

UNDER IRISH SKIES

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Abstract: This short memoir, written to commemorate the centenary of the birth of Eric Mervyn Lindsay, highlights the association and friendship of the author with Dr Lindsay for more than twenty-one years, and records the enormous debt owed to him for revealing to a very young teenager the beauty and mystery of the Universe.

Keywords: Eric Mervyn Lindsay, Armagh Observatory, Irish astronomy, amateur astronomy

1 INTRODUCTION

This short memoir is written to highlight the association and friendship that I enjoyed with Eric Lindsay for over twenty-one years, and to commemorate the centenary of his birth. Also, I want to record the enormous debt I owe him for revealing to a very young teenager the beauty and mystery of the Universe.

In the early spring of 1953, two school friends—Jackie Geraghty and the late Bobby Hamilton—and I had made an appointment to attend one of the Open Nights that were regular events in the public calendar of the Armagh Observatory. These evenings, held between the months of October to April, had been instigated by Eric Lindsay in the early years of his Directorship, and over the years had proved extremely popular, despite the generally unfavourable weather conditions prevailing in this country. On this particular day, 21 April, we anxiously watched the sky throughout the day and hoped that it would remain clear. When the time approached to make our way to the Observatory, conditions could not have been better. As we walked up the long driveway and glanced up at the sky with a beautiful first-quarter Moon hanging in a deep blue sky, I knew that it was going to be a successful evening. Little did we realize just how successful it was to be; it was but the beginning of a great adventure, “An adventure of the spirit”, as Dr Öpik succinctly described it.

In those days, the public entrance to the Observatory was on the South side of the main building. As we approached, we noticed two men engaged in conversation, standing at the doorway of the former transit rooms. I have to confess that for my part I was somewhat nervous at the time, as Dr Lindsay introduced himself and his companion, a Senator from New York. He then outlined the programme for the evening.

We made our way inside to one of the rooms, which had originally housed the Jones transit instrument, but which had been converted into a display area and small museum. This room contained a long table, on top of which were placed a row of light-boxes, and around the walls a selection of large, black-and-white transparencies, which when lit from behind created an extraordinary three-dimensional effect.

After we signed the Visitors Book, Dr Lindsay switched on the power to the light-boxes, to reveal a number of photographic plates of different shapes and sizes, though mainly circular. For the next hour or so, Lindsay explained in great detail the various features visible on each plate, which we examined by means of a small eye-piece.

I found out sometime later that this very eye-piece had been used by the famous Harvard astronomer

Annie Jump Cannon when compiling the Henry Draper Catalogue. All these photographic plates had been taken with the various telescopes at Harvard’s Boyden Station near Bloemfontein, South Africa. This well-known out-station of the Harvard College Observatory had been transferred from Peru to South Africa in 1927, at the time of Harlow Shapley’s Directorship. Shapley was to play a major role in Lindsay’s future career.



Figure 1: Patrick Corvan (centre) and his friends Jackie Geraghty and Seamus McGrath using the 10-inch Grubb refractor in May 1954 (Corvan Collection).

These plates were used by Eric Lindsay for his various research programmes on the southern Milky Way and the Magellanic Clouds. However, a small selection had been specially taken with the Armagh-Dunsink-Harvard (ADH) flat-field Schmidt camera for display purposes. Even after almost fifty-four years, one image in particular stands out in my memory, and that is of the Sagittarius region. The 25 cm (10-inch) plate was peppered with black dots impossible to count, or so I thought. This was our first introduction to the methods used by astronomers to try and understand the wide variety of objects that populate the Universe.

By now it was quite dark outside, and Dr Lindsay informed us that it was now time to make our way out to the telescope dome. Imagine, if you can, a young teenager of 13 seeing for the first time a large refractor on its massive mounting. Words fail to describe adequately the sight of the venerable Grubb telescope. As I stood in the dome in the dim light, Lindsay

climbed a small set of steps to open the shutter and then rotate the dome in the direction of the Moon, which was to be the first target of the evening.

When it came to my turn at the telescope, what met my eye was a revelation. I had, of course, seen pictures of the Moon in books, but to actually see the detail of the lunar surface as revealed in the telescope was completely different and a great thrill. By means of the declination rod and the continuous cord for the right ascension motion, I moved the telescope slowly over the surface, stopping now and then to examine some particularly interesting feature. I found the whole experience so incredible that when I asked Dr Lindsay if I could have another look at the Moon he readily consented. After we were well satisfied, the refractor was positioned on the next object for study, which Dr Lindsay informed us was to be the planet Saturn.



