

## **‘The old bark school is gone ... There’s a brick school on the flat’: Reflections on the fitness for purpose of William E. Kemp’s school buildings**

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### **Abstract**

*This paper considers the fitness for purpose of the school buildings designed by William E. Kemp (1880-1896). It discusses the influence of their built form on the teaching, learning and activities that took place within them and the symbolic role of the buildings in representing political objectives, social values and economic progress. In addition to the obvious functional requirement of facilitating a system for the education and moulding of a generation of children, the buildings also gave physical form to the culture of the colony of New South Wales in the final decades of the nineteenth century. Their ubiquity, civic prominence and role in social reform in a time of rapid change mark them as culturally significant.*

*The surviving primary evidence provided by Kemp is limited and does not extend to his thoughts about the ideological function of his schools. Thus the research supporting this paper has attempted to gain insights by examining other material from the era. This has involved searching for the scarce recorded experiences of those inhabiting the schoolrooms – the pupils (and their parents), the teachers and the district inspectors – hidden amongst the pages of school histories, archived school files, miscellaneous photographs and newspaper reports. These recorded experiences have been placed in the context of the dominant ideologies pertaining to education in the colony in the late nineteenth century: Britishness, colonial progress, patriotism, discipline and public hygiene. They have been evaluated alongside reports commissioned by the NSW Government on public education – one in 1880, looking towards the future on the eve of the Public Instruction Act, and the other in 1903, looking backwards after Kemp’s retirement. The very prolific yet incomplete historical records of New South Wales schools, the invisibility and elusiveness of their history, offer countless opportunities for reinterpretation based on the material to hand at a particular point in time.*

The introduction of the New South Wales Public Instruction Act in 1880 made elementary education free, compulsory and secular. It ushered in an era when schooling became a major part of childhood and children spent more time in the schoolroom and the playground than they did anywhere else, except their homes. Compulsory school attendance enabled the government to keep records of all children and, more importantly, allowed it to work towards universal literacy and the inculcation from an early age of moral values and patriotism. This paper considers the fitness for purpose of the school buildings designed by William E. Kemp (1880-1896). In addition to the obvious functional requirement of facilitating a system for the education and moulding of a generation of children, the buildings were also expected to give physical form to the broader ideologies of civilisation and progress. Within and outside their walls particular ways of envisaging the world and of constructing individual and collective identity were instilled and imagined.

Historians investigating nineteenth-century education in New South Wales have focussed on the narrative and politics of mass education,<sup>1</sup> taken diverse socio-political perspectives, or turned to the world of childhood as a topic for research.<sup>2</sup> Despite this substantive historiography there is still no scholarship by others addressing the role that school buildings played in supporting colonial ideologies, school work and school activities. Kemp's school buildings are a product of the culture of the colony of New South Wales in the final decades of the nineteenth century and their ubiquity, civic prominence and role in social reform in a time of rapid change mark them as culturally significant.

The primary evidence provided by Kemp is limited to his surviving buildings, correspondence of an administrative nature concerning sites, construction and maintenance, and a public address to the Sydney Architectural Association in 1893. It does not extend to his thoughts about the ideological function of his schools. Thus the research supporting this paper has attempted to gain insights by examining other material from the era. This has involved 'looking for the needle in the haystack': searching for the scarce recorded experiences of those inhabiting the schoolrooms – the pupils (and their parents), the teachers and the district inspectors – hidden amongst the pages of school histories, archived school files, miscellaneous photographs and newspaper reports. These recorded experiences have been placed in the context of the dominant ideologies pertaining to education in the colony in the late nineteenth century: Britishness, colonial progress, patriotism, social values, discipline and public hygiene. They have been evaluated alongside reports commissioned by the New South Wales Government on public education – one in 1880 authored by Edward Combes looking towards the future

on the eve of the Public Instruction Act and the other in 1903 authored by G. H. Knibbs and J. W. Turner looking backwards after Kemp's retirement.

The author's task in writing this paper has been rather like that undertaken by Sid Hammet in *Gould's Book of Fish*, who trawled through the Archives Office of Tasmania only to discover that there was 'little that was helpful, with the exception of the wise and venerable archivist' with whom he took to drinking.<sup>3</sup> In synthesising fact, ideology and representation of schools as places of memories, both told and untold, the author has, like Hammet, exalted in the new revelations that come from stumbling across material not noticed in previous readings and that can prove to 'contain a new element of the story that ... force me to rethink the whole in an entirely changed light.'<sup>4</sup> The very prolific yet incomplete historical records of New South Wales schools, the invisibility and elusiveness of their history, is as powerful as it is frustrating. It offers countless opportunities for reinterpretation based on the material to hand at a particular point in time. One cannot follow a straight line of inquiry but must work in 'infinite circles, like rings proceeding ever outward from a stone sinking in the water of Now.'<sup>5</sup>

### **A New School Typology to Accommodate the Educational Reforms of 1880**

In 1878 there were 7,742 children enrolled in provisional schools and 1,758 in half-time schools, often occupying primitive slab huts offering limited shelter from the elements.<sup>6</sup> Henry Lawson later reminisced with some sentimentality about 'The Old Bark School' of his childhood in the years before the reforms of 1880:

