OUTSIDE STUDDING
‘Some claims to architectural taste’

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This paper is concerned with the change in timber construction that occurred in Queensland after 1865, in which the walls of timber framed buildings were sheeted only on the inside face of the studs, in preference to either external cladding (leaving studs exposed internally) or the sheeting of both faces of the studs. It demonstrates this by documenting the timber schools built by the Board of General Education in Queensland between 1860 and 1867. Identified are buildings which are likely to be the earliest use of the technique in Queensland, and the architect responsible. It proposes that by a combination of practical and visual qualities - not least the recall of traditional half-timbering - the practice of exposed studding became an accepted and admired form of building construction. Its use became widespread throughout Queensland and it endured - often devoid of the architectural pretensions of the original, and despite technical flaws.

The earliest national (government-funded) schools in Queensland were built in Warwick in 1830 and in Drayton in the following year. The Warwick school was described in 1861 as:

of slabs, and consists of two class rooms (29 x 17 ft., and 19 x 17 ft.), and a scullery containing two apartments at present occupied by the teacher.¹

The slab school at Drayton was thus specified:

to be built on sleepers, grooved top and bottom, shingled and floored, slabs 8 feet long, chimneys four in number to be stoned up, also a paling fence in front 4 foot high with a single gate in front. The yard to be fenced in with a substantial paling fence. Also a privy. The contractor provides everything required and carts all the timber and agrees to have it completed in a workmanlike manner within three months for the sum of 150 pounds.²

By 1861 the Drayton school was dilapidated.³ Despite repairs, it was again in a ruinous condition in 1864, when a new school was built,⁴ the best slabs of the old school reused for a teacher’s residence.⁵

¹ Unidentified specification from the Mitchell Library, in Drayton School file, History Unit, Queensland Department of Education.  
³ Annual Report of BGE, 1861, p.5.  
⁵ Report of the District Inspector, T. McIntyre, c1877, in Drayton School file, History Unit, Queensland Department of Education.
In 1860 a Board of General Education was established in the new Colony of Queensland. The Board recognised the need to provide aid 'as speedily as possible' towards constructing suitable school buildings¹ and asked the Colonial Architect, Charles Tiffin, whether he would act as its honorary architect.² Already overburdened with official duties, Tiffin declined.³ The Board then approached the private architects, Christopher Porter and James Cowlishaw, for their terms to act as general architect to the Board and to prepare plans for the Brisbane Normal School.⁴ Porter was appointed in January, 1861.⁵

By the end of that year seven more schools had opened in temporary premises without waiting for the completion of proper school buildings,⁶ and construction of permanent buildings had commenced in Brisbane, Little Ipswich, Gayndah and Warrill Creek.⁷ Of these, only the latter was constructed of timber⁸ - evidence of the Board's early preference for building in masonry.⁹ The report

² EDB/G1 Letter, 1860/34, 12/12/1860, QSA (Queensland State Archives).
³ EDB/G1 1860/41, QSA.
⁴ EDB/G1 1860/45,46, QSA.
⁵ EDB/G1 1861/13, QSA.
⁷ Ibid., p.3.
⁸ Ibid., p.4: 'It appeared to be the opinion ... that a substantial weatherboard building would under all the circumstances be most desirable.'
⁹ Ibid., p.8.
of an inspection in 1876 of the Warrill Creek school describes its construction:

School and dwelling under one roof, floor hardwood, joists resting on immense sleepers instead of stumps, walls hardwood, lined with lath and plaster for 7 feet from ceiling and then with pine chamfered boards 5 feet to floor (except lowest board which is cedar), roof hardwood shingles, sealed with lath and plaster, spouted, partitions pine with bottom boards cedar, brick chimneys.1

During 1862 only two new schools were built by the Board, both of brick.2 This lack of progress resulted from its requirement that one third of building costs be raised by local committees.3 By 1863 seventeen approved applications for aid had not been expended because the applicants had failed to meet their contribution.4 In that year only two new schools were under construction: Gladstone (brick)5 and Dalby (timber).6 Estimates obtained in Dalby in 1861 and the difficulty, not to say the impossibility, of obtaining brick or stone made any other than a wooden building impracticable without incurring extraordinary expense.7 The Dalby building was described later:

Schoolroom 50 x 18 ft. with 7 foot verandah in front. Two classrooms have been formed by enclosing of the ends, each 18 x 7 feet. Hardwood framework, pine weatherboard lining and ceiling, entrance porch.8

In response to the difficulties experienced by local committees and a growing surplus of unexpended funds, the Board decided in 1863 to wholly fund some buildings, especially where rent was already being paid for temporary premises.9 Faced with increased expenditure, the Board then more willingly accepted timber construction.

