Geography and Geology at Keele
(1950–2001)

produced to mark the naming of the
William Smith Building
by
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Introduction

In 1950, Keele admitted its first students. Following their Foundation Year, taught by the staff of the 15 original departments, they each chose two principal subjects. Geology, led by Wolverson Cope, and geography, likewise Stanley Beaver, were there from the beginning. For most of the succeeding 50 years, teaching and research in these two subjects were practised in separate departments, in neighbouring buildings, with personal friendships ameliorating the professional rivalries.

The face of Keele, and that of the University sector as a whole, has changed immensely since those pioneering post-war years. In particular, something that would have horrified both Beaver and Cope has come to pass: the joining of their disciplines into a School, functioning as a single academic department. But actually, the pursuance of a multidisciplinary agenda is no more than our students have done for half a century.

This booklet celebrates the renaming of the building that had previously borne the title of its successive occupants: Geology (to 1995), Earth Sciences (1995-99), Earth Sciences and Geography (from 1999). In the collegial spirit that has characterized the birth and first stages of development of the School, we name it after two important historical figures, one a herald (and geographer), one a mineral surveyor (and geologist), each styled William Smith.

The William Smith Building

Dr. (later Sir) Peter Kent FRS, Chief Geologist of B.P., formally opened the geology building in 1970 when Stage 3 of its construction was completed. For the occasion, Professor Cope produced a booklet summarizing the history of the department to that date. He vividly described the complex working arrangements in earlier years of occupation of huts on Keele Hall lawn and the rooms in Keele Hall presently occupied by the Vice-Chancellor. In the years 1954-57, telephone messages even had to be walked between the Keele Hall huts and the embryonic new building!

The south wing of the new building was built in two stages. Stage 1, completed in 1954, was at ground level, comprising technicians’ workshops, mineralogy and petrology teaching laboratories, large and small lecture theatres, seminar rooms and lavatories. Stage 2 was built above and completed in 1957. It contained the departmental library, the palaeontology, structure and geochemistry teaching laboratories, teaching staff offices round the landing and other small offices. The original plan for stage 3 had envisaged a three-storey north wing, but in the event two storeys were constructed in 1969 at a cost of £104,200, to complete the present U-shaped structure. There was
money left over which allowed the construction of the sedimentological flume facility nearby in the following year. Stage 3 comprised two large store rooms and research facilities (optical spectrograph, X-ray diffractometer, X-ray fluorescence spectrometer, optical dark rooms, geochemistry laboratory and preparation rooms) on the ground floor, and staff offices (including the Head of Department’s office), dark rooms and lavatories on the first floor. The two wings were linked by a large teaching laboratory (now the ‘Cope Laboratory’) on the ground floor and a large room for research students together with a drawing office with windows on two sides, above.

The usage of the original space has of course changed enormously. The departmental library has been transferred to the university library, the structure teaching laboratory became the drawing office (now entirely computerized of course), geochemistry teaching was put into the geochemistry research laboratory, the palaeontology laboratory now houses students for the MSc course in Computing in Earth Sciences, the upper research students’ room is now the John Cadman laboratory (Applied and Environmental Geophysics), and the first floor staff toilets and dark rooms were turned into offices. The vacated drawing office and the Head of Department’s office were altered to seminar rooms. On the ground floor the original seminar room, which throughout the 70s and 80s had been a research students’ laboratory, was eventually taken over as the School office and one of the stores became a geophysics equipment store and laboratory. All other rooms left by the removal of research apparatus were taken for staff or research student offices with the exception of the densitometer room of the optical spectrograph in which the scanning electron microscope was installed (until 2001 when the SEM has made way for the supercomputer installation).

The drive for efficient use of space and the need to centre the School’s activities as far as possible in one building led to a series of relatively minor, but vital refurbishments in 2000 which cost more in cash terms than did stage 3 of the original building in 1970. As a consequence we have two refurbished teaching laboratories, capable of providing for both geology and geography practical classes, and a total of three laboratories with a new generation of audio-visual aids.

**The Hornbeam Building (formerly known as Geography)**

The distinctive Geography Building, at the centre of the campus, was originally built in two stages in the early fifties to provide staff and technical rooms, a map room and two lecture theatres/laboratories that were named after Dudley Stamp and Halford Mackinder. Geography was the only non-science department to have its own building. In 1966 a large extension more than doubled the size of the building by adding a four storey tower, a lecture theatre and the Wooldridge laboratory for physical geography. At the same time, finance for housing the massive air photo collection of wartime northern Europe acquired in 1962 enabled two more floors to be provided above the lecture theatre for storing the photos and office space for the curator. All of this section was
under the direction of Alan Walton. The tower block had services and a survey store on the ground floor (later to have a Low Temperature Laboratory added), a purpose built map library and curator’s office on first floor, a seminar room and offices on the higher floors. The building was one of very few on the campus to be equipped with a lift: originally this was intended for the transport of air photo boxes but it was soon taken over by staff unwilling or unable to climb the 68 steps to the top floor! On the roof was an anemometer that formed part of the Keele Meteorological Station, otherwise located on lawns near Keele Hall. It has been run by the Geography Department and its successors since 1951, becoming fully automated in 2000 and on-line in 2001.

