(Compiled by Wayne Moredoundt, Historian, from Heritage Council documentation for Perth Observatory heritage listing.)

A proposal for an observatory for Perth was first introduced to the State Parliament by Premier John Forrest in 1891, but failed to obtain financial backing.<sup>1</sup> He persisted with the scheme, however, and funding was finally approved in 1895, along with funds for a museum and a mint.<sup>2</sup> Forrest sought advice from the Government Astronomer of South Australia, Sir Charles Todd, who responded with specifications for instruments and plans for buildings, based on the Adelaide Observatory. He also recommended his own Assistant Astronomer, Mr. W.E. Cooke, for the position of Government Astronomer and Meteorologist to the Perth Observatory.<sup>3</sup>



Early in 1896, Todd arrived in Perth to assist with selection of the best site. At the suggestion of the Government, the site of the High School playground (Reserve 2051) on Mt Eliza above the Barracks, was studied and found sufficient for the purpose. It was described in the press as: '... certainly a commanding one ... and the institution would in a short time be a conspicuous and ornamental landmark, as

well as of high interest and utility'.4

The site was considered ideal for the location of an observatory, for both meteorological and astronomical work. The exposure to the prevailing winds, the distance from the city and the protection afforded by the large area of undeveloped bush land to the south and west (Kings Park) ensured clear skies and uninterrupted views for astronomical observations and the openness of the site allowed for consistent weather recordings. The view from the site was also magnificent and in its turn, the main building became a landmark crowning the skyline above the city. As Cooke later pointed out, this was something of a mixed blessing:

It is in some respects unfortunate that the site is such a remarkably fine one, because it causes covetous eyes to be frequently turned in its direction.<sup>5</sup>

During Todd's visit, the press had asked him to explain the principal benefits of a "strictly practical kind" that might be expected from the establishment of the Observatory. In reply he stated that:

First of all you will have absolutely correct time, which will be indicated daily at a certain hour by the dropping of a time-ball. Then ships will be able to correct their chronometers. Again, meteorological observations from stations all over the colony and from the other colonies will be transmitted to the observatory, and the astronomer will from these data be

<sup>&</sup>lt;sup>1</sup> *Parliamentary Debates (WA)*, 1891-1892, new series, pp. 388, 450, 609-611.

<sup>&</sup>lt;sup>2</sup> Western Australian Parliament, Votes and Proceedings, 1894-1895.

<sup>&</sup>lt;sup>3</sup> West Australian, 7, 11 January 1896.

<sup>&</sup>lt;sup>4</sup> West Australian, 7, 11 January 1896.

<sup>&</sup>lt;sup>5</sup> CSO File # 996/23, vol. 1, p. 560, BL Acc 752.

able to issue weather forecasts. These are some of the practical advantages which will result from the establishment of such an institution, and, of course, there are innumerable minor benefits. Scientifically its value will be very great ... An observatory is really an educational institution of the greatest importance, and although you are picking up gold and silver at present, and naturally give great attention to everything which appertains to the practical side of life, scientific considerations should not be neglected.<sup>6</sup>

In February 1896, William Ernest Cooke arrived in Perth to take up his appointment as the first Government Astronomer. He began his new post at temporary quarters in the Legislative Council building and started upgrading the meteorological system initiated in 1867.<sup>7</sup>

Meanwhile, plans for the Observatory buildings were being prepared while the site was being surveyed by the officers of the Colonial Architect's Department. <u>The</u> contract for the main building <u>was let</u> on 2 July 1896 for £6,622.19s, with a completion date of 3 March 1897. The foundation stone <u>was subsequently laid</u> on 29 September 1896.<sup>8</sup> By the time the building was completed at the end of 1897, it had cost over seven thousand pounds. In keeping with the intended use of the building, the Government Astronomer, W.E. Cooke, had prepared a design for the foundation stone that indicated the positions of the various planets in the zodiacal constellations at the time the stone was to be laid.<sup>9</sup> In addition, a lead casket was built into the wall behind the stone. (The foundation stone and casket were later removed from the Government Astronomer's Residence and Offices and taken to the new *Perth Observatory* when it was relocated to Bickley in the 1960s).<sup>10</sup>



