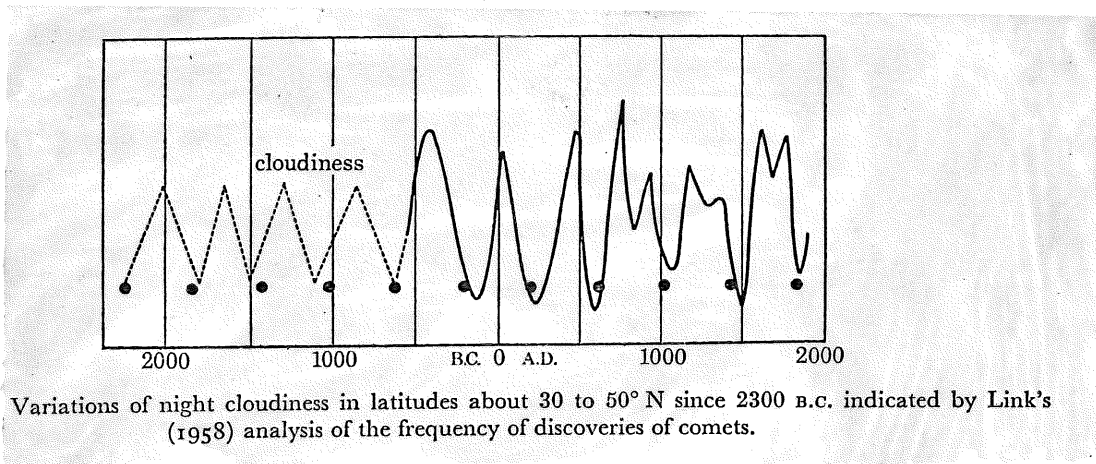


DAVID DUNLAP DOINGS

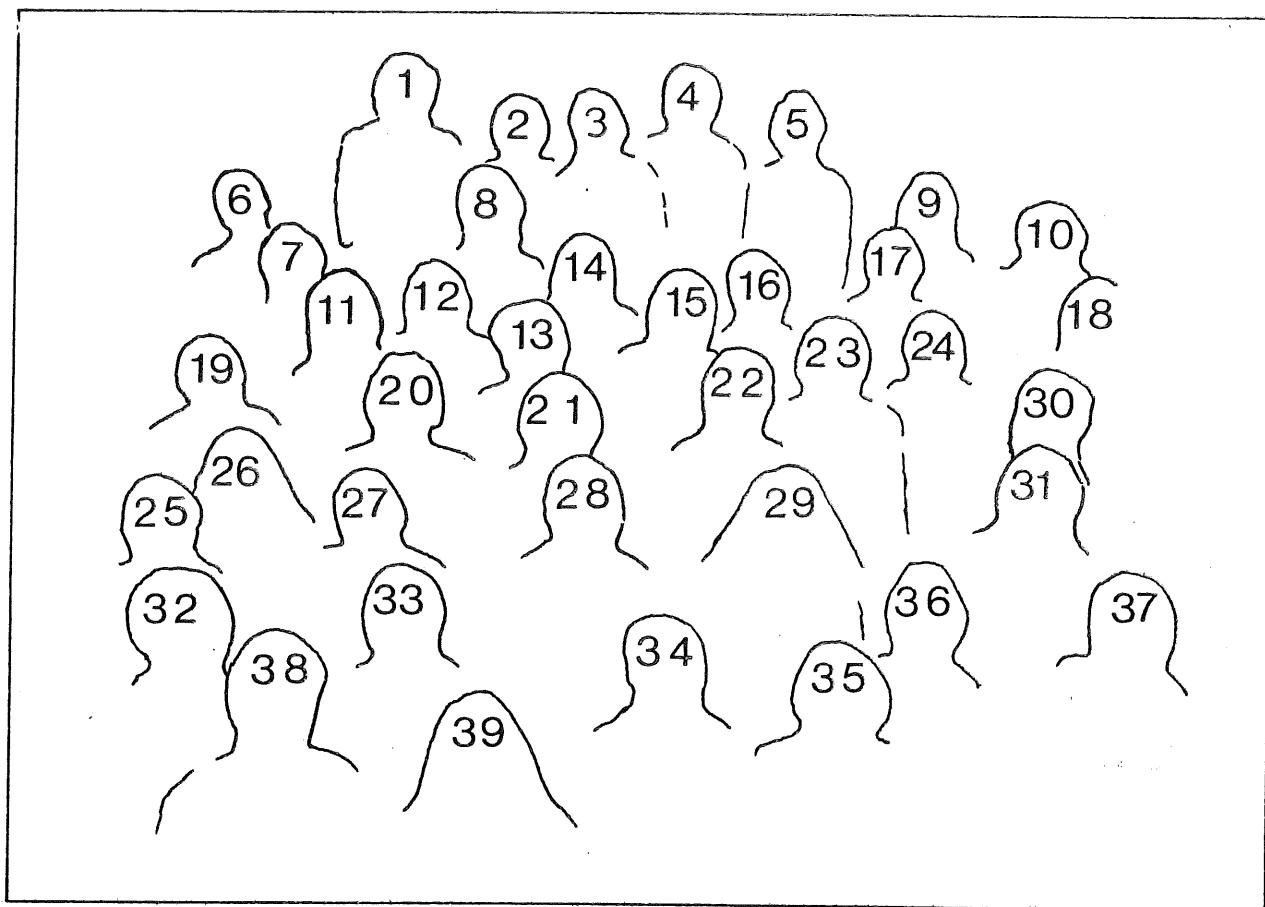
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FEBRUARY 28, 1978