It was built of bark and poles, and the floor was full of holes  
Where each leak in rainy weather made a pool;  
And the walls were mostly cracks lined with calico and sacks –  
There was little need for windows in the school...<sup>7</sup>

The Public Instruction Act gave the New South Wales government full responsibility for providing suitable accommodation for the colony's children. Such bark schools as Lawson recalled could no longer be accepted, particularly as compulsory school attendance raised issues of health and hygiene in what were frequently overcrowded and unsanitary buildings. Faced with the demand for a large number of new schools, it was natural for the colony of New South Wales to turn to Britain for advice. In 1878 Dr Richard Ryther Steer Bowker,<sup>8</sup> member for Newcastle, wrote to the Premier James Squire Farnell,<sup>9</sup> urging him to formalise the government appointment of Edward Combes to investigate the lighting, heating and ventilation of school buildings in Great Britain,

Europe and America,<sup>10</sup> with the observation that 'I am quite sure ... that here we are all wrong in our buildings. Although no one at home has settled the matter for a semi-tropical country such as ours, yet valuable notions and advice might be obtained by Mr Combes.'<sup>11</sup> Combes was already in Europe and representing the colony as the NSW Executive Commissioner for the 1878 Paris Exposition Universelle.<sup>12</sup>

The denominational and national schools in New South Wales were already operating along British lines and the English pupil-teacher system was well established. Where school buildings were purpose built, they were designed in the Gothic style, representing an English model of education closely associated with the church, and were usually located in the central precinct of the town alongside the post office, police station and law court. Such towns provided the infrastructure for the perpetuation of British civilisation and its civilising forces of progress, democracy, justice, morality, and decorum. A recent journal article examining Kemp's early life and the colonial culture that shaped him as an Australian architect gathers broad supporting evidence to demonstrate that he shared the British belief in the importance of the urban setting and civic architecture as a means of both promoting and demonstrating the civilisation and progress of the colony.<sup>13</sup> In country towns the acquisition of a school building was a symbol of progress and local identity and Kemp deliberately positioned his larger schools within the class of civic architecture that comprised the democratic, commercial centre. The symbolic value of school buildings as a feature of civic pride is rarely mentioned in surviving documentary material, but in the protracted negotiations for a new school at Orange East (1890) it became clear that 'The real, but unstated, argument was that Orange East needed a school of its own to promote its identity and status; ... because of its recent growth, [it] *deserved* a school.'<sup>14</sup>

Britishness was also embodied in the place names of colonial towns, and therefore in the names of public schools. For example, Auburn, now a high-density multicultural suburb of Sydney, was named after 'Sweet Auburn, Loveliest village of the plain' from an Oliver Goldsmith poem<sup>15</sup> in the expectation that the new 'Auburn under the Southern Cross' would be a similarly idyllic rural village. Auburn Public School (1886) designed by Kemp completed the tableau and, perhaps inspired by the beauty of its setting, it is more picturesque than many of his schools, with steep terracotta tiled roofs, terracotta ridge capping, fancy timberwork to the gable ends and turned finials.<sup>16</sup>

While investigating schools throughout Great Britain, Europe and America, Combes concluded that the schoolhouse and the plan of the school should suit and be subservient

to the system of teaching.<sup>17</sup> Kemp explained that this principle was the foundation of his school designs, which were to suit the pupil-teacher system, but nowhere does he identify the architectural sources or influences for the internal planning of his schoolrooms or their external architectural style. He concluded his only public address (found to date) with the vague comment that 'What I know of school building has been acquired in the daily routine of my work.'<sup>18</sup> A correlation has been found with the schools of Edward R. Robson, the first architect of the London School Board from 1871 to 1889.<sup>19</sup> However 'a new element to the story' is provided by a hitherto unconsidered set of standardised school plans used by the British Council of Education that are tucked away in Appendix Z<sup>20</sup> of the Combes report. This set comprises four standard plans (A-D) plus a plan (E) for an infants' school, each being a large schoolroom with separate smaller classroom(s) and stepped galleries so that the large numbers of pupils could see the teacher (Fig 1).



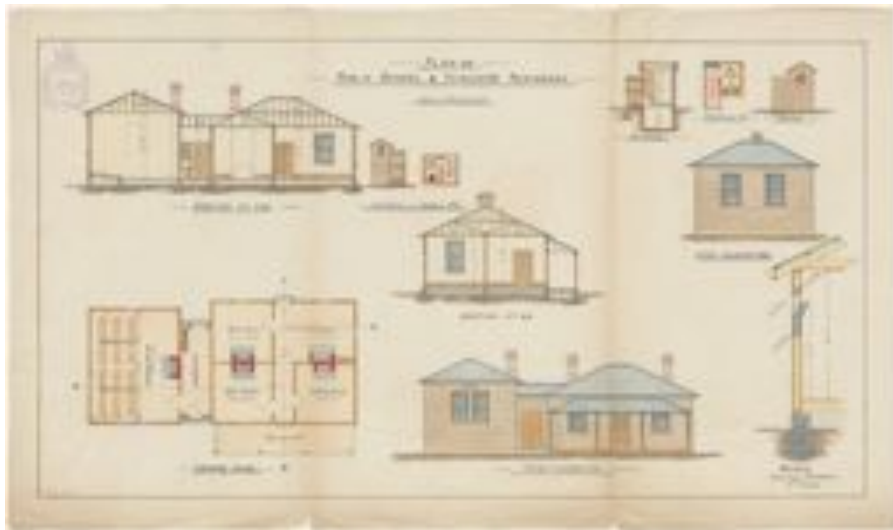
**Figure 1.** British Council of Education Plan A.

