New initiatives

‘Project C’

In the heady days of the early 1960s, when the Vice-Chancellor and the heads of schools were contemplating the future of the Institute, several ideas were put forward for new research schools. The makers had always intended that there should be more than four schools, though they did not say how many more, or exactly how, when and why they should be founded. Now, with the original schools well staffed and securely funded, and the government smiling on tertiary education, the time seemed ripe for expansion.

Two proposed schools received consistent support: chemistry and biological sciences. Whenever these were discussed, John Jaeger revived his arguments for a separate research school of earth sciences. All three were established by the early 1970s, each for different reasons and in different ways. One grew out of the ANU’s existing research activities; another showed the University embarking on a new field of endeavour; the third was created chiefly because outstanding scientists were available. Together they suggest how the Institute evolved, both then and in later decades: not in response to carefully laid out plans, but rather as opportunities presented themselves in varying guises. Once established, the schools took different shapes and developed in contrasting ways.

Chemistry came first. Although there were strong academic reasons for pressing ahead with the biological sciences, the proposed chemistry school had a great advantage: there were men available to head it. This gave the University a persuasive argument to put to the Australian Universities Commission and the government. It seemed an opportunity too good to miss.

The idea for a research school of chemistry had been around at least since the mid-1950s, when there had been talk of recruiting Arthur Birch to a chair in one of the existing schools. It was revived in University House (where many grand ideas were hatched) one afternoon towards the end of the decade, when Frank Dwyer from the John Curtin School remarked to Hugh Ennor that there were several Australian chemists in Britain who ought to be back home contributing to Australian science. Ennor seized the idea and ran with it, first to his colleagues in the University, who offered enthusiastic support; and then to the expatriate chemists in Britain. This was just the job for a boots and spurs man. Once on his mount, he set out relentlessly in pursuit of his quarry.

Dwyer had in mind four chemists who had made a name for themselves in Britain. Birch, Professor of Organic Chemistry at Manchester, we have already met. The others were John Cornforth, also an organic chemist, who was at the National Medical Research Institute; and Ronald Nyholm and David Craig, who held chairs in inorganic and physical
chemistry at University College, London. In 1961, when Ennor first approached them, they were all in their early to mid-forties, with Birch, the eldest, separated from Craig, the youngest, by a little over four years. Three of them had been born in Sydney and the fourth, Nyholm, in Broken Hill. All had been undergraduates at the University of Sydney before pursuing postgraduate research in Oxford or London. While Comforth had spent nearly all of his career in Britain, the others had been together in Sydney in the early 1950s, Birch and Craig at the University of Sydney and Nyholm at the New South Wales University of Technology. By 1956 all four were back in Britain. Rarely had such an array of Australian talent in a single discipline been gathered overseas at any one time.

The first Craig heard of the ANU proposal was in the Express Dairy Café, not far from his department in University College, but out of sight and hearing of prying eyes and ears. There Ennor expounded in glowing terms the prospects of the new school, depicting (as Craig later remembered) ‘a kind of chemical palace ... which would house every piece of equipment, instrument or device known to the subject at that time. Liquid helium, piped to every lab, would flow at the turn of a tap.’ Craig was a little dubious, not least because he was already well equipped in his London laboratory. The others, approached separately by Ennor, expressed interest in the project, with varying levels of enthusiasm—sufficient, though, for Ennor to be able to return to Canberra confident that the project would go ahead.

Comforth dropped out early. (Remaining in Britain, he went on to share the Nobel Prize for Chemistry in 1975.) The remaining three nevertheless covered the field. Nyholm seemed keenest to return to Canberra. Flamboyant and extroverted, he was the model academic administrator and entrepreneur, with an assertive Australian manner and a reputation for getting things done. Birch, though more formal and reserved, also had rough Australian edges, strong opinions and a forthright manner. Craig, the only one of the three with a private school education, was urbane, moderate in tone, and a sobering influence on his colleagues.

Taking matters in hand, Nyholm drafted a submission for the Vice-Chancellor, which suggested that he and his colleagues be styled ‘Advisers’ on the development of the school. This arrangement, willingly accepted by Council, gave the project the necessary impetus. At the same time, it more or less bound the University to move at the speed set by the Advisers and accept their recommendations. History was about to repeat itself, in more ways than one.

Money was not a problem. During a visit to Canberra in October 1962, the three Advisers spoke forcefully about the proposed school as ‘a centre of excellence’ for chemical research and training (using a term that only later came into vogue). Borne along especially by Nyholm’s eloquence, the AUC was entirely won over; and early next year Cabinet gave the project the go ahead, subject to two of the three Advisers agreeing to accept chairs. Shortly afterwards, the University issued invitations to Nyholm, Birch and Craig to accept chairs in Inorganic, Organic, and Theoretical and Physical Chemistry. Hohnen, as the University’s agent, embarked on an epic exercise of persuasion, visiting Britain to assure the Advisers that the University would give them everything they asked for. Building plans were set in motion and Hohnen, with characteristic determination to
let nothing stand in the way of success, installed the architects for a time in London so that they could give immediate expression to the Advisers' requirements.

All this proceeded, over a period of two or three years, in secrecy: or rather the pretence of secrecy, since every time one of the prospective professors was seen talking to Hohnen, perhaps at an airport, the meeting was reported in Chemistry tea rooms throughout Australia. The proposed school was referred to as 'Project C', which fooled nobody, but at least reminded everybody that there was some distance to go before it became a reality.

Birch initially had many misgivings about coming to Canberra, and Ennor thought him the least likely of the three to commit himself. But encouraged by Hohnen, he started to think about the advantages the ANU had to offer, and before long he had accepted the invitation. Craig, more cautious by nature, was concerned about Australia's capacity to produce sufficient scholars to work with him in theoretical chemistry. Confronted with illness in the family, he withdrew from the project, but rejoined a few months later when his problems seemed resolved.

In the meantime, Nyholm was having second thoughts, suggesting when Craig dropped out that the project be deferred for three or four years. Hohnen complained to Coombs that he was fed up with this change of front. Craig's return promised to save the situation. But then the head of the Chemistry Department at University College suddenly died, causing Nyholm to ask for another postponement. Now everybody had had enough. Ennor warned Hohnen that Nyholm was 'very jittery and hard to pin down though if he did pull out now or later he could only do so by losing everyone's confidence and respect'.