Figure 2: Eric Mervyn Lindsay (right) and colleagues at the 1954 AGM of the Irish Astronomical Society at Belfast Castle on Saturday 10th April. Standing, left to right, are: Mr John H. McEldery, Mr Aidan P. Fitzgerald, Miss Vera Northridge, Miss Mary Brück, Dr Máire Brück, Mr Richard Hayward, Professor Hermann Brück, Miss Sheelagh Grew, Miss Zoe Irwin, Mr Bill R. Mackle, Mr Bill Farquharson, Mr Bill Lynn, Mr Muiris Maclonnaic, Brigadier K.M. Papworth, Mr Vincent Deasy (Uinsionn S. Déiseach), Mr Peter Brück, Dr Eric M. Lindsay and Dr Ernst J. Öpik (Corvan Collection).

How can I properly describe the visual impact of viewing the ‘ringed planet’ for the first time? No description, even by a seasoned observer, can convey that experience. I could hardly believe that I was looking at an object some 800 million miles away from our home planet, and in the telescope it looked so near. Dr Lindsay pointed out the very subtle detail present on the disc and the ring system, as I continued to look at something that seemed so unreal to the mind and eye. From an aesthetic point of view, Saturn is, without doubt, the most beautiful of the planets.

Our final object for the evening was Alpha Geminorum (Castor), in the constellation of Gemini. As Lindsay explained, in his clear and precise manner, “This star is what astronomers call a binary system, that is, two stars which revolve around their common centre of gravity. At a distance from the Earth of 45 light years, or 270 billion miles,¹ they orbit each other in a period of 420 years. There is also a fainter, distant member of the system, Castor C (magnitude 9.1), which is 72 arc-seconds away. It is probably orbiting the main pair in a period of around 10,000 years, and

this too is a spectroscopic binary. Castor is a truly remarkable, multiple star system, with six separate companions, four comparatively bright and white, and two dim and red.” In the telescope, however, all one could see were two fuzzy points of light.

Unfortunately, it was now time to bring the observing session to an end. No better introduction to astronomy could have been wished for than under the guidance of Eric Lindsay. It was a fascinating and awesome experience. From that time on I became a devotee of astronomy. I very much doubt if Dr Lindsay realized how over-awed I was of him at that time; in fact, he was to occupy a unique and exalted position for me for the rest of his life.

2 THE IRISH ASTRONOMICAL SOCIETY

In the summer of that same year (1953), the late Sheelagh Grew, long-time Secretary at the Observatory, invited us to join the Armagh Centre of the Irish Astronomical Society. By that time another school friend, Seamus McGrath, had joined our little group. The subscription was the princely sum of two shillings and sixpence (12.5p in today’s money). Meetings were held twice a month in one of the classrooms of the local Armstrong Primary School. Unfortunately, our Junior Membership did not include the *Irish Astronomical Journal*, which had been instigated by Lindsay around 1950.

The first lecture of the 1953/1954 season was to be delivered by Aidan Fitzgerald, one of the most prominent members of the Society. The title of his lecture was: “The Story of the Spirals — From Parsonstown to Palomar”. It was on this occasion that I saw Dr Öpik and his wife for the first time. After the talk, which was excellent—typically Fitzgerald—we were all invited by Dr Lindsay to the Observatory for tea; and again we had the opportunity to inspect a selection of photographic plates put on display for the benefit of the members.

As on my first visit to the Observatory, Dr Lindsay acted as guide. The willingness patiently to explain every detail was, I discovered, a personal characteristic of Lindsay, and was readily extended to anyone who was genuinely interested in astronomy. He was always approachable and always kind.

I have since met many amateurs and even a few professional astronomers who owe their first introduction to astronomy to Eric Lindsay. He once said to me, “I divide mankind into two classes: those who are interested in astronomy, and those who are not. And this division cuts across all races, nations and social groups. There are those who have a genuine interest in astronomy, they may be poor people, not learned, not even articulate; but they want to learn. There are others, some of them quite charming people, some of them quite distinguished people, but they are not really interested.” For Lindsay, *interest*, not social background, was all important!

