An ‘Innovation’ at the South Australian School of Mines and Industries: A Town Planning Course in the Architecture Department 1949-1955

The Architecture Department at the South Australian School of Mines and Industries offered Australia’s first tertiary course in town planning commencing 14 February 1949. Described by one Adelaide newspaper as an “innovation”, the postgraduate program was open to qualified architects, surveyors and engineers. Its introduction marked the achievement of a key ambition of the newly established Town Planning Institute of South Australia (TPISA) to provide a local opportunity for appropriately qualified individuals to train in planning. South Australian architects Gavin Walkley and Louis Laybourne Smith played a prominent part in developing the planning course and securing its delivery through the Architecture Department. This paper examines the background to its introduction including the particular circumstances of post-war expansion in South Australia that fuelled the demand for locally trained planners; the role of professional bodies, notably the South Australian Institute of Architects and the TPISA; and the contributions of Walkley and Laybourne Smith. The paper outlines the original planning curriculum, noting an example of its nexus with the architecture syllabus, and reasons for its early revision. Additionally, it appraises the progress of the planning program to 1955, when the Adelaide Division of the Australian Planning Institute mooted a university school of planning.
Students attended classes in Australia’s first postgraduate course in town planning from 14 February 1949. The venue was the South Australian School of Mines and Industries (School of Mines) an institution that had been providing technical education in Adelaide for sixty years. The planning course was delivered through the Architecture Department which South Australian architect Louis Laybourne Smith established in 1906. Architect Gavin Walkley, a former student of the School of Mines and articled pupil with Laybourne Smith’s firm, played a prominent role in the introduction of the town planning course. Walkley’s relationship with Laybourne Smith and Laybourne Smith’s with the School of Mines were influential factors in the process of ushering in the course.

This paper explores the background to the establishment of the town planning course at the School of Mines, describes how it came into being and surveys its progress in the founding years. The background section sets the scene for the reception of the proposition that a town planning program be offered through the School of Mines. It introduces the School and Laybourne Smith’s connections and contributions to it and to selected architecture and town planning matters in South Australia and provides a brief account of the situation in regard to town planning in South Australia around the time of World War II. Professional and community concerns that gave rise to the post-war push for formal training in planning are revealed. The discussion of the town planning course at the School of Mines explains how the course came into being, refers to its content and offers a short profile of the early student cohort. Research for the paper has utilised primary archival sources and published texts.

South Australian School of Mines and Industries

The School of Mines was established in Adelaide in 1889 in the wake of the foundation of similar institutions in Sydney and Melbourne. A key factor influencing the timing of its formation was the discovery in 1883 of silver and lead at Broken Hill on the New South Wales-South Australia border that had a considerable impact on mining activity in South Australia. Adelaide’s School of Mines opened in temporary accommodation in the eastern annexe of the Jubilee International Exhibition Building (1887) located on North Terrace to the west of the University of Adelaide. The Exhibition Building was home to the School until 1903 when it moved into the purpose-built Brookman Building constructed on the North Terrace and Frome Road corner (east of the University).

The remit of the School of Mines was to provide technical education. Technical education was open to men and women who wished to improve their current knowledge and practical skills by combining their experience with up-to-the-moment technical training; such education was considered vital to the economic development of modern societies. The South Australian Chamber of Manufactures led lobbying of the state government to establish a School of Mines in Adelaide but the general public, reportedly alive to the School’s potential for wider community benefit, also supported its foundation. The School’s curriculum focused initially on subjects relevant to the “scientific teaching of mining” and to fostering the manufacturing
industries. With the latter objective in mind, and to accommodate students in daytime employment, evening classes were offered in “practical manual instruction and the industrial knowledge underlying the several handicrafts.”

Through partnerships brokered with the University of Adelaide (founded 1874) and the School of Design (founded 1861), students enrolled in the School of Mines were eligible to take classes in each of those institutions; similarly, students enrolled at the university or the School of Design could attend the School of Mines. Although some feared that the individual institutions would lose their identities through these arrangements, that was not the case; the partnerships were pragmatic and ensured that the institutions did not duplicate their offerings and were in a position to cooperate in sharing resources and infrastructure in an era before extensive government commitment to tertiary education.

