



**EARTH SCIENCES HISTORY GROUP**  
(A Specialist Group of the Geological Society of Australia Inc.)

*Email Bulletin No. 53*  
*23 August 2017*

## **INHIGEO News**

The 42<sup>nd</sup> Annual Symposium of the International Commission on the History of the Geological Sciences (INHIGEO) to be held in Yerevan (Armenia) - 12-18 September 2017 will celebrate the 50th anniversary of INHIGEO. This anniversary will be marked by the launch of a special volume, edited mainly by Wolf Mayer and Salome Teresa Mota and Renee M. Clary. The title of the volume is "History of Geoscience: Celebrating 50 years of INHIGEO" is published by the Geological Society of London.

### **INHIGEO SYMPOSIA 2018-2021**

INHIGEO Annual Conferences for this period are scheduled as follows.

- ☐ 2018 – 43<sup>rd</sup> INHIGEO Symposium, 12-22 November, Mexico City
- ☐ 2019 – 44<sup>th</sup> INHIGEO Symposium Como/Varese, Italy
- ☐ 2020 – 45<sup>th</sup> INHIGEO Symposium New Delhi, India (in association with the 36<sup>th</sup> International Geological Congress) . It will be held early in the year as the Congress is scheduled for 2-8 March 2020.
- ☐ 2021 – 46<sup>th</sup> INHIGEO Symposium, Poland

Congratulations to Barry Cooper, being appointed as President of the INHIGEO Board for 2016-2020. His position, along with other Board members was considered by the IUGS Executive and ratified by the INHIGEO Business Meeting held in conjunction with the 35th International Geological. In addition, in the INHIGEO Membership Ballot in 2017, Bill Birch (Australia) was elected as a member of INHIGEO.

## **History of Earth Sciences Society**

Members might consider joining, the History of Earth Sciences Society (HESS). To learn more about HESS please visit their website at <http://historyearthscience.org>. Membership includes two issues per year of the journal *Earth Sciences History*. It is an ISI/Web of Science listed international journal and is the only one in the world devoted exclusively to history of the earth sciences. HESS is affiliated with the International Commission on the History of the Geological Sciences (INHIGEO). Online subscriptions provide access to the full run of the journal dating back to Volume 1 in 1982.

## **Surplus Newsletters**

The former Perth-based committee of the ESHG found that it needed to print around 120 copies of our Newsletters to meet the requirements of Member and libraries with a few to spare for people who had provided material in the way of photographs or assistance. However, the editors found that it cost very little more to order 150 copies, so they did this in the hope of being able to sell some to raise funds for the Group. The result is that there were quite a few surplus copies stacked in John Blockley's study. As further sales were considered unlikely, with Sue Fletcher's agreement, the copies have been placed in the GSWA library to be made available as "freebies" to publicise the Group.

## **ESHG Web Pages**

Due to the upgrade and overall redesign of the GSA web pages, Divisional and Specialist Group web pages have been incorporated into the main web pages, and as a result the web address has changed for the ESHG Division web pages. After some initial angst from some ESHG members, when it was discovered that the old address no

longer worked, the content from the old pages, including links to recent Newsletters and eNews, has now been rebuilt and redesigned through the efforts of Tim Holland, the Membership Development Officer at GSA Head Office. The web pages can be accessed through the main GSA web page at <https://www.gsa.org.au/> by going to the Specialist Groups tab and then selecting ESHG. They now have a similar look-and-feel to the rest of the GSA web pages.

Tim was able to compress the rather large Newsletter pdf files without the loss of significant resolution, so that they would fit within the size restrictions imposed by the GSA's web host. He took particular care to retain the page banners that were a feature of the old pages, and has converted the biographies to html, so that they are easier to read on screen.

Biographies of many influential Australian geoscientists are yet to be included on the page, and a list of possible candidates is given below. Of course, there are many other worthy subjects, and members are welcome to submit biographies of these or any others to the Secretary of the Earth Science History Group John Jell - [j.jell@bigpond.com](mailto:j.jell@bigpond.com)

- Edward de Courcy Clarke
- Irene Crespin
- Richard Daintree
- Samuel Benson Dickinson
- Norman Henry (Doc) Fisher
- Charles Gould
- John Walter Gregory
- Dorothy Hill
- Edwin Sherbon Hills
- Terence D Hills
- Joseph Beete Jukes
- Clive Loftus-Hills
- Nelly Ludbrook
- Lyndon Charles Noakes
- Reginald Claude Sprigg
- William Harper Twelvetrees
- George Henry Frederick Ulrich
- Mary Wade
- Leonard Keith Ward
- Samuel Warren Carey

## **Dorothy Hill Online Exhibition**

The University of Queensland is launching an online exhibition called *Flirting with Fossils - Dorothy Hill: Australia's first female professor* about the life and legacy of Dorothy Hill in September. The official launch will be Tuesday 5 September, with drinks from 5:00 and the launch at 6:00 pm, in room 03-206 Steele Bldg on the UQ campus. The online exhibition will be ongoing.