Many times over the years, I have reflected on this question: if it had been cloudy on that Tuesday evening in 1953 or had I been shown around the Observatory by someone else, would the experience have left such a deep impression on my young mind as it obviously did? Some will remark, no doubt, that this is just pointless speculation. Be this as it may, one

thing is certain: looking back almost fifty-four years later, it was indeed my good fortune to come under the influence of Eric M. Lindsay. That event—the introduction at so early an age to the beauty of the night sky and its mysteries—was destined to change my outlook on life in a way matched by few subsequent events. This was, of course, due in no small measure to Lindsay's natural ability to convey the most complicated and abstract ideas in language that could be understood by the thinking listener or reader.

The next important event was the AGM of the whole Irish Astronomical Society, held at Belfast Castle in April 1954 (Figure 2). I doubt if the four of us could have been any more excited if we had been going to Rome or New York. We journeyed by train from Armagh, full of anticipation as to what would transpire at the meeting. Before the proceedings got underway and the main lecture, Eric Lindsay introduced the four of us to Professor Hermann Brück, the eminent Director of Dunsink Observatory. He was a most friendly and charming Prussian gentleman. He was the second German astronomer to be appointed to head our National Observatory, the first being Franz Brünnow. Herman Brück came from a military family, his father having lost his life in action on the Eastern front in the First World War. Born on 15 August 1905 in the Berlin district of Charlottenburg, he had an eventful career working at the Potsdam Astrophysical Observatory, the Vatican Observatory, and before coming to Ireland, the Cambridge Observatory in England. In the course of an interesting conversation, he informed us that his family did not approve of his interest in astronomy, and when his parents were asleep he would get out of bed and climb to the attic, open a small window, and gaze at the stars.

Professor Brück was the main speaker at the AGM, and the subject of his talk was “Solar Phenomena with Reference to the Dunsink Observatory's Solar Expedition to Khartoum in the Anglo-Egyptian Sudan”. In the course of his presentation, two fascinating cine-sequences were screened: that of Dr Bernard Lyot (from Meudon Observatory) ascending the Pic du Midi with equipment on his back for the Observatory atop the mountain, and the latest time-lapse footage from the McMath-Hulbert Solar Observatory (on Lake Angelus, Michigan) of a very active arch-prominence at the edge of the Sun. This was the first of a number of AGMs that I attended until the Society was dissolved as an all-Ireland society in the early 1960s, to the regret of all concerned.

The next important occasion that was to have consequences for me as an amateur astronomer was when Patrick Moore came over from England to give two lectures, the first in Belfast and the second the following evening (on 28 October 1954) before the Armagh Centre. Patrick was well known on both sides of the Irish Sea among amateur groups, but not to the wider public. At the time, he had published approximately three books, mainly on his favourite topics: the Moon and planets. His television programme, “The Sky at Night”—which was to make him a household name—still lay some years in the future. The title of Patrick's talk was “The Moon World”, and because my experience of observing the Moon the year before with the Grubb refractor was still fresh in my memory I found his talk informative and extremely interesting.

After he finished his lecture and during the traditional cup of tea, Moore came over to me and my friends and introduced himself. Following a friendly conversation lasting several minutes, he invited us to write to him as often as we liked if we had any questions on astronomy in general or the Moon or planets in particular. I have to say that we were delighted to have the opportunity to do so. Patrick produced his calling card, and gave one to each of us. I think I have his card among the letters I received from him over the years. Unfortunately, Dr Lindsay was absent on that occasion, as he was at the Boyden Station using the ADH Telescope for a number of observing programmes.

Towards the end of the following month my friends and I received a very pleasant surprise: an offer from Patrick of a 6-inch mirror blank if we would be interested in turning it into a telescope mirror. Naturally, we jumped at the chance to have our own telescope, as there was no way that we could afford to buy one. However, we were left in a bit of a quandary as to what to do with the gift. We had never worked a mirror blank before, and frankly had not the slightest notion where to begin; and, anyway, we had no suitable place where we could work on it.

Dr Lindsay had by that time returned from the Boyden Station, so we nervously approached him for advice. In typical ‘Lindsay’ fashion he not only placed the old Observatory workshop at our disposal, but bought out of his own pocket all the necessary grades of carborundum and polishing material. We also had the considerable practical advice and guidance of Franklin E. Kameny, from the Graduate School of Harvard University, who was then a temporary member of staff of the Observatory. He was here for one year, and was also involved in finishing off his Ph.D. thesis on T Tauri variables.