“From the outset, the intention [of the School of Mines] was to offer as wide a range of subjects as possible, provided the public demand was there.” Normally, once the School received at least eight expressions of interest to study a subject it would consider introducing it. In its first year it offered a variety of daytime and evening classes including in dressmaking, carpentry, mathematics, physics, chemistry, geology and drawing. By the time the School moved into its new home in 1903 the curriculum had expanded to cover forty classes. By then too, it was graduating students who had completed the three-year associate diploma program of study in one of three fields: mining, metallurgy or mechanical engineering. One of the graduates was Louis Laybourne Smith who achieved the Associate Diploma in Mechanical Engineering in 1902.

**Louis Laybourne Smith and architecture at the School of Mines**

Laybourne Smith was born at Goodwood Park, a suburb of Adelaide, South Australia, and undertook his primary and secondary education in his home state. After leaving school aged 15 he moved to the West Australia goldfields where his parents, Joseph Laybourne Smith, an industrial chemist and dental surgeon, and Annie Rosalie (née Thomas) were based. Louis pursued a career in architecture and was articled for two years to A. A. E. Dancker in Coolgardie. Returning to Adelaide in 1898, he joined the office of architect Edward Davies and enrolled in night classes in Mechanical Engineering at the School of Mines. Awarded scholarships in his second and third years, he completed his studies in 1903 and was the first of the evening students to complete the four-year program (three years’ study and a minimum of twelve months’ practical experience) within the prescribed period. By undertaking further studies, in 1908 he converted his qualification to a Fellowship Diploma of the School of Mines and a Bachelor of Engineering from the University of Adelaide.

Laybourne Smith undertook his articles of apprenticeship with Adelaide architect Edward Davies and then worked as a draughtsman in the offices of several other Adelaide architects. Keen to explore further academic opportunities both for himself and for the profession, from 1903 to 1905 he was a part-time assistant lecturer in Mechanical Engineering at the School of Mines. He taught machine design, applied mathematics, building construction and mechanical drawing. In 1905 he demonstrated his aspiration to open up opportunities
for architectural education at the School of Mines by offering a class in building drawing to journeymen, building apprentices “and others interested”, and delivering a lecture on “Modern Building” in the School’s Free Popular Lecture series. At the end of 1905, aged 25, he was appointed Registrar of the School of Mines, a role that he held until 1914.

In his position as Registrar, Laybourne Smith was in regular contact with the President of the Council of the School of Mines Sir Langdon Bonython. Bonython was sympathetic to his ambition to introduce professional education in architecture. Laybourne Smith won the approval of the Council and the School of Mines established a Department of Architecture and offered an Associate Diploma in Architecture from 18 February 1906. Students studied twenty-two subjects over three years. The majority (sixteen) were available through the School of Mines but the remainder were taught at the School’s partner institutions, the University of Adelaide and the School of Design. A small number of practitioners taught in the course as part-time lecturers. At the School of Mines, Laybourne Smith’s friend and respected South Australian architect Walter Hervey Bagot was a keen ally and contributor until 1911 when he resigned due to the demands of private practice. Both Laybourne Smith and Bagot lectured on the history of architecture and in the design and architectural thesis subjects.

The School of Mines Annual Report for 1907 indicated that initial enrolments in the architecture course were “fair” – there were seven in 1907. Fuelled by his firm belief that architects should receive an academic training, over the ensuing years Laybourne Smith used his executive involvements in the South Australian Institute of Architects (SAIA) and later the Royal Australian Institute of Architects (RAIA) (founded 1930) to endeavour to boost enrolment numbers, including by making academic qualifications a requirement for architects to become members of their professional institute.

Laybourne Smith: private practice, professional affairs and town planning

Laybourne Smith resigned as Registrar of the School of Mines in 1914 and entered into private practice with Bagot and architects E.J. Woods and H.H. Jory to form Woods Bagot Jory and Laybourne Smith. At the same time, and for another 37 years until June 1951, he continued in the role of part-time Head of the Architecture Department at the School of Mines. The services of Woods Bagot Jory and Laybourne Smith were much sought after and the firm was well regarded in South Australia. Laybourne Smith combined an active life in practice with increasing commitments in the affairs of the SAIA and of national bodies like the Federal Council of Australian Institutes of Architects.