Ground floor offices in the original block were taken over by technical staff but top floor rooms were retained for academic offices as the teaching staff expanded beyond the capacity of the new tower block. The old map-room was converted into seminar/lecture room and from time to time accommodated postgraduate students. In the early 1970s with an expansion of numbers, additional staff offices were built out from the ground floor corridor. In the mid-1980s there was a major reorganisation of air photo storage with finance from Germany for recording prints onto new negatives and microfilm. This allowed the conversion of first floor space into a new lab for Remote Sensing, offices for technical computer staff, and the development of a 20-place computer laboratory, one of the earliest dedicated computer laboratories in the faculty. The pressure on rooms from expanding student numbers resulted in the University moving to a system of pool rooms and the Geography building, like all others, experienced an increasing level of usage by students from other departments and from the vacation conference business.

For a brief spell in the late 1990s the Geography building was named Environmental Social Sciences and accommodated a number of academics from other departments with environmental interests. The University then decided to relocate all departmental map and reference material to the main library. The Geography map-room was converted into lecture room and tutorial rooms for pool use and almost the whole building was subsequently converted into offices for other University departments after the departure of geographers for the William Smith Building in 1999-2000. At that point the building was renamed “The Hornbeam Building” after the distinctive tree standing outside. The School of Earth Sciences and Geography retains the use of some laboratories and staff offices there.

The Teaching of Geography

Principal Geography, together with significant contributions to the Keele Foundation Year, comprised the entire teaching programme until the early 1990s when a degree course in Environmental Management (EM) was also introduced with a strong geography component alongside contributions from economics, law and politics. The geography course continued with a first year devoted to a balanced programme of physical, human and practical material and with an increasing range of options on offer
in subsequent years, as more staff were appointed with a wider range of interests in most aspects of the subject. Field courses were always regarded as an essential part of the degree programme, with regular visits to South Devon in Year One, Southport, Hampshire and Nottingham in Year Two and overseas courses in Spain, Italy, Holland and France.

Major changes were made in the 1980s and 1990s as a result of the introduction of semesters and modular teaching, reduction in per capita government spending on higher education, and the requirement for staff to produce more efficient teaching programmes in order to devote more time to research, especially with external funding. Fieldwork became rationalised with a combined first year human/physical course based at Keele with daily excursions to the local area. In Year Two physical fieldwork was carried out in south-eastern Spain and human fieldwork in both Malta and Catalonia, the latter based upon Barcelona. A field course to Kenya (first run in 1998) has proved very successful, with over 30 students participating in 2001. Environmental geography became of importance in the 1990s with a compulsory first year course alongside human and physical courses and opportunities to extend interests in the second and third year options.

Careful attention to teaching methods and quality has been an important hallmark of the department’s activities. In a number of respects, including full documentation of course materials, modular course structures, the adoption of agreed marking criteria and the institution of “away-days” for strategic discussions, the department has been a pioneer within the University. Often the Departmental practice has gained a wider currency, as for example with the successful book How to do your dissertation in Geography and related disciplines (Parsons, A.J. and Knight P.G., Chapman & Hall, 1995)

The Geography department cultivated an outward looking perspective, especially from the late 1970s and has always been ready to welcome visiting staff from overseas and to encourage its own staff to teach in other institutions. The interests of many staff in Development Studies have fostered close links and exchanges with institutions and staff in countries including Australia, Canada, Hong Kong, Kenya, Fiji, India, Malta, South Africa and Spain. Between 1982 and 1994 the Department had a major British Council link with the University of Zimbabwe which saw a regular exchange of teaching and technical staff. More recently geographers have been very active participants in ERASMUS and SOCRATES exchange programmes within Europe. The Department set up and maintained a Geography Network with universities in Finland, France, Germany, Ireland, Spain, Sweden and the Netherlands. This, together with partner universities in North America, has led to regular teaching exchanges and also to approximately a dozen Keele geography students spending a semester abroad each year.

As with most Keele departments, student numbers at first were small in comparison with
current cohorts. Through the 1950s, 1960s and early 1970s an annual intake of around 35 first years was typical, but this figure jumped notably during the late 1970s, exceeded 100 per year in the early 1990s, and reached around 120 by 2000.