Ennor provided the denouement, in circumstances which recalled the exchange with Florey eight years earlier. This time the confrontation took place at London's Tavistock Hotel, with Birch as witness and participant. Birch urged Nyholm to make up his mind, asking caustically if he intended to postpone accepting the University's invitation until it was time to retire in the sun. Then Ennor went at him 'quite mercilessly': 'A firm date, if necessary in a few years, or I report to the ANU that your attitude amounts to a refusal'.

Nyholm, now quite distraught, replied that Ennor should do what he thought he had to do.

Nyholm was not normally indecisive. But on the large question of whether to remain in Britain or return to his native land he was, like Florey and many other expatriate academics before and since, almost constitutionally incapable of making up his mind. Even after Ennor forced the issue, he desperately wanted to return to Australia and looked forward to applying for a chair some time in the future. But Britain held him in its grip. As well as the need to pay what he saw as a debt to University College, he took deep pleasure from his place in the British chemical world. Here was 'the boy from Broken Hill', as Birch remembered him, with the prospect of a knighthood and the presidency of the Chemical Society before him. He achieved both before his premature death in a car accident in 1971.

The incident at the Tavistock put an end to Nyholm's association with the new research school. Nevertheless, he deserves to be remembered as a driving force behind the project and as a creative hand in giving the school its shape. Shortly after what Huxley referred to as Nyholm's 'defection', Birch and Craig formally accepted the University's invitation and 'Project C' was revealed to the world as the fifth research school.
From the time they first started thinking about the proposed school, Nyholm, Birch and Craig had expected it to be different from its predecessors. Doing most of their planning in Britain made it easier to depart from established forms. While members of the University were sometimes troubled by this spirit of free-thinking, they were hardly likely to put obstacles in the way of success.

The new school was planned to be novel in three major ways. First, on Nyholm’s initiative, the Advisers decided that there should be no departments. Chemistry presented a special case for a non-departmental structure, since in recent decades the discipline had changed so much that traditional divisions were no longer especially relevant. While there was benefit in having professors with expertise in the traditional areas of organic, inorganic and physical chemistry, new research tended to straddle these fields. The structure of the school should therefore allow for complete flexibility, achieved through ‘research groups’ which would work under the direction of an outstanding, and not necessarily senior, researcher, and would come and go as projects ran their course and new opportunities appeared. The group structure, moreover, would allow the facilities of the school to be available to all, avoiding the constriction of historical budgeting which seemed endemic in departmental systems. The Advisers also put much thought into planning a building to allow for flexibility. While each of the three main branches of chemistry would have its own floor, this was to make best use of equipment and infrastructure rather than to impose artificial limits on fields of research.

The second innovation was that the school should have no director. The original schools had been administered by deans chiefly because no director was available; now the chemists suggested that a system of short-term deans was inherently better than having a long-term director. Given that the three prospective professors were of similar age and standing in the scientific community, the notion of one of them ‘directing’ the work of the others seemed particularly inappropriate; and none of them wished to sacrifice science for administration, as Ennor had done. The Advisers also identified a structural reason for preferring short-term deans over a long-term director. In a non-departmental school, where resources were subject to frequent reallocation from one research group to another, the head would be more powerful than in a departmental school, where financial control resided in the departments. It was therefore more than usually necessary that the head should enjoy the trust of his or her colleagues; and the Advisers, well aware of how universities worked, understood that a head of school had a much better chance of winning that trust if his or her term of office was strictly limited to three years. With some misgivings, the Board of the Institute agreed to a system of three-year appointments; and when the Research School of Chemistry (RSC) was inaugurated in 1967, Birch was installed as foundation Dean.

These initiatives were radical enough: the third presented a philosophical and physical challenge to the structure of the University. One of the Advisers’ concerns before they committed themselves to Canberra was that there should be enough junior staff and students to allow them to pursue their research. Where students in the social sciences tended to work on individual topics, often isolated from the work of others in their department or school, natural science students usually formed part
of a team with other students and staff members. Chemistry was one of those areas where research was labour-intensive; and if there were too few bright scholars to conduct experiments, the larger projects could not be done.

So a good supply of postgraduates was essential. Although the state universities might supply some, the Advisers knew that young Australians continuing to a second degree tended (more than their overseas counterparts) to remain at their alma mater, or at least in the same city. The solution for the proposed research school was to have an exceptional undergraduate school nearby. An undergraduate school already existed in the Faculty of Science, where Arthur Hambly had rapidly built up a strong teaching Department of Chemistry. Why not, the Advisers asked, integrate the department and the proposed school? As this seemed too radical, they suggested a close association, with staff in the research school participating in teaching and examining in the department, and staff and students in the department having access to the excellent facilities in the school.

It was all very well for the Advisers to say (and no doubt mean) that this arrangement was intended to be mutually beneficial. From Hambly’s point of view, their comments, especially those of Nyholm, could be interpreted in more ways than one. He could be forgiven for being suspicious, especially as there were people in the Institute who were ready to ride roughshod over the School of General Studies. Would his department become merely a nursery for the school? Worse still, would it lose its entitlement to postgraduate students, whose departure would sound its death knell? The Advisers worked hard to allay his fears, and eventually both parties reached an agreement which spelt out the relationship between the department and the school. Hambly remained wary, but he promised to try to make it work.

For members of the University administration, the proposed relationship between the school and the department was both exciting and worrying: exciting because it promised to thrust chemistry at the ANU to the forefront of teaching as well as research; worrying because it threatened the uniqueness of the Institute, and potentially the basis of its separate funding. The Advisers offered another challenge by proposing that the building for the research school be located adjacent to the Department of Chemistry, which had its own building facing University Avenue, in the heart of the School of General Studies. Some members of the Institute objected, urging that Chemistry should be placed near the other natural science schools along Acton ridge. But the Advisers stood firm; and when staff of the John Curtin and Physical Sciences schools set out to attend the official opening of the Chemistry building in 1968, they had to allow themselves time for a five to ten minutes walk. Within a few years the department and the school were physically linked by a chain of new laboratories. The location of the school may have undermined the geographical integrity of the Institute; but it also held out the prospect of helping to bring the University together as a whole.

As had always been intended, the school was open to research in any field of chemistry. The first research subjects were chosen, as Birch wrote in his initial report, primarily because they were ‘lively, challenging and difficult topics, of fundamental interest in the strict sense of the term’. That meant that they were not inspired by the prospect of short-term practical benefits; though Birch was careful to add that many of
the projects had potential long-term applications in the Australian environment. While he and Craig remained jealous of their right to pursue fundamental research, they also recognised that chemists were expected to produce results that were useful. There was therefore a broad understanding within the school that about a tenth of its work would be directed towards national needs, relating perhaps to agriculture, industry or mining, so as to demonstrate visibly and convincingly that the school was ‘paying its way’.