“In 1914 there was something of a livening up in architecture … [nationally] when W. Richard Davidge and Charles Reade visited Australia carrying the banner of town planning. Their lectures stimulated interest in the reform and planning of towns and housing.” The Davidge-Reade lecture series was organised under the auspices of the London-based Garden Cities and Town Planning Association and was known as the Australasian Town Planning Tour (ATPT). In Adelaide the SAIA, of which Laybourne Smith was secretary, along
with politicians, prominent citizens and community-based groups, was a strong supporter of measures to improve the urban environment and to promote well-designed housing. Some members, including SAIA president Henry Ernest Fuller, contributed to the foundation and activities of the South Australian Town Planning and Housing Association, a citizens’ pressure group established in 1915.

When the ATPT finished in 1915 the South Australian Government appointed Reade as Town Planning Adviser. (The position was elevated later to Government Town Planner.) One of his tasks was to draft town planning legislation. As SAIA secretary, Laybourne Smith was closely involved in stakeholder consultations and discussions with Reade. Reade subsequently invited him to prepare a general scheme for the layout of the state government’s model garden suburb at Mitcham. This opportunity exposed Laybourne Smith to current international thought about the emerging movement for town planning and to the principles that underpinned the mantra of planning “on garden city lines”. A wider professional and community audience was introduced to the concept and to the benefits of and current practices in town planning when Reade co-convened the First Australian Town Planning and Housing Conference and Exhibition in Adelaide in October 1917. He involved the SAIA executive and members in various aspects of the planning and organisation and in the program of speakers.

Whilst the 1917 conference was a watershed moment for town planning not only in South Australia but also nationally, it did not elicit support for professional training of town planners. Such training was then in its infancy overseas – the School of Civic Design, University of Liverpool, England, led the way from its foundation in 1909 – although calls to introduce formal training in town planning did not emerge in earnest in Australia until after World War II.

**Expansion and growth and the call for planning legislation and training**

Following World War II South Australia experienced considerable economic growth and diversification under the leadership of Liberal Premier Thomas Playford. His government assumed the political reigns in 1935. He became premier in 1938 and remained in that role until 1965. Taking advantage of South Australia’s involvement in war-time defence industry projects, Playford commenced an industrialisation program that shifted the state’s economy from predominantly agriculture and mining to manufacturing. At the same time he made “special efforts to promote and assist the search for, and development of, mineral deposits and especially new sources of energy.” He also supported the Commonwealth Government’s endeavours to boost post-war migration to Australia and readily encouraged the re-settlement of overseas migrants in South Australia.

The combined impact of Playford’s multi-pronged development initiatives not only stimulated the state’s secondary industry sector but also contributed to its population almost doubling between 1938 and 1965. Demand increased for new infrastructure and for housing, and metropolitan Adelaide and a number of country towns grew accordingly. For example, Elizabeth (1955), modelled on the British New Towns, was established north of Adelaide.
to accommodate workers at a new and enlarged site for car-manufacturer General Motors Holden. The regional town of Whyalla, on Spencer Gulf, expanded from the early 1940s in response to new employment opportunities at the Broken Hill Proprietary Ltd smelters and shipbuilding yards.

The South Australian Housing Trust (SAHT), founded in 1936, was the state’s key development agency in the post-war years. However, it was forced to construct new housing estates without the guidance of relevant planning legislation. The Town Planning and Housing Bill that Reade drafted was unsuccessful when it was put to parliament in 1916. A highly pared back version was passed in 1920 but repealed in 1929 and replaced with the Town Planning Act that primarily controlled only the subdivision of land. Architect and SAHT Planning Officer Gavin Walkley recalled that in the second half of the 1940s “The principal difficulty [for Trust planners] was that South Australia had virtually no planning legislation … We had to work in a vacuum. … We had no guidance from the State Government; we were working on an ad hoc basis, putting houses here, there, and everywhere, without an overall plan to guide us.”

