

personal support of Patrick Moore. He introduced children of all ages to astronomy, and some of them became prominent professionals in astrophysics and planetary sciences.

Having, as a schoolboy, lived within bicycling distance of Patrick's house in East Grinstead, I benefited from his encouragement and generosity of time and, indeed, from his introduction to those who were later to become my teachers and mentors. And I still value the inscribed books he gave me during those years. The scope of his books went well beyond introductory and popular texts – his early lunar and

planetary publications were well-rounded reviews that included much from the professional literature. Some books, such as the one on Neptune (1989), were useful contributions to the history of astronomy.

Patrick's eccentric presence and encyclopedic knowledge, as a radio voice and TV personality present at many of the significant astronomical and space related events over more than half a century, steadily maintained public interest in the subject and helped encourage the large increase in entrants to university astronomy courses. Other sciences should have been so lucky. ☆

cape astronomical association centenary

History of the Cape Astronomical Association

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Introduction

Roughly one hundred years ago a unique event took place in South Africa. An advertisement was placed in a Cape Town newspaper calling on all interested parties to attend a meeting in order to establish an astronomical society. This was to be the first ever astronomical society in South Africa! 2012 is the centenary of this first astronomical society in South Africa.

Events leading up to the Society

In 1910 a spectacular comet graced the night sky. It was very much an anticipated event as this was the return of Halley's Comet. What was unanticipated was that it would be so spectacular. The world be-

came temporarily obsessed with astronomy. Mr Clement Jennings Taylor, an amateur astronomer living in Cape Town with a 10-inch telescope, published a map of the path of the comet and wrote a series of articles in a local newspaper which raised public interest. After Halley's Comet faded away, another comet was discovered by Mr J.F. Skjellerup, once again a Capetonian, which revived interest in astronomy (Long, pp.153-154 ; Smits, pp.79). It was an exciting time for anyone interested in science and adventure. Robert Peary reached the North Pole in 1909. Scott was anchored in Cape Town in June 1910 in his attempt to reach the South Pole first, but was beaten to the goal by Roald Amund-



(left) Clement Jennings Taylor was a cloth merchant. He published a map of the path of Halley's Comet and wrote a series of articles in a local newspaper which raised public interest and helped to lead to the establishment of the CAA. He was not one of the founder members but joined the association at a later date and became one of the Vice-Presidents. Taylor discovered a comet (Taylor, pp.30-31; Long, pp.153-154; Smits, pp.79).



Sydney Samuel Hough was a brilliant mathematician and was appointed as H.M. Astronomer. He was Honorary President of the CAA and first President of ASSA (Hough, pp.27-31).

sen in December 1911. Machu Picchu was discovered by Hiram Bingham in July 1911 and the sinking of the Titanic in April 1912 was still a recent memory (Furtado; Uys, p.64).

Founding of the Society

Mr D. Gordon Mills took the initiative and placed an advertisement in the Cape Argus on 3 October 1912. It must have been in a moment of great inspiration and haste as the meeting was to be that same evening. Thirteen people showed up for the meeting at 8 o'clock at the Rooms of Photographic Society, Old Town House on Greenmarket Square (Long, pp.154-155).

Right from the start there was great emphasis on the close co-operation between amateur and professional astronomers. It was felt that the Astronomer Royal, SS Hough (see picture), should be the President of the fledgling society. As he was

not present at this event the meeting was disbanded with the purpose of asking Mr Hough if he would be President. It was decided at the meeting that it was desirable to form an Astronomical Society and Messrs Davis, Long, Mills, Skjellerup and Steer were appointed as a preliminary committee to draw up a scheme (Long, p.154). Of the 13 people present three were women. This was the era of the emancipation of women and in 1912 Cape Town proclaimed an ordinance giving female property owners the right to vote in municipal matters (Uys, p.65). The list of names is given in Annexure 1.