So the four of us set to work, learning the art of turning a glass blank into a functional mirror. Each day, for the next several months, we would spend a few hours grinding the blank—ever so slowly—to the required parabolic figure, and at regular intervals we would use the Foucault test to check how our work was progressing. It was a thoroughly enjoyable and novel experience, and my mind was forever focused on the day when we would have our own telescope.

3 ERIC LINDSAY: THE ASTRONOMER AND THE MAN

Throughout this time, my three friends and I enjoyed the hospitality and friendship of Eric Lindsay. From time to time he would call into the workshop to enquire how we were progressing with the different stages of the grinding process. If he thought we had worked too long, he would ask us to take a short break and would either take us out to the Grubb for some observing, or lead us out to the lawn and teach us to identify the constellations.

Eric Lindsay was one of that rare breed of professional astronomers who knew their way around the heavens. If cloudy, he would on occasion invite us to his study for refreshments and the delightful experience of hearing him recite passages from some of his favourite poets, namely Wordsworth, Goldsmith and Yeats. He would often say at the time that he enjoyed

Wordsworth so much for his “feeling for nature”, Goldsmith for his “depth and conciseness of thought” and Yeats for his “fantasy”. To Lindsay, astronomy was as poetical as poetry, and an impractical love of knowledge and beauty of nature inspired his working life. In due course, we finished the grinding and polishing stages, and ended up with a good working mirror and the congratulations of both Drs Lindsay and Öpik.



Dr. Shapley at the binocular microscope for studying photographic plates. This instrument, used at the Observatory on loan from Harvard College Observatory, to aid in a programme on galactic structure, April 1959.



Figure 3: Harlow Shapley at Armagh Observatory in April 1959, with the binocular microscope on loan from Harvard College Observatory.

As the years followed and my visits to the Observatory became more frequent, I came to learn more of Eric Lindsay, the astronomer and the man. Many Saturday afternoons were spent in his company, listening in fascination as he recalled his student days in Ireland, and in America at Harvard, as well as his time at Boyden before the War.

I think it is worth recalling the circumstances whereby Eric Lindsay first met Dr Harlow Shapley (Figure 3), the famous Director of the Harvard College Observatory, and who was to have such a profound influence on the changing fortunes of post-war Irish astronomy. As a postgraduate student of 22 from the Queen’s University, Belfast, Lindsay had obtained a Fellowship to study for his Ph.D. at the Graduate School of

Harvard University. His Ph.D. supervisor was Bart J. Bok, a specialist in Milky Way structure, who himself had arrived a short time before from the Netherlands.

Lindsay arrived in late October 1929, and being a stranger he did not know his way around the Observatory so he rang the door-bell of the first building he came to. Presently the door opened to reveal a man of average height. In the semi-darkness Lindsay did not recognize the figure, so he immediately introduced himself, “I’m Lindsay from Ireland”. One can well imagine his surprise when, with equal speed, came the reply, “Well, I’m Shapley from Harvard”. So began in this very simple way an association that was to last until Shapley’s death in October 1972.

Few people today appreciate the paramount role that Dr Shapley played in the career of Eric Lindsay. When, in 1934, Lindsay was awarded his Ph.D., Shapley secured a position for him as Chief Assistant under Dr John S. Papaskovopoulos at Harvard’s Boyden Station in South Africa. This was a young Eric Lindsay’s first introduction to the marvels of the southern Milky Way and its two companions, the Magellanic Clouds. The instrumentation available at Boyden comprised a 60-inch reflector, the 24-inch Bruce astrograph, a 13-inch Clark photovisual refractor and the 10-inch Metcalf astrograph, thus duplicating the instruments found at the Harvard home base. The rationale behind this was to achieve a homogeneous survey of the skies of both hemispheres.

