## "V.V. TIKHOMIROV AWARD FOR THE HISTORY OF GEOLOGY"

## Background

In 2011 IUGS approved creation of Scientific Awards of Excellence in recognition of outstanding contributions in the Earth Sciences. IUGS Commissions, including INHIGEO, were asked to nominate a candidate in their specific field of interest for their award which could also bear the name of an outstanding individual within the Commission's specific field of interest.

INHIGEO choose to name their award the "V.V. Tikhomirov Award for History of Geology" in honour of the first INHIGEO President from the Union of Soviet Socialist Republics (USSR), which included Armenia. The INHIGEO Board nominates and approves Tikhomirov Award recipients by secret ballot.

The Award has since been approved to correspond with the International Geological Congress that is scheduled every four years with the first Tikhomirov Award being presented at the 2012 International Geological Congress held in Brisbane, Australia. The 2020 award has already been presented to David Branagan even though the Congress has been postponed.

Recipients as of 2020 that have been honoured by the "V.V. Tikhomirov Award for History of Geology" are:

2012 – Hugh S. Torrens (United Kingdom)

2016 – Martin J.S. Rudwick (United Kingdom)

2020 – David F. Branagan (Australia)

With the 2020 Tikhomirov Award, INHIGEO assumed full responsibility for the honour. Notably the change in management brought about a change in the design and manufacture of the Award medallion.

## Connections with Armenia and Obsidian

In 1967, the inaugural INHIGEO conference was held in Yerevan, Armenia. Subsequently, a 50<sup>th</sup> anniversary conference was also held in Yerevan in 2017 to commemorate the 50<sup>th</sup> anniversary of INHIGEO. Both conferences were held in the Round Room of Armenian Academy of Sciences in Yerevan. The field trip attached to both meetings also visited many of the same localities including the Matenadaran (ancient manuscript Museum), Garni fortress, Echmiatzin, Haghartsin monastery and Lake Sevan. In addition, the 2017 conference gave special consideration to the prehistoric excavations and a manufacturing zone utilizing obsidian during the post conference field trip.

In 2017 all participants received a special INHIGEO 50<sup>th</sup> Anniversary Medallion, manufactured in obsidian specifically for the conference. The 2020 Tikhomirov Medallion has also been crafted in semiprecious Armenian black obsidian given its historic association with INHIGEO (see Figures).

Armenian obsidian has an exceptionally long period of historic human usage. Its use extended back to the Middle Paleolithic period (~60,000 BC) when it was utilized to manufacture stone scrapers, stone knives, stone arrowheads and sculptures. Thus, it is very important in archaeology as well as for the history of geology.

INHIGEO member from Armenia, Gourgen Malkhasyan, has been instrumental in arranging the design and manufacture of the V. V. Tikhomirov Award Medallion (Figure 1) in 2020 under the guidance of INHIGEO President Barry Cooper. Gourgen Malkhasyan is the only INHIGEO member to be closely involved in the organisation of both the 1967 and 2017 INHIGEO conferences in Armenia while his father, Edward Malkhasyan (1926-2003) was also an historian of geology, an INHIGEO member and closely connected with organising the 1967 conference.

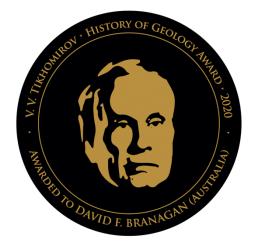




Figure 1. The V. V. Tikhomirov Award Medallion, designed by Gourgen Malkhasyan with guidance from INHIGEO President Barry Cooper, and inscribed on Armenian obsidian. Front of medallion on left, and verso on right.

David F. Branagan (Australia)
Recipient of the 2020 V. V. Tikhomirov Award for the History of Geology

The INHIGEO Board decided that the 2020 Tikhomirov Award be awarded to David Branagan from Australia (Figure 2). David is well known internationally via his active INHIGEO membership including a term as INHIGEO President (1992-1996).