Within a decade of the opening, research in several areas suggested that the school would realise the high hopes of its founders. Alan Sargeson, an experimental inorganic chemist, discovered a means of trapping metals in molecular ‘cages’, which promised many practical applications. Lew Mander, who joined the ANU in 1975, led investigations into a group of natural compounds call gibberellins, which have profound and varied effects on plant growth. While Mander had begun this research many years earlier at the University of Adelaide, the research school gave him the time and resources to bring it to fruition. Before long, he and his team were producing synthetic or modified gibberellins to order, with large potential benefits for agriculture and side-benefits for other areas of applied chemical research.

### Biological Sciences

At times, when the problems of luring the chemists to Canberra seemed insoluble, some senior members of the University suggested deferring the proposed chemistry school and promoting a school of biological sciences instead.

Sir David Rivett of the CSIR had argued for a biological science school as early as 1946, but Coombs had overruled him on the grounds that it was safer to get the four original schools well established before introducing new ones. The idea was raised again in 1961 by the Australian Academy of Science. The Academy, founded in 1954, was itself largely the creation of ANU and CSIRO scientists. Lately ensconced in an igloo-shaped building just outside the campus, it enjoyed a symbiotic relationship with the University, giving ANU academics who were also members of the Academy an opportunity to play a prominent part off campus in scientific initiatives which might have a direct impact on the ANU. At the time the school of biological sciences was being discussed, Frank Fenner was the Secretary (Biological Sciences) in the Academy, and therefore well placed to exert the necessary pressure.

The main argument for a school of biological sciences was simply expressed in a letter to Fenner from several biological Fellows: while astronomy and space research were receiving large sums of money, Australia’s flora and fauna were being grossly
neglected. The Academy responded by setting up a Flora and Fauna Committee, whose members included Fenner, Ennor and Huxley; and as a result of its report Fenner drafted a letter for the President of the Academy to write to the Vice-Chancellor, Huxley, urging the creation of a research school of biological sciences and pointing out that Australia’s flora and fauna were ‘unique, to a greater degree even than the southern heavens’. Fenner then handed the letter to Huxley, who was at this time his opposite number in the Academy, as Secretary (Physical Sciences). Huxley quietly put it into his top drawer lest it get in the way of the chemistry proposal, an object lesson in the dangers of not sending mail through official channels.

But there was sufficient enthusiasm for the initiative, especially among the professors of the John Curtin School, to keep it alive. In order to develop a detailed plan, Fenner, now on leave in Cambridge, approached David Catcheside, Professor of Microbiology at the University of Birmingham, who had lately been considered as a likely prospect for a proposed chair of Genetics in JCSMR. In 1963 Catcheside accepted the chair, along with the formal title of Adviser of the projected school. Unlike the earlier Advisers and the three chemists, he was not Australian or New Zealand born, but four years in Adelaide as Professor of Genetics had established his Australian credentials. He was also older than the other Advisers at the time of their appointments, although he looked and sounded younger than his 54 years. While some regarded his work as a little old-fashioned, meaning that he was not directly engaged in DNA research, he was enthusiastic about his subject and had shown no signs of decreasing productivity.

Over many years, Catcheside had become convinced of the need for an integrated approach to the biological sciences, based on genetics as the core discipline. Although his Birmingham chair was in microbiology, its purpose was to bring together genetics (especially microbial genetics) and biochemistry in what could later be seen as a sort of precursor to the study of molecular biology. The function of biology, he said, was ‘to explain the nature of life’. Traditionally, biologists had approached this task in diverse ways, and often quite independently of one another. They were concerned with animals, plants or microbes, with emphasis on particular groups or activities. They focused on individual organisms or whole populations. They employed different methodologies, broadly categorised as descriptive, biochemical, biophysical and genetical. As a result of this diversity, biology was divided into many separate and largely independent specialisms, such as embryology, anatomy, ethology and taxonomy, and others that were defined by the organisms that were the object of their study.

Yet biologists were coming to realise that they all had a great deal in common. ‘Living organisms’, said Catcheside, ‘consist of a limited range of special molecules, especially large ones such as proteins and nucleic acids, which are built up from a limited number of small basic molecules which are strung together in various orders... The whole range from molecules to population is a continuum, which it is the purpose of biology to understand as a whole.’ He therefore argued that the new school should abandon the traditional specialisms in favour of an integrated attack on four specific problems, each of which needed to be developed in Australia: the relation between molecular structure and function, with special reference to proteins and nucleic acids; the mechanisms of
development and differentiation; the dynamics of populations; and animal behaviour. The first two of these were at one end of the biological science spectrum, the second two at the other. As with the Research School of Chemistry, the school would have no departments and no boundaries, permitting easy adaptation to new research interests. Catcheside delivered a warning: the success of the integrated school would depend on staff and students in the various areas taking a lively interest in one another’s work.

Compared with the Chemistry school, the Research School of Biological Sciences (RSBS) progressed smoothly to a subdued inauguration in 1967. Catcheside, with most of his department, moved across from the John Curtin School as Professor of Genetics and first Director of the school, and professors were promptly appointed with expertise relating to two of the four selected fields: Ralph Slatyer, who was Chief Research Scientist in the Division of Land Research at the CSIRO, accepted a chair in Environmental and Population Biology; and Dennis Carr, Professor of Botany at Queen’s University, Belfast, came to a chair in Cellular and Developmental Biology.

Within a year it was clear that, while the idea of an integrated school might be sound in theory, it was extremely difficult to put into practice. Each of the new professors had his own research program, which bore no necessary relationship to what was happening in other parts of the school. And each was determined to see that his research area received its fair share of the available resources. Carr argued that differences in terminology and methodology among the various branches stood in the way of adequate communication, making integration all but impossible.

These problems were compounded by accommodation arrangements. Where the chemists had insisted on the need for a single building at the outset, Catcheside thought the building could wait. As a result, the staff were scattered—Slatyer in RSC, Carr in a timber block near JCSMR, Catcheside and his own small group in another part of the timber building, and the rest of Genetics in JCSMR—and people from distant groups rarely had the chance to talk to one another, even if they had wanted to.