When the Revd William F. Ellison died on the last day of 1936, Eric Lindsay informed Shapley that he was applying for the only astronomical position vacant in Ireland, namely the Directorship of the Armagh Observatory in his native County Armagh. The other Irish Observatory, at Dunsink, was closed the year before following the death of the Acting Director, Charles Martin. It is worth remembering that Lindsay was to play a major part in its re-opening, in 1947, against strong opposition from certain members of de Valera’s government. When Shapley realized that Lindsay was serious about trying for Armagh, he was heard to remark, “That fool Lindsay has gone and ruined himself!”, but some time later he told one of his close associates, “Maybe he will make something of it, after all.” How right he was!

Only a man with a close attachment to his homeland would contemplate giving up a position at an observatory with such excellent equipment for its time and on a site with near-perfect observing conditions. Eric Lindsay was under no illusions that after the many advantages of the Harvard and Boyden Observatories, Armagh would seem very primitive—to put it mildly. Luckily for Armagh, Lindsay had all the necessary gifts needed to be a successful Director: he was an able administrator, and had an easy way with people, great perseverance, total dedication to the Observatory and a deep love for its traditions. It is not often that one finds such qualities in abundance, and in the one person.

What Eric M. Lindsay accomplished over the next thirty-seven years is comparable in many ways to the proverbial Phoenix rising from the ashes. Lindsay arrived in Ireland to take up his new position in November 1937 to find a rather depressing situation awaiting him. Nothing had been added by way of new equipment since 1885 (when the 10-inch Grubb re-

fractor was erected in July of that year). This is the telescope that was used by John L.E. Dreyer for the measurement of double stars (with a micrometer that was gifted by Howard Grubb) and to check the entries for his NGC and IC catalogues.

The other instrument that Lindsay found at the Observatory was an 18-inch Calver reflector, which had been the personal property of his immediate predecessor, Ellison, who upon taking up his duties as Director had presented the Calver as a gift to the Observatory. As far as I have been able to ascertain, very little serious work was done with it, apart from some observations of Mars during the opposition of 1924 by Ellison's son, Mervyn.²

The challenge facing Lindsay was enormous as he began to plan and organize to put Armagh back on the astronomical map. Just as he was making good progress, the war clouds were beginning to appear over Europe, which would mean a major interruption to the lives of not only astronomers but millions of people all over the world as well. However, in the meantime Eric Lindsay had been invited to take part in the 4th Harvard Starcount Circuit, with Armagh being designated the areas of Ophiuchus, Sagittarius and the Southern Coalsack. Ophiuchus was a familiar region for Lindsay, for during his Harvard days, through starcounts, he had been one of the first to reveal the extent of this great dark nebula complex. To aid Armagh in this programme, Harvard placed on long-term loan a mounted binocular microscope, with X and Y movement and the necessary selection of photographic plates (see Figure 3). During the course of this survey, Lindsay discovered a minor flare of nebulosity in the Coalsack.

When war did come, on 3 September 1939, it took Lindsay—as well as astronomers from every other country involved in the conflict—away from their astronomical research, in Lindsay's case, to Operational Research in the British Admiralty, in Whitehall. Everything had to be put on hold for the next six years. When the war eventually ended in 1945, Lindsay, as part of Admiral Lord Mountbatten's staff, was given the task of interrogating Großadmiral Karl Dönitz, former Commander-in-Chief of the German Navy, and last Head of State of the German Reich. Lindsay, however, declined the honour. In conversation about this period, he told me that he "... had little taste for this sort of activity." Throughout this period, Lindsay kept Shapley and others at Harvard well informed of his progress and of his plans for the future of Irish astronomy.

Armed with the knowledge that Éamon de Valera was planning to re-open Dunsink Observatory as part of the School of Cosmic Physics of the Dublin Institute for Advanced Studies, Lindsay saw this as a golden opportunity to bring in, as a partner, the country's oldest observatory to his scheme to set up, at the Boyden Station, a telescope of novel design in an excellent climate and at nominal cost to the two Irish observatories, thus guaranteeing them access to forefront instrumentation. And so it was that for the next twenty-five years the Armagh-Dunsink-Harvard Telescope (Figure 4) at Boyden was the Irish observatories' main source of astronomical data, while minor research projects were carried out with the instruments located back at the home observatories.