As the first female Professor at an Australian university and the first Australian woman to become President of the Australian Academy of Science, Dorothy Hill paved the way for women to reach positions of prominence in science. As a teacher, Dorothy Hill mentored a generation of students at the University to pursue the earth sciences. As a researcher, Hill received a number of international and Australian honours for her research into Australian fossil corals. Inspired by her experience at the University of Cambridge, Hill was also a passionate advocate for the University of Queensland library.

Following the launch of the exhibition, a panel of speakers featuring Honorary Professor John Jell, Professor Gregory Webb, Professor Joan Esterle and PhD student, Sarah Kachovich, will reflect on Hill's work in Australian geology and palaeontology, and her influence as a mentor and academic pioneer for women. The discussion will be led by Professor Sue Golding.

The event is free, but attendees must register by 1 September at <https://register.eventarc.com/39135/flirting-with-fossils-dorothy-hill-australias-first-female-professor>

## AJM ... more than just minerals!

The latest issue of the Australian Journal of Mineralogy (AJM, Vol. 18, No. 1) has several articles that cover historical aspects of minerals and mine discoveries:

- The first featured article by Bob Noble recounts part of the early prospecting history of the Kalgoorlie gold rush and the discovery of the fabulous Golden Mile deposit by Sam Pearce from the Adelaide Prospecting Syndicate. The Golden Mile is the world's largest and richest known Archean gold lode system and contains the world's largest endowment and diversity of telluride minerals.
- A history of the Northampton mineral field that is situated near the coast approximately 450 km north of Perth. The discovery of galena there in October 1848 sparked WA's first mining boom, and the mines of the region produced some excellent specimens of galena, pyromorphite and cerussite.
- Ben Grguric and John Toma write about the mineralogy of the Almanda mine, a short-lived but relatively rich 19<sup>th</sup> century silver mine in the Adelaide Hills.

AJM is a joint publication of the State Mineralogical Societies in Australia, and is now under new management in WA. It aims to publish one to two issues per year. Contributions on all aspects of mineralogy, including historical perspectives (e.g. on collections or collectors of historical significance) are welcome. If you think you have something to contribute, please contact the Editor at [peter.downes@museum.wa.gov.au](mailto:peter.downes@museum.wa.gov.au). To subscribe or order your copy, please email [ajm.secretary.treasurer@gmail.com](mailto:ajm.secretary.treasurer@gmail.com)

## Contributions for the ESHG Newsletter

Papers presented during the session on Australian geologists in World War 1 at the AESC in 2016 have been received, but delays in receiving them and personal commitments by the editor have delayed publication. Therefore, articles on other topics are still welcome and if you have an article for the newsletter, you are welcome submit it to the Newsletter Editor, Mr John Draper at [jdraper@hn.ozemail.com.au](mailto:jdraper@hn.ozemail.com.au) by the end of October.

## Upcoming Conference



**AUSTRALASIAN  
MINING  
HISTORY  
ASSOCIATION**

**Australasian Mining History Association  
23rd Annual Conference**

Web: <http://www.mininghistory.asn.au>

Federation University, East Gippsland

Traralgon 23<sup>rd</sup>-29<sup>th</sup> September 2017

## Obituary: Phillip Elliott Playford: a life of geology, exploration and history

Phillip (Phil) Elliott Playford was born on 27 December 1931 in Guildford, the elder son of Elliott Geoffrey and Alice Mary Playford. He attended the Forrest Street State School (now South Perth Primary School) (1937–1942) and completed his schooling at Perth Modern School (PMS) (1943–1948). He later wrote that he 'didn't like the school [PMS]' and that his 'salvation came through tennis, in which I eventually became school champion and captain of the winning team in the inter-school competition'. He won a General Exhibition in the Leaving Certificate exam and went on to study geology at the University of Western Australia (1948–1953). His honours project was mapping the Jurassic geology of the Geraldton district. Travelling to and from the field area on his motorbike (a Triumph 3T) he collected a large number of ammonites from the Newmarracarra Limestone which he sent to W J Arkell at Oxford University, who was the world-renowned expert on Jurassic rocks. This led to his first major publication (with Arkell, in the Philosophical Transactions of the Royal Society of London) that established the Bajocian age for this unit.