The ceremony was celebrated as a grand civic occasion. Clearly, it was an achievement that many of the officers of the Public Works Department had contributed to and were proud of.<sup>11</sup> The many speeches given during the ceremony, and reported in the press, emphasized the evidence of 'progress' in the colony. According to Sir John Forrest, the building of a museum, and an observatory:

... showed that in the time of our prosperity we were trying to elevate and improve the public mind and to do something for the encouragement of the arts and sciences in this colony ... It was very gratifying that the Parliament of this country had been willing to found this Observatory. It would remain for all time an evidence of a liberal-minded and enlightened people, who, while doing all that was necessary to foster the material requirements of the colony, at the same time were anxious to promote and encourage intellectual pursuits ...

<sup>&</sup>lt;sup>6</sup> West Australian, 7, 11 January 1896.

<sup>7</sup> *West Australian*, 6 February 1896.

<sup>&</sup>lt;sup>8</sup> Western Australian Parliament, Votes and Proceedings, PWD Annual Report, 1896-1897.

<sup>&</sup>lt;sup>9</sup> West Australian, 30 March 1896.

<sup>&</sup>lt;sup>10</sup> Oline Richards, 'Conservation Study for the Old Observatory, West Perth', prepared for the National Trust of Australia (WA), August 1991, pp. 27-28.

<sup>&</sup>lt;sup>11</sup> I.H. van Bremen, 'The Old Observatory Building, West Perth: Conservation Report', p. 7.

He thought ... Western Australians might be proud they were doing something to enlighten their people and to join hands with the scientists all over the world.<sup>12</sup>

By January 1897, Cooke realized that his hopes of soon getting into the main Observatory building were clearly unrealistic. The building was finally completed on 6 October 1897, some 7 months later than the contract completion date.<sup>13</sup> The contract for the construction of the Instrument Buildings had been let to John Shunn for 2,772 pounds, to be completed by 17th December 1897.<sup>14</sup> As with the earlier construction, progress on the Instrument Buildings was slow. Much depended on the arrival of the special instruments and prefabricated parts of the buildings from England. While designs for the separate Instrument Buildings had been prepared by the P.W.D. early in 1897, revisions were still being made in October 1897.<sup>15</sup> The press reported the return of Cooke from abroad in November 1897 and the arrival of instruments from England in December 1897.<sup>16</sup>

The instrument building which housed the astrograph or equatorial telescope, was a twostorey brick building, with a basement and flat concrete roof. The steel revolving dome, which surmounted the building, was also prefabricated by the instrument maker and brought to Perth with the telescopes and an experienced mechanic to install them. The first seismograph was installed in the basement of this building and from the 1920s on, the roof was used by the Weather Bureau for upper air readings. The dome and telescope were dismantled in 1963 when the building was demolished and were subsequently re-erected at the observatory at Bickley. After a century, they are still in use, with only minor adjustments made to maintain their functionality.<sup>17</sup>



In the first decade of the Observatory's operation, under the direction of Cooke, it achieved the principal objectives outlined by Forrest and Todd at its inception: keeping accurate time, recording and forecasting weather, and carrying out astronomical research. In regard to the first objective; Cooke developed a time service that linked the Observatory electrically to a State-wide network, providing regular

time signals to shipping at Fremantle, the State railways, the post office telegraph system, and controlled public clocks in Fremantle and Perth. In 1899, a public clock was placed at the entrance gates to the grounds on Malcolm Street and, in 1901-02, a time gun (cannon) was set up on the eastern slope of the site, facing the city, and fired daily for a 1pm time signal. In addition, in 1910 Cooke published a design for a sundial for use in isolated rural areas and had one erected in the Observatory grounds.<sup>18</sup>

<sup>&</sup>lt;sup>12</sup> West Australian, 29 September 1896.