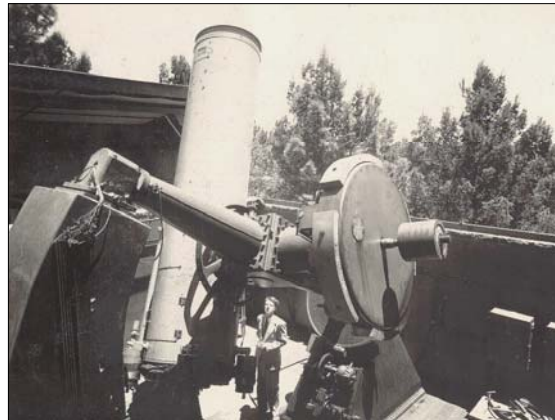


Figure 4: Lindsay at the Armagh-Dunsink-Harvard Telescope, at Bloemfontein (South Africa) in 1952.

It was Dr Lindsay's strong belief that the home observatory should have small, but effective, instrumentation to take full advantage of any interesting objects that might appear in the sky, such as comets, novae or unusual variable stars. I remember once being invited to take part in a programme to search for Wolf-Rayet stars in Cygnus, using the Armagh Schmidt camera (Figures 5 and 6). Unfortunately, I had to decline this offer due to the nature of my employment. In those days the skies at Armagh were quite dark, unlike today, and it was easy to count at least 13 stars in the Pleiades star cluster with the naked eye. To give another example of just how good the conditions were in those days: on two separate occasions I had no difficulty in spotting the planet Uranus and the two main satellites of Jupiter without optical aid. And, of course, useful observations were still possible with small telescopes (see Figure 7).



Figure 5: The 12/18-inch Schmidt camera at Armagh (in the 1980s) (Corvan Collection).



Figure 6: Pat Corvan and Eric Lindsay beside the dome of the 12/18-inch Schmidt camera at Armagh Observatory, March 1964 (Corvan Collection).

In late August and early September 1955 the International Astronomical Union held its 9th General Assembly in Dublin, the only time so far that it has done so in Ireland. The delegates spent a day at Armagh as guests of the old City Council. My friends and I waited at the Railway Station as 600 conference participants arrived, including among them some of the world's most famous astronomers. I remember standing near Dr Carl Seyfert, the first to draw attention (in 1943) to the peculiar class of galaxy displaying high-excitation emission lines in their central regions that now bears his name, the so-called 'Seyfert' galaxies. His wife, who was also present, was the sister of Mrs Lindsay, and both had worked under Shapley at Harvard. In fact, Sylvia Lindsay had discovered the first dwarf galaxy on an unusually sensitive Bruce plate exposure of the southern constellation of Fornax. The guests wandered over the instrument lawn, into the telescope domes, and viewed a major display that had been organized in the lobby room. The astronomers showed keen interest in Dr Öpik's rocking meteor camera. It was certainly an occasion I will never forget.



Figure 7: Pat Corvan observing with the 10-inch Grubb refractor on 2 March 1969 (Corvan Collection).

The next memorable event was the appearance of my first comet, Arend-Roland, which was a reasonably bright object during the spring of 1957. Lindsay used the Armagh Schmidt to good effect by securing a fine

series of plates. He realized that when the comet was to pass through the plane of the Earth's orbit a telegraph pole would be in the way. So, in the interests of science, the pole had to be sacrificed! Fortunately, it was completely clear over Armagh at the time, though cloudy over the rest of Europe, and the result was some of the best photographs ever taken of the so-called anti-tail or 'counter tail', which gave the comet its unique appearance. A short time later, Lindsay presented me with a nice print from the plate he had taken when the comet had passed through the plane of the Earth's orbit on 25 April 1957 (see Figure 8).

One strange episode in connection with Eric Lindsay that I now have to relate occurred during the late 1950s. At that time there was a period of political unrest, and it was Lindsay's habit to ride round the Observatory grounds at night wearing a white sheet. Knowing of the legend of the ghost at the Observatory, he hoped that this nightly apparition would deter unwelcome visitors. On one of these 'phantom rides', Lindsay was unaware that at the same time an RUC constable was patrolling the grounds. When the policeman saw the ghostly figure move towards him, true to his training he used his baton to maximum effect. Fortunately Dr Lindsay was not badly hurt, but the ghostly apparition was never seen again!

