

**Professor
Robert Andrew Spicer**

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1. Tertiary/Higher Education

Subject: BSc (First Class) Botany
Date of Qualification: 1972
Awarding Body: Imperial College, London University, Associate of the
Royal College of Science

Subject: PhD – Geology.
Sorting of Plant Remains in a Recent Depositional
Environment”
Date of Qualification: 1975
Awarding Body: Royal School of Mines, Imperial College, London
University

Subject: MA
Awarded by special decree on appointment
Date of Qualification: 1989
Awarding Body: Oxford University

2. Appointments and Experience

- 1.4. 2011 – Present
Post Title: Emeritus Professor of Earth Sciences,
Name of Organisation: The Open University.
- 31.3. 2010 – Present
Post Title: Visiting Professor, Chinese Academy of Sciences.
Name of Organisation: Institute of Botany, Chinese Academy of Sciences,
Beijing, China.
- 1.9.1994 – 31.3.2011
Post Title: Professor of Earth Sciences
Name of Organisation: The Open University
- 1.5.2004 – 31.9.2006
Post Title: Founding Director of the Centre for Earth, Planetary, Space
and Astronomical Research (CEPSAR)
Name of Organisation: The Open University
- 1.10.1994 – 1.1.1998
Post Title: Head of Earth Sciences
Chair of Earth Sciences Management Team
Name of Organisation: The Open University
- 1.1.1989 – 31.8.1994
Post Title: University Lecturer in Earth Sciences
Official Fellow and Tutor of St Hugh's College, Oxford
Name of Organisation: Oxford University
- 1992 – 1994
1992 - 1994: Member of the Departmental Academic Committee
Member, Departmental Committee (oversees departmental
finances)
- 1991 - 1993: Public Examiner in Geology in the Honour School of
Natural Science (Finals)
- 1991 - 1992: Chairman, Library Committee
- 1990 - 1994: Departmental Admissions Co-ordinator
- 1990 - 1993: Responsible for setting and marking University Entrance
Examinations in Geology
- 1989 - 1991: Elected Dean of St Hugh's College
- 1989 – 1990: Member of Graduate Studies Committee
- Listed in University "Directory of Experts"

- Member of Oxford Earth Sciences and Biological Sciences Sub-Faculties
- Member of St Hugh's Governing Body, Academic Needs Committee, Accommodations Committee and Education Committee
- Responsibilities for Lecturing in both Earth Sciences and Plant Sciences Departments
- In Earth Sciences responsible for teaching degree courses in evolution, taphonomy, terrestrial palaeoenvironments and palaeoclimatology, as well as sedimentology/palaeontology field courses
- In Plant Sciences - presented part of the "Green Plants" course
- Tutoring
- Supervision of graduate research students
- DPhil and PhD examiner at numerous UK and overseas universities
- Five post-doctoral Fellows worked in my research group - Dr Richard Bateman, Dr Allister Rees, Dr Jenny Chapman and Dr Michele Lamberson (based partly in Vancouver, Canada, Sylvia Knight).

Dates of Employment: 1981 – 1988
 Post Title: Senior Lecturer in Life Sciences
 Name of Organisation: Goldsmiths College, London

- Responsible for devising and presenting advanced BSc Courses in Evolution and Speciation, Plant Palaeoecology, Evolutionary Biology of Seed Taxonomy
- Supervision of Graduate Research Students
 - Departmental Research Project Co-ordinator
 - Departmental Research Seminar Organiser
 - School of Life Sciences representative on College Research Committee
 - Member of University of London Boards of Studies in both Geology and Biology
 - BSc visiting examiner for Royal Holloway and Bedford New College and King's College London

Dates of Employment: 1978 – 1981
 Post Title: Research Assistant
 Name of Organisation: Imperial College, London

- On contract to the Office of the National Petroleum Reserves in Alaska (ONPRA).
- Research: High-latitude Cretaceous plant biostratigraphy, systematics and plant community/environmental analyses.

