



# DAVID DUNLAP DOINGS

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Mathematics for the masses:

$$\int \frac{1}{(\text{cabin})} d(\text{cabin}) = \log \text{cabin} + c \\ = \text{houseboat}$$

English for the masses:

In English the word "ghoti" would be pronounced "fish":  
gh as in cough; o as in women; ti as in nation.

N O T E

*Our readers are reminded that there will be no issue of the Doings next month, but that the DDD will return at the end of July under the auspices of its new editors.*

OLD CHAIRMEN NEVER DIE ...

...they merely lose their faculties. So goes the old wisecrack. Happily, in the case of Don MacRae, it is no more true figuratively than it is literally. None of us rejoices to see him step down, and no one who recently saw him cutting through the bureaucratic fog that surrounds the contemporary departmental budget could consider him in any way impaired. But thirteen years is a long time, and - to coin a phrase - to everything there is a season...

Thirteen years means MR has been Director/Chairman for as long as any of his predecessors, and, it is virtually certain, for longer than any of his successors. (The five-maybe-ten-year incumbency is now the rule.) Furthermore, while tumultuous may be too strong an adjective, those thirteen years did span the student upheavals of the late-Sixties, and they saw the greatest expansion the Department has ever known.

The era when Don became Director was much different. Erindale was still a thought, Scarborough only just underway. The Observatory was not merely the hub of Empire, it was the Empire. We were only just moving into the new Physics Building, vacating the four rooms we had had in what is now the Sandford Fleming Building - the rooms that must have been Augustus Chant's domain for decades. Only in the last year or two had a downtown secretary arrived on the scene - part-time, and only recently had one of the faculty, Pierre Demarque, decided to base himself on campus. Previously the downtown doors were locked in April and the dust left to gather thick until registration week in September. All six of the faculty were observing optical astronomers - as were the three or four graduate students - and all repaired gratefully for the summer to 'home' at the DDO. It was a small family.

The DDO was different then too. The secretary doubled as librarian and general assistant. The Director decreed what observing programs would be carried out with the 74-inch, and every faculty member participated. (Not always enthusiastically. Jack Heard once recalled finding vdB shivering at the table on the floor of the dome. "Why don't you take a spell in the warm room?" asked Jack. "Warm room?? What warm room?" replied a bewildered vdB, who

may well be forgiven for having overlooked the telephone-booth-sized affair it then was. It was Sidney who later instigated the present warm room.) It was part of the junior faculty's duties to run the Saturday night visitors' program - God how I hated having to change out of my jeans into a suit and hike up the hill on my Saturdays. Communication between campus and Observatory could be a problem. For some curious reason it was long-distance to call from Toronto to Richmond Hill, but not vice-versa. Neither was it long-distance to call Thornhill from Toronto, which frequently led to my wife being phoned from the Department with a request that she call the DDO and ask them to call the campus....

But all this was to change rapidly after the mid-sixties when Don became Director. The boom years were upon us, and very soon the faculty more than doubled to include radio astronomers and theoreticians. By as early as 1968 there were thirty-five graduate students, most of whom crowded into the downtown offices where they and the new faculty were kept in order year-round by three secretaries and several other support staff. Erindale was born, Scarborough grew, new telescopes appeared on campus and at DDO, the Chile operation was launched, our own radio telescope at ARO was built, Sidney discovered the airplane. New courses and academic programs became endemic. Bastions fell as students were admitted even into the holiest of holies, the staff meeting - often, I suspect, to the regret of today's student representatives.

Sadly, the Seventies have seen the boom years become the doom and gloom years. Student enrolment continues to decline, some of the support staff have gone without replacement, and financing has withered to a degree that, for instance, where once our graduate student equipment fund stood at \$18,000 a year, it is now a nominal \$1,000. And if the budget has withered, the University's bureaucracy has burgeoned to an astonishing degree. Weekly missives arrive from Simcoe Hall with new rules and regulations, until now the Chairman hardly dares order new pencils without first checking the Manual of Policies. Once it was possible for the Director to casually announce to a staff meeting that on a recent overseas trip he had met a promising young man and had forthwith appointed him to the staff. An action totally unthinkable today!