Catcheside tried to forestall the inevitable, arguing that it was easier to create a departmental structure than to break it down. But less than two years after the school’s inception, he had to accept that the existing informal divisions were departments in all but name, and that therefore they might as well be given the same degree of budgetary autonomy that departments enjoyed in other schools. So the four original research ‘problems’ were converted to departments of Genetics, Developmental Biology, Environmental Biology and Behavioural Biology, supplemented by two units (a term recently introduced in other parts of the University) of Molecular Biology and Taxonomy. Before long, two new departments were added, in Neurobiology and Population Biology. Catcheside continued to argue that integration was the way of the future; but by the time of his retirement in 1972, the departments and units were well entrenched. Although a new Director, the former Master of University House, Sir Rutherford Robertson, and a new permanent building, mostly occupied by 1973, helped in different ways to bring it together, a later review committee described the school as a set of watertight compartments, some with imperial and separatist heads.

Why had Biological Sciences failed as an integrated school where Chemistry had
evidently succeeded? Part of the answer lay in the nature of the respective disciplines, the one relatively coherent, the other divided into any number of sections and subsections which had evolved over many decades. Then there was the practical matter of dispersed accommodation. But most of all, Biological Sciences suffered from the structural weakness that the Chemists had avoided, of having a director of a non-departmental school. Catcheside’s job was almost impossible. And he was not the person for an impossible job. Birch and Craig, though very different from one another in manner and style, were as one on the things that really mattered, and together they made a formidable team. Catcheside, while strong in his opinions about the benefits of integration, lacked the assertiveness and leadership skills to give them effect, especially in the face of determined opposition from one of his professors.

Although Catcheside lamented the failure of his integrated structure, the respective departments were achieving a great deal. By 1975 the school had 65 academic staff and 50 research students, working on living matter ranging from the smallest organisms to humans. The report for that year described major achievements in all departments, referring to ‘the exciting atmosphere in which advances in much of our knowledge are made’. The Department of Neurobiology was working on problems of vision and hearing in insects and crustaceans, which had relevance throughout the animal world. The Environmental Biologists were conducting research into the process of photosynthesis. The Behavioural Biologists, exploring the mechanism of memory, had discovered a class of biochemical inhibitors which blocked a specific process in brain cells and in so doing blocked short-term memory in fish, chickens and humans. The Geneticists were investigating how nitrogen is brought by bacteria from the air into the soil. The Developmental Biologists were using an electron microscope to analyse the fine structure of plant cells, while the Molecular Biologists were seeking to understand the mechanism of protein synthesis. The Department of Population Biology, although mostly concerned with the dynamics and genetics of insect populations, was beginning an analysis of a large sample of medical records from Sydney in order to study the inheritance of susceptibility to certain diseases in humans. All this was fundamental research, aimed at understanding biological principles, but often within easy reach of practical applications.

Earth Sciences

In the Research School of Physical Sciences, John Jaeger’s Department of Geophysics had gone from strength to strength. A succession of notable appointments enhanced its geochemical capacity, and in 1964 it was renamed the Department of Geophysics and Geochemistry to acknowledge its wider ambit. As well as being the largest department in the school, it remained the most productive in terms of the total output of research papers.

Its work continued to concentrate on the earth’s crust and interior, often with practical applications. The most extensive program, conducted in collaboration with the
Commonwealth Bureau of Mineral Resources, studied the ages and isotopic compositions of rocks in Australia, India, Ceylon, New Guinea and the Pacific islands, providing further support for the theory of continental drift and constructing the essential framework for large-scale mineral exploration. Convincing evidence of the department’s growing international reputation came in 1969, when several members were chosen by the United States National Aeronautics and Space Agency (NASA) to carry out research on lunar rock samples brought back by the Apollo space missions. This participation in lunar research was greater than that of any other institution outside the United States.

Each new achievement seemed to reinforce, in the eyes of its members, the department’s case for independence. In the late 1960s it moved into its own building, which strengthened its integrity while distancing it even further from the rest of the school. Jaeger, looking forward to retirement in 1972, started a new campaign for a research school of earth sciences with a hefty push, then left it to his protégé Ted Ringwood, who had joined the department in 1959 and was now Professor of Geochemistry, to keep up the momentum. Ringwood and his departmental colleagues offered some persuasive arguments, based chiefly on the potential of a separate school to develop new areas of research which were of vital social and economic significance to Australia but were currently inadequately catered for. These included environmental geochemistry and the sciences involved with the formation and nature of mineral deposits.

The case for earth sciences was quite different from earlier arguments in favour of the other new schools. Chemistry and Biological Sciences were entirely new initiatives, each opening up areas that the University had so far largely ignored (except, perhaps, through the departments of Medical Chemistry and Genetics). A school of earth sciences would be created from something that was already there and would involve breaking off part of an original school. Fission, as the Physical Scientists liked to call it, threatened not only their school but the structure of the Institute as a whole.

Staff in RSPhysS became increasingly divided on the issue, with Titterton, encouraged by Oliphant, leading a determined opposition. The critical question was: where would it all end? Would other parts of Physical Sciences—astronomy, engineering, mathematics, nuclear physics—be hived off in the same way? Why incur the administrative cost of setting up a new school for research that could just as well be accommodated by existing arrangements? Oskar Spate, a relatively disinterested observer, assumed that the opposition had, at least for the time being, won the day:

... I fear
  Jack Jaeger’s grand and sacred mission
  to propagate himself by fission
  goes by default, to tamely shift
  into mere Continental Drift ...

But the Vice-Chancellor, Crawford, was determined that the proposal should be given a fair hearing, especially since Titterton, notwithstanding his position as Director, was so obviously a fierce partisan. At a tense Council meeting late in 1972, Ringwood and
Titterton were summoned to present the cases for and against. Ringwood spoke first, with numerous bullish references to the importance of geology in the mining boom and the national need for geoscientists. What he did not do was to establish a convincing case for a new school. Ian Ross, attending his first Council meeting as representative of the deans of the faculties, concluded that all Titterton had to do was to say that the case was not proven, and offer to answer questions. But that, Ross remembered, was not the Titterton way: 'with all the subtlety of a pit bull terrier he went on the attack, a bitter attack on Ringwood and his colleagues'.

The protagonists withdrew, leaving most councillors with no doubts as to why the earth scientists wanted to be and had to be in control of their own destiny. The question was put to the vote and the new school was approved on the voices. 'In fifteen dramatic minutes', said Ross, 'Ernest Titterton had created a new Research School'. The 'unconscious midwife', Spate recorded, had given Earth Sciences the kiss of life.

