



DAVID DUNLAP DOINGS

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NEW LOOK

It is the increasing circulation of the "DOINGS" rather than pretentiousness on our part which has caused us to abandon our familiar old do-it-yourself production job in favour of what you see here. Joan Topley will have no less work in producing copy, but Jennie Fabian and Linda Bobo will be spared the frenetic cranking out and collating and stapling of about 2000 pieces of paper each last Tuesday. Many thanks for their past efforts.

For our new masthead we are very grateful to Liz (Mrs. Peter) Martin.

J.F.H.

*Postal Code Mnemonic Contest
Results of the judging are on page 4*

LETTER FROM J.P.

Colleague John Percy's letter from Cambridge of April 23 addressed to me has such general interest that I am anticipating his permission to use it as this month's Editorial.

J.F.H.

We have just returned from our little tour of Europe and, since I had a specific request from Dr. van Hoof to convey his best wishes to you, I thought that I would write now. Dr. van Hoof looks back fondly to the IAU RV Symposium in 1966; he obviously gained a very favourable impression of Toronto.

At the beginning of the month, I had two rather interesting experiences in the area of astronomical education. I was invited to meet with an ad-hoc committee to investigate the introduction of astronomy as an elementary option in colleges and universities. The phenomenon of large classes of students in elementary astronomy is almost unknown in England. Later in the month, I took part in a three-day conference, for school teachers, on "Astronomy in the Schools". The conference was held in Cheshire and on the way back (in mid-April) I encountered the worst snowstorm I have seen all winter! I was interested to learn at this conference that school teachers here face the same problems as school teachers in Canada: a lack of knowledge about astronomy, and a serious lack of good teaching materials: slides, demonstration equipment and practical exercises. Both the ad-hoc committee (dealing with introductory astronomy in colleges) and the school teachers were quite unaware of what had been done and what was available in North America. I hope to be able to help them in a practical way in this regard.

I was also at a meeting here at the Institute of Astronomy, the purpose of which was to devise an astronomy curriculum for the undergraduates in the University. Quite an interesting experience!

In the meantime, I had a short visit from Lois Seppala, assistant to the dean of Erindale College, and a long visit from Bob Deupree. Bob gave a very good seminar in the Institute, got a lot of computing done, and had some long discussions with me and with others about his thesis. The hospitality which the Institute and Corpus Christi College showed to Bob was very much appreciated by both of us.

Our little trip to Europe took us to Amsterdam, Arnhem and Nijmegen, Bochum, Louvain and Brussels. We had a lovely visit with the van Agts who were in the process of moving into a new house. Actually, the house is an older one, imaginatively redesigned and rebuilt. Steven had recently recovered from a series of minor illnesses, accentuated by the turmoil of seeing to the final details of rebuilding and moving. Nevertheless, they entertained us willingly and graciously. Carol and Beatrijs had a particularly wonderful time. Then off to Bochum. Tony and Ann Moffat were not there (I think they were in Toronto!) but Bill and Vicki Sherwood were there, and we had a very enjoyable dinner in their apartment. Bill has just submitted his thesis at Edinburgh, and his position at Bochum will be

full time as of May 1. Vicki is also continuing her work in the department. I was quite overwhelmed by the University at Bochum. It is only six years old, but already has over 20,000 students, and it has the most massive assembly of modern buildings that I have seen at any university anywhere. Our last astronomical stop was in Louvain. There, Drs. van Hoof and Smeyers and Mr. Denis entertained us royally, and gave us an extensive tour of both the university and the town. The university was a real contrast to Bochum. Much of it is housed in a mediaeval village originally occupied by an order of lay nuns.

Both the Sherwoods and the van Agts expressed their gratitude for "David Dunlap Doings". Your issues are getting better all the time, and I really think that your articles and Don Fernie's should be formally collected and published elsewhere. They deserve much more than their present limited circulation.

I suppose our next visitors in Cambridge will be Sidney and Don in July; however, if anyone else plans to pass nearby, I hope they will let us know, and we will roll out the red carpet in Cambridge.

COMINGS AND GOINGS

The Department was well-represented at the Annual General Meeting of the Canadian Astronomical Society in Edmonton May 10-12. Among those attending were Campbell, (Tom) Clarke, Clement, Fernie, Gregory, Gulliver, Heard, Hogg, Irwin, MacRae, Pritchett, Racine, Seaquist, and Vallee. Papers were read by Campbell, Gregory, Gulliver, Heard, and Seaquist. Chief organizer of this very successful meeting was Doug Hube (Ph.D. 1968), who, incidentally, has recently received tenure at the University of Alberta.