Dates of Employment: 1975 – 1977
 Post Title: Lindemann Fellow,
 Name of Organisation: United States Geological Survey, Menlo Park, California

Research:

- The formation, analysis, and interpretation of plant fossil assemblages.
- Cretaceous plant biostratigraphy of Alaska.

3. Contributions to teaching and student support

2007 - 2008	Course team member S279.
2007 – 2008	Course team member SXR260.
2006 – Present	Tutor SXR 208 Astronomy (Observing the Universe)
2005 – Present	Senior Tutor SXR369 Weeks for students with additional requirements
2003 – Present	Author of S199 (Weather and Climate Modelling) and Course Team Chair
2000 - Present	Course Team Member and author S369 (The Geological Record of Environmental Change)
2000 – Present	Course Team, Tutor and Exam Board Member SXR 369 (The Geological Record of Environmental Change Residential School)
1998 - 2004:	Chair of S269 (Earth and Life) Course Team and Exam Board

4. Contributions to administration and management

Other Managerial Roles:

2008	RAE National Expert Reviewer for UoA17 Earth and Environmental Sciences
2008 - Present	Panel Member Deutsche Forschungsgemeinschaft (DFG) German Research Foundation – Physics, Mathematics, Geosciences.
2007 – 2009	Member NERC Polar Sciences Working Group.
1/9/06 – 31/12/2008	Chair OU RAE UoA 17 submission team
1/9/06 – 31/12/2008	Member OU RAE Team

2003 – 2006	Member of Natural Environment Research Council Peer Review College
1999 - 2006	Elected Deputy Chair Research Board
1999 - 2006	Elected Chair of Research Strategy and Development Committee of Research Board
1999 – 2006	Member of Strategic Planning and External Relations Committee of Research Board
1999 - 2006	Chair, Contract Research Staff Initiative Working Group
1999 - 2001	Elected by Senate to Strategic Planning and Resources Committee
1995 - 1999	Elected by Senate to Technology Development Committee Elected by Senate to University Council
1995 - 1999	Elected by Senate to University Research Committee

5. Research and Scholarship

Current research:

The evolution of high latitude vegetation and climate - this is primarily directed at times of extreme global warmth in the Mesozoic and focuses on the geologic records of Alaska, Russia, Australia, New Zealand and Antarctica. The research is directed towards providing validation data for numerical global climate modelling and has important implications for global change studies. The research also makes use of palaeo-data to model vegetation under possible future climates and as templates for biosphere management programmes and “designer ecosystems” for carbon sequestering.

An integral part of this research is developing new approaches to plant palaeoecology using plant taphonomy (a field which I pioneered in the UK) and extracting climate signals from the architecture of plant fossils using advanced multivariate statistics (CLAMP- <http://clamp.ibcas.ac.cn>). These techniques are now being applied to the study of past surface height changes to determine rates of mountain belt and plateau uplift to provide constraining data for mathematical models of the behaviour of the Earth's crust. They are also being used to study biotic and climatic change across the Cretaceous/Tertiary boundary.

Allied to the palaeontological elements of my research is the work on climate modelling and quantifying uncertainties in both models and geological proxies. I helped establish a large distributed computing project (<http://climateprediction.net>) funded by the Natural Environment Research Council, the Department of Trade and Industry and several commercial partners. The project is continuing to conduct large scale ensemble forecasting of future climate change using the Hadley Centre model configured to run on desktop PCs.

Current field areas include North-eastern Russia, Australia, New Zealand, Nepal, China and Tibet, western North America, Alaska, and India.