Titterton was not finished yet. After the decision went against him, he wrote to senior earth scientists in various parts of the world, including prospective applicants for Jaeger's chair, telling them (in words that were, at best, disingenuous) that the school had been created against the wishes of his own school, the heads of the other schools and a majority on the Board of the Institute, and supported only by members of Jaeger's old department and 'a small, but vocal, group on Council'. 'If you have any views on the matter', he wrote, 'I would be very glad to hear them and if you would be interested to read it I would happily send you, in confidence, detailed information on the problem'. The appeal to professional colleagues outside the institution was a tactic familiar to anybody associated with any university. Titterton's blatant use of it got him nowhere.
The Research School of Earth Sciences (RSES) was formally created in mid-1973 and Anton Hales, a South African who was Director of the Institute of Geological Sciences at the University of Texas, was recruited to head it. Rather than breaking into separate departments, the school inherited the structure of the old Department of Geophysics and Geochemistry, with groups that varied in size and number. Its work was extended to cover the motions and dynamics of the sea and atmosphere, and soon there were new appointments in Geophysical Fluid Dynamics and Economic Geology. Staff maintained such a high and steadily increasing rate of productivity that before long the proponents of a separate school could claim that their case had been justified.

Spate had feared that the creation of Earth Sciences might lead to Balkanisation of the Institute. It did not; but it did contribute to Titterton’s undoing. In 1968 he had been appointed Director of RSPhysS for a period of five years on the understanding that, unless grave difficulties stood in the way, his appointment would be renewed. In the ensuing years, Titterton alienated Crawford and various members of Council, while his conduct within the school (notwithstanding his earlier support for a more democratic faculty structure) was so tyrannical that many staff rebelled openly. A reappointment committee concluded in 1973 that the unity of the school demanded that he must go.

The faculty of RSPhysS decided that it was not enough that he should cease to be Director: ‘it is our conviction that the attainment of harmony within the School ... will be difficult, if not impossible, unless Sir Ernest Titterton’s continued presence in the University is accompanied by measures designed to ensure that he is effectively isolated from the affairs of the School’. The Vice-Chancellor, Williams, obliged by setting him up in a separate unit, which denied him membership of decision-making bodies. Titterton protested that these measures were ‘unnecessarily harsh, legalistic and restrictive’, adding ironically that after 22 years devoted service he hoped the Vice-Chancellor was not expecting him to break out into some ‘wild excesses of an irresponsible nature’. That was exactly what Williams and his colleagues did expect. The ANU, like most other universities in the British tradition, was a very tolerant institution. Titterton proved that its tolerance had limits.

New teaching departments

The School of General Studies inherited from Canberra University College many of the core disciplines in Arts, Science, Economics and Law that were part of a traditional university, together with a traditional structure that located disciplines in departments. The exception was Law, which had a range of courses in
specific subject areas, but no departments. Oriental Studies achieved faculty status in 1961 (and changed its name to Asian Studies in 1970).

While some of the newer universities, such as Macquarie and Flinders, were introducing multidisciplinary schools without departments, SGS staff generally opposed experimenting with what some regarded as ‘gimmicky’. On the other hand, the University allowed students an unusually wide choice of degree structures.

The usual way of opening up a teaching area was by creating a department within an existing faculty. During the 1960s new departments were established in traditional disciplines, such as Classics, Geography, Theoretical Physics and German, and in newer teaching fields such as Sociology, Indonesian Languages and Literature, and South Asian and Buddhist Studies. By the early 1970s, the faculties covered most of the traditional disciplines and a few more. The AUC now decided that the departments had proliferated quite enough, and forced the University to make hard decisions about the optional extras. As a result, Prehistory was chosen in preference to Religion, and Fine Arts to Music.

Departments were created for various reasons: to split an existing large department, such as Mathematics, into its component parts; to meet an anticipated student demand; to cover a subject area which it seemed that any university, or the ANU in particular, ought to cover at a departmental level. As in the Institute, a department was sometimes formed when opportunity offered, perhaps when somebody especially well suited was available to head it.

The Department of Prehistory grew out of the remarkable work in Australian, South-east Asian and Melanesian prehistory that had been conducted in RSPacS, first in the Department of Anthropology and Sociology and from 1970 in a separate Department of Prehistory. The name Prehistory was chosen to suggest links with history comparable with classical archaeology’s links with the classics: in other words, to confirm the credentials of a new area of study. It drew together threads of various disciplines and subdisciplines—archaeology, anthropology, ethnography, geomorphology—into an integrated study of the distant past.

During the 1960s archaeological fieldwork, much of it conducted by members of RSPacS, had transformed understandings of Aboriginal Australia, dispelling myths associated with the ‘stone age’ and revealing a society much richer and older than most people had previously thought. John Mulvaney, who had attended Cambridge as an ANU Overseas Scholar in the early 1950s, joined the school as Senior Fellow in Prehistory in 1965; and Jack Golson, who had been a member of the school from 1962, was appointed Australia’s first Professor of Prehistory in 1970.

That year was described in the University’s annual report as an *annus mirabilis* for the prehistorians: F.J. Allen, who had studied the archaeological remains of early European visits to tropical Australia, became the first entirely Australian-trained archaeologist to receive a doctorate; Mulvaney and an Indonesian archaeologist, R.P. Soejono, led a joint Indonesian–Australian expedition to Sulawesi; Mulvaney published *The Prehistory of Australia*, a landmark work in the history of Australian archaeology; and Jim Bowler in the Department of Biogeography and Geomorphology discovered on the shores of former Lake Mungo in western New South Wales a human cremation site, calculated by
radiocarbon dating to be around 26,000 years old, so continuing the process by which Aboriginal antiquity was thrust back by successive millennia.

Mulvaney was keen to develop Prehistory as a teaching discipline, and Crawford, having witnessed the flowering of the Prehistorians in RSPaCS, recognised its potential. As the AUC would not permit the creation of a new department, the Vice-Chancellor circumvented the problem by appointing him to a third chair in the Department of History, where he received a fraternal welcome. Students enrolled in the new courses in large numbers, helping to give Prehistory a distinct identity; and by 1973, AUC rules had been relaxed sufficiently to allow the formation of a new department. Crawford wanted it to include Anthropology, which he considered to be an essential university discipline: so with Mulvaney’s agreement the department was named Prehistory and Anthropology, thereby admitting another new discipline by the side door.

Both sections of the department thrived, Prehistory under Mulvaney and Anthropology under Anthony Forge, a Cambridge graduate who had worked with Firth at the University of London. Mulvaney interpreted Prehistory widely. The breadth of his interests was reflected in the work of research students: Aboriginal bark paintings in Arnhem Land; the history of anthropology; industrial archaeology and land settlement in New England, New South Wales; the role of women in gathering shellfish in a north Australian coastal community.

