



## EDITORIAL

The Second Director

A very nice letter came at Christmas time from Dr. R.K. Young who commented on the summary of Dr. Chant's autobiography which we printed recently. He said that he wanted us to know how much he owed to Dr. Chant who had been his teacher when he was a student in the M. and P. course and who had been instrumental in getting him a graduate fellowship to go to Lick in 1909, where he studied, mostly with W. W. Campbell, and got his University of California Ph.D. in 1912.

Dr. Young was also a great admirer of Campbell who pioneered radial velocity observations. Before his time the few observations of radial velocities were of very dubious quality. Campbell, beginning in the 1890's, designed the famous Mills spectrographs for the 36-inch refractor and for the telescope in Santiago, Chile, exercising great care to minimize errors which might arise from flexure and temperature effects. It was Campbell too who developed the techniques of measuring and the practice of using standard velocity stars for the continuous checking of instruments and measurers. Dr. Young, by nature anyway a very careful worker, brought these meticulous methods of Campbell when he returned to Canada, first to the Dominion Observatory in Ottawa then to the Dominion Astrophysical where he was chief assistant to Plaskett, and finally to Toronto.

When Dr. Young was invited by Dr. Chant to join him in Toronto in 1924 there was little or nothing by way of instrumentation to attract him. Dr. Chant wrote that he needed help to design and plan the observatory which at that time was little more than his dream. It speaks well for Dr. Young's faith that he came, because he took on a tremendous teaching load, mostly in the form of laboratory classes, and he was never overly fond of teaching.

Once the observatory was assured Dr. Young threw himself into the planning and even undertook the design and construction of a 19-inch reflector in a basement room of Baldwin House on St. George Street. As the Observatory neared completion the money began to run out, and

Dr. Young spent a good deal of time making the very necessary cupboards, cabinets and tables. It was a characteristic of R. K. that he was never stumped by anything; he liked nothing better than to meet a challenge either with mind or hand. Whether computing a comet orbit, making an intricate part for the telescope or meeting a worthy opponent at chess, he had the ability to put everything else out of his mind until, as he used to say, it was "time to stop for a moment and admire".

When the observatory was completed in 1935, Dr. Chant retired and Dr. Young became his successor as Director and Head of the Department. By that time there were three others on the teaching staff, Frank Hogg, Peter Millman and I; Mrs. Hogg was research associate, Miss Northcott-- computer, Miss Edna Fuller -- librarian and secretary, Gerry Longworth -- machinist and observing assistant. We had more undergraduate courses than now, but very few graduate students; money was very tight; our salaries were low, there were a few hundred dollars for several summer assistants and occasionally for a winter assistant, and the budget for supplies and equipment was less than \$1000 per year. From his own salary Dr. Young equipped the machine shop and bought an electric desk computer. When the war came three of us were away for a few years, but Dr. Young and the others managed to keep the 74-inch working full time and to maintain the plate-measuring schedule.

Right after the war Dr. Young, not as robust in health as before, decided to retire and was succeeded by Dr. Frank Hogg. He had set the Observatory on its course and seen it successfully through its leanest years. With improving prosperity in sight there was already promise of increasing financial support.

Earlier this month my wife and I called on Dr. and Mrs. Young at their home in Cebourg where they have lived for the past dozen years. At 86 Dr. Young is still active in body and mind. He told us that a friend recently wondered how he kept so keenly interested in mathematics and science. His reply: "I'm not interested in what I know --- just in what I don't know".

He hasn't really changed.

J.F.H.

## OBSERVING

### Las Campanas

Dr. Serge Demers of Laurentian Observatory has written to Dr. MacRae:

I would like to thank you again for letting me use the 24-inch telescope on Las Campanas. My observing run was very successful. All the nights were clear, I lost only one hour due to telescope failure, the technicians were fast to detect the fault.

The "utility building" is very practical and comfortable. It is nice to have the house near the telescope, the greatest novelty is to have the dark room in the living quarters. I developed plates in pyjamas for the first time.

