

Dr Tony Ramsay

Fforest Fawr UNESCO Global Geopark

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PROFILE

After completing a PhD in Micropalaeontology at Swansea University in 1966, I was employed as a Research Associate in the University of Cambridge and as a Senior Research Associate at the University of East Anglia. In 1971 I was engaged as a Lecturer in Geology by Swansea University and was appointed Senior Lecturer in 1978. In 1988 I joined the staff of Cardiff University and retired as Senior Lecturer in the School of Earth Ocean and Planetary Sciences in October 2004. During my university career I held visiting appointments in McGill University, Montreal Canada, the University of Illinois, Urbana, USA, and the Ocean Drilling Project, Texas A&M University, Texas, U.S.A.

In 2005, in partnership with the Brecon Beacons National Park Authority and the British Geological Survey, I co-authored the successful application for membership of the European and Global Geoparks Networks. This resulted in the creation of Fforest Fawr Geopark, Wales' first European Geopark, now recognized as a UNESCO Global Geopark.

At present I am Scientific Director of the Fforest Fawr Geopark, a member of the European Geoparks Advisory and Coordination Committees, Publication Editor of the European and Global Geoparks Networks Magazines, a member of the UK UNESCO Global Geoparks Committee, and an Honorary Senior Lecturer at Cardiff University. In these roles I contribute to furthering the development of the European Geoparks and Global Geoparks networks and promote Cardiff University and the School of Earth and Ocean Sciences within the Geoparks Networks through presentations at conferences and scientific activities within the Geopark.

As Scientific Director of Fforest Fawr Geopark, I facilitate collaboration between the Geopark and Cardiff University, promote these organizations within local schools and businesses and contribute to creating research links between Schools within Cardiff University, Fforest Fawr Geopark and the Brecon Beacons National Park Authority. The role also involves engaging with the Geopark's ambassadors, partners and stakeholders and creating a series of themed geotrails within the Geopark for educational as well as recreational purposes. I also engage with the Geopark's involvement with the UK National Commission for UNESCO in developing a UNESCO Trail in Wales and have contributed to National Committee Projects including producing the The Waterfall Project - Fforest Fawr UNESCO Global Geopark, UNESCO in Wales Briefing, and an Initial Meeting with the First Minister of Wales and his team.

My role as an Honorary Senior Lecturer at Cardiff University has involved initiating research projects, the co-supervision of MSc degree student projects, leading Year 1 (Geology) and Year 2 (Environmental Geoscience) field trips for the School of Earth and Ocean and Sciences in the Geopark, and contributing to Year 3 and Year 4 structural geology fieldwork. I have also led fieldtrips for the Linnean Society, the Open University, Devon Geological Society, and the University of the Third Age.

KEY ACHIEVEMENTS

- One of a group of 15 scientists who, in 1974, initiated the study of Palaeoceanography.
- Published the first palaeobathymetric reconstructions for the Atlantic Ocean.
- Edited the two- volume edition of *Oceanic Micropalaeontology*.
- Authored two articles and co-authored two articles in the journal *Nature*.
- Directed and pursued research funded by National Environmental Research Council Grants
- Co-authored the paper *Palaeobathymetry of the Southern Hemisphere*.
- Managed and developed the successful Environmental Degree Scheme in The School of Earth and Ocean Sciences, Cardiff University.
- Designed and delivered a successful course in Hydrogeology in the School of Earth and Ocean Sciences.
- Publications Editor of the European and Global Geoparks Networks Magazines.
- Initiated, with Prof Mike Bruford, Prof Tom Blenkinsop and Dr Peter Brabham Research Partnerships between Cardiff University, Fforest Fawr Geopark, and the Brecon Beacons National Park Authority.
- Developing Ffoest Fawr Geopark's Cribarth geosite for undergraduate training in practical field related observations and map making by Cardiff University.

EMPLOYMENT

1966 -1968: - **Research Associate, Department of Geology, Cambridge University**

- Pursued and published research on North Atlantic, Indian Ocean and Caribbean deep –ocean sediments and microfossils.
- Micropalaeontologist and sedimentologist on the Canadian Survey Ship, Hudson Scientific Cruise to the Caribbean, Spring 1968.