The physical geography lecturers and supporting technical staff continued their mainstream teaching and support of the Principal Geography programme after their merger into the Department of Earth Sciences. Between 1997 and 1999, what had effectively become a department of human geography was enlarged with the addition of lecturing staff in environment management transferred from other departments. Principal Geography and Environment Management were both administered within a department that was renamed briefly Environmental Social Science, until the creation of the new School of Earth Sciences and Geography in 1999. This new school reunited all the staff on the Principal Geography degree course, placed geography staff within the Sciences Faculty, and saw the conclusion of a period of turbulent change and uncertainty that had lasted for five years from 1994. Environmental Management is now taught from the School of International Relations, Politics and the Environment, and is a popular choice for students to combine with geography.

In 1999 new courses and structures were devised to allow three separate Geography degree programmes to be taught: these are Geography, Human Geography and Physical Geography. This has been accompanied by a significant increase in student applications that has more than offset the effects of the recent loss of the University’s Foundation Year. The reintegration of geography within the School of Earth Sciences and Geography from 1999 has greatly helped us respond to the current needs of Quality Assurance and the imperative to increase student numbers further to help underpin the finances of the School.

**The Teaching of Geology**

Professor Cope’s classes in the Foundation Year of 1950-51 must have been inspiring since as many as 24 students opted to join the first cohort to study principal geology, and subsidiary classes were well attended. When the University College was formally opened by HM the Queen (now the Queen Mother) in April 1951 she consented to examine a thin section at the new student benches, in the geology laboratory, the only University laboratory then operational! Later in the 1950s, students had the benefit of larger, more permanent facilities in the south wing of the new building. Principal geology numbers fluctuated through the 1960s, became larger by 1970, and a subsidiary course in geochemistry remained popular.

In 1974, a three-year degree course was introduced and this was taken up by about 20% of students. The Foundation Year became fundamentally altered in 1977 when ‘Topics' based on departmental subjects replaced discussion groups and essays, and continued until 1999. Also in 1974 a single-honours degree course for science students
was introduced based on a unique 2:2:1 pattern. One of the first Keele students to obtain a First Class single honours degree was a geologist, Tony Weighell. At this time, too, the Department brought in a new Subsidiary course, this time in geophysics.

During the 1990s several developments brought about profound changes in the pattern and mode of teaching and assessment of Geology at Keele. The availability of personal computers, enthusiastically welcomed by staff and students alike, and backed by substantial Departmental investment in both hardware and software led to a rapid increase in their use in the teaching programmes. This trend was reinforced by the participation of several staff members in a UGC/UFC funded initiative to develop computer-aided course-work in the earth sciences. This is also reflected by the inception, in the late 1980s, of an MSc taught course devoted to Computing in the Earth Sciences that continues to be popular and to fulfil a unique niche to the present time. It is also worth noting that all these developments would have been impossible without the ready support of the technical staff, many of whom re-trained in order to fulfil these new requirements.

Another significant development in the 1990s arose from a large grant received from the TEMPUS programme of the European Commission. Over a three-year period (1992-95) this enabled more than 40 individuals from a total of 7 Polish universities and research organisations to receive advanced training at Keele or with our EU partner, University College, Dublin. It also opened up several opportunities for collaborative research that are being exploited to this day. A profound change took place in 1992 when the academic year was split into semesters and courses were broken into modules. In some departments this allowed students to select different aspects of their subjects throughout their courses but in geology choice was restricted to the Final Year. This ensured that all received training in the basic components of the subject before specialising. It continued a pattern established in the 1960s of enabling students to concentrate on either ‘hard rock’ or ‘soft rock’ options, although the range of options is now much greater.

The total time spent on field courses has been reduced a little during the last 30 years, chiefly because of rising costs. Undergraduates now undertake an introductory week in Pembrokeshire, four days of introductory feature mapping based in Llangollen, 10 days detailed geological mapping instruction in Snowdonia and a week’s foreign field trip. At present the last is held in Almeria, southern Spain, but for many years it took place mainly in Norway with occasional visits to the Alps, Pyrenees or Brittany. Three weeks of independent mapping or other field-based project work are still required (more for single honours).

The combination of extended laboratory classes, fieldwork and supportive staff attitudes, has ensured a strong morale and sense of identity for geology student cohorts over the years, expressed for example by the active student society and the biennial Geology
reunions. There have also been effective linkages with the North Staffordshire Geologists Association on the one hand and the Education department on the other. A number of initiatives, including regular lectures, research publications and textbooks have been undertaken within this triangle, and over the years Department has provided support to the Association of Teachers of Geology (now ESTA) which was launched from Keele’s Education department. Keele remains the only University to train both geologists and teachers of geology.

The Subsidiary courses in geochemistry and geophysics were closed in 1992 but the current ‘Geology of the Planets’ is a popular option. The School also contributes half of the subsidiary course ‘The Earth’s Environment: Resources and Pollution’ and also contributes to the new course in Applied Environmental Science, introduced in 2000.