Walkley joined the SAHT in mid 1946 after a period of study and professional work in the United Kingdom from the mid 1930s followed by military service during World War II. Prior to that he had undertaken his architectural education in Adelaide where he was born and raised. Walkley was one of the last cohort of pupils to be articled to Woods Bagot Jory and Laybourne Smith and worked in the firm between 1931 and 1934. He studied part-time at the School of Mines and the University of Adelaide and graduated with a Bachelor of Architectural Engineering from the University of Adelaide in 1934. Laybourne Smith was a significant influence on Walkley both academically and professionally. Like Laybourne Smith, Walkley was also engaged in professional practice and highly involved in his professional bodies and in academic teaching. His favourable professional relationship with Laybourne Smith would prove invaluable when he and fellow South Australian architects sought to establish a formal program in town planning.

The inadequacy of the state’s planning legislation was a major concern for members of the architectural and associated professions and increasingly for the general public. Eventually, it was the key driver behind the architects’ decision to act. Encouraged by its national body, the RAIA, the SAIA nominated architects Dean W. Berry, John Denyer (Jack) Cheesman and Walkley to carry out the tasks required to form a professional town planning body. Walkley’s role was to develop a constitution. The Town Planning Institute of South Australia (TPISA) was inaugurated in April 1948. Long-time town planning advocate, engineer and surveyor and Adelaide City Council Town Clerk William C. D. Veale, was the first president. The inaugural members were all architects. The primary goal of the TPISA was to convince the state government, led by a premier who was not a supporter of town planning, to introduce appropriate planning legislation. It took advantage of every opportunity to promote its cause, for example, supporting a visit to Adelaide by prominent British planner Sir Patrick Abercrombie during his tour of Australia in 1948.
By then Walkley had decided to commence his own studies in planning on the basis of his belief that if he had a professional qualification in the field then he would be credentialed to establish a course in Adelaide.27 As no study option was available in Australia he chose the correspondence course designed and directed from 1946 by British town planner and planning educator Jaqueline Tyrwhitt at the School of Planning and Research for Regional Development (SPRRD) in London.28

Walkley’s impatience got the better of him and in 1948 he resolved to try to initiate a planning course in Adelaide before he had finished his own studies. By then he was a part-time lecturer in the History of Architecture at the School of Mines. He raised the possibility informally with Laybourne Smith to ascertain whether or not the Architecture Department would consider accommodating planning. There was certainly local demand, which was a necessary pre-requisite from the School of Mines’ perspective. Walkley also arranged a meeting with Abercrombie while he was visiting Adelaide “to explain in general terms what he was trying to do and to ask for his comments.” Abercrombie recommended to Walkley that he “start in a modest way and … let the course grow with available resources.”29 The Adelaide press reported that during a lecture delivered to the TPISA, Abercrombie publicly endorsed the introduction of a specialist tertiary course in town planning on the basis that “the most satisfactory way to create a townplanner was to take an architect, engineer, or surveyor and indoctrinate him with the special knowledge he should have for the task.”30

Buoyed by Abercrombie’s strong support, the Institute Council asked Walkley (who was a Council member) to make a formal enquiry to the School of Mines. He knew that he had an ally in Department head Laybourne Smith who was already delivering lectures on Elementary Town Planning to final year architecture students and was keen to pass on the task to younger colleagues. Furthermore, Walkley was aware of Laybourne Smith’s desire to support the introduction of town planning legislation to ensure that “Adelaide developed on satisfactory lines” during the post-war building boom.31

Laybourne Smith agreed to the TPISA proposition of a postgraduate planning course being conducted within the Department and the TPISA and the School of Mines pressed forward with the practical arrangements. The parties agreed that the School would provide administrative assistance and teaching spaces in return for the TPISA preparing the course, organising lecturers and funding any short-fall between student fees and fees paid to the lecturers.32 The course would be offered part-time over two years to qualified architects, engineers and surveyors.

The TPISA charged Walkley with the task of designing the course. He based the curriculum on the subjects and syllabus for the external examinations of the British Town Planning Institute (TPI) but modified for the Australian context.33 The initial course comprised six subjects covering the history of town planning and town planning in relation to: architecture and amenities, engineering, surveying and law.34 The subjects were the same for first and second years.
Australia’s first town planning course begins

The local newspaper The Advertiser announced the new town planning course in the Architecture Department at the School of Mines as an "innovation". Fifteen students made up the first cohort that commenced in early 1949. They received typed lecture notes with a covering sheet setting out the subject focus, topics and reference texts. The reading list comprised mostly books, manuals of technical notes, and Town Planning Acts and Regulations; the content focused primarily on the United Kingdom. The fee for each subject was ten shillings and six pence. Lectures were held in the evenings three nights per week and were delivered by local practitioners in architecture, surveying and engineering. The lecturers were employed part-time and paid one half a guinea per one hour lecture. None was trained in planning; they developed their knowledge by attending one another’s lectures.