Prehistory took its place alongside the traditional academic disciplines (though Mulvaney would insist that much of the department’s teaching and research had immediate implications, especially for Aborigines and their relationships with other Australians). Other new departments leaned more towards professional or vocational training. Although Canberra University College had been set up partly to serve the professional needs of public servants, during the 1950s professional studies (except for Law) had tended to be overshadowed by the traditional academic disciplines. After amalgamation the University developed new areas of professional training which helped restore the balance.

Forestry was one of the first, and it opened up large questions about the place of professional courses in a university. The Australian School of Forestry had been in Canberra since 1927 (as long as the federal parliament), just a few kilometres from the ANU in the suburb of Yarralumla. By an arrangement with most state universities, students pursuing forestry careers took two years of a university science course, two years of professional training at the School of Forestry, and were awarded degrees from their own universities. By the 1960s this arrangement had become unsatisfactory, both from the point of view of the school, which was unable to offer its graduates opportunities for postgraduate research, and of the universities, which were granting
degrees for work over which they had little control. The school needed a home on a university campus, and the ANU, with its national status and nearby location, obviously had strong appeal. So just after the government announced that Canberra University College would shortly amalgamate with the ANU, the school approached the University suggesting some sort of association that would lead to the creation of a first-class centre for forestry research and education. In due course, the government gave its backing and promised the necessary funding, and incorporation seemed set to proceed.

There were problems. One was the school’s desire to retain the Board of Higher Forestry Education, which comprised the Principal of the School of Forestry and representatives of the state universities and forestry services. From the University’s perspective, this would allow outside bodies an influence in matters over which its own academic bodies should have sole control. (It might well have seemed ominous that the current Chairman of the Board, who was also a member of the University Council, was the Managing Director of the Australian Newsprint Mills.) The difficulty was resolved by replacing the Board with an Advisory Committee, similar to the Board in composition and function but able to give advice only through the Faculty of Science. This placed solid academic protection between the new Department of Forestry and any potential and possibly improper external pressure.

The other problem was less readily solved. In the eyes of many members of the University, especially staff of the Institute already resentful about amalgamation with Canberra University College, a large question mark hung over the School of Forestry. Although forestry occupied an honourable place in many universities in Europe and the United States, they wondered whether it was a genuine university discipline. After all, the school made no secret of the fact that its main function was to train the professional practitioner, and that its purposes in seeking to join the University were both to give intellectual depth to its courses and to achieve the enhanced status which membership of a university would confer. In fact the school wanted more than mere membership of the ANU, arguing strongly for faculty status, which would lift the standing and autonomy of Australian forestry education in the eyes of other professions and forestry scholars in other parts of the world.

The dichotomy was not simply between ‘pure’ or ‘basic’ and ‘applied’ science.
Oliphant drew a distinction between teaching ‘creative applied scientists’, which was an appropriate role for a university, and training the ‘run-of-the-mill technologists’ required by industry, which should be conducted by improved technical colleges. While he was willing in principle to welcome forestry into the fold, he thought that the School of Forestry staff were not yet ready to become part of the University and that the infant Faculty of Science was not yet ready to receive them. Crisp, on the other hand, wanted to let them in now: ‘I do not share the view I have heard sniffily put at meetings over the past eighteen months by one or two of our leading Institute colleagues that we should not sully ourselves with practical and technological work’.

While most members of the University involved in the issue conceded that what the school did it did well, Lindsay Pryor, who as Professor of Botany in SGS and with a first degree in forestry was well placed to judge, remarked that the curriculum, influenced by non-academic advisers to meet the needs of the major forestry employers, ‘tends to develop too little the component of far-sightedness and intellectual inspiration desirable in a first-class academic course’. That was perhaps as good a description as any of what distinguished a university course from professional training; but it left plenty of room for debate in this and other cases.

Incorporation of the School of Forestry nevertheless went ahead, not as a separate faculty, but as a department in the Faculty of Science, which gave the University firm control over curriculum and academic standards. While there were academic arguments for and against, government support and money made it hard for the University to say no. J.D. Ovington, formerly Head of the Woodland Section of the British Nature Conservancy, was appointed foundation professor; and from 1965 the University offered a BSc (Forestry) degree, teaching initially from the Yarralumla premises and temporary accommodation on campus. Three years later the Department of Forestry moved into its own new building, which featured elegant timber panelling donated by forestry and industrial organisations from various parts of Australia and the world. This was nicely symbolic, not just of the subject matter, but also of the department’s links with the profession which provided jobs for its graduates and the main reason for its being.

The Department of Forestry grew rapidly, from an intake of 40 students in 1965 to over 80 a decade later. At that time, staff members defined their main objective as training professional foresters in ‘a multidisciplinary approach to the study and practical application of multiple use principles in the integrated management of forest resources’, with the subsidiary aim of catering for students in other areas who needed to know something about forest resource management. Teaching and research focused on environmental aspects of forestry, and reflected society’s increasing concern with renewable resources. As well as maintaining a strong association with forestry authorities in Australia, staff provided advice and technical aid to several developing countries in South-east Asia. By the end of the decade, Forestry was one of the largest departments in the Faculty of Science, with many postgraduate students, and well enough entrenched to ignore any lingering doubts about its status as a professional discipline.

If Prehistory was ‘academic’ and Forestry ‘professional’, the Department of
Accounting and Public Finance occupied the grey area between. Accountancy had been among the inaugural courses offered by Canberra University College when it began teaching in 1930, and Public Finance was introduced later in the decade to meet the needs of public servants. Both courses included a theoretical component, although Accountancy was chiefly concerned with nuts and bolts, such as the preparation, presentation and analysis of accounting reports, external audits, and the ethics of the profession.

Following amalgamation, Burton and other senior members of the School of General Studies wanted to develop Accounting (as they preferred to call it) to the status of a full university discipline and to offer an Accounting major, in close association with Economics and Political Science. While the new course would introduce students to basic accounting techniques, the emphasis would be on problems of accounting theory which interested economists, and problems of government and public authority accounting. This was a tall order, as there were few academic accountants in Australia, and fewer still with the necessary interests in public finance. But Burton had someone in mind, Copland’s former assistant and the University’s agent in London during the early 1950s, Russell Mathews.