Campbell, Estevens, Irwin, and Racine attended a Symposium on Astronomical Observations with Television-type Sensors, held at the University of British Columbia May 15-17.

Austin Gulliver has returned from a useful few weeks at the Dominion Astrophysical Observatory, Victoria, where he made use of the plate files for his study of shell stars.

Bill Herbst left May 13 for a three-week run with the 24-inch in Chile.

Christine Coutts has been visiting the Astrophysical Observatory at Asiago in Italy, and is presently travelling in Turkey.

Sidney van den Bergh had a successful six-night run with the CTIO 60-inch in May, and gave colloquia on supernovae at CTIO (May 7), ESO (May 9) and Michigan State (May 24).

Helen Hogg is spending two or three weeks at her home in Massachusetts.

Phil Gregory and Ernie Seaquist had an observing run at ARO May 19-20.

Phil Kronberg recently returned from a two-week stay in Britain and Holland. He spent about a week at Jodrell Bank, working with R. G. Comley on the analysis of new polarization observations of quasars, with the result that he now has well-defined polarization curves for over 100 radio quasars. Phil then spent a few days at the Leiden Observatory, working on new observations taken with the Westerbork synthesis radio telescope operating at its new wavelength of 6 cms. He is also cooperating with Gerlde Bruyn of Westerbork in a study of M82.

JUDGING OF THE GREAT vdB POSTAL CODE
MNEMONIC CONTEST (L4C 4Y6)

Thirteen entries were received up to the announced deadline. Roughly in order of receipt, and with a few necessary notes, they are:

1. *Astronomers are by reputation long-lived, so:
SIX YEARS FOURSORE COLLECTING FOR LIGHT
(an inverted mnemonic), - Kim Innanen, York.*
2. *LOOK 4 COMETS 4 YEAR 6 - Jennie Fabian*
3. *ELVES FORESEE : POURQUOI SEX. - "The Emerging One", York.*
4. *The letters refer to that famous Observatory:
LAS CAMPANAS, YES? The numbers refer to the size of its telescope,
two fours and a six (24 inches = 6 decimeters) --- Nolan Walborn*
5. *LOOK FOR CLOUDS FOR YUCKY SEEING - René Racine*
6. *LUNAR FORMATIONS COLLAPSE FROM YEARLY SEX - Mike Shara*
7. *LUCY 4 CENTS ; FOR YOU 6 - Bryan Andrew, N.R.C.*
8. *LUBRICATION 4 CANADIANS : 4 YUMME 6-PACKS - Frank Hawker*
9. *SvB can remember countless NGC nos.; he doesn't need a mnemonic.
Ed. Kennedy, U. of Sask.*

10. Dave Hanes has a friend named Ella who dabbles in transcendental meditation and of whom he says:

ELLA FORESEES FOUR WISE SIKHS

as her prediction of a guiding force in coming decades.

11. A man in your exalted position should buy an eight-cylinder car, so:

LOOK FOR CUSTOMERS FOR YOUR SIX - Don MacRae

12. LOOK FOR, SEE FOR; WHY BOTHER - Dave Ellis, U. of Alta.

(Bother has 6 letters!)

13. LATIN FOR COPERNICUS, FOUR YELLOW SEXTANTS - Alice Kato

The judges made a first selection of seven on the basis of memorability and entertainment value. Of these they eliminated three on account of ambiguity, (S can stand for 6 or 7, F for 4 or 5, YOU for U or Y) and one for the complication of inversion, and were then left with nos. 8, 10 and 11. If SvdB cannot afford three bottles of Danish beer, then they choose no. 10 (Dave Hanes') as having a certain elegance in its completely phonetic character. Dave Hanes had two other entries, one in French (too contrived) and one in German (unprintable!).

Dave Ellis offered a prize of one Alberta beer for the worst mnemonic. The judges considered nos. 4 and 9 but finally awarded the Alberta beer to Dave Ellis himself for no. 12.

LETTER TO THE EDITOR

Sir:-

I should like to add a footnote to the interesting article by J.D.F. in your March issue, on William Wales' Transit of Venus expedition in 1769. In particular I wish to add more information about Dr. J.B. Tyrrell who presented Wales' manuscript to the David Dunlap Observatory, as I described in the Journal of R.A.S.C. 44, no. 3, p. 123, 1950.