<sup>&</sup>lt;sup>13</sup> West Australian, 6 October 1897.

<sup>&</sup>lt;sup>14</sup> Western Australian Parliament, Votes and Proceedings, PWD Reports, 1895-1902.

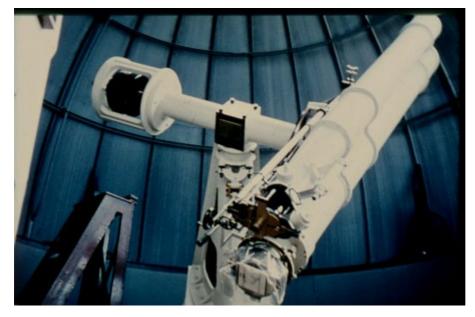
<sup>&</sup>lt;sup>15</sup> PROWA, PWD 5201.

<sup>&</sup>lt;sup>16</sup> *West Australian*, 6 November, 13 December, 1897.

<sup>&</sup>lt;sup>17</sup> Richards, 'Conservation Study', p. 29.

<sup>&</sup>lt;sup>18</sup> van Bremen, 'Old Observatory', p. 13.

Weather recordings were collated and published as annual Meteorological Reports in the Votes and Proceedings of Parliament. They started in 1897 from the fenced enclosure on the site, later added to by the anemometer on the tower, and <u>were</u> collected from recording stations around the State. Weather forecasts were also displayed in prominent places in the city and published in the press. A pair of thermometers was also added to the public clock at the entrance gates in 1900.<sup>19</sup>



Also in 1900, the Perth Observatory was invited to contribute to the International Star Cataloguing and Mapping Program, along with 17 other observatories, including those in Sydney and Melbourne. Under Cooke's direction. the Observatory made a notable contribution to this enterprise. Furthermore, Cooke's improvements on the methods already in use for this program gained international recognition.

Later on, in 1907, a Catalogue of 420 Standard Stars was published by the Perth Observatory.<sup>20</sup>

In addition to these three achievements, the Observatory contributed to the knowledge and welfare of the State in a number of ways. In these years, it was closely associated with the co-ordination of the surveys and the mapping of the State. Cooke established exact latitude and longitude for the Observatory in 1899 and then at the request of the Surveyor General, for the main trig stations of the State system. He developed a new method of calculating latitude and longitude using the standard surveying theodolite and earned acclaim for the innovation. In November 1900, the centre of the Transit Circle mounting at the Observatory was connected to the State triangulation system and, in 1901, was adopted as the origin of Western Australian Surveys. Cooke also served the surveying profession by conducting classes in astronomy for cadet surveyors. Registration examinations were conducted on the site and surveyors used the standard five chain pillars near the Dome building for the regular calibration of their survey chains.<sup>21</sup>

Seismological readings were recorded on a Milne's Seismograph placed in the basement of the Dome building from 1899. As one of a very few such recording stations in Australia and the southern hemisphere, these records had particular significance for geophysical studies. The Observatory also provided tide tables for the north-west ports, and astronomical information, including tables of sunrise and sunset, for the general public, the press and for business. In 1902, at the request of the Colonial Government of Ceylon, a complete set of drawings of the Observatory was prepared and sent to Colombo.<sup>22</sup>

From its establishment, the Observatory was a place of interest to the general public. Some people were attracted by the views to be had from the verandahs or the tower, while others

<sup>&</sup>lt;sup>19</sup> van Bremen, 'Old Observatory', p. 13.

<sup>&</sup>lt;sup>20</sup> van Bremen, 'Old Observatory', p. 13.