A new kind of four-year course was instituted in the late ‘90s for students reading two sciences other than biology. This was arranged by adding an extra year to the three of the Bachelor’s degree and leads to the degree of M.Sci.; both courses are studied in the fourth year which has a substantial research component. The School responded to the national trend to introduce 4-year geology courses by introducing the M.Geoscience degree (the first graduates will be in 2002). This allows students in their third and fourth years to be trained in geocomputing and advanced field techniques, and to undertake an advanced research project, as well as choosing from a range of geology and physical geography options.

**Research in the Department of Geography**

Research in Geography, as in other disciplines, remained for many years largely an individual effort. However, changes in the administrative, political and financial arrangements of the university sector prompted a move towards a more structured approach and greater collaboration, especially from the late 1970s.

The department always had an active research interest in, and commitment to, the local area and this research has commonly had a strongly applied basis. Originally this covered regional development and community issues and also the study of derelict land which has remained an active interest to this day. More recently local needs have been reflected in work done in medical geography and area health profiles. A strong thread of historical geography has also run through the department from the earliest days; this too has many local links although it also embraces wider national issues. In addition, transport geography, development studies, semi-arid and glacial geomorphology were all playing important roles in the department’s research profile by the late 1980s.

By the late 1980s/early 1990s research was increasingly clustered into three groups: Development Studies, Environmental Issues and Earth Surface Processes. Research was attracting substantial funding from bodies including ESRC, NATO, NERC, North
Staffordshire Health Authority, the Nuffield Foundation, the British Council, the Countryside Council for Wales, the Department of the Environment, the Swedish Agency for Co-operation with Developing Countries and UNICEF. The Department had three research centres, the Environmental Research Centre, the Centre for Regional Information and Research, and the Centre for Iberian Studies, all of which were active in academic research and consultancy. A series of Occasional Research Papers was published on a regular basis and the Journal of Iberian Studies was produced in the Department. There was an annual Keele Geographical Symposium with national and international speakers and members of the department were active in chairing, convening and organising conferences both in the UK and abroad. A thriving postgraduate community of typically around a dozen full and part time students added greatly to the department’s research ethos.

Among the varied conferences organised by members of the Department at this time were Small Island Development (sponsored by the Commonwealth Geographical Bureau); The Hydraulics and Erosion Mechanics of Overland Flow; China: the next decades; Spatial Databases (jointly with Computer Science). Several members of the department contributed to the major conference organised at Keele in 1993 for the British Association for the Advancement of Science.

In addition to a substantial number of academic books published by individual members of staff, several volumes have resulted from collaborative efforts within the Department or have emerged from conferences held at Keele. Examples include:-
Phillips A.D.M. (Ed.) 1993 The Potteries, Continuity and Change in a Staffordshire Conurbation, Alan Sutton
Kivell P.T., Roberts.P. and Walker.G (Eds.) 1998 Environment, Planning and Land Use Change, Ashgate
A further example from the era of the Department of Environmental Social Sciences is:

With a number of staff and organisational changes throughout the 1990s the research groupings and strategies of the Geographers have needed to change to reflect new circumstances and to take advantage of new opportunities. The umbrella research agenda for human geography at the time of entering the new School in 1999 was Environment, Development and Space, with component themes being: 1) rural livelihoods and economy in both developed and developing countries, 2) health and community provision, 3) land, policy and planning. A new generation of staff is notching up notable achievements, including continuation of the tradition of editing the book...
series on Development Geography, and obtaining major funding from the ESRC and DFID for political geographical research in India.

**Geology and Earth Science Research**

In the early years, research was carried out mainly by individual members of staff, together with their postgraduate students. Funding was from the University and occasional outside sources. The 1970 document of Professor Cope primarily classified the researches of staff by their geographic location, and only three staff were reported to have research interests overseas.

From the late 1970s onwards there was a great increase in overseas networking and research activities. Actively studied geological research locations included Greenland, Turkey and the Black Sea, North Africa and the Mediterranean region, France, Germany, China and the Appalachians/Labrador, as well as legs of the Deep Sea Drilling Project (1982) and Ocean Drilling Program (1989). Developments such as the interpretation of trace element XRF analyses and deep-sea sedimentation mechanisms brought wide recognition for Keele researchers.

A University funding crisis in 1982 led to some staff losses, but increasing attention to various aspects of research: organization, publicity and publication stood the department in good stead for the crucial test of the Earth Sciences review of 1988. At this time many geology departments were closed or merged across the country, but the achievements of the staff and commitment of Vice-Chancellor Brian Fender ensured that Keele survived in a “Joint Honours” category. The exercise also brought some useful capital funding for equipment. At this time two Research Groups, one for studies in Crustal Evolution and one for studies in Basin Evolution were formalized. The Crustal Evolution tag covered a wide range of “hard-rock” petrological and geochemical studies. Research in Basin Evolution had been strongly focused on sedimentological and stratigraphic studies, but their structural dimensions were now becoming increasingly emphasized and there was an extensive use of numerical modelling techniques alongside (from 1989) the teaching of the MSc course.

