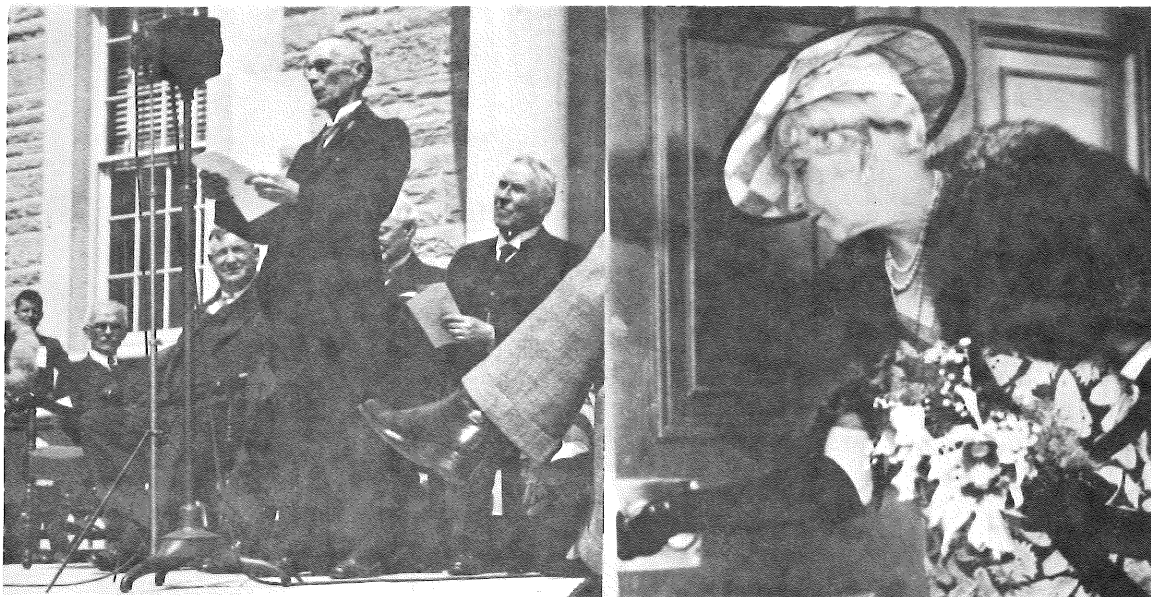


1975: 40TH ANNIVERSARY YEAR OF THE DDO



# DAVID DUNLAP DOINGS

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*Upper: Scenes at the official opening May 31, 1935.  
Lower: Honorary graduands at Convocation that evening.*

## EDITORIAL

### The Opening of the Observatory, May 31, 1935

Our cover pictures this month are (above) scenes of the opening of the Observatory in the afternoon of Dr. Chant's 70th birthday and (below) those who were awarded honorary degrees that evening at a special convocation.

No doubt the unlocking of the door by Mrs. Dunlap with the special gold key was posed for the benefit of the press and other photographers. The actual event was rather unsuccessful inasmuch as the key didn't work and someone had to be hastily sent in by way of the back door to open the front door from inside.

In the other "platform" scene Dr. Chant is reading his speech to the audience of about 1100 guests, who were seated on chairs set up in front of the building, and for the microphone of a live radio broadcast and also for a recording (on disks, of course, in those days) for rebroadcast that evening. Others on the platform are, from the left: Dr. Heber D. Curtis, Director of the Observatories of the University of Michigan (in front of the window); Hon. Duncan Marshall, Provincial Minister of Agriculture; Ontario's Lieutenant - Governor H.A. Bruce (partly hidden by Dr. Chant); U. of T. President H.J. Cody who was chairman for the program; and the left foot and pant-leg of Hon. Wm. Lyon Mackenzie King, then Leader of the Opposition in the Dominion Government. (One cannot help but wonder if Mr. King's presence, unannounced and unexpected, was not related to the general election of October 23, 1935, which saw him form a Liberal government to replace the Conservative regime of Hon. Robert Borden. No doubt Mr. Borden was invited to the opening but there is nothing in the records to indicate that he either sent a representative or a telegram of congratulation. But then, W.L.M. King was an old college friend of Dr. Chant's, in fact there is a record of his having visited the Chants at Observatory House on June 9, 1934 and, after accepting a glass of water from the kitchen tap, "praised our water highly", to Dr. Chant's great satisfaction.)