Grants and Research Support Obtained:

2010-12	US Geological Survey non-competitive contract, \$40,000.
2011-12	Chinese Academy of Sciences 250,000 CNY plus travel to and from China.
2009-10	Chinese Academy of Sciences 250,000 CNY plus travel to and from China.
2004 - Present	Royal Society/Chinese Academy of Sciences Exchange Programme- various amounts of funding.
2002 - 2004	NERC £474694.43 (with Oxford University)
2002	Royal Society £1750
2002 - 2004	OU Alumni Fund £25000.00
2001 - 2003	NERC £103991.00
1998 - 2000	NERC £176725.00
1997	Open University Research Committee £3000
1996 - 1998	INTAS 55000 ECU
1996 - 1997	Royal Society £9000
1995 - 1996	NERC £16951.50
1994 - 1996	Royal Society £7000
1994 - 1995	NERC £4500
1993	NERC £3948
1993	National Geographic Society \$12000.00†
1990	National Science Foundation \$40000†
1990	NERC Research Grants (2) totalling £158238.00
1990	NATO BF222000.00
1990	Royal Society £4893.00 equipment grant
1990, 1992	Astor Fund £600.00
1990	Lockey Bequest £550.00
1989	National Geographic £3000.00
1988 - 1990	Petroleum Research Fund, American Chemical Society \$40000.00†
1987 - 1990	University of Chicago, Paleogeographic Atlas Project \$6500.00
1986	Goldsmith's College Research Fund £2324.00*
1986	USGS Depositional Basins Program \$2000.00*†
1985, 1986	NATO £9243*†
1985, 1986, 1987	British Petroleum £85016.00*†
1985, 1996, 2001	State of Alaska logistic support \$11000.00
1984	Royal Society Expedition Grant \$5052.00*
1984	Mexican Government logistic support £3000.00
1982, 1984	Goldsmiths' College Research Fund £3788.00*
1982, 1984	London University Central Research Fund £1440.00*
1983, 1985, 1986, 1990, 1991, 1992	Natural Environment Research Council Studentships £60000.00
1983	Government of Ghana Research Studentship £15000.00

1978 - 1981 US Government contracts and logistic support \$184460.00
1975 - 1977 Lindemann Fellowship \$30000.00

(* - excluding salary, † with J.T. Parrish, University of Arizona)

Professional Activities:

Fieldwork:

2010 N.E. Yunnan on eastern slopes of the Tibetan Plateau and along the Yangtze River in SE China.

2008 Fieldwork in Uttar Pradesh, Kerala, West Bengal, and Assam, India

2008 Joint Royal Society - Chinese Academy of Sciences fieldwork Yunnan, China

2007 Joint Royal Society - Chinese Academy of Sciences fieldwork Yunnan, China

2005 Joint Royal Society - Chinese Academy of Sciences fieldwork near Fushun, China

2005 Fieldwork in Alaska

2004 Fieldwork in Argentina and Chile

2003 Joint Royal Society - Chinese Academy of Sciences fieldwork in Shangxi Province, China

2002 Leader and Organiser of OU Geological Society 14 day field trip to western USA (38 students)

2001 Fieldwork in Northern Alaska

2000 Fieldwork in India and Tibet

1998 Fieldwork in Northern Alaska, India and Tibet

1997 Leader of nine-member multinational INTAS/RFBR team undertaking fieldwork in North-eastern Russia

1996 & 1998 Filming for the BBC in Norway, Singapore, New Zealand, Nepal and USA

1996 Fieldwork in northern Alaska

1995 Member of NERC reconnaissance team traversing Tibet

1991 – 1992 Fieldwork in western USA

1991 Fieldwork/lecturing in Australia and New Zealand

1989 Fieldwork in northern, central and southwestern Alaska

1988 Fieldwork in western China

1987 Fieldwork in British Columbia, Canada

1984 Leader of international expedition to El Chichón, southern Mexico (Royal Society Funded)

1980, 1982, 1984 Taphonomic fieldwork at Mount Saint Helens (USA)

1977 – 1979, 1985 – 1987, 1991, 1996 Fieldwork in northern Alaska

1972 Co-organizer and expedition member, Imperial College Expedition to Maldivian Islands

Honours and Awards:

2009 Awarded Visiting Professorship for Senior International Scientists by the Chinese Academy of Sciences

2008 Presented by Invitation the Prof J.Sen Memorial Lecture, University of Calcutta, Calcutta.

2007 Awarded Palaeobotanical Society of India International Medal

2007 Invited to give Shell Public Lecture at Burlington House as part of the Geological Society of London Bicentennial Celebrations.