Amongst the many international conferences organized by staff at Keele have been the Second International Fluvial Conference (1978), Back-Arc Magmatism (1983), Carboniferous Sedimentation of NW Europe (1987), the Murchison Symposium (1989) and many contributions to the Geological Society's Geoscience 98.

The international links were well displayed by the large number of overseas research students and young academics passing through the department at this time. In particular, the training of 16 young Turkish scientists proved important in the development of geological research in that country. The first International Workshop on Turkish geology was held at Keele ('Aspects of the Geology of Turkey' Edited by Kelling,
Another strand of the numerical modelling work had been based on field geophysical observations. A remarkable common thread is the study of induced seismicity: earthquake activity stimulated by mining activities, and a feature of the North Staffordshire coalfield. The four UK chair-holders who have worked on this theme all did so at Keele. The increasingly competitive research environment of the 1990s led the University to agree to an expansion of geophysical staffing which has resulted in applied geophysics attracting a large concentration of researchers to Keele over the past few years with major funding from NERC, EPSRC, industrial and local authority sources. There was extensive monitoring work done in underground experimental laboratories, particularly in Canada, in the mid- to late 1990s. The current Applied and Environmental Geophysics group has a range of interests that include the detection and stability of underground excavations using microgravity and microseismology, the nature and responses to seismic events, and geo-archaeology.

Research in Basin Dynamics has continued to involve sedimentological, structural and geophysical modelling of basin evolution. Close contacts with the petroleum industry have been maintained throughout, but with substantial funding too from the NERC. Progressively more sophisticated models of sedimentary basin behaviour that allow basin history to be reconstructed in three dimensions have been pursued with commercial organizations. Research in this area in particular has greatly benefited from the trained manpower produced by the MSc course.

The change of Department name from Geology to Earth Sciences reflected the broadening to include physical geography research. A reconstituted Earth Surface Processes Group was formed in the new Department in the 1995-96 academic year and has been successful in developing its mission of investigation of fluid-solid interactions in glacial, riverine and karst environments and has a strong international profile. It has attracted funding from the NERC, the Royal Society, Earthwatch International and the European Community for work in Iceland, Greenland, India and cave sites throughout western Europe. Back-to-back international conferences, 'Iceland 2000' and 'Modern and Ancient Ice-Marginal Landsystems', were hosted in April 2000.

Two staff stand out in terms of the international recognition that they have achieved during their careers: Gilbert Kelling OBE, and Hugh Torrens, who has received the History of Geology medals from both the Geological Societies of London and America.
Looking Forward

Universities resemble foaming rivers in their constantly turbulent, constantly changing response to the imperative to find their most efficient way under the influence of external forces. Turbulent eddies in the water exhibit deterministic chaos which means that whilst it is impossible to predict the details of their future position, there is something called a strange attractor that constrains and guides them. For turbulent weather, the attractor can be thought of as climate. For University departments, the combination of popular courses and well-regarded research are the essential attractors for us to survive and flourish.

A number of important developments are in train to maintain the attractiveness of geology courses to a new generation for whom environmental issues are of particular concern. The term geoscience for example encompasses both the traditional knowledge and expertise of the geologist with a wider range of remits to serve society for the future. The popularity of geography at Keele is at an all-time high and the flow of initiatives from staff to enrich students' learning experience, despite reduction in unit costs, continues unabated.

In the increasingly competitive funding regime of the 1990s Keele’s management took some hard priority decisions. The decision was taken to consolidate geology with physical geography because of their scientific proximity, and to maximize income and prestige under the increasingly important Research Assessment Exercise (RAE). This has been a success and the latest RAE submission is undoubtedly the strongest ever. An unfortunate side-effect has been a loss of critical mass for a geography RAE submission. Geography undoubtedly remains a key subject for Keele and the injection of new research leadership in human geography is a priority for the School. The range and quality of research on public display during the naming day (and on our website at other times) speaks for itself.

The School as a whole, and the William Smith building in particular, provides a supportive and desirable location for research as does the University campus and its intellectual environment. Since such attractions apply also to potential students, and since we also have a terrific team of staff, we can have some confidence in the future.

Some Distinguished Graduates of the Departments

Alan Lees (geology/biology, 1954), retired Professor of Geology at Louvain (his daughter, Dr. Kate Bradshaw is similarly a Keele geology graduate holding an academic post in geology at the Open University)
Don Tarling (geology/physics 1957), Professor of Geophysics, University of Plymouth
Peter Worsley (geography/geology 1962), Professor of Physical Geography at the University of Nottingham (1983-1989) and Professor of Quaternary Geology at
the University of Reading (1989-1999) (retired).