David was born in 1930 in the famous Australian mining town of Broken Hill where his father was a teacher. His family moved to Sydney when he was seven and by the time of his enrolment at the University of Sydney, David was already interested in geology. In 1958, he obtained a position at the University of Sydney in coal geology, which was the start of his geological career. Later he moved within the University to obtain a lectureship, teaching first-year geology, which matched his desire to learn about many aspects of geology new to him, notably engineering geology. He retired from University in July 1989 but continues as an Honorary Research Associate.

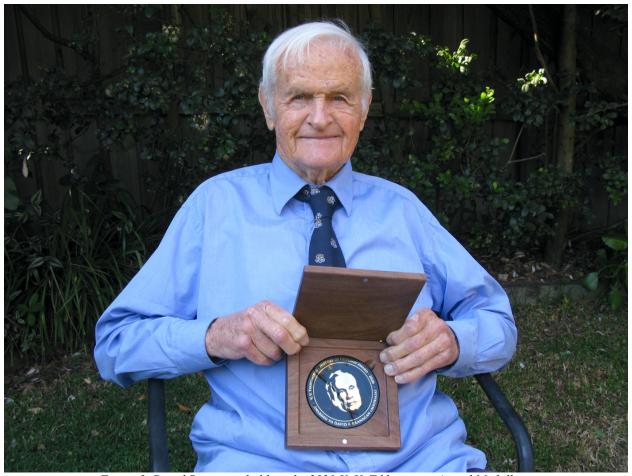


Figure 2. David Branagan holding the 2020 V. V. Tikhomorov Award Medallion.

Early research for a doctorate on the coal seams in the Newcastle region led to the expansion of his nascent interest in the history of science and geology. David's interest in the history of geology and science was enhanced further through his contact and friendship with INHIGEO Vice President, Tom Vallance, who taught petrology at the University and had an encyclopaedic knowledge of the history of geology (particularly Australian geology). Tom introduced David to INHIGEO.

David began to attend the Commission's conferences and continues to be an active contributor. He was INHIGEO President 1992-1996 and contributed not only conference papers but also his intellect and energy in arranging the INHIGEO conference in Sydney in 1994. More recently he arranged a field trip (that started in Sydney and ended in Brisbane) for INHIGEO as part of the Brisbane IGC in 2012.

Although having an international perspective, David has for many years emphasised the achievements of Australian geological and scientific ideas through his extensive research, lectures and publications. He has written on the long-term development of people and their ideas by documenting the careers and achievements of numerous geologists, and his appetite for learning led to contributions in a wide range of aspects of geology with a versatility that is uncommon today.

David has around two hundred publications to his credit, of which about half are concerned with the history of geology, of mineral exploration, the history of ideas in science, as well as biographies of geologists, engineers, and metallurgists. His most important work is his definitive biography of T.W. Edgeworth David, described as a masterful work on an Australian pioneering geological academic and explorer.

In 2007 David was awarded an honorary DSc. by the University of Sydney, chiefly in recognition of this biography. In 2012 David was also awarded the inaugural Tom Vallance Medal of the Earth Sciences History Group of the Geological Society of Australia. In addition, David received in 2015 the Sue Friedman Medal for the History of Geology from the Geological Society of London.

Examples of his major works range across coal mining (Geology and Coal Mining in the Hunter Valley 1791–1861); history (Science in a Sea of Commerce: The Journal of a South Seas Trading Venture (1825–1827) by Samuel Stutchbury) and a history of the Geological Society of Australia (Rock Me Hard—Rock Me Soft), compiled and edited with Barry Cooper. He has contributed to the education and public interest in geology through many lectures and various field guides (notably his popular, in a positive sense, Field Geology of New South Wales, with Gordon H. Packham), as well as an edited textbook: Beneath the Scenery: Geology for Senior Students. His knowledge of the rock succession in New South Wales and elsewhere in Australia is truly remarkable.

David's knowledge of the early history of geology in Australia is without equal today.