(Source: Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, Appendix Z, 251-).

The external appearance of the British schools, featuring steep slate roofs, tall chimneys, and shallow-arched window openings, is quite different from the style devised by Kemp. However, he used similar layouts for his schoolhouses – although many were much smaller, often only catering for around twenty pupils. In 1890 Kemp fully embraced the British idea of standardised plans, producing a set of his own 'Progressive Plans' for school buildings to be passed on to each of the School Inspectors for their guidance and designed to allow progressive enlargement as the school population grew.<sup>21</sup> In addition to varying the type of construction and floor area depending on the size of the school, Kemp varied the ceiling height to increase air volume. There were seven standard plans (A-G) for different classes of school. The Meadows Public School (now Seven Hills) (1890) was one of the small schools built to Kemp's standard Plan B.<sup>22</sup> It was a simple

timber building, containing a single schoolroom 26 feet long by 14 feet wide, with a ceiling 10 feet 5 inches high. 'It provided floor space for 45 children or air space for 38' and was furnished with six desks and forms 7.5 feet long, in three blocks on a stepped floor, and 'so had seats for 30 children.'<sup>23</sup>

Unlike the standard plans of the 1890s, there is little evidence of standard plans being used during the 1880s, Kemp's first decade as 'Architect for Public Schools'. This is not to say that Kemp did not produce a set, for various government departments in the intervening years have destroyed large quantities of historical material when storage space was limited.<sup>24</sup> A standard plan for a small school and teacher's residence dated 5 February 1883 exists in the 'Architect 1876-83' file held by NSW State Records (Fig 2).<sup>25</sup>



**Figure 2.** Kemp Standard Plan of Public School and Teacher's Residence (1883). (Source: NSW State Records, Container 20/12484 Architect 1876-83. Drawing dated 5 February 1883.)

This drawing matches the new buildings for Old Junee Public School (1882), a short distance from Junee in the Riverina area of NSW, except that Junee has a verandah across the front elevation.<sup>26</sup> It is currently believed that Kemp preferred to design his 1880s schools individually on a case-by-case basis but other standard plans may be hiding in the hundreds of individual school files. If more drawings are uncovered then this narrative may need to be rethought. Nevertheless all of his designs were characterised by a long schoolroom up to 70 feet long, often accompanied by smaller classrooms. Stroud Public School (1885) was centrally located and had a long British schoolroom 39 feet by 20 feet and a classroom 16 feet by 14 feet. The town had been established as a British outpost in a remote location, named after Stroud in Gloucestershire, and proudly displayed an ancient carved stone sent with the good wishes of Stroud Parish Church in England. Young Public School (1884) was a much larger school with two long

schoolrooms, one 66 feet by 24 feet, the other 67 feet by 24 feet, and a series of other smaller classrooms and infants rooms.<sup>27</sup> The town in the South West Slopes region of New South Wales did not conjure up images of England and was instead named after the Governor, Sir John Young. The long schoolrooms, like those at Young, appear to have been phased out by Kemp because his standard plans from the 1890s show the maximum size reduced to 25 feet by 19 feet and classrooms separated by 9 inch masonry walls.<sup>28</sup> From this it can be inferred that the long schoolroom was a difficult environment for both teachers and students, although no recorded memories of the difficulties have yet been found.

### **Built Form and Behaviour**

Schools such as these provided more than a functional setting for education. Their physical form, derived from a British heritage, imparted cultural messages of Britishness and at the same time participated in the evolutionary processes of cultural development and identity formation of future generations in the colonial environment. Architects have long recognised that built forms influence behaviour and their designs usually implicitly embody psychological notions of the relationship between buildings and behaviour. In the case of schools, the Organisation for Economic Co-operation and Development (OECD) has for a number of years been conducting research on the interrelationship between school buildings and student performance with particular reference to developing countries. A report of the research presented at the '12<sup>th</sup> Architecture and Behaviour Colloquium' finds that there is evidence 'that the built environment is an important aspect in enhancing learning. Architects pointed to their experience with projects that took quality into account and often led to exciting pedagogical changes.'<sup>29</sup> The internal arrangement of Kemp's long schoolrooms reflects his implicit understanding of the relationship between the built form and the type of behaviour that was intended to take place and the lessons to be learnt. He would have understood that the pattern of school life would be rigidly formulated and highly disciplined, that the curriculum would nurture patriotism and inculcate social values and that the building and the educational activities it accommodated would contribute to colonial progress. In turn, the characteristics of the built form influenced the behaviour of the children and the responses of the community.

