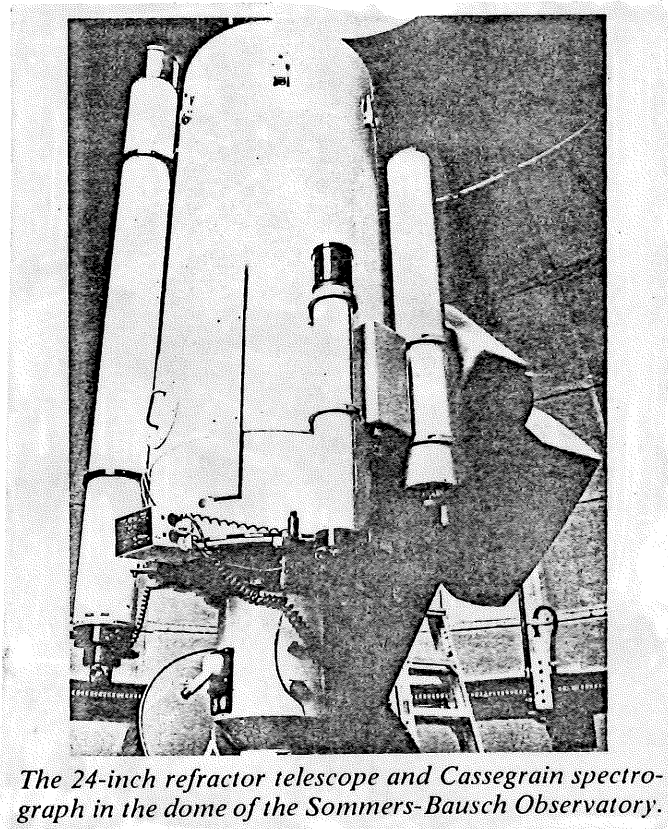


# DAVID DUNLAP DOINGS

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*The 24-inch refractor telescope and Cassegrain spectrograph in the dome of the Sommers-Bausch Observatory.*

Optics-of-the-Year Award to the University of Colorado at Boulder must surely follow.

### Discovery of the Remnant of SN 1181

On August 6, 1181 astronomers in China discovered a Supernova that became as bright as Saturn and remained visible for 185 days. In 1971 Stephenson was able to show that the position of this ancient supernova agreed to within one degree with that of the radio source 3C58. This source is of interest because it is so similar to the Crab Nebula. It exhibits (1) a bright centre, (2) high polarization and (3) a very flattened outline. Previous attempts to find an optical object associated with 3C58 have been unsuccessful. The remnant was, however, found on a very deep 200-inch red plate obtained last week. The remnant which consists of faint knots and filaments is morphologically intermediate between the Crab Nebula and the optical remnant of Cassiopeia A.

S. van den Bergh

### The British Prayer

Our father, which art in Downing Street,  
Harold be thy name.  
United Kingdom gone, we shall be done  
On earth and probably in Heaven.  
Give us each day our dearer bread,  
And forgive us our devaluations  
As we forgive those that speculate against us.  
Lead us not into the Common Market  
But deliver us to the Unions.  
For this is the Kingdom,  
No Power  
No Tory,  
Forever and ever,

Amin

(Author unknown - found tacked above  
the bar in a Seychelles Island pub.)

COMINGS AND GOINGS

Don MacRae has just returned from three days of meetings in Honolulu, Hilo and Waimea. The CFHT temporary construction buildings at the mid-level site on Mauna Kea are to be transferred to the University of Hawaii and consolidated with those of the UK and UH. This complex will house personnel from all groups now actively installing telescopes on the mountain, pending the permanent facilities which UH is to build. An agreement is being worked out with Richard Smart, owner of the Parker Ranch, for the permanent headquarters of the CFHT in Waimea (or Kamuela, as the post office calls it). A very attractive site near the centre of town has been offered to CFHT under generous terms. Meanwhile the CFHT Project Office headquarters are being transferred from Paris to Waimea. A small medical centre, recently vacated, is available and renovations are in progress.