Since leaving the ANU’s service, Mathews had been successively Reader and Professor in the Faculty of Economics at the University of Adelaide, where he had published a textbook *Accounting for Economists* and conducted research on areas including accountancy theory, taxation and income measurement. He was just completing a book on public investment which, when published in 1967, became the first systematic study of public policy issues on the expenditure side of public finance. Tall and imposing, but softly-spoken and unassuming in manner, Mathews knew as much about public sector accounting as anybody in Australia. He was just the right person to transform the course into a discipline.

Mathews took up the chair of Accounting and Public Finance in 1965, in a new department of the same name. The courses were rigorous, and first-year failure rates were alarmingly high, partly because the content was often not what students expected. Teaching leaned heavily towards the theoretical, emphasising conceptual and analytical frameworks rather than technical forms and procedures, even omitting some areas normally part of professional training, such as bankruptcy law and practice and income tax law and practice. This could have been a problem for the many students who looked to Accounting to provide a meal ticket, and in retrospect Mathews thought the professional institutes were sometimes generous in accrediting ANU courses. His successor as head of department, Allan Barton, conceded that the utilitarian role of Accounting could lead to ‘goal conflict’; but he, like Mathews, insisted that in Accounting, as in all university disciplines, the primary function should be to train students to think analytically, and that they should not expect to achieve full professional competence by the time of graduation.
Women’s Studies

In the early 1970s there was little interest on campus in women’s issues. Although a branch of Women’s Liberation had been set up in Canberra in 1970 by a group of women meeting at the student house in Canning Street, and although some staff and students were active in the movement and the Women’s Electoral Lobby, formed two years later, the links between the University and the women’s movement were tenuous. If successive issues of Woroni were anything to judge by, the campus was a hotbed of male chauvinism (though probably no more so than other Australian universities); and while student organisations gave material support to women’s activities, the Union bar was often inhospitable to women who, inspired by the flood of (mainly American) literature on women’s issues, were seeking to find their own identities. Women’s issues were largely missing from the academic curriculum, except for occasional lectures and seminars in Classics, History, Political Science and Sociology.

The women’s movement on campus became suddenly vigorous in 1974. At the beginning of the year a group of students published a women’s handbook. Then Liz O’Brien, a radical feminist and former part-time student who had lately returned to full-time study in Arts, introduced the idea of a course in women’s studies. Assertive and voluble, with clear ideas of where the women’s movement ought to be headed, O’Brien had attended a conference in Melbourne on feminism and socialism, where there had been discussion of courses devoted to women, including a women’s studies program that had been set up at Flinders University the preceding year. Returning to Canberra, she presented a forceful case in favour of a women’s studies course at the ANU to the mass meeting of students in the Union forecourt which signalled the beginnings of the Troubles. The proposal went to Council, along with the demands relating to assessment, overcrowded classes and the control of courses. By comparison with these other demands it seemed fairly innocuous, and easily cleared the first hurdles.

Several months of lively debate followed. In the Faculty of Arts, discussion of the issue was brought forward when Thelma Hunter, a diminutive Scot and Senior Lecturer in Political Science, cheekily asked for permission to speak on the subject before the effects of her Valium wore off. Manning Clark told faculty that he wished there had been such a course when he was an undergraduate so that he might now understand what went on in the heart of a woman. Several members argued that women’s studies were not and could not be a serious academic pursuit, and at least one professor portrayed the proposed course as a threat to family values.

The sharpest disagreements took place among those who supported the principle of women’s studies, but were deeply divided as to how and where they should be taught.
O’Brien demanded a multidisciplinary course dedicated to women’s studies: ‘Women are not a minority group—their role must be examined in an integrative manner, not piecemeal’. Hunter, who had already demonstrated her commitment to studying women through her lectures and seminars in Political Science, feared that such an approach would be self-defeating, reinforcing the segregation of the sexes within the University and leading to a course ‘about women, for women and by women’ which would become marginal to the mainstream curriculum. She wanted women’s studies to permeate the existing disciplines, so that teachers in existing departments, women and men alike, were obliged to read and teach the relevant literature. The radical feminists hoped for this outcome too, but were convinced that without a dedicated course they would never achieve it.

The debate, in terms of feminist theory at the time, was between revolutionaries and reformists. The reformists, mostly staff members, conceived women’s studies in the context of traditional academic disciplines, whose emphasis they sought to change. The content of women’s studies courses should be decided by the women of the University, but by members of staff, irrespective of their sex, who had expertise in the area of study. The revolutionaries, mostly students but also a respected Lecturer in History, Daphne Gollan—viewed women’s studies as a manifestation of the women’s movement and a means of challenging existing social and political structures. Unless it had a continuing link with the movement, women’s studies risked a descent into ‘arid and incestuous scholasticism’.

The revolutionaries won. After extended and often heated discussion, a separate women’s studies program was approved for introduction in 1976. A historian, Ann Curthoys, was appointed to run it, and she developed a course which was both academically rigorous and adventurous in incorporating current feminist thinking. The course, offered only to students who had successfully completed a full first-year unit in a relevant Arts department or the interdisciplinary program in Human Sciences, ranged widely across issues and disciplines, exploring for example women and literature, women in developing countries, and sex differences and psychological processes. It quickly proved popular, especially among female mature-age students, and attracted strong student loyalty. A second course was added in 1978. Susan Magarey, who succeeded Curthoys that year, described her first year as coordinator as ‘an electrifying experience’. Students were enrolled not merely because they wanted another unit towards a degree, but rather because they wanted to read and discuss the rapidly expanding literature that the Women’s Movement was producing.’ No other course so comprehensively blended personal and academic interests. The program also explored new methods of teaching and assessment, and new ways of transfusing the disciplines.

Yet in one important respect the reformists had been right. Within the University, the program was widely regarded as marginal. While Magarey worked hard, with
some success, to introduce women’s studies into other departments, she lamented
that few colleagues consulted her about how to integrate what were now being
referred to as gender issues into their curriculums. Program staff, whose first
allegiance was to the women’s movement, developed strong links with women in the
public service and other institutions, and gave the program a high national visibility.
But within the University, Women’s Studies could easily be ignored.

Building bridges

In addition to departments, the University’s academic structure included centres and
units, sometimes referred to as a ‘third dimension’. These were mostly located within
one of the research schools, although there were some within SGS or straddling both
sides of the University. Most served specific research needs not well covered by existing
departments or disciplines; a few, such as the Computer Centre (established in 1964) and
the Office for Research in Academic Methods (1973) performed service functions. Apart
from adding to the University’s already generous supply of acronyms, the units and
centres encouraged flexibility and helped break down departmental barriers.