So to Don our grateful thanks for having piloted the ship with so steady a hand not only to the crest of the wave but also towards the trough. I only hope the keel will continue even through the current heavy weather and on towards the brighter days that must surely come.

And if we thank Don, no less our gratitude to Betty for these many years of frequent and gracious hospitality at Observatory House. Departmental life has been much the sunnier for it.

So once again they are changing guard at Buckingham Palace. Shall we all go down with Alice?

Don Fernie

COMINGS AND GOINGS

Dr. David Turner, now at Laurentian University, Sudbury, has accepted a temporary assistant professorship in the Department from August 1, 1978 to June 30, 1979, replacing Bill Clarke, who will be on leave-of-absence.

\* \* \*

Helen Hogg was expected to be the only attendee at the CASCA meetings (in Saskatoon May 24-26) flying in from north of the arctic circle. She has been satisfying a long-standing ambition to visit Inuvik, N.W.T.

\* \* \*

Bob Garrison was in Hawaii for a meeting of the CFHT Scientific Advisory Committee April 24-28. During a tour of the facilities the committee saw the UK infrared telescope mirror being aluminized in the CFHT chamber; the dome is awaiting its telescope, the arrival of which is some months off. Bob was also at the University of Montreal on May 19, giving a colloquium on The Spectral Type of the Sun.

\* \* \*

John Percy spoke on Astronomy at U. of T. to Vincent Massey Collegiate school in Etobicoke April 18, to Midland Secondary School in Midland on The Discovery of Black Holes, May 10, and on the same topic at the Astronomy Club Day sponsored by the Planetarium, DA, and RASC Toronto Centre, May 13. On May 12, with the assistance of several staff and students, he conducted a visit of 70 'Associates of Erindale' to the DDO. On May 13 he and several others were also involved in a visit to the Department by participants in the Astronomy Club Day.

\* \* \*

Peter Biermann, who will be visiting professor with us from September, was in the Department during the week of May 15, and on May 19 gave a seminar Aspects of Galaxy Evolution.

\* \* \*

Jeff Crelinsten (M.Sc. 1971) visited the Department on May 1. After a spell of teaching at Concordia University, Montreal, Jeff is now a freelance producer and editor of Science Programs for the CBC in Montreal.

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Summer students John Pala and Petrusia Bojetchko have started work for Phil Kronberg.

\* \* \*

Stuart Button and Phil Kronberg have returned from a busy observing run at the VLA, New Mexico.

\* \* \*

Don Fernie attended a meeting of the National Organizing Committee for the IAU at the University of Montreal on April 28.

\* \* \*

Dr. R. Robert Robbins, University of Texas, was in the Department to run the workshop on teaching elementary astronomy, May 18, The previous afternoon he gave a seminar on Student Observational Projects and Other Activities in Astronomy Education at the University of Texas.

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## SEMINARS

There are no formal seminars scheduled for June, but on June 7 Steve Shore will give a talk on his thesis, and on June 14 there will be a series of 10 minute papers by students as practice for ASP and AAS meetings. ( Applicants are asked to contact Bob Garrison or John Percy.) Details of time and place will be posted.

## T E N   Y E A R S   A G O

*From our issue of May, 1968:*

*In a note last month we referred to John Schmitt's identification of the radio source VRO 42.22.01 with BL Lac. Since then he has obtained a spectrogram of BL Lac with the Kitt Peak 84-inch. The spectrum is to all intents and purposes continuous, and so, as might be suspected, BL Lac is probably not a star at all.*

\* \* \*

Miss Northcott has been engaged in drawing up specifications for a new order of observing books. She points out that these 24 books are costing \$225, and she hopes that this knowledge will encourage observers to take pains to record the all-important data carefully and neatly.

\* \* \*

Dr. Anand reports that preparations are complete for the June Institute. The speakers are Prof.s R.F. Christy, R.P. Kraft, E.L. Schücking, and E.A. Spiegel. Forty-nine guests have accepted the invitation to attend.