1968 - 1971:- **Senior Research Associate, School of Environmental Sciences, University of East Anglia.**

- Pursued and published results of research on North Atlantic, Indian Ocean sediments and microfossils.
- Micropalaeontologist on the National Institute of Oceanography Discovery Cruise to NE Atlantic Rockall, King's Trough, Spring 1970.

1971- 1978: - **Lecturer in Geology, University College Swansea**

- **Teaching:** Developed and delivered new courses in Physical Geology (Year 1), Field Training Courses in Pembrokeshire (Year 1), Carbonate Sedimentology (Year 2), Micropaleontology (Year 3) and Carbonate Sedimentology for Oceanographers.
- **Research:** Pursued and published results of research on deep ocean sediments, micropaleontology, palaeoceanography, and Phanerozoic climate.
- **Supervision:** One Masters thesis, two PH. D. theses and several undergraduate geological mapping projects.
- **Administration:** Examinations Officer for the Geology Department.

1978 -1988: - **Senior Lecturer in Geology, University College Swansea**

- **Teaching:** In addition to the courses outlined above (1971 -78). I also developed and delivered new courses in Vertebrate Palaeontology (Year 3), The Evolution of Man (Year 3) and contributed to the Field training course in the Midland Valley, Scotland (Year 3).
- **Research:** Pursued and published the results of research on deep ocean sediments, micropaleontology, and carbonate sedimentology. See List of Publications.
- **Supervision:** Two Ph. D. theses and several undergraduate mapping projects.
- **Administration:** Examinations Officer and sometime finance officer for the Geology Department

1988 – 2004: - **Senior Lecturer in the School of Earth, Ocean, and Planetary Sciences, Cardiff University**

- **Teaching:** Developed, and delivered new courses in Sedimentology (Year1), Carbonate Sedimentology (Year 2), Micropaleontology (Year 3), Hydrogeology (Year 3) and Field Training in Environmental Geoscience (Year 2).
- **Research:** Pursued and published the results of research on deep ocean sediments, palaeo-oceanography, micropalaeontology, and carbonate sedimentology. See List of Publications.
- **Supervision:** Three Ph. D. theses and several undergraduate projects for the Environmental Geoscience Degree Scheme and mapping projects for the Geology Degree Scheme.
- **Administration:** Course Convenor for the Environmental Geoscience Degree Scheme.
- **External Examiner:** University of Glamorgan 1988 -1992.

2005 – 2023: - **Scientific Director of the Fforest Fawr Geopark**

Fforest Fawr Geopark Activities

Administration

- A member of the Geopark's Implementation Group.
- A member of the Fforest Fawr Geopark Management Group.
- Representative on the Geopark's Partnership Board.
- Contributed to the successful EGN revalidation of The Fforest Fawr Geopark in 2008.
- Contributed to the organization and activities of the 2011 Spring Meeting of the EGN Coordination Committee in Fforest Fawr Geopark.

Geotourism

- Contributed to the development of a successful training programme for tourist providers.
- Involvement in the production of the Geopark's Information Panels.
- Contributed to the production of the Fforest Fawr Geopark Leaflet.
- Co-author of four geo-trails in the Geopark.
- Excursion leader during Geoparks Week and speaker at Geopark events.
- Designed an information panel for the Exhibition Centre at Penderyn Whisky Distillery explaining the hydrogeology of their water supply.

Education and Research

- Involved with the development of training days in geological mapping for Second Year Environmental Geoscience and First Year Geology students for Cardiff University in the Geopark.
- Established links with The Open University and University of the Third Age.
- Established links with and gave presentations on the Geopark to the Earth Science Education Forum in Wales.
- British Association for the Advancement of Science Science and Engineering Week in Wales 2007 & 2008. From Ground to Bottle – The Story of our Water Assets.
- Contributed to initiating and supervising a Ph.D project in the Geochemistry and microbiology of Alkaline Springs in the Fforest Fawr Geopark.
- Student and Research Projects: Contribution to a seminar, organized by Dr Peter Brabham School of Earth and Ocean Sciences, on 18th February 2011 focussing on the potential use of Fforest Fawr Geopark as a resource for student projects and research projects.
- M.Sc Project with the School of Social Sciences, Cardiff University - *Rediscovery, Representation and Application of Local Value in the Fforest Fawr Geopark (Wales) and the Muroto Geopark (Japan)*. This international project involving a Japanese student, Yukiko Shibata is supervised by Professor Susan Baker, Cardiff University. I will supervise and oversee the scientific input.