Victorian children were subjected to strict discipline at home and at school, justified by the Christian belief that children were born with a tendency to sin and should be punished for bad deeds so that they would learn to be good. Industrialisation also called for a large, disciplined workforce. School 'served as a preparation for employment and participation

in a society increasingly conforming to the rhythms of industrial capitalism<sup>30</sup> where clocks and bells, punctuality and time keeping were paramount. During this period of preparation, school attendance transferred ‘children’s labour power from the household and, or labour market to the schoolroom’ which would be compensated for by ‘preparing them for their eventual place, as adult or juvenile workers in [the labour] market.’ While compulsory education was enforced by the State, it could not have been ‘effected without co-operation from many families.’<sup>31</sup> Within the schools the morality arising from British Protestantism taught an ethic of hard work, whether or not it would improve one’s material well-being.<sup>32</sup> Miles Franklin’s character Sybylla, was typical of many country children, who already knew about hard work:

Besides the milking I did, before I went to school every morning, for which I had to prepare myself and the younger children, and to which we had to walk two miles, I had to feed thirty calves and wash the breakfast dishes.<sup>33</sup>

At Young Public School, students were seated at long cedar desks on forms ranging from 12 feet to 25 feet long.<sup>34</sup> Kemp drew up similar furniture specifications for all of his schools,<sup>35</sup> ignoring Combes’s advice and Robson’s practice of seating pupils on individual seats. The reason for this is unknown. One can only assume it was financially motivated and provided flexibility for the number of students that could be accommodated. At Lockhart Public School (1897) a rough plan dating from 1901 shows how the classes were arranged in three rows of four 9 foot desks. First class occupied the north end of the room, second class was in the middle, and third class was at the southern end with a very few fourth class pupils by the southern-most wall.<sup>36</sup>

There is scant information about how this arrangement affected learning and behaviour. We know that the class sizes were large (with an average teacher to pupil ratio of 1:66),<sup>37</sup> the furniture was uncomfortable, the cane was regularly applied and strict routines and drills were implemented for all aspects of schoolroom activity. For example, William Dennison, a pupil in the 1890s at a school near Dubbo recalled that, ‘One day I was caught reading under the desk and I was caned for it. The teachers were often brutal, but it was accepted – that was the way it was.’<sup>38</sup> The Headmaster of Junee Public School (1884), Mr Francis McPhail, justified his use of the cane as reasonable:

There were 22 school days in October and 3.5 canings per day. The average attendance for the month was 130 and 3.5 canings per day is an average of 2.74 percent of the pupils. This does not appear to me to be excessive.<sup>39</sup>



Even the smallest of Kemp's brick schools incorporated a belfry and his larger schools were characterised by large bell towers. The bell played an important role in regulating school discipline. Lena Powell remembered that the school bell 'used to ring at nine o'clock, half past nine of a morning; first thing I went to school, then at half past twelve we'd come out for lunch till half past one and then we'd go back till four o'clock in the afternoon.'<sup>40</sup> Mrs Eva Stone (née Jeffress), a pupil at Fairfield Public School (1889), remembered the children of the district being called to school each day by the tolling of the solid iron school bell. It was rung three times at nine o'clock and again at half past nine. 'It was a great honour for the master to say, 'You may ring the bell today.'<sup>41</sup> At South Wagga Public School (1892), the extra-large bell, specially made to inhabit Kemp's landmark Italianate belltower, fell to the ground and cracked soon after the school opened. It was a matter of great concern as the bell was essential 'to ring the children up in time' (Fig 3).<sup>42</sup>



**Figure 3.** South Wagga Public School (1892) in the 'Grand Classic' style with landmark Italianate belltower.  
(Source: Lewis, *The Belltower: A history of South Wagga Public School, 1892-1992* (Wagga Wagga: South Wagga Public School Parents & Citizens Association Centenary Committee, 1992), 11.)

Another means of maintaining discipline was through the use of drills for everything from distributing books and slates from the book press (designed by Kemp) to methods for seating children at the long desks and teaching lessons. Combes suggested that drills should regulate all aspects of school life, including 'opening the windows and ventilators' and 'registering the temperature by thermometric observation.'<sup>43</sup> Mrs Dixon, a former pupil of Orange Grove Public School (1894) in the early 1890s, remembered sitting 'at one of the bolted down wooden desks arranged in long rows. Up front sitting on a high

stool ... was the class teacher drilling Spelling or Tables' assisted by young pupil-teachers.<sup>44</sup> Such memories portray an authoritarian environment necessitated by the long schoolroom and large classes.

Marching drill had been introduced as a disciplinary aid in the national schools around 1867<sup>45</sup> and in 1871 it spawned a system of patriotic military drill at four of the largest Sydney schools under Sergeant-major Mulholland. It was intended to 'drill the boys with rifles and when a sufficient number provide themselves with uniforms, to form a cadet corps.'<sup>46</sup> By 1884 cadet corps were well established in many New South Wales schools (Fig 4) and W. J. Trickett, Minister for Public Instruction, inspected the combined public schools cadet corps at the Paddington Barracks.<sup>47</sup>



**Figure 4.** Cadets at Summer Hill Public School (1883) in 1895.  
(Source: Photo in 'SummerHillPS' folder in DET photos, electronic resource held by DET Library.)