Colin Bell (geography/history 1964), Vice Chancellor, University of Bradford

John Rea (geology/chemistry 1965) Deputy Vice Chancellor, Huddersfield, then Principal of the College of St. Marks and St. Johns

Julian Orford (geography/sociology 1971), Professor of Physical Geography, Queens University, Belfast

Jim Whitford-Stark (geology/chemistry 1971), Professor of Geology, University of Maryland

Chris Cornford (geology/chemistry 1971), international geological consultant

Michael Brown (PhD, 1973), Professor of Geology, University of Maryland

Paul Loubere (geology/biology 1975), Professor of Geology, Northern Illinois University

Mim Bernard (geography/english 1977, PhD 1982), Professor of Social Relations, Keele University

Ian Moncrieff (geography/geology 1977), RN Captain, Command of HM Endurance

Mike O'Connor (geology/physics 1979) Director-General of the Millennium Commission

Trudy Harpham (PhD 1981) Professor of Urban Development and Policy, South Bank University

Alan Westwall OBE (PhD 1991) Chief Executive, Dublin City Transport

Janet Spence (PhD 1993), Head of Geography, Liverpool Hope University

Staff in the School and its Precursor Departments

Current academic and academic related staff

Arranged in order of year of appointment; research groups: AEG (Applied and Environmental Geophysics); BD (Basin Dynamics); ESP (Earth Surface Processes); HG (Human Geography)

1967 Mr. Graham J. Lees, ALC3, Petrology and Environmental Geology
1968 Dr. A.D.M. (Tony) Phillips, Reader (HOD Geography 1994-97), Historical Geography, HG
1970 Dr. George Rowbotham, Senior Lecturer, Mineralogy and Petrology
1971 Dr. Philip D. Lane, Reader, Palaeontology
1972 Dr. Philip T. Kivell, Reader (HOD Geography 1991-94), Urban Geography, HG
1974 Prof. John A. Winchester, Petrochemistry
1975 Mr. Keith T. Mason, ALC3, Geographic Information Systems, HG
1979 Dr. Douglas G. Lockhart, Lecturer, Historical Geography, HG
1987 Dr. Peter G. Knight, Senior Lecturer, Physical Geography, ESP
1987 Dr. Ian G. Stimpson, Lecturer, Geophysics, AEG
1988 Prof. Graham D. Williams, HOD Geology 1993-95, Dean 1995-98, Pro-Vice Chancellor 1999-present, Structural Geology, BD
1989 Dr. Stuart S. Egan, Lecturer, Numerical Modelling and Dynamics, BD
1994 Dr. Andrew J. Russell, Senior Lecturer, Fluvial Geomorphology, ESP
1994 Dr. Glyn O. Williams, Lecturer, Development Geography, HG
1995 Dr. Ruth E. Murdie, Lecturer, Geophysics, AEG
1995 Ms. Elsbeth J. Robson, Lecturer, Development Geography, HG
1999 Dr. Nigel P. Mountney, Lecturer, Sedimentology, BD
2000 Prof. Peter Styles, Geophysics, AEG
2000 Dr. George Tuckwell, Lecturer, Geophysics, AEG

Honorary Professors: John D. Collinson and Stuart Burley, BD

Current support staff

1962 Malcolm J. Wright, Technical Services Coordinator
1966 Michael B. Edge, School Administrator & Meteorological Officer (formerly Departmental Superintendent in Geography)
1967 Peter Greatbach, Rock Sectioning, Geochemistry, CAD
1973 David W. Emley, Computing and Geochemistry
1973 Michael W. Stead, Accounts (formerly Departmental Superintendent in Geology)
1974 Pauline Jones, Secretary
1976 David Wilde, Rock Sectioning, Geochemistry, CAD
1978 Ian C. Wilshaw, Physical Geography (including Aqueous Geochemistry)
1980 J. Andrew Lawrence, Cartography and Curation
1986 Richard Burgess, IT and Photography
1989 Eva Palenicek, Secretary to Professor Williams
1998 Alma Wood, Secretary

The technical staff collectively run a commercial arm (KUDIS, Keele University Design and Illustration Services) for IT/graphical services (e.g. cartography and technical illustration, web-site design) which supports one salary and helps maintain a high level of IT/graphical output support within the School.