<sup>&</sup>lt;sup>21</sup> van Bremen, 'Old Observatory', p. 13.

van Bremen, 'Old Observatory', pp. 13-14.

came to view the heavens. Public lectures in astronomy were also provided in the evening. By 1912, the visitors' evenings were so popular that a new 12 inch reflector telescope was purchased to meet the demand. This device was erected near the main entrance, off Havelock Street, and a series of regular bi-weekly receptions was instituted.<sup>23</sup>

In 1912, Cooke left Western Australia to take up an appointment with the Sydney Observatory. His position was not officially filled until 1920, when H.B. Curlewis was promoted to Government Astronomer. This long delay reflected the State Government's lack of support for the Institution, having already applied to the Commonwealth to take it over in 1902. While the Commonwealth did take over the meteorological work in 1908, the new Bureau had offices located in the city, with the instruments remaining at the Observatory. Because of the unsatisfactory nature of this arrangement, the Commonwealth negotiated with the State Government to acquire a site at the Observatory, on which to build its own offices and quarters. The State Government threatened to discontinue the Observatory as from December 1912, and suggested once again that the Commonwealth take it over. After strong protests against its closure were expressed by astronomers from England, and elsewhere, the Observatory was able to continue operations, pending continuing negotiations with the Commonwealth.<sup>24</sup>

The matter of who should ultimately control the Observatory was only decided in 1928, when the State Government, after much indecisiveness, decided to retain it. Always, in the dealings with the Commonwealth, there was a public outcry over the threat of losing the site. The records suggest that this proprietary attachment and strong anti-Federal sentiment, was the determining factor in the State Government's decision not to transfer the observatory to the Commonwealth at this time.<sup>25</sup>

During these later years of negotiation, the Commonwealth had proposed that the Observatory be upgraded to become a top-class scientific institution. However, this change in focus would have entailed severely restricting public access to the place. This was unacceptable to the State Government, who continued to see the place as a unique and well-loved public park.<sup>26</sup> In fact, public interest in the Observatory was even greater than in the early years of its operation. Curlewis, the Government Astronomer, wrote in 1929:

The Observatory has gradually become an educative factor in the life of the State, for notes on astronomical and seismological matters appear regularly in the Press, and answers to all kinds of scientific questions are being continually posted to correspondents. To provide instruction of an interesting character, the institution is open for inspection almost everyday: and in the evening, by application only, when the moon and other celestial objects may be viewed through the big telescope. Two and three evenings a week are given up in this way, and the number of people that avail themselves of the privilege amount to over 2,000 per year.<sup>27</sup>

In terms of its public importance, the Observatory was still the State's foremost time-keeper. Although the telephone system and radio broadcasting now contributed to the system, instructions for making Cooke's special sun-dials were still being issued for isolated areas. In addition, seismological recordings, astronomical research, and tidal calculations continued.<sup>28</sup> Furthermore, from 1930 to 1967 the Office of the Commonwealth Weather Bureau was officially stationed at *Perth Observatory*.<sup>29</sup>

van Bremen, 'Old Observatory', p. 14.

van Bremen, 'Old Observatory', pp. 14-15.

<sup>&</sup>lt;sup>25</sup> van Bremen, 'Old Observatory', p. 15.

van Bremen, 'Old Observatory', p. 15.

H.B. Curlewis, 'The Perth Observatory', *Civil Service Journal*, 20 July 1929, pp. 73-74.

<sup>&</sup>lt;sup>28</sup> Curlewis, 'The Perth Observatory', pp. 73-74.

van Bremen, 'Old Observatory', p. 16.

During the Second World War, the Weather Bureau came under the control of the Royal Australian Air Force and meteorological officers became R.A.A.F. personnel. By 1941, the Government Astronomer's Residence and Offices housed the State Government Astronomer, H.S. Spigyl (1941-1962), and his staff, the Commonwealth Weather Bureau, State Government Botanist and staff, and the Commonwealth Radio Inspector and staff. At the end of the War, the Weather Bureau was returned to civilian control. By this time, accommodation was inadequate and the buildings run down.<sup>30</sup>

The Stephenson-Hepburn Plan for Metropolitan Perth was also released in 1955, identifying the Observatory site as a place where all State government offices could be located, close to Parliament House. In 1961, a national architectural competition was held for the design of government offices on the site. The winning design proposed the redevelopment of the entire site, including demolition of the Observatory buildings, major earthworks and the construction of five tower blocks.<sup>31</sup>