By the time that the planning course began, architectural education at the School of Mines (and nationally) had moved away from British approaches and adopted “an American-style Beaux-Arts system” influenced by the philosophy and design pedagogies of institutions in France and the United States. However, concurrently, modernist-inspired pedagogies were being introduced. Steered by the conservative Laybourne Smith, the Architecture Department at the School of Mines adhered to the Beaux-Arts, particularly in the teaching of design drawing. The Beaux-Arts emphasis on composition was evident in the planning curriculum in the subject “Town Planning in relation to Architecture and Amenities”. The syllabus addressed design as applied to planning and especially “the importance of three dimensional design, scale, proportion balance emphasis and contrast, vista and climax”. Considerations in the first year subject included civic design elements like the street; “existing character” and other factors influencing where buildings, parks and open spaces were sited in places of different scales; and the provision of amenities. The second year examined “specific examples of design and grouping of buildings and incidental architectural features in urban and rural settings” including waterfronts, “undulating and irregular” and “cleared and derelict” sites. Design for a variety of types of recreation spaces was another component. Students were introduced in both years to the general principles of landscape architecture and to how they could be applied.

Curriculum changes and the first graduates

For three months in the second half of 1949 Walkley undertook a study tour in England. The British Council funded his travels which combined an investigation into the effects of recent planning legislation with trips to new town developments as well as places like Saltaire, Letchworth and Welwyn that featured in his History of Planning lectures. Walkley also made enquiries into planning education and met with several leading planning educators, including at the School of Civic Design in Liverpool, and he visited SPRRD to review the progress of his own studies and to attend a few lectures.

At a meeting with British TPI Secretary Alf Potter, he learnt that the Institute was changing its external examination syllabus and the criteria on which schools would be “recognised” in the future. On the basis of intelligence from Potter, Walkley amended the School of Mines
curriculum from 1951. The first year subjects remained the same but the second year syllabus was altered to contain social and economic content in line with the revised TPI course. Consequently, the subjects Elements of Applied Geology and Economic Geography, and Outlines of Social and Economic Organisation joined Architectural Design and Amenities, Civil Engineering, Practice and Surveying.45

By the end of 1952 the planning course was financially self-sufficient.46 Walkley had restructured it into a three-year part-time program to allow students more time to cover the amended curriculum. The subjects were renamed Town Planning History, Town Planning Practice I and II, and Town Planning Practice III.47 The first students to undertake the revised course commenced in 1953. They continued to come from the primary target group of architects, engineers and surveyors in the public and private sectors.

Eleven students graduated from the planning course to 1955.48 Graduates of the two-year program were awarded a Certificate in Town Planning issued jointly by the South Australian School of Mines and Industries and the TPISA. The award for the three-year course was a Diploma in Town Planning from the South Australian School of Mines and Industries only. Along with courses offered at the University of Sydney and the University of Melbourne, the School of Mines’ planning course was recognised as an entrance qualification for membership of the professional institute. Several graduates of the School accepted roles in the TPISA’s successor body, the Royal Australian Planning Institute (South Australian Division), formed in 1951.49