There were nearly as many reasons for their establishment as there were centres and
units: the History of Ideas Unit (1967) acknowledged the outstanding work and
entrepreneurial zeal of Eugene Kamenka in the Department of Philosophy, RSSS; the
Electron and Ion Diffusion Unit (1961) enabled Huxley to maintain his research interests
while Vice-Chancellor; the Urban Research Unit (RSSS, 1965) and the Contemporary
China Centre (RSPasS, 1970) provided a focus on contemporary issues for existing staff
members within their respective schools. In 1973, when there were about twenty such units
and centres, one professor remarked that they were ‘mushrooming all over the place’.

Two of the largest and most successful were the Centre for Resource and
Environmental Studies (CRES) and the Humanities Research Centre (HRC). CRES,
which was chiefly Crawford’s creation, owed much to growing national and
international concerns about the deterioration of the environment. In 1966 a
committee recommended against the University embarking on undergraduate
teaching in agriculture, which had been mooted for some time, proposing instead the
establishment of a centre or school devoted to research and training in natural
resources and environmental problems. Following AUC approval of revised plans, the
Centre for Resource and Environmental Studies was established in 1972 and the
following year Frank Fenner, now in his sixth year as Director of the John Curtin
School, was appointed Professor of Environmental Studies and its first Director.

Fenner’s interest in environmental issues grew out of his work as a virologist,
including research on the ecology of myxomatosis and later work on viral diseases in
human populations. In recent years he had contributed to various national and
international committees, including the Standing Committee on the Environment in the
Academy of Science, the national UNESCO Committee on Man and the Biosphere, and
the international Scientific Committee on Problems of the Environment; at the time of
his appointment he was Vice-President of the Australian Conservation Foundation. Presenting the case for a natural resources centre at the ANU, he wrote of the need to find a balance between economic development and human demands: 'The rational utilisation of natural resources in a way which is biologically, culturally and economically acceptable to man requires the skills and understanding of integrated groups of people of different disciplines brought together with the common commitment to seek solutions to the practical problems of natural resource management'. CRES would go part of the way towards meeting this need.

Like CRES, the Humanities Research Centre was intended to develop fields of research that were not well covered by other parts of the University. The humanities were an obvious gap in the structure of the Institute, which Hancock and his colleagues in RSSS had proposed to fill by renaming their school the 'Research School of Humanities and Social Sciences'. The idea lapsed, as did later proposals for a humanities school comparable with the existing research schools. The decisive initiative came in the late 1960s when Richard Johnson in the Faculty of Arts proposed a school or research group in the humanities as a part of SGS. The idea won favour with the AUC, which recognised a large gap in humanities research in Australia. The result was the Humanities Research Centre, which started work in earnest in 1974 when Ian Donaldson, Professor of English in the Faculty of Arts and an expert in Elizabethan literature, was appointed foundation Director.

Unlike the research schools, the HRC was to have a core academic staff of only two or three people, who were to attract visitors, arrange lectures, conferences and exhibitions, and generally encourage work in the humanities at the ANU and throughout Australia in the broad field of 'European thought and culture and their influence overseas'. In 1975 the HRC was host to a dozen visiting fellows, four from within Australia and eight from overseas, who worked for several weeks or months in various areas of European history, philosophy, literature, music and fine arts. A conference on 'Problems of contemporary biography' was attended by 40 people, and another on 'Cultural developments in Australia in the 1890s' by over sixty.

CRES and the HRC were independent entities, structurally separate from both the Institute and the School. Although they were not created specifically for this purpose, Crawford saw them as 'bridges of great importance to the unity of ANU'. So they turned out to be: the HRC seminars regularly drew large audiences from the Institute as well as the School, and the CRES staff maintained close links with various parts of the campus. They helped counter suggestions that the ANU was two universities and deflected the barbs of resentment of Clark and others in the School.

Nevertheless, their independent existence was tenuous. A committee on centres and units in 1976 argued that, for the purposes of resource allocation and peer assessment,
both centres should be affiliated with either the Institute or the School. CRES resisted and maintained its autonomy; but the HRC, while keeping its separate budget, became affiliated with the Faculty of Arts. The twofold structure of the University resisted change.

Why were bridges necessary? Why not blend the two parts of the University into one, as individual staff members often suggested? For example, Germaine Joplin, a Senior Fellow in Geophysics, deplored the lack of cohesion between the Institute and the School, argued for a major restructuring by which the teaching departments would be incorporated into existing and new research schools. This, she said, would maintain the original concept of a research University while allowing a limited number of carefully selected undergraduates to work with senior staff in the existing schools, to their mutual benefit. Arthur Birch often argued for closer ties between the Institute and SGS, sufficient at least to permit Institute staff to contribute to an elite honours school.

But Crawford was adamant: ‘To face our future by concentrating on structural change as a means of providing greater unity in the University is to start at the wrong end’. Above all, he was determined to preserve the integrity of the Institute, for reasons that were both academic and pragmatic. While convinced that the concept of the Institute, as originally conceived, was worth preserving, he also knew that the University would surrender its claim to special treatment by the AUC and the government if the Institute lost its unique status. The challenge for the Vice-Chancellor was to ensure that the University as a whole benefited from the Institute’s singularity.

This demanded a deft political hand. In the University’s 1968 submission to the AUC, Crawford emphasised the common use of administrative, library and other resources by both Institute and School, arguing that the financial arrangements for the two parts of the University were so closely interwoven that they could not be unravelled. This was a risky strategy: the AUC concluded that University policy was to merge its component parts, and Crawford had to step in quickly to set the Commission straight. But the strategy worked. For the 1970–72 triennium, the ANU received a 37 per cent increase in funding compared with a 30 per cent increase for the combined state universities.

Despite the constraints of structure, Crawford’s initiatives—and other initiatives that he encouraged—went a long way towards promoting the intellectual unity of the University. At the time of his retirement in 1973, CRES and the HRC were pointing the way ahead, while a Graduate Degrees Committee had brought together coordination and innovation of postgraduate matters ‘without the slightest suggestion of political division between the IAS and the SGS’.

One objective had eluded him: he had been unable to find a satisfactory term to replace the offensive ‘School of General Studies’. This was achieved soon after his retirement in 1973 when the Deputy Vice-Chancellor, Noel Dunbar, suggested that the School be renamed ‘The Faculties’, as they were often described in common usage. The research schools, no longer jealous of their use of the term in relation to their own faculties, offered no resistance, allowing the name to be introduced formally when the ANU Act was next amended in 1979. While it may have seemed trivial, this simple change represented a major step towards making the University one.