The Government Astronomer at the time expressed opposition to the proposal to move the observatory. However, it was not long before environmental conditions also dictated the need to relocate the observatory away from the interference of city lights and urban pollution. The plans for new government offices on the Observatory site went ahead, and construction of the first of the new office towers, Dumas House, was begun in 1963. The Instrument buildings were demolished at this time and the landscape of the western section of the site was radically altered to suit the new office tower and its car park.<sup>32</sup> The opening of Dumas House in 1966, marked the end of the Perth Observatory's long association with the site. The meteorological, seismographic and astronomical functions that had previously been conducted there were transferred to other locations. The Commonwealth Bureau of Meteorology moved its operations to Wellington Street, East Perth; seismographic recording was taken over by the Commonwealth Geophysical Observatory at Mundaring and the Perth Observatory was relocated to Bickley in the Darling Ranges.<sup>33</sup>

With the demolition of the Transit Circle building, the survey pillar was replaced by a new standard survey plaque on the 14th Floor of Dumas House. In any case, in 1966 the National Geodetic Survey was completed and Mt Gunjin became the origin point in Western Australia. The datum of the Transit Circle was then the co-ordinating point between the original State survey system and the new national system.<sup>34</sup>

The Government Astronomer's Residence and Offices, that remained after the rest of the site was initially cleared, was also to be demolished to allow more office towers to be built. However, these plans were not carried out, and the former Government Astronomer's Residence and Offices continued in use as offices for the Public Works Department until 1984.<sup>35</sup>

In May 1984, the former Government Astronomer's Residence and Offices was vested by the Government of Western Australia in the National Trust of Australia (WA) for use as its new headquarters. The keys to the building were formally handed over to the Trust on 12th December 1985. During the brief ceremony held to mark the occasion, the Minister for the Arts, the Hon. R. Davies, described the early days of the Observatory and emphasized its familiarity to the people of Perth.<sup>36</sup>

<sup>&</sup>lt;sup>30</sup> van Bremen, 'Old Observatory', pp. 16-17.

<sup>&</sup>lt;sup>31</sup> van Bremen, 'Old Observatory', p. 17.

<sup>&</sup>lt;sup>32</sup> van Bremen, 'Old Observatory', p. 18.

<sup>&</sup>lt;sup>33</sup> Richards, 'Conservation Study', p. 31.

<sup>&</sup>lt;sup>34</sup> van Bremen, 'Old Observatory', p. 18.

<sup>&</sup>lt;sup>35</sup> van Bremen, 'Old Observatory', p. 18.

<sup>&</sup>lt;sup>36</sup> van Bremen, 'Old Observatory', p. 19.

The Trust moved into the renovated building in April 1986. The vesting of the property was gazetted in April 1987 and a new "C" Class Reserve (No. 39892) of 0.67 hectares was created immediately around the building, a small portion of the original Observatory grounds.<sup>37</sup> The Trust headquarters, in the old Observatory, was officially opened on the 29th October 1988 by the Governor of Western Australia, Professor Gordon Reid.<sup>38</sup>



Plans for the new Perth Observatory in Bickley in the Darling Ranges were prepared by the Public Works Department of Western Australia between 1962 and 1966.39 The buildings were to be located on one of the higher parts of the Darling Ranges at approximately 380 metres above sea level, and would be free of much of the light 'pollution' that caused increasing difficulties at the West Perth site.<sup>40</sup> The site, which is largely rectangular, running in a north south direction, was

located due east of the Bickley town site. A triangular section of the site extends westwards in the south west corner and Walnut Road was to be extended in a south east direction, approximately 350 metres, to this corner of the site.<sup>41</sup>

The new building works comprised a New Observatory Building (now called the Administration Building), a Caretaker's Cottage (Caretaker's Residence), the Transformer Room, the Reflector Dome Building (University Dome Building), the Perth Transit Building (Transit/Meridian Building), the Astrographic Building and Storage Tank.<sup>42</sup>