\* \* \*

Early October saw a strong DDO contingent leading an assault on Kitt Peak. John Percy, John Lester, Mary Lane, Peter Martin, and Jose Maza were all there on various runs. Kitt Peak responded with two tropical storms and a hurricane, leaving John Percy with only two-thirds of a night clear out of his week (October 3-10). The others, being there longer, got a little more done.

\* \* \*

Helen Hogg was at Mt. Holyoke for an alumni meeting during the week of October 12. Earlier, September 6-9, she attended IAU Colloquium No. 42, The Interaction of Variable Stars with their Environment, in Bamberg, West Germany.

\* \* \*

Sidney van den Bergh gave talks on Recent Observations of Early-Type Galaxies at Cal Tech on October 12 and at the University of Michigan on October 21. He observed with the 200-inch October 6-10, during which run he obtained last epoch plates of Tycho's supernova remnant. These plates are now being used by Karl Kamper to get proper motions covering the last quarter-century.

\* \* \*

SEMINARS

*At the time of writing, only two seminars are definitely scheduled for November:*

*October 27*

*Joint Physics-Astronomy  
Colloquium  
Room: MP 102 - 4:00 P.M.*

*Dr. David N. Schramm, University of Chicago  
"Did a Supernova Trigger the Solar System?"*

*November 1*

*Dr. P.P. Kronberg, University of Toronto  
"Some Extragalactic Surprises"*

*November 8*

*Dr. R.J. Dickens, Royal Greenwich Observatory  
"New BV Photometry of RR Lyrae Stars in Omega Centauri"*

P O T P O U R R I

The RASC, during its General Assembly early last summer, enjoyed a dinner (arranged mostly by Christine Clement) and evening of observing at the DDO on July 2. Also at this General Assembly Helen Hogg was elected Honorary President of the Society.

\* \* \*

We optical astronomers just knew there must be some use for our radio counterparts. Time Magazine (June 20, 1977) reports that "MIT Astrophysicist Alan Barrett decided that the same electronic wizardry that was enabling him to tune in to microwaves from free-floating molecules in interstellar space could have a down-to-earth application. If they were reduced in size, he reasoned, the sensitive antennas could even pick up the weak microwave emission from a tumor." Barrett proceeded to build a miniature radio telescope that is reported to be 70% accurate in the detection of breast cancer.

\* \* \*

Our congratulations to DA secretary Pamela Sullivan on becoming a Canadian citizen September 28.

\* \* \*

Further congratulations to Bill (Ph.D. 1974) and Betty Herbst on the birth of their son, John William Herbst, on September 19.

\* \* \*

You will recall that earlier in the year we announced that Mercury Magazine was running a competition to find a new mnemonic for remembering the spectral sequence OBAFGKMRNS, the old one having been declared sexist. Mercury now reports the winner to be George Mumford of Tufts University, with an entry some of us will have no difficulty in remembering: Obese Balding Astronomer Found Guilty; Killed Many Reluctant Nonscience Students. Right on, George!

\* \* \*

Lindsey Davis passed her Ph.D. General Oral Exam on October 14.

\* \* \*

Oops! The culture gap overtook several departmental lists recently. One of our new students had his name reported as Armando Ferro; it is, however, Armando Arellano Ferro, which should be abbreviated Armando Arellano. Sorry about that Armando.

\* \* \*

Well, we always wondered where Sidney van den Bergh got all that observing time. Now we know. The NRC news release announcing Sidney's appointment as DAO Director details the many big telescopes he has used, including what must have been a secret one, "the Kitt Peak telescope in New Mexico." With Sidney's leaving, it is expected that use of this instrument will be taken over by our secret staff member, described on page 59 of the August 22 issue of Maclean's Magazine as "University of Toronto astronomer C.T. Bolt".

\* \* \*

The Department recently held a blitz on all material borrowed from the Reference Room. It was demanded that every single item be returned for one day, October 12. Zane reports the blitz to have been a great success: "I don't think I've ever seen the shelves so well stocked! It couldn't have been done without the support of the Department. Something to look forward to in the future - the same kind of campaign at DDO!" Gulp.