European Geoparks and Global Geoparks Activities

Administration

- Member the EGN Coordination Committee.
- Member of the EGN Advisory Committee since 2009.
- Member of the Intangible Heritage Thematic Group.

Editing

- Edited Issues 4 - 20 of the European Geoparks Magazine.
- Edited articles for the European Geoparks Newsletter, issues.
- Edited the contributions to the European Geoparks Book 1st Edition.
- Guest Editor 10th European Geoparks Conference Volume.
- Edited Global Geoparks Magazines Geoparks & Oceans, Geodiversity in UNESCO Global Geoparks, Geoparks Going Green.

Evaluation and Revalidation Missions

- 2009: Revalidation Mission - Eisenwurzen Geopark, Austria.
- 2010: Evaluation Mission - Basque Coast Geopark, Spain.
- 2011: Revalidation Missions - TERRAvita and Vulkaneifel Geoparks, Germany.
- 2012: Revalidation Mission - Yuntaishan, Henan Province, China.
- 2013: Revalidation Mission - Arouca Geopark Association (AGA), Portugal.
- 2014 Evaluation Mission – Erz der Alpen Geopark, Austria.
- 2015 Evaluation Mission –Pollino Geopark, Italy.
- 2016 Evaluation Mission – Bohemian Paradise Geopark, Czech Republic.
- 2017 Evaluation Mission – Swabian Alb Geopark, Germany.
- 2018 Evaluation Mission – Papuk Geopark, Croatia

IUGS Geoheritage Commission's Geosites sub-commission

- Reviewing applications dossiers for UNESCO Global Geoparks to determine if the proposed Global Geopark contains geology of *International Scientific Significance*.

Presentations at European and UNESCO Geoparks Conferences

- *Developing an Integrated Concept for a Successful Application to the European and UNESCO Global Geopark Network*. 1st UNESCO Geoparks Conference. Belfast. September 2006.
- *From Ground to bottle in the Fforest Fawr Geopark: An Educational Programme*. 7th European Geoparks Network Open Conference, Scotland. September 2007.
- *Geoparks tell Stories from the Past with a Message for the Future*. The 3rd International UNESCO-Conference on Geoparks. Osnabrück, Germany. June 2008.
- *Communicating the Story of Climate and Man*. 8th European Geoparks Conference, Portugal, September 2009.
- *Fforest Fawr Geopark: An Ice Age Geopark*. 9th European and Geoparks Conference, Lesbos, Greece. October 2010
- *The Cultural History of Fforest Fawr Geopark: An Educational and Recreational Resource*. 9th European and Geoparks Conference, Lesbos, Greece. October 2010.
- *Geological and Cultural Heritage as drivers for Sustainable Economic Development in Fforest Fawr Geopark*. Proceedings of the 10th European and Geoparks Conference, Gea Norvegica, Norway. September 2011.
- *A story creates a trail linking the Geology, Landscapes and Cultural Heritage of south Wales and Fforest Fawr Geopark*. Proceedings of the 10th European and Geoparks Conference, Gea Norvegica, Norway. 17-18 September 2011.
- *Using ancient DNA from Sediment at Traeth Mawr Peat Bog, Fforest Fawr Geopark to investigate the effects of Climate Change and human activity on the Environment*. 13th European Geoparks Conference, Rokua, Finland. September 2015.
- *Anomalous faults and folds in Fforest Fawr UNESCO Global Geopark*. English Riviera UNESCO Global Geopark. September 2016.
- *Craig y Dinas: A Landscape with a fascinating Geological, Industrial and Intangible Heritage*. 14th European Geoparks Conference. The Azores UNESCO Global Geopark, September 2017.
- *Climate Change, Environmental Degradation & Mass Extinction Events in the Existence of a Habitable Planet*. **15th European Geoparks Conference**. Parque Natural Sierra Norte de Sevilla. September, 2019