Correspondence was entered into between Gordon Mills and Hough. A letter



(left) John Francis Skjellerup was Australian born. He came to South Africa as a telegraphist. Skjellerup discovered 7 comets, five of which bears his name and he was an avid Variable Star Observer (Orchiston, pp.56-75). (right) Walter Hubert Cox, an astronomer at the Royal Observatory at the Cape. He appeared in amateur operatic performances and was the Singles Tennis Champion of the Western Province in 1895 (Cox, pp.85-86)



arrived at the Royal Observatory on 29 October 1912 (letter, Gordon Mills to Hough). Hough replied on 30 October accepting the invitation and agreeing to be President (letter, Hough to Gordon Mills). Close co-operation between amateur and professionals was now assured in South Africa.

The meeting that can be labelled “the Founding Meeting” was held on held on 8 November 1912 (Constitution of A.S.S.A. (1921), p.1). The list of people that is considered to be the founding members is given as Annexure 2. Their occupations varied from working at the post office to medical doctors and a senator in Parliament.

The Association was inaugurated on 13 December 1912. The chosen name was the **Cape Astronomical Association (CAA)**. As some of those present were members of the British Astronomical Association (BAA) they modelled themselves on this society. The meeting was presided over by the Hon. President, S.S. Hough. Dr J.K.E. Halm delivered an inaugural address

followed by a lecture on spectroscopy, which was illustrated by lantern slides. The attendance at the meeting numbered forty-two (Long, p.155). Thus the influence of Halley’s Comet helped to form the Association. According to Houghton there was a precursor movement to the society. For more information See Annexure 4.

History of the Society

Unfortunately we do not know much about the early years of the society. There are not any known source materials left from the original meetings. What we do know is based on the Presidential Address (lectures) of two of the past Presidents of ASSA, i.e. Long (Long, pp.153-181) and Smits (Smits, pp.79-93) which were published, as well as an excellent article written by Houghton on Early Amateur Astronomers (Houghton, pp. 45 – 52). There are also sporadic explanatory notes interspersed in early publications of the Constitution. Although we do know who founding members were, due to our lack of knowledge about the early society we



Jacob Karl Ernst Halm obtained a Doctorate in Philosophy of Mathematics. Over time he turned his skills to Astronomy and became Chief Assistant at the Royal Observatory. Halm was the first astronomer to suggest the existence of a mass-luminosity relation in stars. He was a gifted musician (MNASSA 1987, Vol. 46 p.113; Halm, p.96).

do not know what decisions were made, or who sat on council. We do not know if the association had a logo or an official letterhead.

We do however know where some of the meetings were held:

- The first few meetings held in 1912 to 1913: Old Town House, Rooms of Photographic Society (until it became Machaelis Art Gallery (Long, pp.154-155).
- Meetings for April and May 1913 were held at Training College, Queen Victoria St. This was the New Huguenot Hall of the Dutch Reformed Church (Long, pp.155-156).
- South African Mutual Assurance Building (Long, p.156).

It is heartening to read of the first Observation evening. Members set up their telescopes at the Rhodes Recreational Grounds, Mowbray in July 1914 (Long, p.157).

By this time world events overtook our league of intrepid astronomers. World War One broke out in June 1914 (Long, p.157). Priorities changed and men went off to war. During the latter half of 1914 all activities of the society ceased for about two years.

Reconvening of the CAA

Halfway through the War some of the members decided to reconvene the society. Very little is known. The first meeting was at the YMCA Hall in Long St, later to become the offices of The Eastern Telegraph Company (Long, p.157) and we know that Mr Alfred Bull was involved (Bull – Obituary, p.237). At a Special Meeting in August 1916 it was decided to hold the Annual General Meeting (AGM) in June of each year. We know that this meeting was held at the “Cape Town Gallery Club Room”, Burmester’s Building in Adderley Street (Long, p.158). There was also a public outreach during the total eclipse of the Moon on 4 July 1917, when members set up telescopes at the Corporation Street entrance of the Cape Town City Hall.