After graduating, Phil joined the Bureau of Mineral Resources (BMR) in 1953, working in Alan Condon's team with two other stalwarts of WA geology, Murray Johnstone and Daryl Johnstone, mapping the southern Carnarvon Basin. In 1953 WAPET (West Australian Petroleum Pty Ltd) discovered oil at Rough Range, and lured Phil, among others, away from the BMR. In those days oil exploration in Western Australia involved a lot of detailed geological mapping, and Phil has always emphasised the importance of such field work in understanding

the geology of a region. This work culminated in McWhae et al's (1958) extended paper which laid the foundations of our modern understanding of the stratigraphy of the major sedimentary basins of the State.

Phil's time with WAPET took him to the Carnarvon and Canning Basins and had four important impacts on his subsequent career. The first was discovering stromatolites at Hamelin Pool in July 1954 when he and Daryl Johnstone were working in the Shark Bay area. This led to his lifelong interest in stromatolites and the geology of the Shark Bay area. The second was meeting stockman Tom Pepper at Tamala station, also in July 1954, who showed him various items that he said came from a shipwreck at the foot of the coastal cliffs south of Tamala. Thus began Phil's involvement with what he eventually deduced was the wreck of the Zuytdorp. Thirdly, in 1956 he was introduced to the Devonian reef complexes, which started a life-long love affair with these superbly exposed rocks. The Aboriginal cave paintings in these Devonian limestones also fascinated Phil, resulting in his research into the mythological significance of the paintings and the mapping of tribal boundaries. Arising from this interest, in 1964 Phil joined an expedition to the Gibson and Great Sandy Deserts, which successfully located the last known Aborigines who had never before seen Europeans, living almost untouched by the outside world. Phil at times recounted the tale of how, although they had never met Europeans, they knew of "puddy tats", through contacts with other Aborigines.

Phil was awarded a Fulbright Scholarship in 1959 which took him to Stanford University where he obtained a PhD for his thesis on the geology of the Egan Range, near Lund, eastern Nevada. He completed the project in two years and decided to return to Australia. Not long after his return to Perth he met Cynthia Hogbin, with whom he shared a keen interest in the bush, Phil with the rocks, Cynthia with the plants. They married in 1964 and had two daughters, Julia and Katherine.

While WAPET was keen to re-hire Phil, he saw that fieldwork was a lower priority than before, and instead joined the Geological Survey of Western Australia (GSWA, a branch of the Mines Department – now newly renamed the Department of Mines, Industry Regulation and Safety) in 1962, as Supervising Geologist of the newly created Sedimentary (Oil) Division, which had responsibility for mapping the Phanerozoic basins of the State and assessing their fossil fuel resources. He worked for the department in various positions (Assistant Director GSWA – 1978-1980, Deputy Director GSWA – 1980-84, Assistant Director General – 1984-1986, Director GSWA – 1986-92) until his retirement in 1992, except for a short time as Exploration Manager and General Manager of Abrolhos Oil in 1970-71. After retirement, he wrote up his work on the Zuytdorp and continued to work on the geology of the Devonian reef complexes, Shark Bay, and most recently Rottnest Island, from an office in GSWA until late in 2015.

One of Phil's first recommendations in the GSWA was to ask the Minister for Mines to encourage WAPET to drill the anticline below Barrow Island in the Carnarvon Basin. The subsequent discovery of oil in commercial quantities in 1964 marked the dawn of petroleum production in Western Australia. Under his supervision and as part of GSWA Director Joe Lord's drive to map all of WA at 1:250 000, mapping was undertaken in the major Phanerozoic basins, resulting in the publication of several bulletins. Phil continued his work on the Devonian reef complexes of the Canning Basin, soon publishing the first GSWA bulletin on their geology (Bulletin 118) in 1966. He then embarked on detailed studies of significant areas of the reef complexes. One of the early results of this work was the realisation that stromatolites in the marginal slope deposits extended down slope to at least 35 m, and probably more than 100 m water depth; this was in conflict with the prevailing view in the 1960s that stromatolites were intertidal, and renewed his interest in the Hamelin Pool stromatolites where he showed that they also extended into the subtidal region. The Devonian reef complexes were the subject of several lecture tours by Phil, through the USA and Canada in 1978 as an AAPG Distinguished Lecturer; through Australia in 1980 as a PESA Distinguished Lecturer; in China in 1988 as an Exchange Scientist for the Australian Academy of Science and Academia Sinica; and through Europe in 1989 as a Guest Fellow of the Royal Society of London.

An ongoing condition of Phil's acceptance of administrative roles in the Mines Department and its later incarnations was that he be allowed to devote time each year to geological research, primarily field work on the Devonian reef complexes. Regular updates on the geology of the complexes continued through the 1980s and 1990s, together with supervision of PhD and post-graduate projects, until their culmination in 2009 with publication of the second GSWA bulletin on the complexes (GSWA Bulletin 145). This also included observations on Permian glacial pavements and subglacial channels, lakes, tunnels, cave systems, tower karst, collapse breccias, and solution dolines. En route to the Kimberley, and as separate short trips, visits to Shark Bay and the Zuytdorp Cliffs continued.