Following Dr. Demers, Dr. and Mrs. Garrison had a successful observing run, obtaining 125 spectrograms of 10th magnitude stars. Mrs. Garrison has submitted the following verse as a plea for a tape deck:

### THE CAPTURED AUDIENCE

by Ada Garrison

The music of the spheres we hear  
A symphony profound;  
We listen to it, in our mind,  
Each night as we go 'round.

But with the sixth performance  
The concert starts to pall,  
And we respectfully submit  
Profundity's not "all".

We tried the short wave radio  
(Though it never really "sang" - ),  
And now it's blown its only fuse  
From a generator twang.

We've philosophized together  
And retold our family jokes;  
We've gossiped, teased, and  
sung dance tunes,  
Tried whistling, swearing, smokes.

We're lucky there are two of us  
To use the silence here;  
If either of us were alone;  
We'd get depressed I fear.

The problems of the mountain:  
The motors fickle hum,  
The program, "seeing," time,  
no drink,  
May make observers glum.

But the psychology of music  
Is an old and subtle art;  
A tune that's played by a human hand  
Cheers up the lonely heart.

We hear an old familiar song  
And memories blow our mind;  
New songs inspire creative thoughts  
And soon our work looks kind.

So we would like the choice to hear  
Mozart, Bach, or jazz;  
Deep silence - or some dulcet sound  
- The full gamut that man has.

The silent night is good for soul,  
From hectic city's pace,  
But two extremes don't balance us:  
We plead a moderate place.

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*We'd like a Yogic balance  
To attain in everything;  
The city needs to listen --  
The mountain sometimes sing.*

*Christmas Night, 1971  
Las Campanas, Chile*

### Radio Astronomy

Dr. Seaquist and Dr. Francois Biraud of l'Observatoire de Meudon observed at Green Bank with the interferometer at 3.7 and 11 cms. and with the 140 ft. telescope at 18 cm. The purpose was to obtain a spectrum of the circular polarization of a few selected quasars. The data at these three wavelengths will be combined with data obtained by Dr. Gregory and Dr. T. R. Clarke at the same time at 2.2 cm. with the 150 ft. telescope at A.R.O.

Dr. Seaquist also observed at A.R.O. Jan. 6-9 on the mapping of supernova remnants at 2.8 cm.

### COMINGS AND GOINGS

Dr. Kronberg visited the University of Montreal on Nov. 19, addressing the Physics Department on "Recentes observations des quasars par les methodes de radio astronomie". He gave a paper at the A.A.S. in San Juan on "The Polarization of Radio Sources with Appreciable Red Shift", and spent 16 days in November and December observing in collaboration with Dr. Wardle of N.R.A.O.

Jacques Vallee spent a week at N.R.A.O. in December.

Dr. John Percy spoke at Lord Elgin Secondary School, Burlington on "Life in the Universe" on January 12, and at Erindale College on "The Winter Sky" on January 19.

Dr. van den Bergh gave a talk on "The Stellar Population in the Nuclear Bulge of the Galaxy" at the University of Maryland on Jan. 6, and visited the Department of Terrestrial Magnetism of the Carnegie Institution in Washington on Jan. 4.

Dr. Fernie gave an invited talk to the Canadian Society for the Study of the History and Philosophy of Science, Jan. 6, on "Scientific Intuition as a Paradigm in the History of Modern Astronomy".

Bob Hawkins has recently returned from a successful IR observing run at Tucson.

SEMINARS

January - as announced except that there is none on Jan. 25.

February

- Tues. Feb. 1  
D.D.O. Dr. Francis A'Hearn  
Astronomy Program, Univ. of Maryland, "On  
Fourier Spectroscopy of Stars"
- Tues. Feb. 8  
D.D.O. Dr. Tom Bolton, Univ. of Toronto, "Compact  
X-Ray Sources, Black Holes & Other Figments of the  
Imagination"
- Wed. Feb. 23  
McLennan 137 Dr. J. S. Griffith, Dept. of Math, Lakehead Univ.  
Thunder Bay, "Celestial Mechanics in the Twentieth  
Century".
- Tues. Feb. 29  
D.D.O. Dr. Steve E. Strom, Dept. of Earth & Space Science,  
SUNY, Stony Brook, N.Y. "Infrared and Optical  
Observations of Young Stellar Objects".