\* \* \*

New landmarks in the landscape - the three domes on the Administration Building at DDO are now brilliantly white. Roll on summer.

\* \* \*

PAPERS SUBMITTED

- N.R. Evans                      An Observational Check on the Phase Shifts Determined by the Angular Diameter Method of Distance Determination for Classical Cepheids.
- P.P. Kronberg,  
D.T. Emerson &  
R. Wielefinski                A 2.7 GHZ Continuum Survey of the M81-M82 System.
- C. Clement &  
M.H. Liller                    The Variable Stars in the Globular Cluster NGC 6535.
- C. Clement &  
H.S. Hogg                     Variable Stars in the Globular Cluster Messier 19.
- C.T. Bolton                    Catalogue of Astronomical Image Processing Facilities.

REVISIONIST'S CORNER

*Ernie Bushmiller's entry in the Philistine-of-the-Year stakes:*



F I N A L I T E M

The Origins of the DDO. II.

By 1908 Clarence Augustus Chant, while no doubt rejoicing at his new accommodations and the fact that he had won for astrophysics a place in the University curriculum, was nevertheless unfulfilled. "I could not feel satisfied" he reported, "until I should secure for the University a large telescope in an appropriate building for carrying on astronomical research, and I was continually on the lookout for a suitable site for such an institution." His autobiography continued:

*In the year 1911 the city of Toronto purchased a site for a new isolation hospital. It consisted of some fourteen acres and was located on the east side of Bathurst Street, half a mile north of St. Clair Avenue. The property comprised the north bank of the ravine at this place. The price paid for the land was \$30,000; and I understood the city expected to build a driveway along the bed of the ravine.*

*When it was announced that the city had bought this land as a site for an isolation hospital there was a great storm of protest from the citizens of Forest Hill Village adjoining it, and the city had to abandon its project. What should be done with this land?*

*Early in 1912 on one of my walks northward I took note of this property which was only a mile and a half from my house. At once it appeared to be an excellent site for a high-class observatory and I thought that here was an opportunity for co-operation in utilizing it. Briefly, my proposal was that the land should be made a part of the city's park system - "Observatory Park" - and that a small area on the highest portion should be allotted as a site for the observatory, which should be managed by the University and which should provide accommodation for the Astronomical Society to hold its meetings and have its office and its Library, all to be at the service of the people.*

This suggestion apparently met with general enthusiasm in both RASC and University circles. Dr. Nathaniel Burwash, President of Victoria College, remarked that

*There is no doubt that an institution of this kind would do very much for the reputation of the city, and also for the perfecting of work in connection with the University. The great difficulty in the past has been the smoke of the city rendering it quite impossible to do work at any point near the horizon, but on the heights above the city this difficulty would be obviated, and I am sure that our men of wealth could not do better than further such a project as this.....*

With the approval of the University's Board of Governors, an approach was made to the city:

Toronto, May 7, 1914.

Charles E. Chambers, Esq.,  
Commissioner of Parks.

Dear Sir,

For a long time it has been felt that Toronto should have an effective modern astronomical observatory, and over a year ago the Council of the Royal Astronomical Society appointed a committee to consider the best means to secure one. The report of the committee was adopted by the Council on March 20, 1913. It outlines a scheme in which the City of Toronto, the Royal Astronomical Society and the University of Toronto each has an important part, and, in brief, is as follows:-

1. A site admirably adapted for the purpose is situated on Bathurst St., north of St. Clair Ave., on the land originally purchased by the City for an isolation hospital. It is proposed that this land be added to the City's park system and that a sufficient portion (perhaps an acre) on the brow of the hill be permanently secured to the University and the Society for observatory buildings.

2. The general management of the institution to be committed to the University, for purposes of instruction and research, the University to be responsible for its maintenance.

3. Included in the proposed equipment would be a large telescope about twenty inches in diameter, and a smaller, though still powerful one, about nine inches in diameter. It is proposed to allow citizens to use the chief instrument on one night of each week, and the smaller one on any day, subject to necessary pre-arrangement. Should the weather prove unfavourable on the evening set apart for the chief instrument, a brief

illustrated lecture on some popular theme to be given by the astronomer in charge, in a room to be provided in the building.