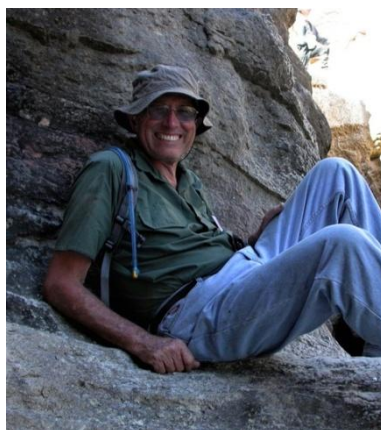
After the second bulletin on the reef complexes, completion of the Shark Bay research became Phil's top priority. The remarkable stromatolites were largely responsible for Shark Bay being declared a World Heritage Area, but were not the only focus of Phil's work. The project grew to include aspects of Quaternary coastal geology around most of WA, but particularly neotectonism and the recognition of the imprint of ancient major tsunamis on WA, from the Kimberley through the Pilbara to Shark Bay, from large erratic blocks in coastal areas. Phil concluded that major tsunamis, although infrequent, constitute a significant hazard in coastal areas that has not been adequately included in risk assessments. A comprehensive bulletin, again oriented towards the field geology but also including the history of the Shark Bay region, was published in 2013 (GSWA Bulletin 146). Compilation of a similar bulletin integrating Phil's work on Rottnest Island, was underway in late 2015 when Phil

was diagnosed with cancer, and sadly will not be completed. Part of the Rottneest work was updating of a field guide, first prepared in 1988. Phil's final paper, reviewing the history of our understanding of the Canning Basin reef complexes is to be published soon in SEPM (Society for Sedimentary Geology) Special Publication 107, which is dedicated to his memory.

Phil's scientific achievements and work through his career promoting the petroleum prospectivity of Western Australia have been recognized in several awards. These include: Special Commendation Award of the AAPG, Lewis G Weeks Gold Medal of APEA, Gibb Maitland Medal from the Geological Society of Australia, Honorary DSc from UWA, Honorary Membership of RSWA, Royal Society Medal from RSWA, and Distinguished Honorary Membership of PESA. He served geology and other sciences as President of the Royal Society of Western Australia, Australian Petroleum Exploration Association Professional Division (WA), Petroleum Exploration Society of Australia (WA), Australian Geoscience Council, and National Trust (WA). He was also Chairman of the Board, WA Museum of Natural Science, Adjunct Professor of Petroleum Geology, Curtin University, and Adjunct Professor of Geology, University of Notre Dame an Honorary Associate of the Geological Survey of WA and the WA Museum.

Although Phil's geological legacy is considerable, he may be remembered by the general public for his contributions to WA's history, principally the early Dutch explorers and aspects of Aboriginal art and heritage. Phil's first tasks after his retirement from Director GSWA were a new phase of fieldwork in the Kimberley, and to complete his work on the Dutch wreck the Zuytdorp (in 1994 Phil and Tom Pepper were officially rewarded by the State as being the co-discoverers of this historic wreck). This was published in 1996 as "Carpet of Silver" by UWA Press, received the Premier's Book Award for Historical and Critical Studies in 1997, and was reprinted in 1998 and 2006. He followed this in 1998 with a book on Willem de Vlamingh's voyages, "Voyage of Discovery to Terra Australis: by Willem De Vlamingh, 1696-97", after he discovered de Vlamingh's personal journal; this work was also reprinted. Phil was involved in the 400<sup>th</sup> anniversary celebrations of the landing of Dirk Hartog in Western Australia and jointly edited "The life and times of Dirk Hartog" published by the Royal Western Australian Historical Society in 2016. These interests also led to several public lectures and articles, the chairing of committees promoting aspects of WA's pre-colonization history, and the installation of a replica of Dirk Hartog's plate on Dirk Hartog Island. Parts of the bulletins on the Devonian reef complexes and on Shark Bay were devoted to the history and Aboriginal heritage of the West Kimberley and the Shark Bay areas, respectively. In 1998 he was made a Member of the Order of Australia (AM) for 'contributions to geology and the history of early Dutch exploration and shipwrecks in Australia'. His life has truly been that of a renaissance man.

*[Compiled by Tony Cockbain, Roger Hocking and Pam Reid from 'Biographical Notes' written by Phil Playford in May 2000]*



Phil resting on his beloved reef complexes (taken by Roger Hocking at Casey Falls in the Kimberley)

### **ESHG Committee:**

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