June Institute

The dates of June 13 to 16 have been set and invitations have  
been sent to prospective speakers. More later.

Talk on Chile

Prof. Rene De Costa, University of Chicago, will give a public  
lecture on "The Chilean Cultural Revolution" at Erindale College at  
2:00 P.M. on Feb. 21. He will also give a lecture downtown at 8:00 P.M.  
on the same day. Consult John Percy for further details.

Islamic Astronomy

On Friday Feb. 11 at 1:10 in the Planetarium Lecture Room, a  
talk will be given by Mr. David King of Yale University on "Islamic  
Mathematical Tables for Reckoning Time by the Sun and Stars".

Mr. King is the son of our colleague Dr. Henry King of the  
McLaughlin Planetarium,

PAPERS SUBMITTED FOR PUBLICATION

- S.P.S. Anand & M.M. Shara "The Mass and Angular Momentum Losses from Spinners".
- P.K. Kronberg Review, "The Radio Universe", Pergamon, 1971
- S. van den Bergh "Possible Identification of X Persei with an X-Ray  
Source"
- S. van den Bergh "Integrated Spectra of Globular Clusters in the  
Galaxy M31 and Fornax."
- N. Walborn "Spectral Classification of OB Stars in Both  
Hemispheres and the Absolute Magnitude Calibration."

LETTERS TO THE EDITOR

Sir,

In your December issue of the Doings you requested information concerning the origin of the Christmas countdown. Realizing that in science it is often a delicate matter to determine who was the first to discover a certain phenomena or to state a physical law, I will claim the "honour" of establishing the Christmas countdown tradition on behalf of my undergraduate colleagues, Bancroft (Judy) Priddle (Sue), FitzGerald (Pim), Larson (Richard), Marlborough (Mike), Percy (John), Taylor (Bruce), and myself Paul (Doug), who formed the class of '62.

Yours truly,

Douglas Paul  
Assistant Co-ordinator of Science,  
Board of Education for North York

Doug recalls the items on that 1961 program in an interesting letter which will be filed for posterity. Thanks, Doug.

Ed.

Mr. Joseph Greer of Vancouver, son-in-law of the late Mr. Walter Helm, has written a chatty letter commenting on recent issues of the Doings, and including this gem about Harlow Shapley: that, hating cliches, he sometimes opens an address with: "Fellow primates".

DEGREES

Three graduate students have been recommended to receive their M.Sc. degrees at the February Meeting of Senate.

- CLAUDE FAUBERT - Thesis: "Total Intensity Distribution Maps of the Quasar 3C 249.1 at 2695 MHz and 8085 MHz"  
(PP.Kronberg, supervisor)
- WILLIAM HERBST - Thesis: "HD 209813 and Similar CAII Emission Binaries"  
(J.D.Fernie, Supervisor)
- CHRISTOPHER J. PRITCHET - G1500 "A Search for Quasi-Stellar Objects Using a Variability Criterion"  
(S. van den Bergh, supervisor)

MISCELLANEOUS

Bereaved

Our sympathy is extended to Gretchen Hagen whose mother, Mrs. Martha S. Luft died in Allentown, Penna, Jan. 13th.

Married

On Oct. 22, 1971, Ted Bednarek and Daphne Barclay in Toronto.

Appointments

At the Department, Miss Jaye Thackeray as assistant to Mrs. Kato.

At the Observatory, Miss Linda Bobo as assistant to Mrs. Topley.

Alumnus

Mel Viner (M.Sc. 1965) is living in Kingston while he finishes his Ph.D. thesis for the U. of Maryland. It is understood that he will be a Post-doctoral fellow at Queen's next session.

Born:

Recently to Raymonde (née Verreault) and George Chimonas of Boulder, Colorado, a daughter, Susanne.

Fifth Time

Dr. Hogg's series, "Astronomy", is being telecast once again on Channel 19, this time Sundays at noon.