In the same year that I became a Fellow of the Royal Society of Canada, 1946, I also started my series of historical articles in the Journal, under the heading "Out of Old Books". Early in the series I became interested in the almost forgotten Canadian Arctic expedition

providing for Canada and France to share equally in the costs of providing the telescope while the University of Hawaii will provide the site, access roads and local support facilities. After construction is complete in 1977 or early 1978, the three agencies will share operating costs and observing time, the University of Hawaii taking 15 %, and NRC and CNRS taking 42.5 % each.

The total cost of the telescope and its associated buildings is currently estimated at \$18,000,000 of which Canada will pay half. Canadian industry will participate actively in the construction and fabrication of the telescope, particularly in the telescope controls and in the main observatory structures, while the mechanical parts of the telescope will be made in France. The polishing of the main mirror, 144 inches in diameter, and made of special low-expansion glass known as Cervit, will be done in the NRC's Dominion Astrophysical Observatory in Victoria, B. C.

A novel arrangement to take care of construction and operation of the telescope is a non-profit corporation expected to be established under enabling legislation in Hawaii. The three agencies will be the partners in the corporation and provision will be made for a Board of Directors and a Scientific Advisory Council which will advise on technical details during design and construction and serve the function of a user's committee dealing with allocation of observation time and continuing development of instrumentation. This organizational structure is particularly advantageous from the Canadian standpoint as it will provide NRC with the opportunity to involve Canadian universities and the scientific community in general in direct participation and cooperation.

A telescope in Hawaii will be able to observe the whole sky except for about 30° near the South Pole. The site on Mauna Kea, a 13,800 foot mountain on the "Big Island" of Hawaii, is expected to offer astronomers 2800 clear viewing hours annually. Because the atmosphere above the site is so dry and so thin, an added bonus in this choice is a near ideal location for infra-red observation.

The optical system contemplated will be the classical one which provides a prime-focus that can be used directly, i.e. without corrections, so that the expected high optical quality of the primary mirror and the excellence of the site can be fully utilized. In addition provision will be made for bringing light down through various mirrors to large modern spectrographs and other instruments to be located underneath the telescope structure.

Canadian astronomers in Universities and in NRC have been closely involved in preliminary planning for this project through NRC's Associate Committee on Astronomy and, particularly due to world-wide recognition of Canadian expertise in astronomical instrumentation, will play a large part in its realization. This telescope will help to meet a long-standing need of Canadian astronomers to have access to a major telescope on one of the world's best observing sites.

APPOINTMENTS

Dr. MacRae has been elected Chairman of the Board of Trustees of the Universities Space Research Association.

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Dr. Anand has been appointed Visiting Assistant Scientist at the National Radio Astronomy Observatory.

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Dr. Gregory takes up the post of Assistant Professor in the Physics Department of the University of British Columbia, effective July 1.

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Jean Keller has been appointed to the secretarial staff in the Department's campus office, replacing Kathy Turner.

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Carol Morrison has taken up her appointment as departmental librarian.

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Rick Salmon has accepted (effective September 1) the post of chief night assistant at Cerro Tololo, where he will eventually be largely occupied with the 150-inch telescope. His post at Las Campanas will be taken over by Chris Smith, who leaves for Chile later in the summer.

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Chris McAlary, Chester Rak and Gary Wicks are student assistants in the Department for the summer.

P O T P O U R R I

Those who remember Kam-Ching Leung as a student in the Department in 1963-64 will be interested to hear of his appointment

as Director of the new Behlen Observatory of the University of Nebraska. A congratulatory telegram was sent from the DDO on the occasion of the opening of the new Observatory

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Gretchen Hagen is presently a patient in the York Central Hospital, Richmond Hill. We extend to her our best wishes for a speedy recovery, and look forward to again hearing her stentoriously expressed outrage on the volleyball court in the near future.

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Tom Bolton recently entertained Barbara Frumm's CBC radio audience with a short talk on black holes.

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Don Fernie has been nominated to the Organizing Committee of the IAU's Commission on variable stars.

A WORD FROM THE DEPUTY EDITOR

If this month's "Doings" lacks its customary sparkle and incisiveness it is not because the Watergate affair has in any way inhibited our newsgathering department; it is because your regular editor, Jack Heard, is away enjoying a short holiday in British Columbia. Compiling just this one issue has left me with a very real sense of the large debt of gratitude we all owe Jack, as well as Joan Topley, for the hard work they put in on the "Doings" each month.

Don Fernie
Cub Reporter

FINAL ITEM

JFWH and the Great Moon Hoax. I.