4. The Royal Astronomical Society during the last twenty-five years has collected an extensive and valuable library on astronomy. It is proposed that this be placed in the observatory and be at the disposal of citizens and students, the Society to employ and pay the salary of one who shall have charge of it.

5. The Society also proposes to place at the service of the public the various telescopes and other astronomical instruments in its possession, such instruments to be accommodated in the observatory building.

6. A board composed of representatives of the City, the Society and the University to be constituted for business and advisory purposes, as the interested corporations may agree.

The committee in charge of this matter has received much encouragement in various quarters, and has reason to believe that the means will be forthcoming to establish the observatory.

The committee therefore respectfully requests that you take up with the Parks Committee and the Board of Control the matter of obtaining the site as described in this memorandum.

JOHN A. PATERSON  
LOUIS B. STEWART  
C. A. CHANT  
ALBERT D. WATSON  
Committee

Sent to City Hall, Friday May 8  
Parks Committee meets Tues. May 12  
Board of Control meets in a day or two

The city responded cautiously. Despite a deputation led by Chant to City Hall, and despite the politicians there nodding approval at the idea being presented, there came a letter dated August 18, 1914 that contained the inevitable phrase" ... but I am doubtful if under the present somewhat straitened financial



conditions we will be in a position ....". It was in any case a fateful month. The Guns of August had spoken. World War One began.

Chant, almost fifty years old now, waited out the war with impatience. ("It was a long, painful experience to me. I had been accustomed to the quiet secure days of Queen Victoria.") Meanwhile, he continued to drum up verbal support by giving public lectures on astronomy, into which he injected the recurrent theme that Toronto should have a major observatory. In 1915 he was authorized to have an architectural firm draw up sketch plans for the proposed observatory building ("They asked what title they should place on them. After some consideration we chose 'Royal Astronomical Observatory, Toronto'").

And finally, with the war at long last over, Chant once again in 1919 began the assault on the city. It proved to be the same old story. Deputations appeared before Board of Control, memoranda and letters were exchanged, everyone liked the principle of the proposal and thought the sketch plans beautiful, but when it came right down to finding the \$150,000 needed - well, "the mayor wondered if this was not a provincial responsibility." The city allotted the Bathurst Street site, but it is clear that Chant got little more than referrals from one level of government to another on the subject of money.

He redoubled his efforts to find private financing. Otto Klotz, Canada's Chief Astronomer, gave strong support in a letter to the *Mail and Empire*, Chant himself wrote several appeals that appeared as editorials in *The Star*, and a lengthy article that was published in the *Star Weekly*. E.E. Barnard came from Yerkes to address an appeal to an Empire Club luncheon. Chant even appealed to that master of fund-raising, George Ellery Hale, for pointers on technique. Hale had no magic formula to offer:

The problem of raising funds is of course difficult, especially at the present time when there are so many demands from all directions. In my own experience, I succeeded in securing funds for the Yerkes and Mount Wilson Observatories only after repeated failures. In fact there is a very large element of chance in such cases, and the only way to succeed is to continue the search until the right person turns up. This may take many years, but the way to begin is to prepare a well-defined and attractive plan, as you have done, and to place this before possible donors whenever opportunity affords. You are fortunate in having a good site and in getting the University to agree to maintain the institution.

And then in 1921 help came from an unexpected quarter. Winnecke's Comet reappeared. A British astronomer, Andrew Crommelin, announced that there was a distinct possibility of the comet colliding with the earth on this occasion, and although other calculations soon discounted the likelihood, the popular press, of course, was agog. Now there was no difficulty getting newspapers to print articles on astronomy, and Chant set to work with enthusiasm. This he followed up in May 1921 with a public lecture, complete with slides and a model, on Winnecke's Comet, reassuring the packed room that no collision was imminent.

*There was a big crowd and I think they understood why there had been fear of a collision with the earth and why it did not take place. I also showed my slides of the proposed observatory and made an appeal for funds.*

*After the lecture a gentleman came up to speak to me and said he was interested in my project. He told me his name was David Dunlap.*