2006 Presented by invitation the 52nd Sir A.C. Seward Memorial Lecture at the Diamond Jubilee of the Birbal Sahni Institute of Palaeobotany, Lucknow, India.

1985 Best Paper, Geological Society of America Centennial Meeting, Coal Division

1981 Guest Lecturer, Royal Geographical Society Annual Tripartite Meeting

1975 - 1977 Lindemann Research Fellowship

1975 Marshall Prize for Palaeontology

1972 University of London (Hocart) Prize in Botany for highest score across the whole of London University in the final third year examination

6. Postgraduate student supervision

PhD/DPhil. students supervised to date: 14

PhD/DPhil. students examined to date: 25

Post Docs

Five post-doctoral Fellows worked in my research group - Dr Richard Bateman, Dr Allister Rees, Dr Jenny Chapman and Dr Michele Lamberson (based partly in Vancouver, Canada), Sylvia Knight.

7. External academic activities

2010 Visiting Professorship for Senior International Scientists at the Institute of Botany, Chinese Academy of Sciences, Beijing.

2008 Visiting Scientist at the Birbal Sahni Institute of Palaeobotany, India.

1993 Guest Professor at the University of Vienna.

Advisor to numerous TV producers for science documentaries – see Public Engagement.

Professional Affiliations:

2010	Member, European Union of Geoscientists
1985 – Present	Member, International Organization of Palaeobotany
1997 – 2003	Member, Paleobotanical Section, Botanical Society of America Member, IGCP 245 (Cretaceous Non-marine Correlation)
1988 – 1994	Member, Geological Society of America
1990 – 1991	Member, British Association
1988 – 1990	Council Member Palaeontological Association. Ongoing ordinary member
1985 – 1988	Council Member, Systematics Association. Ongoing ordinary member

Consultancies/ Links with Industry:

2010	Chairman, GHG-Energy Corporation. Green energy investments
2009-10	Consultant to Wide Eyed Productions and the BBC for documentary film-making
2008	Executive Director of C-Questor – carbon sequestration incubator company
2004 - 2006	Consultant for Dorling Kindersley publishers
2002	Royal Society nominated advisor to the Chinese Government on the establishment of a Tibetan Research Institute
1995	Member of Government of India appointed panel assessing the Birbal Sahni Research Institute, Lucknow, India
1992	UNESCO representative to Inter-Governmental Panel on Climate Change meeting on Global Carbon Balance and Forest Ecosystems, Joensuu, Finland
1992	Adviser to Indonesian Government on Climate Change
1991 - 1992	Contract Consultant to UNESCO on Global Change and Designed Ecosystems
1991	Consultancy for the State of Alaska, USGS and University of Chicago Paleogeographic Atlas Project

Editorial Positions:

2009 - Present	Member Editorial Board of “ <i>Palaeobiodiversity and Palaeoenvironments</i> ”
2006	Member, Editorial Board of <i>The Palaeobotanist</i> .
1992 - 2005	Editor, Cambridge Palaeobiology Book Series
1996 - 1999	Associate Editor of <i>Geology</i> .
1990 - 1991	Associate Editor, <i>Paleobiology</i>
1992 - 1999	Associate Editor, <i>Palaeoclimates: Data and Modelling</i> .

External examining:

2008 - 2012	External Examiner Undergraduate Programme (Geology BSc and MGeol Sci) University of Plymouth
2003 - 2007	External Undergraduate Examiner at Reading University (Environmental and Soil Sciences)

External PhD/DPhil Examiner at numerous universities in UK and overseas.