Design of the Administration Building and the three telescope buildings was guided by the aim of producing high quality scientific work. Construction began in mid-1964 and great care was taken to ensure that the telescopes had steady mountings. Excavations were carried out by drilling (rather then blasting) and the base of the Transit Circle telescope was built with aged bricks (salvaged from the demolished wall at the Claremont Mental Hospital) to minimise the likelihood of movement. Similar precautions were undertaken in the Administration Building to ensure that sensitive measuring equipment was specially screened.<sup>43</sup>

<sup>37</sup> 'Trust Gets Key to the Door', *Trust News*, February 1986.

<sup>&</sup>lt;sup>38</sup> 'The Old Observatory Officially Opened', *Trust News*, December 1988.

<sup>&</sup>lt;sup>39</sup> Copies of the PWDWA plans for the Perth Observatory at Bickley are held at the Perth Observatory.

<sup>&</sup>lt;sup>40</sup> Bickley New Observatory, Extent of Preliminary Work, Location Plan, PWDWA, Dwg No.1, March 1964.

<sup>&</sup>lt;sup>41</sup> Bickley New Observatory, Extent of Preliminary Work, Plan showing New Road to Site, PWDWA, Dwg No.1, March 1964.

<sup>&</sup>lt;sup>42</sup> Bickley New Observatory, Extent of Preliminary Work, Site Layout, PWDWA, Dwg No.1, March 1964

<sup>&</sup>lt;sup>43</sup> 'Perth Observatory',1968.

During 1964-66, the Administration Building,<sup>44</sup> the University Dome Building,<sup>45</sup> and the Transit/Meridian Building<sup>46</sup> were built, while the following year, the Caretaker's Residence,<sup>47</sup> and the Storage Tank and Pump House<sup>48</sup> were constructed. In addition the Astrographic Building<sup>49</sup> was constructed, using the telescope and dome from the Old Observatory in West Perth.

The new *Perth Observatory*, built at a cost of \$600,000, was opened by the Premier, David Brand, on Friday 30 September 1966,<sup>50</sup> 70 years and one day after the original Observatory was opened by Sir John Forrest.<sup>51</sup>



In 1967, a group of astronomers from the Hamburg Observatory (Germany) set up their telescope in the Transit Circle Building to carry out an intensive four year programme of observations. Between 1972 and 1976, the Perth Observatory staff continued to work with the Hamburg telescope and equipment with an emphasis on increasing the recorded number and improving the positions of the Fundamental Stars in the Southern Hemisphere

by observing some 75,000 star passages across the meridian.52

In 1971, the Lowell 61-cm reflector telescope was installed as part of the International Planetary Patrol Program, a project sponsored by NASA to obtain regular photographic surveillance of the planets. Similar telescopes were set up at six other stations around the globe, all well separated in longitude. In order to house the telescope, the Lowell Dome (the 24" Reflector Building) was constructed in 1971<sup>53</sup> (with alterations in 1982<sup>54</sup>). The Program concentrated on Jupiter and Mars, but occasionally Venus, Mercury and Saturn were observed. In 1974, observations were scaled down to only the three most successful stations, of which Perth was one. In 1976, the International Planetary Patrol was suspended, to be replaced by space probe technology.<sup>55</sup>

<sup>&</sup>lt;sup>44</sup> Bickley New Observatory, Administration Building, PWDWA, Dwg No.2, September 1964.

<sup>&</sup>lt;sup>45</sup> Bickley New Observatory, Reflector Dome, PWDWA, Dwg No.1, May 1966.

<sup>&</sup>lt;sup>46</sup> Bickley New Observatory, Transit/Meridian Building, PWDWA, Dwg No.3, June 1964.

<sup>&</sup>lt;sup>47</sup> Bickley New Observatory, Caretakers Residence, PWDWA, Dwg No.1, May 1965.