The honorary degree recipients, shown in the lower picture, were (from the left) Dr. Harlow Shapley, Director of the Harvard College Observatory; Sir Frank Dyson, Astronomer Royal 1910-1933; Dr. Chant; Mr. W.E. Harper, acting Director of the Dominion Astrophysical Observatory; Dr. V.M. Slipher Director of the Lowell Observatory; Mrs. Jessie Donald Dunlap; and President H.J. Cody, acting as Chancellor because of the illness of Chancellor Sir William Mulock. (H.J. Cody who played such a prominent part both in the afternoon and evening events was a remarkable man. Born in 1868, ordained as an Anglican priest in 1890, he was Rector of

St. Paul's Church in Toronto from 1900 to 1932 and also held the position of Canon of the Diocese of Toronto - by which title he was usually known. In 1932, upon the death of U. of T. President Sir Robert Falconer, Canon Cody was invited to accept the presidency, which he did without hesitation, having always been intensely interested in education. He remained, however, active in the church, at the same time filling the position of University President most ably. Succeeded as President by Sidney Smith in 1945, Dr. Cody then accepted the position of Chancellor which he held until his death in 1951.)

There were, as one can imagine, all sorts of speeches: a long prayer by Rev. E.W. Wallace, President of Victoria College, a short one-sentence presentation of the Observatory to the University by Mrs. Dunlap, an acceptance by Dr. W. Bruce Macdonald, Chairman of the Board of Governors, the reading of telegrams (from Eddington, Jeans, Schlesinger and Mr. R.A. Gray Secretary of the R.A.S.C.) by Dr. Cody, speeches by the Lieutenant-Governor, Dr. Chant, Mr. Cyril Young of Grubb-Parsons, Sir Frank Dyson, Dr. Curtis, Dr. Shapley and Mr. Harper. At the evening convocation there were citations of the six honorary graduands and speeches of thanks by Drs. Chant, Shapley, Slipper and Harper, and finally a short speech by Mr. Mackenzie King. (The speeches are recorded, mostly in full. in the report of the events by F.S.H. and H.S.H. in the J.R.A.S.C. 29, 265, 1935).

Finally at those welcome words, "Convocatio dimissa est", we all went home.

J.F.H.

#### Change in Dates of Issue of DDD

As an exercise in economy, conservation, and just plain laziness DDD will be issued only twice this summer, in July and September.

## OBSERVING

There has been a lot of excitement recently at D.D.O. as some of the instrumentation projects approach the final testing stage.

On the night of May 6, Bruce Campbell used the D.D.O. reticon system for the first time to observe stellar spectra. An enthusiastic audience (René Racine and Austin Gulliver) watched as Bruce recorded the spectrum of Arcturus. A beautiful spectrum from 5800 - 6700 Å was seen after eight seconds integration. Other stars and other spectral regions were explored on that and subsequent nights, including one of Cyg X-1, which showed no H $\alpha$  emission. Congratulations, Bruce, on getting such a complex system working in a relatively short time.

The image tube camera for Chile, which has been the project of Richard Gray, is ready for the first clear night on the D.D.O. 24-inch. Assuming that all goes well, Richard will be taking it to Chile to be part of the permanent auxiliary equipment down there. The tube is an ITT magnetically focussed, single stage device with a quartz input window and fiber optics output. The resolution is so good that the camera should be seeing-limited even with the 1/2 second seeing in Chile.

R.F.G.

## COMINGS AND GOINGS

Don MacRae has just completed two years as Chairman of the Board of Trustees of the Universities Space Research Association. In Washington on May 12-13 he was elected to the Executive Committee of the 1975-76 Board.