At the time when the War in Europe was still consuming many South African soldiers, the State of Israel was created in 1917 by the British Balfour declaration

and the October Revolution took place in Russia (Furtado). Changes concerning academic development were afoot in South Africa. In 1916 the University of Cape Town was created through an act of Parliament and in 1918 Victoria College was renamed the University of Stellenbosch (Uys, pp.67-8).

Our knowledge of the Association and its doings greatly improved when the bold step was taken to print publications. They were simply known as "*Circulars*" and between 1918 and 1922 a total of eight *Circulars* were published. Four of them were the minutes of the AGM's held from 1918 to 1921. The other four were publications of talks given to the Association and are of particular interest. From the *Circulars* we know what decisions were made and who were elected to office.

In the article by Long he mentions that in 1913 a Mr Connel gave a talk entitled "Reminiscences of an amateur astronomer in India". The talk was enhanced by printed copies of the talk. According to Long, this is the first true publication of the society. Unfortunately we do not have a copy of this paper (Long, p.157).

Because of the information contained in the *Circulars* we know of discoveries made by members of the CAA:

- 8 June 1918: Nova star discovered by Mr Watson of Beaufort West. Co-discoverer, Dr Anderson of Edinburgh (AGM 1918, p.1)

- 11 June 1918: Comet discovered by Reid (AGM 1919, p.6)
- 18 Dec 1919: Comet discovered by Skjellerup (AGM 1920, p.5)
- 11 Dec 1920: Comet discovered by Skjellerup (AGM 1921, p.6)
- 13 March 1921: Comet discovered by Reid (AGM 1921, p.6)

The Great War ended on 11 November 1918, but just before peace was declared fate delivered a harsh blow. In September 1918 the Spanish Flu reached Cape Town. By October 120 000 people had influenza of whom 6 000 died in the first two weeks (Uys, p.68) During this time the Comet section made no observations because Reid was quite ill (AGM 1919. pp.5-6). Hough's wife died as a result of the epidemic (Hough - Obituary, p.28).



William Reid moved from Scotland to Cape Town for health reasons. His hobbies included entomology and astronomy. He became director of the Comet Section of the CAA and discovered six comets. He was also President of ASSA (Reid; pp. 129 - 130).

Meetings were held from the 12 June 1918 at the premises of the Owl Club in Burg St (AGM 1918: AGM 1919). The Owl Club is a society for wise people, as in the wise Owl. In 1920 the meetings were held at the premises of the Medical Association at 35 Wale St (AGM 1920, p.2).

In 1919 Arthur Eddington verified Albert Einstein theory by observing the position of stars during a solar eclipse. The *Circulars* never mention anything of this great event.

By this time the CAA had membership from as far afield as Southern Rhodesia (Zimbabwe) and Grahamstown. The Association survived the War and the influenza epidemic and was about to morph into a new society. In 1917 the then secretary of the CAA, Theodore MacKenzie, moved to Johannesburg. With the goodwill of the CAA he started a similar Association. The founding meeting of the **Johannesburg Astronomical Association** (JAA) was held on 28 February 1918 with R.T.A. Innes, Union Astronomer, as President. It was not long before the vision of an overarching organisation for Astronomy in South Africa developed, but for practical reason it was decided to have localised centres. A letter was drafted by the CAA and read at a meeting of the JAA on 22 July 1921 suggesting that the two Associations merge into a new Society (Long, p.164) By 12 July 1922 a special meeting was held in order to vote on the proposal to amalgamate with Johannesburg Astronomical Association and form a new body to be called the **As-**

tronomical Society of South Africa (ASSA) (Letter Schonegevel). According to the article by Long ASSA officially came into existence on 1 July 1922 with a membership of 61 people. However this was before the CAA voted on the issue on 12 July 1922. Due to a lack of other available material we are not entirely sure of the founding date of ASSA (Long, p.168). The list of members of Council is given in Annexure 3.