Early in 1863 Porter resigned10 and was apparently succeeded as architect to the Board by the enterprising Benjamin Backhouse.11 Between 1864 and 1867 Backhouse designed brick schools for Warwick (1864), Maryborough (1866), Bowen (1866), Fortitude Valley (1867), supervised construction of South Brisbane (1864) and extended the Normal School. His contribution to timber schools is less clear. In May, 1864, he was reported to have prepared a 'model plan' for country schools,12 but it is uncertain which were built to his plan.

1 A6804: Warrill Creek, 4/7/1876, QSA.
2 Ipswich and Rockhampton.
4 Ibid., p.2.
5 Ibid., p.2.
6 EDB/1 Dalby contract, 24/6/1863, QSA.
8 Dalby School file, History Unit, Queensland Department of Education. Source not identified but probably A6804: Dalby (presently being microfilmed), c1876.
10 EDB/1, 19/3/1863: 'Porter paid in full of all demands on the Board,' QSA.
11 Even during Porter's appointment, other architects undertook work for the Board. For example, the school at Rockhampton was designed by the local architect, E.J. Smith (EDU/1, 20/12/1862), altered by Tiffin (EDB/1, 14/6/1861) and specified by William Macqueen, Clerk of Works, Queensland Department of Works (EDB/1, 7/6/1864). Plans and specifications for Gladstone were prepared by John C. Watson (EDU/Z 1040, 1/8/1864), and supervision was undertaken at Ipswich by Charles Balding (EDU/1, 31/8/1863), QSA.
12 QDG (Queensland Daily Guardian), 17/5/1864, p.3. I am indebted to Fiona Gardiner for contributing information on Backhouse's schools.
The Board's initiatives were followed by more communities able to meet the required contribution. However, the Board then experienced difficulties in most country districts in obtaining any acceptable tenders.\(^1\) Plans were modified - possibly more often than not - to suit the materials and labour available. After completion many schools were soon altered, as enrolments generally increased rapidly. This complicates comparisons. No original plans of timber schools of this period have been located and the records of the Board of General Education rarely identify early architects.\(^2\)

Nine timber schools constructed between 1864 and 1866 - all clad externally either with weatherboards or chamfer boards - may be the work of Backhouse. They are: Bulimba Creek, Eagle Farm and Pine Mountain (completed in 1864), Bulwer, Drayton, Goondiwindi, Leyburn and Toowoomba (completed in 1865), and Condamine (1866). Of the nine, only Goondiwindi is known positively to be his work.\(^3\) The schools vary somewhat in size, in their planning (by the addition of a porch and class room) and in some details. The construction of all is similar, with variations in the timber used for linings (cypress pine or pine) and cladding (cypress pine or hardwood). In Goondiwindi:

> The framework of the building is wholly composed of hardwood. The outside woodwork is hardwood weatherboards, lined inside with dressed, tongue and grooved cypress pine, the roof being sheeted throughout with the same and covered with hardwood shingles.\(^4\)

The school at Leyburn may be an earlier but similar plan dating from 1862, possibly the work of Porter. Tenders were called unsuccessfully for a brick school in 1861.\(^5\) After inquiring about the most economic mode of erecting buildings, plans for a timber school were substituted\(^6\) in 1862. Plans and specifications were forwarded at the end of 1863.\(^7\) By September the following year the school was approaching completion. In 1876 it was reported that:

> The whole of the school-house is built of cypress pine, the outside boards are chamfered, and the inside linings are of the same material, beaded, tongued and grooved. The roof is also of cypress pine, covered with ironbark shingles capped with galvanized.

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1. For example, EDB/2, 8/8/1864, QSA: ‘...I fully recognise the force of your remarks as to the difficulty of obtaining tenders for the school building at Goondiwindi. The distance from Brisbane is so great that builders are not disposed to tender for so small a work, which small as it is, appears to be too elaborate for tradesmen on the spot. The difficulty must be solved, I imagine, by a slight modification of the plans, and an augmentation of the Board’s grant towards the cost...’