Sidney van den Bergh's 15 scheduled observing nights at Cerro Tololo were wholly or partly clear except for one. He found the new CTIO 4-metre telescope "a joy to use". His projects included a study of three Cepheids that are possibly located in open clusters (in collaboration with Gretchen Harris), observations of NGC 5128 (= Cen A) and of an old open cluster. Observations with the 4-m telescope show the dark band in NGC 5128 to contain numerous associations of OB stars. A search for white dwarfs in NGC 6397, which in the nearest globular cluster, was not successful.

In the course of this visit to Chile Sidney gave a talk on "The Next Galactic Supernova" at the European Southern Observatory, Santiago and at the Cerro Tololo Inter-American Observatory. May 10-11 he attended the ASP Directors' meeting in La Jolla and May 12-13 the Annual Scientific Meetings of the ASP in Ensenada, Mexico. Following a few days at KPNO and a brief return to DDO he has gone to Princeton University to lecture for two weeks. His topics: Evolution of the Galaxy, Stellar Populations in the Magellanic Clouds, M31 and its Companions, Markarian Galaxies, Seyfert Galaxies and Quasars, The Next Galactic Supernova.

Philipp Kronberg and his family have left for Germany where he will spend a sabbatical leave at the Max Planck Institute for Radio Astronomy in Bonn. His appointment at Bonn is that of Senior Research Fellow, the gift of the Alexander von Humboldt Foundation.

Christine Coutts observed during the first two weeks of May with the 24-inch telescope at Las Campanas, and is now enjoying two weeks holidays.

Don Fernie has spent most of the past month in Toronto where he has been performing the time-honoured duty of a citizen as a member of the jury hearing a sensational and much publicized trial of two persons accused of conspiracy to commit murder.

#### SEMINARS

##### MAY

Wed. 7th                      Dennis Ward, Cornell University, "Far Infra-red  
McL.                              Observations from Aircraft".

##### JUNE

Ninth Annual June Institute. June 10-13 17-20

To repeat and amplify the announcement of last month, the speakers at this year's June Institute and their major fields of interest are: Morton S. Roberts, NRAO, Galactic and Extragalactic Radio Astronomy; Carl Sagan, Cornell, Planetary Astronomy and Exobiology; Martin Schwarzschild, Princeton, Stellar Structure and Evolution; Clifford M. Will, Stanford, Gravitation: Theory and Experiment.

Those interested in attending write Prof. John R. Percy, Department of Astronomy, U. of T.

PAPERS SUBMITTED IN MAY

S. van den Bergh	The Gas-to-Dust Ratio in M31 The Binary Pulsar 1913+16 The Next Galactic Supernova A Preliminary Study of the Luminosity Function of the Globular Cluster M92
P. Martin	Some Implications of 10- $\mu$ Interstellar Polarization
J. Percy	Pulsation in Peculiar A Stars Photometric Observations of Suspected Small- Amplitude Cepheids
K. Lake & R.C. Roeder	Blueshift Surfaces and the Stability of White Holes
J. Percy	Pulsating Stars
J.D. Fernie	The Historical Search for Stellar Parallax

LETTER TO THE EDITOR

Sir:

*I very much enjoy your frequent contributions on the history of astronomy and the lives of astronomers in the D.D. Doings. However, the 28 January, 1975 issue leaves me with a nagging question: The cover photograph purports to show "Moffatt Dunlap, President H.J. Cody, and the attending mason" ... but who is who? I dutifully turned to "Details p.6" but could find no clarification. Please forgive me, but I prefer to leave next to nothing to Chants.*

*Yours sincerely,*

*Paul Feldman*

*April 3, 1975*

P O T P O U R R I

The Harrises

Bill and Gretchen returned to Yale about mid April from observing runs at Cerro Tololo (five weeks for Bill, three for Gretchen). They reported that of the first six visitors who have

used the 4-metre telescope five were Canadians: Dave Hartwick, Serge Demers, Bill Harris, Pim Fitzgerald and Sidney van den Bergh. Bill and Gretchen were here for three days May 11-14 and then flew to Edmonton for a wedding of friends, to visit Bill's parents and to spend a few days in the mountains.