See "Good News, Chaps..." on page 4.

Time and memory slip away all too easily, so for the record we've decided we should identify the faces that appeared on last month's front cover.



- | | | | |
|----|----------------------|----|-------------------|
| 1 | Armando Arellano | 21 | Dieter Brueckner |
| 2 | Bob Gauthier | 22 | Gerry Longworth |
| 3 | Chris Corbally | 23 | Chris Rogers |
| 4 | Mario Pedreros | 24 | John Lester |
| 5 | Linda Twitchin | 25 | Mary Lane |
| 6 | Dennis Ward | 26 | Lindsey Davis |
| 7 | John Percy | 27 | Martine Normandin |
| 8 | Chris Vickers | 28 | Christine Clement |
| 9 | Robin Barker | 29 | Paulette Le Blanc |
| 10 | Gerry Grieve | 30 | Maurice Clement |
| 11 | Chris McAlary | 31 | Don Fernie |
| 12 | Stuart Button | 32 | Zane Sterns |
| 13 | Sidney van den Bergh | 33 | Dennis Crabtree |
| 14 | Jim Thomson | 34 | Dorothy Fraquelli |
| 15 | Steve Shore | 35 | Karen Oakley |
| 16 | Jose Maza | 36 | Joan Tryggve |
| 17 | Frank McDonald | 37 | Dave Earlam |
| 18 | Peter Martin | 38 | Rick McGonegal |
| 19 | Dave Blyth | 39 | Joan Wrobel |
| 20 | Jim de Roux | | |

CHANGES ON THE 74-INCH

The new G12 grating has been installed on the 74-inch telescope spectrograph. Preliminary tests show that it produces excellent images. The exposure times with it appear to be about 60% of those with the old G12. The improvement is even greater at the UV end of the spectrum. We still have to try some tests on radial velocity standards, and new standard positions will have to be measured since the ruling and blaze of this grating are (very) slightly different from the old G12.

It now appears that we will soon have all of the components in hand to begin the changeover of the 74-inch spectrograph to image slicers and coated optics. The changeover is tentatively planned to begin on May 8. The spectrograph will be down completely for about one week. At least one more week will probably be required for testing and alignment. I would like to hear immediately if this schedule will cause problems for anyone's observing.

Tom Bolton

COMINGS AND GOINGS

On February 10 the Department and Observatory were recipients of a visit from the NRC Grant Awarding Committee that deals with astronomy. The committee spent the morning in the Department interviewing faculty there, and then came out for lunch at Observatory House and an afternoon of further interviews and tours at the Observatory.

* * *

Due to pressures in his publishing career, Bill Clarke has requested a one-year leave-of-absence from the Department beginning next July 1. As soon as approval is given by the University, it is expected that the Department and Observatory will be advertising for a one-year replacement for Bill at the full-time assistant professor level.