2005 –2023: - **Honorary Senior Lecturer, School of Earth and Ocean Sciences, Cardiff University**

Cardiff University Activities

Research Projects

- In 2014 I represented Fforest Fawr Geopark at a workshop organized by Prof Terry Marsden, Cardiff University, and Paul Sinnadurai, Brecon Beacons National Park Authority, focused on promoting joint research projects within these institutions. Outcomes with respect to the School involve:
- The successful application to Natural Resources Wales for coring at the Illtud Pools SSSI site in the Brecon Beacons National Park and initiation of the research Project - *Investigating the sediment DNA record and biodiversity patterns in the ancient lake*

and peat bog deposits from Traeth Mawr SN 967 255 in the Brecon Beacons National Park.

Contributors to this project include Dr Peter Brabham (EARTH), Dr Tony Ramsay (EARTH and Fforest Fawr Geopark) and Prof Mike Bruford (School of Biosciences).

- A research project concerned with - *The mechanics of synsedimentary folding associated with the Swansea Valley and Vale of Neath Disturbances.* Contributors to this project include Prof Tom Blenkinsop (Cardiff University), Dr Tony Ramsay (Cardiff University and Fforest Fawr Geopark) and Dr A. Abu Sharib, (Geology Department, Beni Suef University, Egypt).

Supervision of Post-graduate Projects

In 2011 I represented Fforest Fawr Geopark at a seminar, organized by Dr Peter Brabham School of Earth and Ocean Sciences focused on the potential use of Fforest Fawr Geopark as a resource for student projects and research projects. Outcomes with respect to the School involved the co-supervision of the following Msc and MRes research projects:

- Yukiko Shibata 2013 - MSc Project with the School of Social Sciences, Cardiff University - *Rediscovery, Representation and Application of Local Value in the Fforest Fawr Geopark (Wales) and the Muroto Geopark (Japan)*. This international project involving a Japanese student, Yukiko Shibata was co-supervised with Professor Susan Baker, School of Social Sciences, Cardiff University.
- David Hull 2013 - *A Geoenvironmental Assessment of the Penderyn Distillery Site*. M.Sc. Applied Environmental Geology. Co-supervised with Dr Tim Jones and Dr Peter Brabham, School of Earth and Ocean Sciences.
- Camilla Ryan 2015. The use of ancient DNA from sediment as a viable measure of historic biodiversity within the Brecon Beacons National Par. Co-supervised with Prof Mike Bruford, School of Biosciences, Cardiff University.

External Examiner

- Ala Ghafur 2013 - *Sedimentology and Reservoir Characteristics of the Oligocene-Early Miocene Carbonates (Kirkuk Group) of Sothern Kurdistan*. PhD thesis, Cardiff University.

Teaching

- Contributing to Year 1 Field Trips and training in fieldwork for the Environmental Geosciences Degree Scheme, and Year 3 and Year 4 Structural Geology Fieldwork

Administration

- Representing Cardiff University and the School of Earth and Ocean Sciences on the Management Group and Partnership Groups of the Fforest Fawr UNESCO Global Geopark.

VISITING APPOINTMENTS

- 1968-1969: Research Associate at the Marine Centre, McGill University, Montreal Canada (4 months appointment)
- 1971: Visiting Professor in the Department of Geology, University of Illinois,

Urbana, Illinois, U.S.A (6 months appointment)

- 1991 – 2000: Visiting Research Scientist, Ocean Drilling Project, Texas A & M University, Texas, U.S.A.

QUALIFICATIONS/EDUCATION

- **BSci (Hons) 2.1** in Geology, University of Wales (1963)
- **Ph.D** in Micropaleontology, University of Wales (1966)

INTERESTS

Outdoor Pursuits

Gardening.
Hill Walking.
Sea Fishing.

Literature, Music and Art

19th and 20th Century Classical music and Opera.
Friend of the Welsh National Opera and the Royal Opera House Covent Garden.
Medieval, 19th and 20th Century Literature.
History of Art

General Science

History of science
Cosmology
Particle Physics
Genetics and evolutionary biology

Economics & Politics

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