#### Dick Henry to Marry

Word from Dick Henry (M.A. 1962) that he was to have been married in May to Dr. Rita Mahon (also an astronomer maybe?). They will spend a month in England and return to participate in Apollo Soyuz.

#### Born

To the Hickoks (Fred, M.Sc. 1969; Helen, former departmental secretary) on April 26 a son, Lee Clifford.

#### Bereaved

Our sympathy is extended to Elizabeth Barnes whose father died rather suddenly on April 25. Dr. Barnes was Professor Emeritus of Physics at U. of T.

#### Joins Science Writers

Helen Hogg has been accepted as an active member of the Canadian Science Writers Association.

#### Passes Exams

Bjarne Everson has passed his General Ph.D. Examination.

#### Honours to SvB

Sidney van den Bergh has been re-elected for a second term to the Board of Directors of the Astronomical Society of the Pacific. He has also been appointed chairman of the Scientific Organizing Committee for the IAU Symposium on Galaxies which will follow the 1976 meetings of the IAU in Grenoble.

#### Promotion

As of July 1 Robert Roeder is promoted to Full Professor.

### Summer Assistants

Student summer research assistants who have begun work in May are Stuart Button, Nancy Gefkin, Peter Jardine, Chris Rogers and David Thomson.

### Anniversary

On May 14 Joan Topley completed 13 years as Observatory Secretary.

### Appointment Confirmed

Frank Ahern's appointment with the Centre for Remote Sensing in Ottawa which was hitherto of a temporary character has been made permanent.

### New Display

Gerry Longworth is receiving many compliments on the display which he has recently executed and mounted in the display case near the parking lot. Masonite sectors and disks show relative sizes and colours of 11 stars ranging from supergiant Antares down to white dwarf 43 Eri B with legends giving the vital statistics for each star.

### Community Service

Bob Garrison has been elected to serve as a member of the Board of Directors of the Toronto Bruce Trail Club.

## F I N A L I T E M

### *The Chief-Magistrate of Lilienthal*

Can it have been André Malraux who, in the afternoon of his life, once remarked "I have longed always to fall into the arms of beautiful women, but alas, I have fallen only into their hands"? Perhaps not, but there is something in that phrase that puts me in mind of Johann Hierononymus Schröter. Schröter (to save the typist's sanity may I spell him 'Schroeter'?) was one of that now extinct



breed: the wealthy amateur astronomer who maintained a well-equipped observatory and well-trained assistants to produce professional results. He wanted so desperately to do great things in astronomy, and yet his very ardour led him to such outlandish results that ultimately he came to be viewed only with disparagement and ridicule.

1745 I have been unable, on rather short notice, to find much about Schroeter's early life. He was born in Erfurt, Germany, in 1745, and in due course took up law as a career after training at the University of Göttingen. In the mid-1780s he was appointed Oberamtmann, or chief-magistrate, in the little town of Lilienthal, where he was to spend the rest of his life. This position apparently provided him with the wealth and leisure to establish his observatory and take up astronomy in a serious way. He started with a 7-foot reflector from William Herschel that was considered at the time to be the most powerful telescope outside England. Later there was added a 13-foot reflector that Lalande pronounced the world's best, and ultimately a 27-foot telescope. His assistants, although their stay was often rather brief, were of similar high quality. One, Harding, became famous as a discoverer of asteroids, and in 1806, on the recommendation of his friend Heinrich Olbers, Schroeter appointed as assistant an unknown shipping-clerk from Bremen by the name of Friedrich Wilhelm Bessel. Schroeter was on good terms with many of the astronomical greats, and it was in his home that the nearer ones, such as Olbers and Count von Zach, often met for social occasions. You may recall that it was one such meeting that led to the establishment of the Lilienthal Detectives to search for the missing planet between Mars and Jupiter.