Current research staff are Dr. Quentin Crowley (Petrology and Geochemistry), Dr. Andrew Richards (Basin Dynamics), Dr. Nigel Cassidy (Geophysics) and Mr. Sam Toon (Geophysics)

Past academic staff appointed to the Department of Geography

1949-74 Prof. Stanley Beaver, Foundation Professor (HOD 1949-1974), deceased 1984, Economic Geography,
1951-54 Mr. Edward (Ted) Yates, transferred to Education department, Lecturer, Geography of Education
1951-63 Dr. William (Bill) Williams, Lecturer, later Professor University College, Swansea, Social Geography/Sociology
1951-64 Dr. Monica Cole, Lecturer, later Professor Bedford College, deceased 1993,
Biogeography
1954-79 Mr. Alan Walton, Lecturer, died in service (also Curator of Air Photo collection 1962-79)
1957-96 Dr. John Naylon, Senior Lecturer, Iberia
1960-99 Dr. Brian Turton, Senior Lecturer, Transport Geography
1962-65 Dr. David Herbert, Lecturer, later Professor and Pro-Vice Chancellor University College, Swansea, Social Geography
1964-72 Prof. Brian Rodgers, Professor, later Professor University of Manchester, Social Geography
1965-67 Margaret Mason, Lecturer, later Lecturer University of West Indies, Biogeography, deceased.
1965-79 Major Leslie Page (RE), Lecturer, deceased 1988, Surveying
1965-85 Prof. Edward Derbyshire, later Professor Leicester and Royal Holloway, now Chairman of the Scientific Board, International Geological Correlation Programme (UNESCO), Geomorphology and sedimentation
1966-96 Mrs. Sheila Walton, Air photograph library curator
1978-94 Dr. Frank Chambers, Senior Lecturer, later Professor Cheltenham & Gloucester CHE, Palynology and Quaternary Palaeoenvironments
1978-94 Dr. Anthony J. (Tony) Parsons, Senior Lecturer, later Professor University of Leicester, Geomorphological Processes of Semi-arid Regions
1980-95 Prof. David Drakakis-Smith, HOD 1989-91, later Professor University of Liverpool, deceased 1999, Development Geography
1981-83 Dr. John Beaumont, Lecturer, later Professor of Business Studies University of Bath, Geographical Information Systems
1991-94 Dr. Tanya Bowyer-Bower, Lecturer, later Lecturer SOAS, Development Geography
1994-97 Dr. Stephen Hinchliffe, Lecturer, later Lecturer Open University, Environmental and cultural geography
1994-95 Dr. Susan B. Marriott, later Reader University of the West of England, physical geography
1994-98 Dr. Joanna E. Bullard, Lecturer, later Lecturer University of Loughborough, Arid zone geomorphology and biogeography
1997-99 Prof. Michael R. Redclift, Professor (HOD Environmental Social Sciences 1997-99), later Professor Kings College London, Environment

Some other significant members of staff have been:
1984-present Marylyn Beech, Air Photograph Archivist (collection now administered by Information Services)
Long-serving members of the support staff include Geoff Barber (1957-82), Tessa Amplett (1966-75), Muriel Patrick (1973-92), Don Morris (1982-92) and May Bowers (1984-99)

In addition to the permanent staff listed above, there were a number of staff of post-graduate or post-doctoral status appointed to short-term Demonstratorship posts. Amongst those who have subsequently reached prominence in the profession (in addition to those who graduated at Keele) are:

Robin Butlin (1961-62), Professor of Historical Geography, University of Leeds
Steve Williams (1982-85) Associate Dean of Sciences, Staffordshire University