<sup>&</sup>lt;sup>48</sup> Bickley New Observatory, Pump House, PWDWA, Dwg No.1, December 1965.

<sup>&</sup>lt;sup>49</sup> Bickley New Observatory, Astrographic Dome, PWDWA, Dwg No.4, April 1964.

<sup>&</sup>lt;sup>50</sup> 'Perth Observatory',1968. A foundation stone dated 30<sup>th</sup> September 1966 is located on the southwest elevation of the Perth Observatory Administration Building at Bickley.

<sup>&</sup>lt;sup>51</sup> West Australian, 1 October 1966, p. 9.

<sup>&</sup>lt;sup>52</sup> *Perth Observatory*, 1976, not paginated.

<sup>&</sup>lt;sup>53</sup> Bickley New Observatory, Lowell Dome, PWDWA, Dwgs Nos.A7 and A8, September/October 1970.

<sup>&</sup>lt;sup>54</sup> Bickley New Observatory, Lowell Dome, PWDWA, Dwgs Nos. A1 and A2, March 1982.

<sup>&</sup>lt;sup>55</sup> *Perth Observatory*, 1976, not paginated.

In 1977, *Perth Observatory* hosted Dr Mills from Lowell Observatory in Arizona, who had come to Perth to study the occultation of the star SAO158687 by Uranus. As Uranus approached the star, astronomers used the Perth-Lowell telescope to monitor the intensity of the starlight through a special filter. Other observations were made from space and from the Indian Ocean Rim (the only area where this phenomena was visible) in India and South Africa. These observations led to the conclusion that a series of rings existed around Uranus.<sup>56</sup>

In 1980, the Celestron Building was constructed to house the 35-cm Schmidt-Cassegrain Celestron telescope which was to be used mainly for public viewing.<sup>57</sup> In 1986, Perth Observatory played a vital role in astronomical studies of the Comet Halley apparition. The comet approached the Earth from the north, went behind the Sun, and then reappeared in the southern skies, where it was inaccessible to northern observatories. The Observatory location in the Darling Range was, however, an ideal point to study the comet. Positions of the comet taken with the Astrographic telescope were used to fine tune the positions of the flotilla of spacecraft heading for the comet. Indeed, 10% of all Earth-based positions of Comet Halley were taken from Perth. Astronomers from the United States used Perth telescopes to study the physics of the comet. The newly-published rotation period of the comet was confirmed from images taken from the Perth-Lowell 61-cm reflector, as Astronomers utilized a long period of fine weather to study the comet intensively.<sup>58</sup>



In 1987, the future of *Perth Observatory* was thrown into doubt when the Minister for Works and Services, Peter Dowding, asked the Bickley astronomers to 'justify' their research projects and their annual budget of \$750,000. According to Dowding:

WA was the only State that had an observatory and it was the only State which funded astronomical research. The research was particularly obscure and of no direct benefit to the State's functions ... The observatory was, in some

ways, a relic of a time when WA was running its own affairs.59

Although the points raised by Dowding would seem, to many people, sound reasons for maintaining support for *Perth Observatory*, to the Minister's mind, they constituted arguments for dismantling 91 years of world-class scientific research. As had been the case with earlier attempts to withdraw funding from the Observatory, support for its work flooded in from local and interstate scientists. For example, the CSIRO's Dr Whiteoak drew attention to the likelihood of *Perth Observatory* playing an important part in a national radio telescope project to be developed the following year, while the chairman of the WA branch of the Australian Institute of Physics wrote to the Deputy Premier, Mr Bryce, pointing out the Observatory's high value to the State.<sup>60</sup>

To better inform the public about the valuable work that it carried out, in the late 1980s the staff of *Perth Observatory* decided to provide night visitor's tours using Observatory telescopes. Within a short time, this program battled to meet public demand. In addition, school groups and special interest groups were catered for during the day time of full moon weeks.<sup>61</sup>

<sup>&</sup>lt;sup>56</sup> *Perth Observatory Centenary, 1896-1996*, 1996, not paginated.