But the well-equipped astronomer is not necessarily a good astronomer. Schroeter made the study of the Moon and planets his life-long passion, and soon was producing startling results. In 1792 he announced that Mercury shows a limb-darkening effect and must therefore have a dense atmosphere. This he confirmed from an observation of a transit of Mercury in 1799, when he found a halo surrounding the planet which indicated that the atmosphere extends at least a quarter of the planet's diameter. Like so many of Schroeter's claims, this started off a tremendous round of confirmations and counter-claims that lasted throughout the nineteenth century, only ceasing when Airy finally pronounced it as no more than 'a nervous ocular phenomenon'. Then in 1800 Schroeter announced that on occasion Mercury's southern cusp is blunted, which he interpreted as due to a mountain eleven miles high. From repeated observations of this he deduced a rotation period for Mercury of  $24^{\text{h}} 4^{\text{m}}$ .

Schroeter was an ardent cusp-watcher. In the 1790s he discovered a distinct lengthening of the Moon's cusps, from which he deduced a lunar atmosphere at least 4% as dense as the Earth's. Turning to Venus, Schroeter was soon able to find irregularities in its cusps that were due to a mountain range 27 miles high, and from a very long series of such observations he finally gave as the rotation period of Venus  $23^{\text{h}} 21^{\text{m}} 7^{\text{s}}.977!$

These results, and others like them (such as finding a city of Selenites on the Moon), of course stirred up a great deal of interest, and much of the solar system literature of the nineteenth century is concerned with either their support or refutation. In the end they led to a lot of unkind words being said about Hieronimus, but for a long time he had a good many admirers. Thus Agnes Clerke hailed him as 'the Herschel of Germany' - a splendid piece of English Victorian arrogance, considering that Herschel had come from Germany.

Schroeter's career and indeed life came to an unhappy end. In 1813 the Napoleonic armies were in retreat before the Russians, but fighting a strong rearguard action. Hearing there were some 20 or 30 Cossacks in Lilienthal, a French unit of some 200 soldiers was sent to deal with them. This they did by almost burning Lilienthal to the ground, pouring, as Schroeter later wrote, "a shower of bullets into the houses to prevent the poor inhabitants from saving their goods and fired at all those who ventured to carry off anything.... Not a scrap of paper did I save; but was obliged to fly with my family, in our night dresses, to my farm at Adolphsdorf.... But I am still more hurt at what followed; about 6 days after, when I was obliged to be absent from Bremen, these vandals returned, broke into the observatory, which had escaped the flames; and with a fury the most unprovoked and irrational destroyed or carried off the most valuable clocks, telescopes, and other instruments."

It was not the only influence of the Napoleonic Wars on astronomy. In Hamburg a 15 year-old youth was captured by a French press-gang, but managed to flee by jumping out a window. To avoid repercussions his father sent him to stay with a relative in Russia, and thus F.G.W. Struve came to his adopted country. Three generations later his descendent, Otto Struve, escaped the Revolution to reach the United States.

Schroeter was not one to find strength in adversity. He was in total despair and completely heartbroken over the destruction of his observatory. Even two years later we find him unable to even keep up a correspondence with his scientific friends, and still harping bitterly over his loss: "Under the endurance of these troubles all my scientific friends will doubtless excuse me, if, through melancholy and on account of the extraordinary high rate of postage, I have been compelled to put out of sight so many obligations of courtesy..." His acquaintances reported that he simply let his life slide away in what I suppose was manic depression, and on August 29, 1816 he died just hours away from his 71st birthday.

History is often unkind in focussing attention on only the most visible of a person's traits. There is no denying that Schroeter published many absurd claims, but he did more than that. In a way Agnes Clerke was right in calling him the Herschel of Germany, for it was he who first established the great German tradition of observational astronomy. And it was through him that such a man as Bessel obtained a foothold in professional astronomy. A man's published works are not everything.