One of the most remarkable occasions within my experience was the arrival of Dr Harlow Shapley in April 1959, for a three-month stay at the Observatory. He had accepted Dr Lindsay's invitation to work with him on a study of the Large Magellanic Cloud. Armagh had accumulated a unique collection of photographic plates secured with the ADH Telescope. It was while Shapley was here that I was introduced to him, through Dr Lindsay—who, as always, realised that the opportunity to meet one of the truly great astronomers of the twentieth century was not to be missed by a young amateur. I had several conversations with Dr Shapley, and it was a delight to be in his presence, for he was a man of great humour.

Shapley (Figure 9) had a very interesting career. He started as a student at the University of Missouri Observatory, and then moved to Princeton to work for his doctorate under Henry Norris Russell, one of the most brilliant astronomers of his generation. On Russell's recommendation, George E. Hale, the founding father and Director of the Mount Wilson Observatory, invited Shapley to join the staff. Harlow Shapley worked there from 1914 to 1921, using the 60-inch reflector on the study of cluster variables, to calculate their distances. It was while engaged in this research that he made one of the most important discoveries in the history of astronomy, namely that our Sun was not at the centre of the Milky Way, as proposed by Jacobus C. Kapteyn, but was located some way out from the centre. He made this discovery by studying the distribution of clusters in space, and found that they were asymmetrically distributed with respect to location of the Sun.

During his stay at Armagh, Shapley gave a number of lectures, which I was very fortunate to be able to attend. While in Armagh, he had his office in what is now the display room. One day I called in to see him, only to find him engaged in revising his book, *Galaxies*. It was one of the Harvard Books on Astronomy, originally published in 1943, and the new edition

came out in 1961. Even today it makes interesting reading. Dr Shapley came back to Armagh for a second visit the following year in order to finish off the work with Dr Lindsay on the distribution of globular clusters in the Large Magellanic Cloud. Later, this was published as a landmark catalogue.

It was shortly after I was introduced to Dr Shapley that Dr Lindsay became very seriously ill. A shadow of gloom descended over the Observatory, despite the fact that for a short time this small observatory was directed by such a distinguished American astronomer. It was about this time that Shapley made the now famous remark regarding the Armagh Observatory: that he considered it "... the nicest little observatory in the Solar System." This represented quite a change of attitude given his 1937 remark!

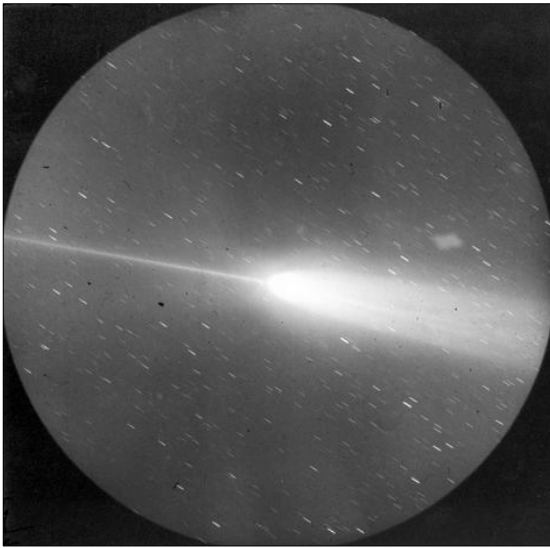


Figure 8: Comet C/1956 R1 Arend-Roland, taken by E.M. Lindsay with the Armagh 12/18-inch Schmidt camera at the Armagh Observatory on 25 April 1957 (Corvan Collection).

For over twenty-seven years Eric Lindsay played a prominent part in the Irish Astronomical Society following its reconstitution as an all-Ireland society in 1946. It was therefore little surprise that he was elected its first President; before that time, the only centres of astronomical activity had been Dublin and Belfast. From the time he returned to Ireland, Lindsay had a strong desire to create conditions conducive to the development of amateur astronomy in this country. As he saw it, although the country was divided politically there was no reason why astronomy on a professional and amateur level could not be organized on an 'all-Ireland' basis. The first meeting of the Council of the Irish Astronomical Society was held at Armagh Observatory on 14 June 1947. I like to think that this was just one more tribute to Lindsay for all he had done.

Lindsay was also a prime mover in founding the *Irish Astronomical Journal*, which for the first nine years of its existence was a vehicle for the activities of the Society. Under the editorship of Dr Ernst Öpik (Figure 10), it soon became a gold mine of astronomical originality. It is to be deeply regretted that this publication ceased in 2000.