Their guns were stored in gun racks designed by Kemp and included in his specifications for school furniture. Trays for dumb-bells and boxes for rods used in other marching and gymnastic drills, as well as map racks to store the maps of the British Empire (always in pink), were also the products of Kemp's design.<sup>48</sup> The schoolroom walls often displayed a set of maps, although one enterprising teacher at Hurstville West Public School (now Beverly Hills) (1892) found another use. He wrote to the Department complaining that 'the sun is so very hot in the afternoons, I am obliged to place the maps over the windows to prevent injury to the children.'<sup>49</sup>

The military drill, maps and textbook curriculum were intended to instil proper attitudes to important issues, such as Britain's glorious place in history, the causes of progress, the

meaning of patriotism, and moral values. The expanses of flat playground area surrounding Kemp's schools provided the space for cadet training, marching, calisthenics and gymnastic exercises. These were worked into displays on important patriotic occasions, such as the record reign celebrations for Queen Victoria's Diamond Jubilee in 1897. S. G. Firth, examining school textbooks in New South Wales schools from 1880-1914, identifies the emphasis placed on Empire and British history and superiority in the march of human progress.<sup>50</sup> It was not until 1895 that the use of British textbooks was questioned and Australian content introduced.<sup>51</sup>

Moral improvement was an underlying force for education in New South Wales, which still felt the taint of her convict past and sought to redress it. Sir Alfred Stephen held the view that 'crime descends, as surely as physical properties and individual temperament.'<sup>52</sup> Colonial elites believed in moral improvement through education, in the ancient Greek sense as a means of developing the strength of character of an individual and of integrating him into society. Because of these beliefs, social and moral values of regularity, cleanliness and order were a fundamental concern of elementary public schooling in New South Wales, but were hard to enforce under the makeshift conditions endured by many schools awaiting their permanent brick or timber building. These schools were temporarily housed in tents, rented rooms or slab huts, where non-attendance of the children was frequently caused by the extremes of temperature, wind, heavy rain and snow. At Kurrara provisional school, a remote settlement in the cane growing district on the Tweed River, the teacher, Christopher McCallum defied any 'Teacher in the Commonwealth' to teach some of his pupils reading and dictation. Moreover, they had 'voices like locusts' and 'their father's & mother's monotonous way of speaking & I cannot break them of it.'<sup>53</sup> McCallum had clearly given up the struggle, but in an equally challenging community of itinerant railway workers in the Glen Innes area the teacher, Lucy Williams, a young widow who had previously taught in England, was uncompromising in her enforcement of values. One parent complained of her insistence that children who came to school with bare feet should have to go to the 'frozen tank' to wash off the mud before entering the schoolroom. However she argued strongly for the importance of maintaining the cleanliness and moral character of her school and considered them related.

From the day of my arrival here I have had to battle determinately with uncleanness, lying, foul language & laziness single handed, & all reproofs & punishments awarded to the children of those families with whom I have had the most trouble, have been taken as personal offences by the parents,

simply because the reproofs have 'struck home'. The whole matter resolves itself into this question: Shall I still endeavour to do my duty by carrying out the Regulations of the Department for the proper Management of my School, or, give in to those who are worrying me with these petty persecutions?<sup>54</sup>

Not surprisingly, recent scholarship by Pia Björklid on the relationship between learning and the physical school environment identifies cleanliness as an important aesthetic quality for engendering care and respect.<sup>55</sup>

Another social value that the new public schools sought to uphold was the separation of the roles and spheres of work for men and women.<sup>56</sup> Boys and girls were segregated as much as possible in the schoolroom and the playground. Mrs Dixon, a former pupil of Orange Grove Public School in the early 1890s, remembered, 'While the boys played exciting games like cricket and marbles, the girls sat and talked sedately or played skippings.'<sup>57</sup> At Thirlmere Public School one concerned parent wrote to the Department about the segregation in the playground:

During the dinner time the master (Mr Loader) will not allow [my three boys] to eat or stay under the verandah, the only shady spot in this hot weather, but will only let the girls stop there ...One, only 6 years old, looked like a Boiled Lobster when he came home yesterday and as there is no shed or shady trees they eat their tucker in the boiling hot sun.<sup>58</sup>

At some small schools the boys were allowed to play with the girls but Inspector Kevin made it plain in his annual report of 1883 that this was to be avoided and 'gave the teachers concerned very positive directions in this matter.'<sup>59</sup> The separation also occurred inside the schoolroom and Henry Lawson recalled that one form of punishment at his Old Bark School was being sent to sit with the girls. 'I was sent there once, by mistake. I felt the punishment, or the injustice of it, keenly.'<sup>60</sup> Gender differences were also highlighted and reinforced by different activities such as cadets and woodwork for the boys and maypole dancing and needlework for the girls. At larger schools, such as Croydon (1884), the boys and girls had separate entrances and single-sex schoolrooms.