Objectives and Structure of the Society

A rough draft of the proposed goals of the society can be seen on p.241. Unfortunately the document is not dated, but it is referred to in a letter dated 13 November 1912. Listed below are the formal Objects of the society as published in 1921, a year before the CAA ceased to exist. The goals are more elaborate than the goals stated here, but the document gives us a good idea of how the ideas progressed over time.

The objects of the society were:

- (a) To encourage the study of the science of astronomy in all its branches.
- (b) To establish an association of observers and students.
- (c) To organise Observing Sections.
- (d) To disseminate current astronomical information and to encourage a popular interest in astronomy.
- (e) To hold periodical meetings for the purpose of lectures, the reading of papers and discussions.
- (f) To publish such matter as may be deemed advisable by the Council of the Society.
- (g) To form a library of astronomical

literature for the use of members and associates.

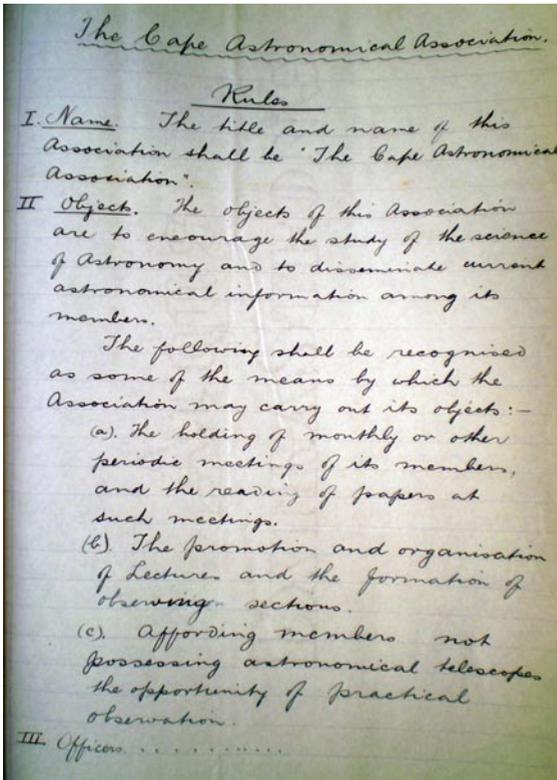
(h) To acquire a collection of lantern slides for use at the meetings of the Society and for loan or hire at the discretion of the Council.

(i) To afford members and associates not possessing astronomical telescopes, the opportunity of practiced observation.

(Constitution of A.S.S.A. (1921), p.1; AGM 1921, p.16)

The Constitution as published in 1921 states that the Society shall consist:

- (a) of a Honorary President,
- (b) of not more than four Honorary Vice-Presidents,
- (c) of not more than ten Honorary Members,
- (d) of Ordinary Members,
- (e) and of Associates. (Constitution of A.S.S.A. (1921), p.1; AGM 1921, p.16)



The list above states the intention, but in reality there was a two tier system with two sets of Presidents and Vice-Presidents. The first set consisted of an Honorary President assisted by two vice-Presidents. They played no active role in the society but lent credence to the establishment. Hough was elected and remained the Honorary President throughout the existence of the CAA. There were various Honorary Vice-Presidents. The second tier did all the work and was tasked with the running of the society. This tier consisted of the President and two vice-Presidents, a hon. secretary, hon treasurer and hon librarian, as well as four committee members. When ASSA was established the two tier system fell away (AGM 1918, p.7; AGM 1919, p.6; AGM 1920, p.1; AGM 1921, p.1; Long, p.154).

Rough draft of the Name and Objects of the Cape Astronomical Association. The handwriting is assumed to be that of Mr Skjellerup (S.A.A.O. Archive; Royal Observatory Cape of Good Hope; S - Societies; 1907 - 1928).