<sup>&</sup>lt;sup>57</sup> Bickley New Observatory, Celestron Dome, PWDWA, Dwgs Nos. A1 and A2, February 1980.

<sup>&</sup>lt;sup>58</sup> Perth Observatory Centenary, 1896-1996, 1996, not paginated.

<sup>&</sup>lt;sup>59</sup> West Australian, 19 May 1987, p. 2.

<sup>&</sup>lt;sup>60</sup> West Australian, 21 May 1987, p. 38.

<sup>&</sup>lt;sup>61</sup> Perth Observatory, 1996, not paginated.

In the 1990s, the Lowell telescope was equipped with a special camera and automated, so that its tracking of targets and camera operation was fully computer-controlled. This work was undertaken by the Perth Astronomical Research Group, which included Observatory staff, and academics from Curtin and Murdoch Universities, and the University of Western Australia. The first project using the new system involved a search for supernovae (the catastrophic explosions of massive stars at the end of their normal life). As of 1996, six Supernovae had been discovered. It was only the second <u>automated search</u> in the world to have found a supernova.<sup>62</sup>

Further building works were undertaken in the early 1990s with the construction of the Public Toilets<sup>63</sup> in 1991 and a <u>Visitor's Observing Facility</u> <sup>64</sup> in 1992. When established, this latter building housed a 28-cm Celestron and two Meade 20-cm LX5 telescopes. These complemented the 35-cm Schmidt-Cassegrain Celestron telescope, housed in the Celestron Building, which was also used for visitor's tours and student projects alike.<sup>65</sup>

It was also during this period that a museum area was established in the Administration Building to inform visitors about the history of the Observatory and to educate them in the science of astronomy. On display are instruments and artifacts from the Old Perth Observatory, astro-photographs, paintings, meteorites from the WA Museum collection, and the contents of the time capsule donated at the Observatory's founding in 1896.<sup>66</sup>

On 26 January 1996 *Perth Observatory* became part of the Department of Conservation and Land Management (CALM). Within CALM's Science and Information Division, the Observatory benefited from an infrastructure that was supportive of science and research, while respecting and acknowledging the unique status of Australia's sole surviving State-funded observatory. An advantage of the move to CALM was the computer network support that would become available to the Observatory. Networking of the Observatory computers would allow remote control of telescopes, releasing staff from routine observational work to carry out more creative and demanding scientific pursuits.<sup>67</sup> Later, on 21 September 1996, a commemorative foundation stone was laid by the Premier, Richard Court, to celebrate 100 years of the Observatory's existence.<sup>68</sup>

In 2000, the Millennium Telescope Building, the newest visitor facility, construction of which was funded from visitor entry fees, was used to house the largest telescope dedicated for use by visitors, a 40-cm Schmidt-Cassegrain reflector.<sup>69</sup>

In 200<u>5</u>, *Perth Observatory* is still used for its original purpose of astronomical research and education.

<sup>&</sup>lt;sup>62</sup> James Biggs, 'One Hundred Years of Stargazing', *Landscope Magazine*, Winter 1996.

<sup>&</sup>lt;sup>63</sup> Bickley New Observatory, Public Toilet Block, PWDWA, Dwgs No. Sk 1, October 1991.

<sup>&</sup>lt;sup>64</sup> Bickley New Observatory, Visitor's Observational Facility, PWDWA, Dwgs Nos. OB 1 and OB 2, June 1992.

<sup>&</sup>lt;sup>65</sup> *Perth Observatory Centenary 1896-1996*, 1996, not paginated.

<sup>66</sup> *Our Observatory*, not paginated.

<sup>&</sup>lt;sup>67</sup> Biggs, 'One Hundred Years of Stargazing'.

<sup>&</sup>lt;sup>68</sup> Details on Foundation Stone at the Bickley Observatory.

<sup>&</sup>lt;sup>69</sup> Details from plaque on the outside of the building. Conversation with Perth Observatory Technical Manager, Mr Arie Verveer, 5 December, 2003.