Later developments

Louis Laybourne Smith retired as part-time Head of the Architecture Department in 1951. Gavin Walkley was appointed as his replacement but in a full-time capacity in recognition of the growth in student numbers and increased administrative and teaching demands. In the meantime, the SAIA was continuing to press its long-held cause to see a school of architecture established at the University of Adelaide. It made an official approach to the Vice-Chancellor A. P. Rowe in 1955 via a deputation of which Walkley was a member. Rowe expressed in principle agreement but noted three obstacles: physical space, the preservation of “good relations” with the School of Mines, and securing funding of £25,000 to establish a new department to offer a five year degree in architecture and a postgraduate course in town and country planning.50 The Institute regarded the first two obstacles as solvable and launched a fundraising appeal to overcome the third. Meanwhile, Walkley, then president of the Adelaide Division of the Australian Planning Institute (API), wrote to members “other than architects”, on the subject of “A University School of Planning”. He pointed out that the Adelaide Division wished to elevate the status of the local planning course to university level, as was the case for the courses in Sydney and Melbourne, and that the opportunity presented if a school of architecture could be established at the University of Adelaide. He therefore appealed to API members to “promise” an annual contribution to the fundraising effort. Although a seemingly incongruous venture given Adelaide’s size and the fact that the School of Mines and the University of Adelaide were located in close
physical proximity, Walkley explained that the intent behind the new school was to give students “all the broader educational advantages of university life”, and to lift the status of the Architecture Department at the School of Mines through “healthy competition”.51

In the upshot, the University of Adelaide agreed to establish a school of architecture after the profession raised £23,000. However, before committing to a postgraduate planning course, it elected to appoint and then consult with the new head. Walkley applied for the job (a professorship) but was overlooked in favour of Liverpool-trained architect Rolf Jensen.52 Jensen was appointed in mid 1956. He agreed that planning should fall within the new school’s remit. The Faculty of Architecture and Town Planning was duly established and offered its inaugural degrees from March 1958.53 The School of Mines continued its postgraduate planning course (and the undergraduate course in architecture) for part-time students and introduced a three-year undergraduate course in February 1965.54

In 1960 the School of Mines became the South Australian Institute of Technology (SAIT). The Department which Walkley headed was renamed the Louis Laybourne Smith School of Architecture and Building in 1963. He remained in charge until 1976. The SAIT was incorporated into the University of South Australia (UniSA) when it was founded in 1991 and planning was taught along with architecture and several other programs in the School of the Built Environment. However, the long connection between architecture and planning was disrupted in the mid 1990s when the two programs were moved into separate faculties (later divisions) of the university and architecture was relocated, in 1997, to a different campus from planning. UniSA continues to offer undergraduate and postgraduate degrees in planning.

**Conclusion**

The introduction, design and implementation of the planning course at the South Australian School of Mines and Industries was fostered and shaped by locally trained architects informed by the planning curriculum in Britain and by trends in planning education in that country. An “innovation” in its time, the course filled a long-standing gap in formal educational options for practitioners working in the built environment field. With a well-established remit and reputation for technical training of practitioners, the School of Mines was an ideal venue for the inaugural course. The sound working relationship between Louis Laybourne Smith and Gavin Walkley and their shared ambition to provide academic training for architecture and planning professionals were critical in the smooth and successful inauguration of Adelaide’s first formal town planning course. The complex and intriguing story of the post 1955 history and progress of the town planning course first established at the School of Mines, and of others established later at the University of Adelaide, is a subject for further research and a topic for a different paper.

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1 This paper is associated with a project on tertiary planning education in Australia with Robert Freestone and David Nichols. It draws partly from Robert Freestone, David Nichols and Christine Garnaut, “The Beginnings of Tertiary Planning Education in Australia 1949–1950,” in *Past as a Guide to Sustainable Futures, Proceedings of the 16th International Planning History Society*, ed. Christopher Silver and Dan


4 Aeuckens, *The People’s University*, 17.

5 “School of Mines: The Opening Day,” *Advertiser*, February 24, 1903, 5-6.


8 Ernest Bayer, John Quinton Bruce and Alfred Wells.


10 The School of Mines used an organisational structure based on departments. See Aeuckens, *The People’s University*.


17 Freestone, Nicholas and Garnaut, “The Beginnings of Tertiary Planning Education in Australia 1949-1950.”


19 Howell, “Playford, Sir Thomas (Tom) (1896-1981).”


22 Sullivan, “Walkley, Gavin.”


29 Extracts, January-December 1948, 94.


35 “Town Planning Course,” Advertiser, December 17, 1948, 2.


38 Walkley, The Louis Laybourne Smith School, 33.


43 Extracts, July-December 1949, 99.

44 Extracts, July-December 1949, 99.


54 Walkley, The Louis Laybourne Smith School, 35.