2. Architectural commission payments, and to whom, are itemised in the Journal of the NGE (EDU/1, QSA). In 1864 and 1865 Backhouse is the only architect listed, so presumably he designed the buildings of those years (not accounting for delays in the realisation of earlier designs and the re-use of plans). However, the Journal entries may not be comprehensive, for other evidence (EDU/Z 1040, QSA) shows that the Gladstone architect, John C. Watson, was paid 30 pounds on 1/8/1864 for plans, specifications and general superintendence of the school at Gladstone.

3. EDU/1, Commission paid to architects, 22/9/1864: B. Backhouse (Goondiwindi), twenty pounds and five shillings, QSA.

4. A6804: Goondiwindi, n.d. (c1876), QSA.

5. EDB/1, 30/1/1861, QSA.

6. EDB/1, 15/5/1862, QSA.

7. Ibid., 10/11/1863.
The teacher's residence is constructed of the same materials as the school house and the detached kitchen and adjoining room are built of cypress pine slab roofed with galvanized iron. The floor, blocks and joists throughout the building are of cypress pine.

In September 1865 tenders were called for the school buildings at Nanango— the first school to be built with outside studding. The tenders submitted were too high and only when the local Committee agreed to raise additional funds was John Copp's tender for 400 pounds accepted. The report of the Board for 1866 noted that the school opened at the beginning of the year (in temporary premises) and the new school and residence were completed and occupied in May. It was described only as 'commodious and suitable.' A more informative description was given in a District Inspector's Report in 1876:

floor hardwood, walls hardwood, boards tongued and grooved and placed upright - with outside studding. The only building of the kind, I have seen.

The schools constructed at Bald Hills and Bulimba in 1866 also had 'outside studding.' Tenders for
Bald Hills were called In April\(^1\) and the school opened on 24th September.\(^2\)

The National School at Bald Hills has at length been opened. It is commodious and not devoid of some claims to architectural taste. Yet the experience of the Board has enabled it to construct them both, the school and very nice dwelling house for the Minister at a very moderate sum.\(^3\)

The Annual Report of the Board noted that it was a ‘neat and well constructed wooden building.’\(^4\) The District Inspector added:

*The school house is built of hardwood stud-ding, placed outside. Floor and walls of beech. Roof of hardwood shingles.*\(^5\)

The school at Bulmba, completed in November,\(^6\) was described in similar terms.\(^7\)

The evidence for the designer of these buildings is inconclusive. Both Benjamin Backhouse and the architect Richard George Suter received payment from the Board during 1866.\(^8\) The Journal of the Board, which records such expenditure, does not (with a few exceptions) relate the architect’s payment to particular jobs.\(^9\) However, it is almost certain that the buildings in question are the work of Suter.

Richard George Suter was the son of English architect and surveyor, Richard Suter.\(^10\) It is thought that he was born about 1826.\(^11\) He graduated from Cambridge with a Master of Arts Degree,\(^12\) probably before training as an architect and surveyor in his father’s office. He became an Associate Member of the Royal Institute of British Architects in 1853,\(^13\) by which time he was working with his father.\(^14\)

As surveyor to various livery companies, Richard Suter designed buildings for their estates as well as undertaking routine work for their properties. These included houses, hospitals and schools - a Lancastrian school (1828) and the schoolhouse at Gresham’s School, Norfolk (1859) ‘in an Elizabethan style,’ both schools for the Fishmongers’ Company.\(^15\) Significantly, an assistant in his office in 1820-1 was Sampson Kemphorne,\(^16\) who later provided the designs for model schools published in 1840 in the Committee of Council on Education’s *Minute Explanatory of*

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1. QDG, 20/4/1866, p.1. The builder was James Masterson (EDU/1, pp.87, 101, QSA).
2. QDG, 29/9/1866, p.5.
3. Queenslander, 29/9/1866.
5. A6804: Bald Hills, 19/5/1876, QSA.
7. A6804: Bulimba, QSA.
8. Fees were apparently paid on completion of the building if supervised, otherwise on acceptance of a tender.
9. EDU/1, architects’ commission for 1866: January 29, B. Backhouse, fifty-nine pounds, nineteen shillings and six pence; December 31, R.G. Suter, seventeen pounds, two shillings and ten pence.

the Plans for School Houses. A partner of Richard Suter's in the early 1830s was Annesley Voysey, whose son, Annesley Wesley Voysey, was in partnership with R.G. Suter in Queensland c1870-74.