\* \* \*

B.Sc.'s were granted to David Lindop, Rob MacDonald, and Peter Martin in the Astronomy Division of the M and P course, and a B.A.Sc. in Elec. Engineering was awarded to Jack Winzer. All these students received First Class Honours.

\* \* \*

Dr. Stanley Jeffers has arrived to begin tenure of a Post-doctorate Fellowship.

\* \* \*

It's the season for weddings. Being married next month are: Orest Dubas to Thea Muller; Peter Martin to Mary Elizabeth Cowan; Mark Naylor to Margot Williamson; David Fort to Karen Frost.

\* \* \*

Dr. Roeder has taken to riding a bicycle to work. There must be some kind of a joke here about time dilation.

\* \* \*

#### P O T P O U R R I

John Percy has been elected by acclamation to the National Presidency of the RASC.

\* \* \*

Dr. Robbins, visiting us from the University of Texas, brings news that Tom Barnes (Ph.D. 1970) has been appointed Assistant Director of the McDonald Observatory.

\* \* \*

Dot Fraquelli reports that observers were treated to a fantastic auroral display on the nights of May 1, 2, and 3. She writes that "the aurorae took a different form each night. May 1 saw draperies that changed colours from white to red to green. May 2 presented rays that intensified and faded. May 3 reminded one of waves breaking on a beach at about 20 second intervals. All reports agree that it was the best auroral display seen in the Toronto area in years."

\* \* \*

Don Fernie has been appointed to the executive committee of the Institute for the History and Philosophy of Science and Technology.

\* \* \*

The past month has seen a considerable changing of offices at the Observatory. Don Fernie has, in the words of Kim Innanen, been lured from his second-floor sanctuary to the main-floor bunker, taking up residence in the large office at the north-west corner of the groundfloor. Tom Bolton has moved upstairs to the large office at the south-west corner, Barry Madore has moved across the hall opposite Tom, and Joan Tryggve has moved into the smaller office next to Don's.

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*PAPERS SUBMITTED*

*B.F. Madore*

*Supergiants Spiral Structure and Star Formation in M33.*

*J.C. Blades and  
B.F. Madore*

*The Unidentified Interstellar  $\lambda 4428$  Band in the Large Magellanic Cloud.*

*A. Wehlau and  
H.S. Hogg*

*The Blue Variables in Messier 22.*

REVISIONIST'S CORNER

*An early radio astronomer was Janzen, who used the telephone to hear noise coming from the centre of the universe. Rebel heard it too. After WW II a couple of radar operators, Lowel and Ryan, picked up a lot of second-hand stuff cheap and took off....*

- A210 student on the history of radio astronomy.

F I N A L I T E M

The Origins of the DDO. Finis.

With the plans and problems of the dome, the telescope, and the Administration Building settled, two things remained: a water supply for the Observatory and the Director's house.

The original well used by the farmer and his family proved inadequate. It ran dry shortly after the building of the Observatory started, and cement mixing had to proceed through the use of "a stone-boat bearing cans of water drawn by a tractor up our long and muddy lane." So a well-driller was hired, guaranteed "\$1.00 for each foot the drill went below the surface of the earth", and the search began for a likely site. They started near the Administration Building, but even a depth of 350 feet produced no water. There was no better luck after 160 feet in the southwest area of the property. Finally a professor of geology was called in, and whether through his expertise or sheer good luck a site near what is now Bayview Avenue yielded an abundant water supply at 95 feet. It remained the Observatory's sole supply until only a few years ago when insurance requirements made it necessary to be absolutely sure of unfailing water in the event of fire-fighting, and the general supply was then switched to Richmond Hill mains. But the old pump and well continue to afford us the luxury of green lawns in summer droughts when less fortunate Richmond Hill residents are forbidden the use of their hoses.