### **Health and Hygiene**

In implementing a compulsory schooling clause the New South Wales government took responsibility for safe-guarding pupils' health. Combes's report on the heating, lighting and ventilation of school buildings is peppered with aphorisms such as 'health is the basis

of all social virtue';<sup>61</sup> 'public health is a nation's wealth'<sup>62</sup>; and 'if we injure the health of the child we injure the health of the man.'<sup>63</sup> He canvassed the latest science of ventilation, including quantitative and empirical research on the gasses contained in exhaled air and the relationship between density of pupils in a classroom, the method of ventilation, and the health of those pupils. He compared a number of different appliances and natural and artificial systems for heating and ventilating schoolrooms from around the world for their efficiency and applicability to the local context and recommended the optimum design and orientation for windows. His particular interest in the relationship between climate and ventilation was informed by his own experiences of the hot summer conditions of regional NSW where he had built his own house, Glanmire Hall (1881), near Bathurst.<sup>64</sup>

Kemp installed a system of ventilation shafts in the walls of his schools – his own version of the Tobin tube<sup>65</sup> – and roof cowls which were similar to the diagrams in Combes's report.<sup>66</sup> A previous article<sup>67</sup> raised a number of questions about the sources of Kemp's ideas on ventilation, some of which appear now to be answered in the pages of Combes's report.<sup>68</sup> A large square opening previously noted in the classroom ceiling at Young Public School is probably part of a ventilation device invented by W. F. Gray and used by the Educational Department of South Australia in their public schools.<sup>69</sup> Combes described it at length and included an illustration.<sup>70</sup>

Despite the efforts of Combes and Kemp to ensure that the new school buildings would meet health requirements, they were insufficiently ventilated because of the lack of cross-ventilation and unsanitary. Frequent overcrowding caused by the policies of the Department of Public Instruction exacerbated the problems. At Berrigan Public School (1891), near Jerilderie in the South West of the colony, severe overcrowding was reported in 1896.

Some children only attend half-time, others have been withdrawn, and, in some cases sent to work on the plea that if they attend, they must stand. Both the magistrate and the police state that they are powerless to secure conviction for non-attendance till sufficient space be provided.<sup>71</sup>

In 1891, when a new classroom was opened at Rockley Public School to ease the overcrowding the *Bathurst Free Press and Mining Journal* commented

How the teachers and pupils have so far managed to escape the fate of the inmates of the black hole at Calcutta is a mystery. Possibly our hitherto unusually cool summer explains it in part.<sup>72</sup>

The layout of the long schoolrooms constrained the placement of windows and forced Kemp to locate them at the back of the room behind the pupils. Moreover, orientation of school buildings for the most favourable lighting conditions to protect pupils' eyes was a particular problem on small sites and in the depression years of the 1890s when only the front face of the building was built of a quality fit to address the street. At Young Public School, the large windows on the western side provided plenty of light but resulted in a 'blaze of sunlight from the windows in the teachers' eyes and great heat affecting all therefrom'.<sup>73</sup> At the little country school of Gum Flat (1883), curved sun hoods were placed to create artificial shade over the west-facing windows but it is not known whether these were specified by Kemp or added by the district inspector and local builder (Fig 5).<sup>74</sup>



**Figure 5.** Gum Flat Public School (1883) in 1929 with curved sun hoods to west-facing windows. (Source: 'Gum Flat PS, 1929' in 'GumFlatsPS' folder in DET photos.)

### **Education for a New Era**

The year 1880 that saw the passing of the Public Instruction Act was a time of prosperity and vigour in the colony of New South Wales. The Sydney International Exhibition that had opened in 1879 was still drawing crowds, Sir Henry Parkes was Premier and loan funds were readily available to finance railways, schools and other public works. The overland telegraph lines that had spread across the continent in the 1860s, and the overseas telegraph links, had already connected the Australian colonies more closely

with the Mother Country, between each other and within their own boundaries. The railways were extending out from Sydney and the isolation of the far west of the colony was ending. In a single month, February 1881, the link between Wellington and Dubbo was opened, the final section from Gerogery to Albury opened, and the line between Junee and Narrandera was opened. In 1885 the line to Bourke opened. The five years from 1879 to 1884, according to John Gunn, were 'the great railway years'.<sup>75</sup> Similarly, the years 1882 to 1885 can be described as the great school building years, a period in which Kemp's office designed and built 313 new schools.<sup>76</sup> In this period there was a net increase of 518 in the number of ordinary public schools.<sup>77</sup> This number included schools converted from denominational or provisional status and small country schools that were built under the supervision of Inspectors. The revolution in communication and education networks throughout the colony increased and strengthened the government's reach to all inhabitants, and a family had to live in a very inaccessible outpost to not come into regular contact with government administration and agency through interactions with the postmaster, the policeman, the school teacher and the railway worker.<sup>78</sup>