Figure 9: Dr Harlow Shapley at Harvard, in 1932 (Corvan Collection).



Figure 10: Dr Ernst Öpik in the Armagh Observatory Library.

Though Lindsay never liked public speaking, he was a fine lecturer, as testified by the large attendances at his talks. In the eleven-year period from 1949 to 1959, until the Armagh Centre became defunct, he delivered a total of ten lectures before members of the local Group. He had a fluency of style which commanded the attention of his audience, young and old alike. For us junior members, Eric Lindsay's lectures were special events that we looked forward to with keen anticipation. From the time I entered the scene in late 1953, I never knew him to miss a meeting, apart from the few occasions when he was away at the Boyden Station on observational work. He was very keen to

organize an observing section within the Armagh Centre, but unfortunately for us young members nothing ever came of it, presumably because there was no-one around experienced enough or willing to take us under their wing and train us in the art of practical astronomy.

Young amateurs as well as the general public fare much better today. The excellent facilities of the Armagh Planetarium are at the disposal of Irish amateurs. They have unequalled opportunities to engage in their hobby, and all because of one man, Eric Mervyn Lindsay (Figure 11), who envisaged all this before some of us were born.

Shortly after the Armagh Centre ceased to function, knowing of my bitter disappointment, Lindsay very generously presented me with a set of the *Irish Astronomical Journal*, covering the years 1950 to 1959. For me, they are a tangible reminder of the kindness of Eric Lindsay.



Figure 11: Eric Mervyn Lindsay (1907-1974) (from the Corvan Collection).

Everyone that has been a frequent visitor to the Observatory has heard of the ghost which is supposed to haunt the place. During one of many conversations with Dr Lindsay I remember him telling me of his experience one night. It was his habit—dating from his Harvard days—to work late at night in his study, enjoying the peace and quiet. He never explained the nature of what he was engaged in that particular night; he could have been working on a report, or scanning a photographic plate with the binocular microscope. In

any case, he was engrossed in what he was doing, but in the course of time he became aware of a ‘presence’ in the room. The more he tried to ignore it the more ‘it’ made its presence felt, until whatever it was became so overwhelming that Dr Lindsay had to leave his study; and until his own death he would never work later than 11.30 at night. Knowing Dr Lindsay as I did, he certainly was not a man of a nervous disposition. Was this the ghost of the Reverend William Davenport making its rounds?

4 CONCLUDING REMARKS

I have to confess that even after all these years since his death on 27 July 1974 I still miss Eric Lindsay’s friendly smile and the wave of his hand in recognition as he stood by the window of his study. The Saturday conversations I miss equally so. In one of the last meetings I had with him, I asked if he would write his autobiography when he retired; the reply I received was, “No, I will grow tomatoes.”

As I write this memoir, I have before me a photograph of Eric Lindsay standing beside the ADH Telescope with control box in hand (see Figure 4), and for me this is how I will remember him best. Most of what he worked so hard at and over so many years to achieve is no more. The ADH Telescope is no longer a working instrument, and the Boyden connection was severed a short two years after his death. I am reminded of the old maxim: *sic transit gloria mundi*.

To those who knew Eric Lindsay well, he was “... an historian and visionary; strategist and educator; builder of organizations and critic of officialdom; internationalist and lover of his native place.” Eric Lindsay’s passion, intellect and determination are an enduring inspiration to everyone who cares about Ireland’s astronomical heritage. He has truly earned a niche in the history of Irish astronomy, not so much for his outstanding astronomical discoveries or lack of them, but rather for the pre-eminent part he played in the re-birth of astronomy in this country. And for this he should be best remembered.

5 NOTES

1. Lindsay used the English billion to mean a million million.
2. Mervyn Ellison was destined to become the Director of Dunsink Observatory three decades later, earning for the family the unusual distinction of supplying Directors to both of the Irish Observatories.

Patrick G. Corvan was born in Cheltenham, Gloucestershire, on 18 March 1940. He became interested in astronomy at the early age of eleven, and has a passion for astronomical history, especially in the era of the great visual observers of the Moon and planets during the eighteenth and nineteenth centuries. He was on the staff of the Armagh Planetarium for almost thirty years, and has been associated with the Armagh Observatory for well over fifty years. In 2005, the year of his retirement, he was honoured by the IAU when minor planet (8515) was named ‘Corvan’.