Selected Recent Invited Lectures / contributions to conferences:

July 2010	Session Convenor at EPPC, Budapest.
May 2010	Session Convenor at EUG Vienna
April 2010	Invited speaker at the Chinese Academy of Sciences meeting, Beijing.
January 2010	Invited keynote speaker at the annual conference of the Association of Science Educators, Nottingham.
November 2009	Invited opening keynote speaker at the National Conference on Polar Quaternary Climate Change, Goa, India.
September 2009	Invited speaker, Cherwell District Council.
May 16 2008	Invited public lecture and discussion arranged by the North Oxfordshire Conservative Association “Climate Change: Why we should be scared”.
April 16 2008	Prof J. Sen Memorial Lecture, Calcutta University, India, “Deep Time Climate Change: What the IPCC Needs to Know”.
April 11 2008	Palaeobotanical Society of India Medal Lecture, Lucknow India, “What Plant Fossils tell us About Environmental Change”.
March 11 2008	Invited lecture, National Botanical Research Institute, Lucknow, India “Modelling Uncertainty in the Asian Environment”.
February 28 2008	Invited public lecture, Lucknow, India, “Science and Society”.
January 2008	29 minute live telephone interview for Radio Ecoshock Canada: (http://www.ecoshock.net/eshock08/ES_080104_Show.mp3)
Nov. 19 2007	Invited public lecture: British Library/Arts Catalyst Polar Archives “Polar Palaeobotany”.

- Nov. 7 2007 Invited public lecture: Royal Geographical Society “the Environment of Tibet: Past and Present”.
- Nov. 4 2007 British Library/Arts Council Invited Public Lecture “Everyday Disasters- Climate Change Beyond the IPCC”.
- October 2007 BBC radio 4 Material World interview on climate change and global interdependence.
- October 11 2007 Invited public lecture at University of Antwerp (USCIA) followed by closed session policy discussion with the European SCRIBANI Jesuit network on “Climate Change: A Challenge for Global Social Justice”.
(http://www.uscia.org/main.aspx?c=*uscia2&n=56941)
- Sept. 20 2007 Invited public lecture: Geological Society of London Shell Lecture “Climate Change: A Plant Fossil Perspective”.
- May 2007 Invited panel member in a public climate change debate as part of the Oxford/Milton Keynes/Barbican Film Festival.
- May 23 2007 Invited public lecture at Collège De France, Paris, “Palaeobotany in a Changing World: Plant Fossil Contributions to Society and Policymakers”.
- 2006 **Spicer, R.A.** and Leopold, L. Memorial to Jack Albert Wolfe (1936-2005) Geological Society of America Memorials, v. 35: 59-61.
- 2006-7 Advisor to the BBC on thirteen television programmes in the “Climate Change Season” on BBC1, BBC2 and BBC4.
- Nov. 2006 Professor Sir A.C.Seward Memorial Lecture, Birbal Sahni Institute of Palaeobotany, Lucknow, India.
- 2006 Co-convenor “Advances in Palaeobotany” Meeting, Gainesville, Florida, USA.

Public Engagement (see also Invited Lectures):

- 2009-10 Documentary consultant – see consultancies.
- 2010 Interviewed for “Cosmic Tea Party” Australian Podcast.
- 2008 On-screen contributor to NOVA documentary “Arctic Dinosaurs”.
- 2008 Author of blogs for BBC/Open2.net “Our Man in India”
- 2007 Lead Academic Consultant on BBC1 “Climate Change – Britain Under Threat”, 1 hour Attenborough programme; contributor to accompanying websites; press interviews
- 2006 Academic Consultant on numerous programmes that comprised the “Climate Chaos” season across the BBC Network including its web presence. Programmes include “Meltdown” BBC4 (subsequently re-screened on BBC2), 1 hour, Paul Rose presenter; eight shorts related to climate change “Some Like it Hotter”, “Snow Patrol”, “Killer Lakes”, “Corking Sunshine”, “Glacial Retreat”, “Savage Heat”, “Northern Melt”, & “Shifting Shoals”; “Climate Controversies” BBC4, 1 hour, Ian Stewart Presenter;