One of the objectives was to organise observing sections. In his Presidential Address Long stated that at the inauguration meeting held on 13 December 1912 Mr Reid was appointed as the director of the Meteor section (Long, p.155). In all subsequent correspondence this section is referred to as the "Comet Section". This may have been an unimportant slip as the logical name currently is the "Comet and Meteor" Section. Mr Reid remained the director throughout the existence of the CAA.

A Variable Star section was proposed at the same meeting, but A.W. Roberts, the acknowledged expert in variable stars and one of the founding members at the previous meeting but living in the Eastern Cape was not present at the meeting. The matter was deferred. The section was created in March 1914 under the directorship of Reid (Long, pp.154-155, p157; AGM 1918, p.7; AGM 1919, p.6; AGM 1920, p.1; AGM 1921, p.1;). He was now the director of both observing sections. Then the Great War intervened and by the time the association was reconvened Mr Skjellerup was an avid variable star observer and was appointed director.

Conclusion

As a result of a spectacular display by a comet and the entrepreneurship of a few avid amateur astronomers, the Cape Astronomical Association was formed. As a result of the diligence of its members, both amateur and



Alexander William Roberts settled at Lovedale in the Eastern Cape where he distinguished himself as an excellent teacher. He became one of the foremost Variable Star observers of his time. General Smuts appointed Roberts as Senator (Roberts, pp.93-94).

professional, the society has persisted and has adapted to keep up with the times. In the last few years modern technological advances have challenged the society and forced some changes. However the social aspect of astronomy expressed as "societies" has survived one hundred years.

Bibliography

Abbreviations

JASSA: Journal of the Astronomical Society of South Africa.

MNASSA: Monthly notes of the Astronomical Society of Southern Africa.

Publications

- AGM 1918: Cape Astronomical Association *Circular 2* (CAA_C2-1)
- AGM 1919: Cape Astronomical Asso-

ciation *Circular 4* (CAA_C4)

- AGM 1920: Cape Astronomical Association *Circular 6* (CAA_C6)
- AGM 1921: Cape Astronomical Association *Circular 8* (CAA_C8)
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Archival Sources

These documents can be found online at the ASSA Historical Website <http://assa.saa.o.ac.za/html/his-arch-frontpage.html>

- Constitution of A.S.S.A. (1921?), Source: S.A.A.O. Archive; Royal Observatory Cape of Good Hope; S – Societies; 1907 – 1928. (\Constitution > P2070038 - P2070044)
- Letter Gordon Mills to Hough: S.A.A.O. Archive; Royal Observatory Cape of Good Hope; S – Societies; 1907 – 1928. (\Correspondence > 001a & 001b)
- Letter Hough to Gordon Mills: S.A.A.O. Archive; Royal Observatory Cape of Good Hope; S – Societies; 1907 – 1928. (\Correspondence > 002)
- Letter Schonegevel: Source: S.A.A.O. Archive; Royal Observatory Cape of Good Hope; S – Societies; 1907 – 1928. (\Correspondence > 012)

Annexure 1

First meeting of 3 October 1912 at 20h00, held at the Old Town house in Cape Town: Those present were: Miss A Glossop, Miss Ellen Smith, Messrs JW Copenhagen, SA Davies, RT King, AW Long, Andrew Milne, DG Mills, William Reed, HW Schonegevel, JF Skjellerup. EJ Steer and John Williams. (Long, p.154)

Annexure 2

The Second and what is referred to as the founding meeting held on 8 November 1912, time unknown and it is assumed that the meeting was also held at the Old Town House. The roll of foundation

members and the positions elected: (Houghton; Long, p.153; Constitution of A.S.S.A. (1921), p.1)

- Hon. President: Mr S.S. Hough - His Majesty's Astronomer.
- President: Dr J.K.E. Halm.
- Vice-Presidents: Dr S.J. Lunt and Senator A.W. Roberts.
- Secretary and treasurer: Mr J.F. Skjellerup.
- Committee: Mr S.A. Davies, A.W. Long, D. Gordon Mills and W. Reid.
- Miss A. Glossop, H. Long and E. Smith; Mr W.H. Cox, R.T. King, A. Milne, A. Pilling, E.J. Steer, S. Sangster, H.W. Schonegevel and J. Williams.