Sir Henry Parkes, the architect of the Public Instruction Act, believed that education was the means to a better future for the people and the colony. The Public Instruction Act was the outcome of nineteenth-century democracy and liberalism, which together became a force for secularism in education and a major step towards universal literacy.<sup>79</sup> It was Parkes's belief that free, compulsory and secular education would give equality of opportunity. 'The son of the poorest inhabitant had just as good a chance of winning fortune, distinction, and honour as the son of the richest man in the country.'<sup>80</sup> His belief was clearly shared by parents from all walks of life who wanted to send their children to school, even when they were a necessary part of the local (agricultural or mining) workforce. An enormous volume of petitions and application forms was received by the Department of Public Instruction from such diverse groups as fishermen, shepherds, railway men and miners, themselves uneducated but keen to have a school and secure a better future for their children.<sup>81</sup> Eric Hobsbawm has noted this nineteenth century belief in education as a 'way out of the manual working class' and a 'way forward to self-respect and pride'.<sup>82</sup> At the opening of Balgownie Public School (1889), on the hillside below the Mt Pleasant mine, the Mayor of North Illawarra expressed the sentiment that:

a better addition could not be given to any district than the diffusing of a liberal system of education. It was the means of fitting the rising generation for high positions, without the aid of which the majority would be at a loss.<sup>83</sup>

Frederich James Cram remembered marching up the steep hill from Fairy Meadow School to the opening of Balgownie when he was 6 years old because it was the biggest event ever held in the district, and the Headmaster had warned that 'if he saw anyone at the opening of Balgownie School who had not marched they would 'cop it'. This was no idle threat as some of the Mt Pleasant boys who disobeyed this order were caned the following day.'<sup>84</sup>

### **The Symbolic Role of School Buildings in the Progress of the Colony**

In the opening speeches there was generally little reference to the school building, creating yet another gap in the narrative. Even though these occasions celebrated the opening of new buildings, there was no verbal articulation of the complementary roles of the building and teachers in the education process. The building was neither mentioned as a functional object nor as an object of cultural significance.

In his 1893 address to the Sydney Architectural Association, Kemp focussed his discussion on the functional and utilitarian aspects of his buildings, describing in great detail how they accommodated the English pupil-teacher system and how they incorporated best practices in lighting and ventilation. He did not divulge an architectural philosophy or ideology beyond the cultural significance of abandoning the Gothic style with its ecclesiastic associations that he thought inappropriate for the new secular education. He made a passing reference to the Vitruvian ideal of 'commodity, firmness and delight'<sup>85</sup> and appears to have translated 'commodity' as 'utility.' His whole thinking predated the later functionalist approach to architecture. Yet it is clear from the buildings themselves that he was also aware of their important symbolic role in the progress of the colony. Mike Dillon's historical study of school buildings in South Australia notes the importance of public buildings displaying distinctive styles to denote their functional and symbolic purpose.<sup>86</sup> Likewise, Kemp was committed to endowing his buildings with a dignified 'school-like' character, complete with a bell tower, wherever possible (Fig 3). He was in step with nineteenth-century writers on educational reform who thought that schools should be "noble" structures that would support the inculcation of appropriate social values and transform children into virtuous literate citizens.<sup>87</sup> He never actually said that this is what he thought, but it can be inferred from the quality of the buildings themselves, particularly the early schools completed before cost pressures came to bear. It would appear he intended his schools to express civic values: his design and construction of public schools across New South Wales in the 1880s and 1890s complemented the already widespread presence of court houses and post offices designed by his mentor, Colonial Architect James Barnet. The Italianate style of Kemp's



'Grand Classic'<sup>88</sup> schools has previously been thought to have been influenced by these buildings and their suitability for the Australian climate.<sup>89</sup> However, in Hammet's terms, a 'new element of the story' has emerged. A plan and elevation of a typical school of the Irish National Board of Education, published in Combes's report and hitherto unnoticed, may also have influenced Kemp's architectural style, being similar in style (Fig 6).

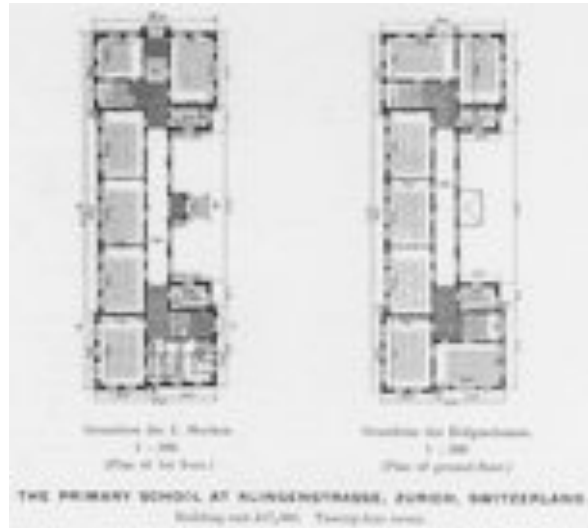


**Figure 6.** Irish Board of Education school suggested as a model for New South Wales schools by Combes. (Source: Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America* (Sydney: Thomas Richards Government Printer, 1880), figure 89 on unnumbered page facing 62.)