The Director's house, of course, would be the original farm house on the property. Or rather, the original farm houses, for in fact Observatory House is made up of two houses: a smaller one, now the East Wing, built sometime prior to 1840, and a larger one built in 1865. They interconnect at the ground-floor hallway, but not upstairs. The general appearance was a good deal different then too:

*Adjoining the smaller house was the kitchen, behind it was the woodshed, and into the wall between them a brick oven was built. Firewood would be fed into this oven from the woodshed and when its temperature had risen sufficiently high, the hot coals would be drawn out and the loaves of bread in their pans would be pushed in from the kitchen and left there to bake. There were many brick ovens in Ontario when I was a boy.*

*Next to the woodshed was the driving-shed in which the buggy or light wagon was kept. Mounted on the roof of this was the farm bell.*

*In addition there were barn and stables, milk-house, an extensive hen-house, and other structures. But conditions were rapidly changing and the property needed many repairs.*

Remodelling, in fact, was extensive. All of these structures disappeared, as did the old verandah surrounding the house. The latter's interior was refitted



with a new heating system, new bathrooms, new floors, and several interior walls changed. The original two houses were again sealed off from one another, for the East Wing was to become the caretaker's residence and the West Wing the Director's. (This situation remained until the late-1960s, when a new house was built for the caretaker, and Observatory House again remodelled as a single unit for the Director.) A new three-car brick garage was built at a cost of \$1200.

*On Wednesday, May 16, 1934, Jean and I moved up to Observatory House. Our furniture had been taken there some weeks before and it did not take long to get settled. Mrs. Dunlap came up to see us in the afternoon. She had just arrived home from abroad and she reported that she was on the Olympic when it ran over the lightship Nantucket the day before, May 15.*

One thing remained: the formal opening of the Observatory. The University President agreed with Dr. Chant that it should take place in conjunction with the University's Commencement proceedings in late-May, early-June 1935. They further agreed on a special Convocation at which honorary degrees would be conferred on Sir Frank Dyson, Mrs. Dunlap, Chant himself, Harlow Shapley, Vesto Slipher, and W.E. Harper.

*The most suitable arrangement seemed to be to have the Formal Opening on the Friday afternoon and the Special Convocation on the Friday evening of the last week in May. Looking at the calendar, we saw that this Friday would be May 31. Said I, "That will be my 70th birthday." Thus the very day when I should achieve the dream of my life would be the date of my formal retirement from the University!*

It was a glorious day, full of dignitaries and top hats and speeches. 1300 people came. A movie of the proceedings is still to hand, showing not only the dignitaries but callow undergraduates, the likes of Don MacRae, disporting themselves on the lawn. Soon-to-be-Prime Minister Mackenzie King dropped in unexpectedly. He was a friend of the Chants, and had previously visited them at Observatory House (where he was awarded a drink from the kitchen tap, Chant recording with satisfaction that King "praised our water highly.")

Naturally there were contretemps too. The famous picture of Mrs. Dunlap opening the front door with a golden key was posed for the press; in truth the lock jammed at the crucial moment and someone had to be sent rushing round the back way to open the door from the inside. There is also the story of the visitors books, of which there were two: one for the big-shots to sign, one for the little-shots. The former book was guarded by a junior member of staff, who failed to recognize Mackenzie King when he wandered in, and coolly informed him that that book was reserved for important people.

The following day R.K. Young became Director and the David Dunlap Observatory settled down to the long years of steady work. Mrs. Dunlap continued her interest; there was a special room, the Donor's Room, set aside for her on the second floor, and the Dunlap Rolls Royce would frequently arrive with its owner and her friends, complete with the butler to serve afternoon tea with a silver tea service in the Donor's Room. In the later-1930s she gave a most memorable garden party on the immaculate lawns of Donalda Farm for a Toronto meeting of the AAS. She died, genuinely mourned by many, on July 31, 1946.

Although he was now retired, there was no question but that Dr. Chant should have the use of Observatory House and an office in the Administration Building for as long as he wished. And there he remained, surrounded by the fruits of his life's work, for more than twenty years. Perhaps increasingly lonely towards the end, after the death of his wife in 1943 and with ill-health more frequent, he died at Observatory House on November 18, 1956. He was 91.

But even in passing he was not finished with the Observatory. He left a very substantial bequest to it, a legacy which continues to remind us that dreams and ambitions, allied with hard work and good manners, bring their own rewards.

J.D.F.