Annexure 3

The first Council of the Astronomical Society of South Africa as elected for 1922 - 1923: Smits, p. 82.

- President: Mr S.S. Hough - His Majesty's Astronomer.
- Vice-Presidents: Dr J.K.E. Halm; Senator A.W. Roberts and Mr W.B. Jackson
- Secretary: Mr T. MacKenzie
- Treasurer: Mr J.F. Skjellerup
- Members of Council: Mr W. Watson; A.W. Long; W. Reid; H.W. Schonegevel, H.E. Wood and W.M. Worsell

Annexure 4

According to an article published in *MNASSA* by Houghton, there was an event in Beaufort West that preceded the CAA and may have helped the formation of the society. An excerpt of the article titled "SOME SOUTH AFRICAN AMATEUR ASTRONOMERS" is given below

(Houghton, pp.47-8):

My information [Houghton] is derived from an article in the Press by Mr R. Watson in 1928. He wrote: "Many years ago there existed in Beaufort West a small club. It had neither name, subscription nor membership roll. Its headquarters was a tailor's shop and its president the tailor. There the savants of the dorp used to congregate at their own time and pleasure to discuss with the president and one another the whole riddle of the universe. There was quite a variety of interests represented - farmers desirous of growing long and yet longer wool, engine-drivers anxious to know the best means of boiling water and the correct way to act in a collision, clerics interested in fossils, a plumber, a budding architect, a boot-seller etc., all desirous of hearing the words of wisdom that fell from the tailor's lips, as he sewed away, and occasionally venturing to express an opinion or even a contradiction."

"Then the debate would open, and might last for days or weeks, being postponed at irregular intervals according to the exigencies of the struggle for existence. . . . It was there that the writer (Mr Watson) learned something about astronomy. The boot-seller had taken the matter up and, in his vast ignorance, crossed swords with the equally informed tailor."

"Books were procured, diagrams were drawn, even a tiny telescope was dug up

from somewhere and peered through. Then Halley's Comet appeared above the club-house and stimulated further investigation. I listened with awe. . . . but by and by I could see starlight and butted in. I started off by shifting the celestial pole both practically and theoretically - practically by accidentally kicking the leg of the telescope - theoretically by explaining to them the precession of the equinoxes, which I had discovered (in a book). After that I was admitted into full fellowship of the club."

"Mr Watson goes on to mention the dispersal of the 'club' owing to the 1914 War and other causes but the seeds were sown. Mr Watson himself stayed on in Beaufort West where he achieved world fame as the sole discoverer of a new star, Nova Pictoris, in May 1925. He was setting out for early duty at 5.45 a.m. and looked round the sky as usual. Then he noticed a pair of stars which he did not remember having seen in that part of the sky before. He says that he longed to go back home and consult his star atlas, but the thought of the colleague whom he was relieving at 6 a.m. deterred him. However, at breakfast time he hurried home and looked up his chart and found that one of the pair was a new star. He hastened to wire to the Royal Observatory, and thus notice was given to the world of one of the most remarkable of these new stars of modern times. The information was published everywhere and "Professor

Watson of the Beaufort West Observatory" as one overseas paper called him, earned a distinguished place among South African amateur astronomers. The new star in question, however the great outburst of light was caused, has not yet, after over twenty years, declined to its original brightness or faded out altogether, and Watson's star remains one of the remarkable objects of the Southern Hemisphere.

"The Beaufort West Philosophical Club, either at its disruption or earlier, led I feel sure to the foundation of the Cape Astronomical Association (later the Astronomical Society of South Africa)." ☆