	Academic Consultant and on-screen contributor to 2 hour-long programmes on climate change, Sir David Attenborough presenter; author of a climate change essay on BBC Open2.net website; several radio, TV and press interviews in the UK, China and India
2006	Interview for “El Arabia” TV on climate change.
2005	Exhibitor - Royal Society Summer Exhibition “Climateprediction.net”; “Huygens Lander on Titan”, several radio interviews
2005-Present	Regular contributor to Three Counties BBC radio breakfast show on climate change issues.
2004	Exhibitor EUG, Vienna, “Climateprediction.net”
2003	Interview for BBC world service on the uplift of Tibet.
2002	Finalist, Laboratory News “Best UK Research Group”
June 20 2002	Live 15 minute interview on BBC Radio 4, “Material World”.
2001	Exhibitor, Royal Society Summer Exhibition, “Fossil Leaves: Nature’s Ancient Meteorologists”
2000	Contribution to BBC World Service “EarthWorks” series.
1999	Contributor to "Earth Story: Mountain Building" BBC. Earth Story is a major series of programmes on modern geology. The series was broadcast in the autumn of 1998 and now on DVD.
1998	On-screen contributor to “Earth Story”, BBC2, Aubrey Manning presenter
1997	"Poles Apart- The Cretaceous Greenhouse World" Television Programme (45 mins) made by the BBC for "Earth and Life - S269" - Sole Presenter and Academic Consultant.
1995	On-screen presenter BBC2, 1 hour, “Cretaceous World: Poles Apart”
1993	Exhibitor, Royal Society Soirée “Polar Vegetation and Climate”
1991	Contributor to "Dinosaur Footprints" WGBH Boston, WHYY Philadelphia and Grenada Television.
<i>Dates not known</i>	Contributor to "Science Now" (BBC Radio 4), "Quarks and Querks" (CBC) and various programmes on Thames Valley Radio, including one 25 minute live interview.

Each year I give numerous public lectures, press, TV, radio interviews in the UK and overseas a selection of which are given in my list of publications.

8. Other Information

2001	As leader of the “Warm Earth Environmental Systems Research Group”, finalist in Laboratory News “Best UK Academic Research Group” Awards
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- 1998 “Distinguished Lecturer”, invited lecture tour of University of Massachusetts, Amherst College, Smith College, Hampshire College, USA
- 1995 Lecture tour of India - Lucknow, Dehra Dun, Chandigarh, Delhi, at the invitation of, and funded by, the Indian Government
- 1994 Guest Professor, University of Vienna
- 1993 February 24-25th Co-organiser of Royal Society Discussion Meeting entitled “Palaeoclimates and their modelling with special reference to the Mesozoic”
- 1985 Co-organiser of international meeting sponsored by the Systematics Association, Linnean Society, Royal Society, British Council, Shell and BP entitled "Systematic and Taxonomic Approaches in Palaeobotany"

Other Skills:

- Experienced scanning electron microscopist
- Programming languages: FORTRAN, PL1, BASIC
- Website design and production using Dreamweaver.
- Multimedia production using Macromedia Director.
- Other IT skills: Adobe Photoshop, Keynote, Adobe Illustrator, MS Word, Excel, Powerpoint, etc..

Formal Training in:

- Equal Opportunity and Fair Selection best practice
- Certificate in Management
- Career Development and Staff Appraisal: Appraiser
- Career Development and Staff Appraisal: Appraisee
- RAE UoA Management
- Assistive Publishing System
- Diversity Toolkit: Science
- Electronic Resources for Science
- Influencing Skills
- Residential Schools Director’s Course
- Effective Recruitment and Fair selection
- Field First Aid
- General First Aid

Additional web material:

<http://cepsar.open.ac.uk/>
<http://www.climateprediction.net>
<http://cepsar.open.ac.uk/pers/r.a.spicer/>

<http://tabitha.open.ac.uk/spicer/CLAMP/Clampset1.html>

9. Publications

See separate file.