It is certain that R.G. Suter was at Cambridge during the 1840s, at the peak of activity and influence of the Cambridge Camden Society - the Ecclesiologists - of which he was undoubtedly a member. He claimed that 'he had been all his life connected with church matters.' His brother, A.B. Suter, later Bishop of Nelson, New Zealand, was ordained a Deacon of the Church of England in 1855, whilst Bishop G.A. Selwyn was visiting Britain. Through these circumstances - also probably through The Ecclesiologist journal and Sampson Kempthorne, (who emigrated to New Zealand in 1841-42 and with whom the Suters maintained contact), R.G. Suter was undoubtedly aware of the buildings in New Zealand in the so-called Selwyn style. Suter's work in Queensland is almost certainly related.

The design and documentation of the Nanango school occurred between 18 August 1865 (when the application for financial aid was lodged) and the calling of tenders on 13 September. Suter was in Brisbane by the middle of that year. In July he was commissioned with George McLagan

2 Colvin, pp.856.
3 D. Watson and J. McKay, A Directory of Queensland Architects to 1940, 1984, Brisbane, p.197; A.W. Voysey was uncle of the famous C.F.A. Voysey.
4 QDG, 2/11/1866, p.3.
6 Colvin, pp.486-87.
8 EDU/Z 2013, 188/1865, QSA. It was approved on 24/8/1865 (EDB/2, QSA.
9 QDG, 13/9/1865, p.1.
to report on the stability of William Coote's Town Hall. A person with the initials R.S. advertised in the Queensland Daily Guardian on August 8, seeking employment as a clerk of works, foreman, etc. The advertisement continued until August 20, just when the Nanango school was designed. It seems possible that Suter was commissioned to design that school and thereafter those at Bald Hills and Bulimba. He became the 'architect normally used by the Board' soon after, when Backhouse moved to Sydney. Suter retained the patronage of the Board until 1875.

Tenders for Oxley Creek, the first school for which Suter is positively identified as architect, were called in October 1866. The progress of its construction was often reported. In a long article describing the opening, the Queenslander newspaper wrote:

An attempt has been made by the architect to make the building, not only substantial, but picturesque, by placing the studding external to the wall lining, the effect of which is to take off the usual monotonous appearance of a painted weatherboard building...the interior is lined with beech boarding, laid diagonally...we may fairly congratulate the promoters on obtaining a really pretty and adequate school and hope with several of the speakers that the character and style of our school buildings may improve with their numbers.

Suter proceeded to make this improvement. His designs were forwarded throughout the settled parts of the colony, supplied by the Board initially as stimulus to local committees to raise their contribution towards the cost of a school. Suter's work for the Church of England, which paralleled that for the Board (if slightly later and on a lesser scale), also spread the technique.

The initial impact of his designs was heightened by a fortuitous coincidence, which Suter took advantage of in a manner that Pugin would certainly have approved. The common constructional use of timber at that time was to use hardwood (for example, ironbark, which is brown in colour) for studs, and softwood (Moreton Bay pine or beech, both of which are pale yellow) for the lining. Unpainted, this automatically approximated medieval half-timbering. Suter took pains to maintain the difference, as in his specification of 1867 for the school buildings at Allora:

Paint all external woodwork usually painted in three olls: the studs a dark brown colour similar to the natural colour; the boarding, a light cream colour of yellowish tint as near as possible to the natural colour.

In his work for the Board, Suter built schools throughout the Colony. Not all were outside studded. Many more of his designs with outside studding were submitted to local committees for approval, but were often modified to suit local trade practice or limited funds. The approval process, however, rapidly spread the technique, whose virtues were recognised by the Board:

The buildings erected during the year for use as school houses and teachers' residences have been constructed on an improved plan, which provides for a verandah both in front and in the rear. The arrangement has been secured without additional cost as the protection from the weather afforded by the verandahs has made it possible to dispense with a double covering of boards on the walls. The studding tastefully disposed and painted being placed on the outside, the exterior of the building has gained rather than lost in appearance, while the interior is smooth and not disfigured.

Moreover, the Board of General Education foresaw that:

In country districts and in some of the towns, the schools and residences occupy well chosen sites and often afford to the inhabitants of the remote interior, models of neat architecture for their imitation.¹

**Note:**

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