* * *

GOOD NEWS, CHAPS! ONLY TWO HUNDRED YEARS TO THE CLEAR WEATHER!

A few years ago the Royal Society of London and the British Academy held a joint symposium on the Place of Astronomy in the Ancient World, with the proceedings published in the Philosophical Transactions (Part A, vol. 276, no. 1257, 1974) of the Royal Society. Along with all the astro-archaeology there was a quite fascinating paper by H.H. Lamb on the earth's climate through historical and prehistorical time. One of his diagrams, reproduced on our front cover, shows the variation in cloudiness in our latitudes through the millennia. If you extrapolate the curve at the right-hand edge of the diagram, you'll see that we must now be pretty close to peak cloudiness (which increases upwards in the diagram). On Lamb's claim for a rough 400-year periodicity in the data, that means that cloud cover should now diminish for the next couple of centuries. Just thought you'd like to know!

J.D.F.

SEMINARS

- March 7 Ernie Seaquist, University of Toronto
Title to be announced.
- March 14 Dennis Sciama, Oxford University. (At Scarborough College)
"Black Hole Explosions"
- March 21 Jim Clarke, University of Toronto
"The Flux Density-Angular Size Relation"
- March 28 To be held at Erindale College.
Speaker and title to be announced.

TEN YEARS AGO

Extracts from our issue of February 28, 1968:

The Carnegie Image Tube for which we have been hoping during the past year will be shipped to us during March.

Also expected in March is the arrival of Dr. Stanley Jeffers to take up a post-doctoral fellowship.

Ted Bednarek took some very creditable photographs of the Orion Nebula with the 16-inch reflector, the first that have been taken with this telescope.

John Percy's Senate Oral Examination on his thesis - "The Nature of the β Cephei Stars" - takes place tomorrow.

Newly on display in our Campus reading room are a model of the QE II telescope and a block of quartz left over from the casting of the 157-inch disk.

The GASA Gassers unite in one team some of the hottest hockey prospects of our era. Leading the forward charge is the feared front line of Fort, Dodd, and Captain Dubas, while leading the retreat is the indestructible defense of Hardenbergh, Hickok, and Ross. Two new novae have appeared in the lovely yet lethal form of Raymonde Verreault and in the powerful personage of Chris Aikman....

P O T P O U R R I

Congratulations to Chris McAlary, who passed his Ph.D. oral qualifying exam on February 9.

* * *

There will be some changes in departmental administrative duties after next July 1. Bob Garrison will become Graduate Secretary, while continuing to cope with day-to-day matters in Chile. Ernie Seaquist will continue as Associate Chairman, but not as Undergraduate Secretary, a position that will be taken over by Christine Clement. The post of Associate Director will be revived and will be held by Tom Bolton, who will also become faculty library representative.

* * *

John Percy reports having had several 'media encounters' lately. There was an interview and article in the Halton pages of the Toronto Star about the Erindale Observatory project, and then another interview and 'rather asinine' article in the Mississauga Times about JRP's 'image'. John was also interviewed on CHUM's Public Affairs program, mostly on cosmology (reported as cosmotology by the Mississauga Times), and finally an interview on CKMR about Tom Bolton's work on Cyg X-1 and black holes.

* * *

John further reports that this year's June Institute will take place May 30 through June 2, and that Jerry Ostriker, Dan Weedman, Frank Shu, and Paul Feldman are confirmed as speakers.

* * *

Word comes from Chile that Gladys and Nolan Walborn are now the happy parents of Francis Augustus, born February 10.

* * *

Don and Betty MacRae have bought a house at 427 Glenview Avenue and expect to move there in June.

* * *

Tom Bolton reports that there will be a meeting in the DA on March 10 and 11 of the participants in last summer's campaign on Cygnus X-1. The meetings will be held in the third-floor Physics conference room, and coffee breaks will be taken on the 15th floor. Everyone is invited to join the coffee breaks to meet and chat with the participants. Included among the latter will be Claude Canizares (MIT), Steve Holt (NASA-Goddard), Norman Walker (RGO), Andy Woodsworth (NRC), Jim Kemp (Oregon), and Douglas Eardley (Yale).