Past academic staff appointed to the Department of Geology

1950-76 Prof. F. Wolverson Cope, Founding Professor, deceased 2000, Palaeontology and stratigraphy
1951-53 Dr. R. Barrass, Assistant Lecturer, Palaeontology
1951-54 Dr. Frank Moseley, Lecturer, later Reader University of Birmingham, Petrology, Mineralogy, Geophysics, Stratigraphy
1952-53 Dr. A.F. Trendall, Assistant Lecturer, later Geological Survey of Western Australia and Professor Curtin University
1952-57 Dr. P. H. Shelford, Lecturer, Stratigraphy
1953-59 Dr. Maurice Stone, Lecturer, later Senior Lecturer University of Exeter, Metamorphic and Igneous Petrology
1953-65 Mr. Terry G. Miller, Senior Lecturer, later Professor of Geography University of Reading, subsequently Principal of University College Rhodesia, then Principal of North London Polytechnic, Stratigraphy & Palaeontology
1954-62 Dr. J.L.M. Lambert, Lecturer, later lecturer Wye College, then Lesotho, then lecturer in the British Geological Survey, London,
1954-67 Dr. T. P. Burnaby, Senior Lecturer, transferred to Computer Centre in 1967, deceased 1969, Palaeontology
1955-62 Dr. John E. Thomas, Assistant Lecturer, later Senior Lecturer University of Reading, Geochemistry
1957-85 Dr. Colin S. Exley, Senior Lecturer, Mineralogy and Igneous Petrology
1960-89 Dr. Robert A. Roach, Senior Lecturer, Igneous and Metamorphic Petrology
1961-64 Miss M.J. Barker, Curator
1962-98 Dr. Peter A. Floyd, Reader, Geochemistry and Igneous Petrology
1963-93 Dr. Brian K. Holdsworth, Senior lecturer, Stratigraphy
1964-88 Mr. D.G. Stephenson, Curator, later part-time Information Officer (1988-1993)
1967-2000 Prof. Hugh S. Torrens, Professor, Palaeontology and Stratigraphy, History of Science and Technology
1969-82 Dr. John D. Collinson, Senior lecturer (now honorary Professor), later Professor University of Bergen, then geological consultant, Sedimentology
1972-83 Mr. Edward A. Francis, Lecturer, deceased 1991, Quaternary geology
1974-76 Dr. Graham K. Westbrook, Lecturer, later Professor of Geophysics University of Birmingham, Geophysics
1977-85 Dr. Nicholas J. (Nick) Kusznir, Lecturer, later Professor University of Liverpool, Geophysics, Geophysics
1985-96 Dr. Bernard M. Besly, Lecturer (now Honorary Research Fellow), later Senior Sedimentologist, Shell, Sedimentology and stratigraphy
1986-87 Dr. A.W. (Tony) Shelton, Geophysics, from Oman to head of Geology at Stoke 6th-form College, Geophysics
1989-96 Dr. Marek A. J. Piasecki, Senior Lecturer, deceased 1999, Structural Geology
1993-99 Prof. R. Paul Young, Professor (HOD 1995-98), later Professor University of Liverpool, Geophysics
1995-98 Dr. Shawn Maxwell, Lecturer, later researcher in industry, Ontario,
1995-99 Dr. John W. Stanley, Lecturer (in Adult Education department 1966-95)

Long-serving members of the support staff include Margaret Aikin (1968-99), Joan Collinson (formerly Cliff, 1968-82), David Kelsall (1963-95), Denis Leverett (the first Superintendent, 1951-73), Brian Page (1970 to 1980), Jane Massey (1962-77) and Hazel Tomkinson (1980-91).

In addition to the permanent staff listed above, there were a number of staff of post-graduate or post-doctoral status appointed to short-term Demonstratorship posts. Amongst those who have subsequently reached prominence in the profession are:

Russell Coope (1953-57), Professor at Birmingham and Royal Holloway
Ian Rolfe (1960-61), former Curator of geological collections at the Royal Scottish Museums
Bill Sargeant FRSC (1960-62), Professor at Saskatoon
David Macdonald (1980-82), Professor at University of Aberdeen
and.......
Geoffrey Boulton FRS (1965-66, and former Longton schoolboy!), Regius Professor of Geology and Vice-Principal at the University of Edinburgh, who will perform the official opening.

This review was prepared by Ian Fairchild with grateful thanks for text provided by Brian Turton, Phil Kivell, Colin Exley and Gilbert Kelling, and the numerous details provided by other members of the School.
William Smith 1546-1618, by Dr A.D.M. Phillips

Born in Warrington, Cheshire, and with much of his work being undertaken in north-west England, Smith could be regarded as the first recognizable geographer of the local region. He was amongst the earliest English scholars to employ a regional approach in the analysis of topographical data, his county surveys are amongst the first, and established many of the conventions of county mapping. In urban cartography, Smith was a major innovator, being the chief developer of the printed town plan in the country. Together with his many town profiles, Smith provided a remarkable early portrayal of the urban form in England.

William Smith 1769-1839, by Prof. H.S. Torrens

William 'Strata' Smith is a fine choice of person to commemorate in the name of our building. His 1815 map is a single-handed masterpiece made without state support, which inspired all other national Geological maps. He had close connections with Staffordshire and it is highly likely that he visited Keele on the 21st of August 1804.

Stanley Beaver, by Dr B.J. Turton

Stanley Beaver was foundation professor and head of the department of geography at Keele from 1949 to 1974. He always ensured that students had a thorough grounding in both human and physical geography and fieldwork was an essential component of the degree course. Beaver established the meteorological station on the campus and, as chairman of the grounds committee, had a significant influence on the physical development of the university site.

The Rt. Hon. Lord Cadman of Silverdale G.C.M.G. 1877-1941 by Prof. P. Styles

John Cadman was a native of Silverdale where he returned as Assistant Colliery Manager on graduating from Durham. Following a spell in Trinidad, he initiated the first B.Sc. course on Petroleum Geology whilst Professor of Mining at Birmingham University and later became chairman of the Anglo-Iranian Oil Company (now BP-AMOCO PLC). He was the first person to recognise the invaluableness of geophysics to play in geological investigations and persuaded the Geological Survey to carry out the first gravity survey in the UK over the Swynnerton Dyke, near Keele in 1927. He then successfully introduced the technology to oil exploration in Iran. He was also a pioneer in civil aviation and in television.