The University of Cape Town must surely have one of the loveliest of campuses. High above the plain, it faces out among tall pines to the distant dragon-like spine of the Hottentots-Holland Mountains, while to the south the Indian Ocean, and to the north the Atlantic, shimmer under the African sun. Immediately behind the campus, and rising several thousand feet above it, is the eastern escarpment of the Table Mountain complex. Whenever memory brings back long sunburnt days of rock-climbing on that vast granite massif, I have only to

consult the illustrated diaries of Sir John Herschel's years at the Cape to find sketched, with meticulous accuracy, every crag and gully as I remember them.

John Herschel made a field-trip to the Cape in 1834 to extend to the southern skies the double-star and nebula surveys he and his father had already made in the north. He ended up staying four years, and here, among the sunny tranquillity of the Constantia vineyards, he quite unknowingly became the central figure in what has been called the greatest scientific hoax ever perpetrated.

Unlike William Pickering, who was to be the author of his own misfortunes, Herschel knew nothing of the fun until it was all over. The hoax was the work of a British-born New York journalist, Richard Adams Locke, a distant descendent of the English philosopher John Locke, and a man whom Edgar Allen Poe considered an intellectual genius. Certainly he had an imagination that would have put Jules Verne to shame. According to one source he did it as a freelance writer for \$150, according to another as a newspaper reporter bent on increasing the circulation of his paper. The hoax took the form of several lengthy articles in a New York penny daily, *The Sun*, purporting to be reprints of articles written by a supposed friend of Herschel's, Dr. Andrew Grant, for a supplement to the *Edinburgh Journal of Science*. The first appeared on Tuesday, August 25, 1835; all were largely concerned with the most incredible findings seemingly being made by Herschel from observations of the Moon.

First, there was his amazing telescope. This was to be a tubeless refractor with the impressive aperture of 288 inches. But since Herschel was to study nothing less than the insect life on the Moon, something even more novel would be necessary. He discussed the matter with Sir David Brewster in Edinburgh, looking for ways in which the focal image could be made brighter and also magnified more than with conventional eyepieces. How would it be if they illuminated the image with a hydro-oxygen flame, and then used a compound microscope to project a final image on a canvas screen, mused Sir John. "Sir David sprung from his chair in an ecstasy of conviction, and leaping halfway to the ceiling, exclaimed, 'Thou art the man'." Excitedly the two men decided to build a model made from "a medium of the purest plate glass (which it is said they obtained, by consent, be it observed, from the shop window of Mons. Desanges, the jeweller to his ex-majesty Charles X, in High Street)". The model worked! For the real thing, however, "money the wings of science as the sinews of war" would be needed, about £70,000 in fact. The blessings of the Royal Society were invoked, and the King approached for funding. His Majesty "naively enquired if the costly instrument would conduce to any improvement in navigation? On being informed that it undoubtedly would, the sailor King promised a *carte blanche* for the amount...".

The giant lens was cast by Dr. Grant's brother in Dumbarton. Normally, separate flint and crown components would have been required to achieve achromatism, but in a happy moment of inspiration Sir John realized that simply melting the two types of glass together "would as completely triumph over every impediment". The 14,826 lb. lens was cast and annealed within about a week, Sir John watching "with more anxious hope than ever lover watched the eye of his mistress".

Locke had now to find some reason for packing Sir John off to so remote a site as South Africa. This, it transpired, was because Herschel had undertaken to observe a transit of Mercury which, most unfortunately, would occur at night in the northern hemisphere! So off they went, Herschel and the invaluable Dr. Grant, accompanied by a lieutenant of the Royal Engineers "and a large party of the best English mechanics".

Arrived at the Cape, the telescope was soon set up "by means of two relief teams of oxen, of eighteen each... aided by several companies of Dutch boors..." For openers Sir John got in a quick observation of Halley's comet, and despite his "royal patrons [having] enjoined a masonic taciturnity upon him", dashed off a note to "the astronomer-royal of Vienna, to inform him that the portentous comet predicted for the year 1835, which was to approach so near this trembling globe that we might hear the roaring of its fires, had turned upon another scent, and would not even shake a hair of its tail upon our hunting-grounds. At a loss to conceive by what extra authority he had made so bold a declaration, the men of science in Europe... regarded [this] with incredulous contumely, and continued to terrorize upon the strength of former predictions."

But it was the Moon that was to cause the uproar, and for this, I'm afraid, like Locke's readers of 1835, you'll have to wait for the second instalment!

J. D. F.