* * *

Christine Clement reports some kind of record for one of her classes which recently averaged 70% on a minus-one-hour test. A bemused student discovered during the exam that the clock in the room was running backwards! And we always thought the DDO 24-inch sidereal clock was unique...

* * *

PAPERS SUBMITTED

M.B. Bell and
E.R. Seaquist

Radio Recombination Line Studies of M82 and
Other Galaxies.

S. Jakate

A Search for Beta Cephei Stars II: NGC 4755.

Cephei

A. Wehlau, M.H. Liller,
S. Demers and C. Clement

Periods for Nineteen RR Lyrae Variables in
NGC 1851.

B. Campbell

A New Method for Metal Abundance Determination
in Late-Type Stars.

S. van den Bergh and
K. Kamper

Expansion of the Optical Remnant of Tycho's
Super-nova.

REVISIONIST'S CORNER

Ingenuity, no less than hope, springs eternal in the student breast. What else to say of the history-of-astronomy student who, confronted with the need to define the term 'menhir' (the great upright stones of megalithic monuments), reported: *When they were building Stonehenge they were having a terrible time lifting the heavy lintels up, so one guy ran down to the town and yelled "Hey, are there any menhir?"*

No less his confrere who did his best for the Ionians (an important school of early Greek culture): *There are positive Ionians and negative Ionians. Negative Ionians are thought to be good for you*

F I N A L I T E M

The Origins of the DDO. V.

During the years 1927 to 1930, while he had to await the winding up of the Dunlap estate and a public announcement of the forthcoming observatory, Dr. Chant turned his attention to choosing a site for the new telescope. In this Mrs. Dunlap would have as much say as anyone, and, inasmuch as they were planning the world's second-largest telescope, it is amazing to the modern reader to see by what casual caprice and whim the choice was made. Scientific factors entered hardly at all.

First to go, it seems, was the Bathurst Street site so long touted by Chant. And this, apparently, because a casual acquaintance of Mrs. Dunlap's felt that the observatory "should be located near Yonge Street, on the great highway leading to the north." On the other hand, Mrs. Dunlap herself was rather in favour of a site near her farm in Don Mills, but, in turn, Chant demurred. Next, Chant and Young happened to be in York Mills and "inspected the hill on the east side on which was the Anglican church, and after this the land on the west side of Yonge Street. There we found a magnificent wooded site which could be reached from the valley to the south." But while Mrs. Dunlap "admired" this location, it seems not to have really caught her imagination.

All of this continued at a leisurely pace for eighteen months, interspersed with many an afternoon tea at Mrs. Dunlap's gracious Rosedale home, and occasional country drives in her chauffeured Rolls Royce. For his

part, Chant reciprocated with the dedication of his book, *Our Wonderful Universe*, to Mrs. Dunlap ("A Generous Friend of Astronomy"), and had a sundial cast to his own design with the inscription "Donalda Farm 1928" ("Mrs. Dunlap was pleased with the dial, which however was not mounted on its pedestal until the following year.")

With the approach of summer, 1928, they began to explore a little farther afield.

On Friday, May 18, 1928 [misprinted in the published version as 1925], Mrs. Dunlap called for me and we drove to Thornhill. We had tea at the Ladies' Golf Club, the grounds of which reached almost to Donalda Farm. We inspected a site on the north side of the Thornhill Golf Club grounds. It had a pleasing outlook southward over the Don Valley occupied by the grounds; but it was "hemmed in" and not easy of access.

On May 25 I drove with Mr. Holden [Mrs. Dunlap's legal advisor] to Richmond Hill. On the way I drew his attention to an elevation about a mile south of the village and half a mile east of Yonge Street. He asked me if I would like to live up there among the clump of trees, and I answered without hesitation that I would. However, we did not go up to see it.

I told Mrs. Dunlap of having picked out a hill near Richmond Hill, and she suggested that we drive up to see it. So she called her chauffeur and she, Mrs. Mather, a visiting friend from Winnipeg, and I drove up to the farm. Turning to the right off Yonge Street, we went the half-mile up the lane, and at the old barn Mrs. Dunlap and I got through a rickety wire gate and walked up to the top of the hill. She was delighted with the outlook in every direction and said "This is the place!" This site had a spacious and commanding view not possessed by any of the others; also it was conveniently reached from the University, being only ten miles from the city limits, along our great highway to the north.

