with her."

J.D.F.