That evening Mrs. Dunlap gave instructions to Mr. Holden to purchase the plot of land.

Giving instructions was one thing; carrying them out to everyone's satisfaction proved rather more difficult. The wily Mr. Holden was not without foresight in insisting - over Chant's protestations - that Chant go out and do the haggling over prices. The initial purchase, covering the area from the railway to what is now Bayview Avenue and from just south of Observatory House to the crest of the hill, proved relatively straightforward. The owner, a Mr. Marsh, accepted \$28,000 for the 123 acres. But an attempt to buy the land westwards from the railway to Yonge Street led to several years of acrimonious exchanges, and in the end proved fruitless. Additionally, since it was intended to put the big dome right at the crest of the hill, more land to the north was needed. Initially, Chant tried to buy just the northern slopes of the hill, but the owner refused to parcel up his land in that way, and Chant was forced to purchase all 55 acres bordering on Hillsvie Drive (then called Hunt's Lane "with about a dozen cottages on its north side") for \$13,750. Finally, and much later

in 1950, Chant, with a view to easier access to the Observatory, acquired another 12 acres in a 400-foot-wide strip running south of Observatory House to 16th Avenue. All told, then, the Observatory owned 190 acres.

Engaged in all this, Chant suffered a sudden announcement from Mrs. Dunlap in September of 1928 that she had misgivings about the presence of the railway, and that perhaps the new observatory should be placed further north. Further instructions were issued to Mr. Holden to keep an eye out for likely sites while driving north to his summer cottage. Several such sites were looked at, but eventually Chant and Young prevailed upon Mrs. Dunlap to stay with the Richmond Hill one.

Meanwhile, it had become steadily clearer that Mrs. Dunlap would soon be in a position to announce full funding of the project, and Chant, eager to get a head start on ordering the telescope itself, was allowed to draw up specifications and call for tenders. Chant has not recorded just how the size of the telescope was settled upon, but possibly Young's experience with the DAO 72-inch had some influence. In any case, tenders were invited from Fecker (Pittsburgh), Warner & Swasey (Cleveland), Grubb-Parsons (England), and Zeiss (Germany). A rising American dollar and falling British pound led to Grubb-Parsons getting the contract, although there may have been a little more than just that involved. For upon hearing that Mrs. Dunlap and family were to be in Britain in the summer of 1929, Chant thoughtfully wrote ahead to several of his contacts there. On June 16, 1929, he was rewarded with a letter from Jessie Dunlap:

We have had a most charming twelve days in London. On our arrival we found cards and a note of invitation from Sir Charles and Lady Parsons. We dined with them a few nights after our arrival. They have a lovely house in Upper Brook Street, and Sir Charles is a winsome, handsome gentleman of the old school. Sir Frank Dyson [the Astronomer Royal] was there, too, and before I met him a note of invitation had come from him inviting us to see Greenwich Observatory and to tea afterwards. We were simply stunned with the magnitude of the place, and I found out why it takes so long to make a telescope. We were thrilled to the core!

Even so, it would be almost another year before Mrs. Dunlap felt confident enough to authorize a legal order. Or, more precisely, Mr. Holden, "who said matters were favourable and he wished to hear from me." The order for "one 74-inch telescope" was finally cabled to England on May 21, 1930.

May 17th, 1930

Sir Howard Grubb, Parsons & Co.,
c/o F. Jno. Bell, Esq.,
Royal Bank Building, Toronto.

Dear Sirs,

Subject to formal agreement being approved by Mr. John B. Holden, please enter our order for one 74-inch telescope as follows:-

Mirrors	£ 7,000-0-0
Mounting	15,500-0-0
	<hr/>
	£ 22,500-0-0

Terms of payment to be arranged.

All prices are for delivery F.O.B. Newcastle-on-Tyne, England.

The foregoing to be in accordance with specifications and particulars submitted.

Yours very truly,
(Signed) C. A. CHANT

O.K./J.B.H.

Augustus Chant's long dream was beginning to materialize.