Kemp was charged with devising a new architectural style for school buildings that rested on the foundations and traditions of its predecessors, encompassed the system of teaching and marked the momentous reform taking place in education, as it moved from an era in which education was closely linked to the church to a new era in which it would be free, compulsory and secular.<sup>90</sup>

By the turn of the century, when G. H. Knibbs and J. W. Turner reviewed primary education in New South Wales, they concluded that it was necessary to abolish the pupil-teacher system, to make the education and training of teachers more thorough and to provide separate classrooms for each teacher.<sup>91</sup> Such a reform to school design had the potential to address many of the problems Kemp had experienced in providing satisfactory ventilation and lighting. Moreover, individual classrooms would allow for a less authoritarian method of teaching, as the theory of mental discipline in which children were drilled to exercise their mental faculties gave way to a neo-Herbartian philosophy in which development of a sound character was the central purpose.<sup>92</sup> They observed that, 'The past practice of New South Wales of having a row of classes in a very long room is practically unknown, except in England ... *such an arrangement is a very bad one.*'<sup>93</sup>

Instead, each class group should have its own classroom and the recommended form of the school was a 'long building with small wings at the end, and a long corridor running along the whole length of the class-rooms, etc' (Fig 7).<sup>94</sup> In addition, it was recommended that school sites be increased to 5 acres.



**Figure 7.** Typical Swiss school plan suggested as a model for New South Wales schools by Knibbs & Turner. (Source: G H Knibbs and J W Turner, *Interim Report of the Commissioners on Certain Parts of Primary Education*, (Sydney: William Applegate Gullick, Government Printer, 1903), 409.)

Knibbs and Turner criticised the poor hygiene in New South Wales schools and commended those of Switzerland for their hygienic standards. As well as securing the health of the pupils, they considered it important to set an example to the general population and they hoped that the indifferent attitude of Australians towards hygiene could 'be totally changed for the better, and thus cleaner homes and habits become characteristic of our people.'<sup>95</sup> Knibbs was of the opinion that in New South Wales,

Some of our buildings are by no means unworthy as regards ordinary architectural ideas, but through and through they shew a want of knowledge of the contributions of modern research to the subject of school hygiene, and are built on principles that are completely discredited, and quite out of date. Compared with modern schools in Europe and America, they are poor and unhygienic ... yet, considered in themselves, they are often fine buildings, of good appearance.<sup>96</sup>

## Conclusion

Lawson first published his poem 'The Old Bark School' in 1897, the year after Kemp's retirement. By then, he observed, the Department of Public Instruction had replaced all the makeshift bark schools of his childhood with purpose-built Kemp-designed buildings of brick or timber.

But the old bark school is gone ...

There's a brick school on the flat...<sup>97</sup>

Kemp had been charged with determining a new typology to meet the needs of the educational reforms of 1880 and his designs were shaped by the political, social and economic context of late nineteenth century New South Wales. He sought to provide the most appropriate built form to accommodate the teaching system and educational theories of the time; to devise a style that would denote the civic purpose of public education, with due regard to economy; and to safeguard the health of the children by incorporating suitable heating, lighting, ventilation and sanitation.

This paper has considered the influence of the built form of Kemp's schools on the teaching, learning and activities that took place within them. It has also discussed the symbolic role of the buildings in representing political objectives such as universal literacy, democracy, secularism and equality of opportunity; their contribution to social values of Britishness, civic pride and moral virtue; and their place in the economic progress of the colony. By the time Knibbs and Turner published their report in 1903 great changes had taken place. New South Wales was no longer a British colony, but a federated state of the Australian nation. Political, social and economic conditions had changed and it is not surprising that Kemp's school buildings were found wanting in the twentieth-century context. Nevertheless they are a product of the culture of the colony of New South Wales in the final decades of the nineteenth century and their ubiquity, civic prominence and role in social reform in a time of rapid change mark them as culturally significant.

## Endnotes

<sup>1</sup> Alan Barcan, *Two Centuries of Education in New South Wales* (Kensington, NSW: New South Wales University Press, 1988).

<sup>2</sup> Rosemary Goodyear, 'Has the Bell Rung Yet? Children and Schooling in Otago 1900-1920', *History of Education Review*, 24, 1 (1995), 31-52; Maree Murray, 'Children and Schoolwork in New South Wales, 1860-1920', Working Paper 99-15, 1999 in Research Online <http://ro.uow.edu.au/commwkpapers/18/>, accessed 17 February 2012.

<sup>3</sup> Richard Flanagan, *Gould's Book of Fish: a novel in twelve fish* (Sydney: Pan Macmillan, 2002), 25.

<sup>4</sup> Flanagan, *Gould's Book of Fish: a novel in twelve fish*, 28.

<sup>5</sup> Flanagan, *Gould's Book of Fish: a novel in twelve fish*, 275.

<sup>6</sup> Barcan, *Two Centuries of Education in New South Wales*, 125.

<sup>7</sup> Henry Lawson, 'The Old Bark School', in Leonard Cronin (ed.), *A Camp-Fire Yarn: Henry Lawson Complete Works 1885-1900* (Sydney: Landsdowne, 1984), 521.

<sup>8</sup> Bowker was a physician very interested in ameliorating conditions that contributed to poor health. Ben Champion, 'Bowker, Richard Ryther Steer (1815–1903)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/bowker-richard-ryther-steer-3033/text4453>, accessed 7 March 2012.

<sup>9</sup> Farnell was the first native-born premier of New South Wales. V. W. E. Goodin, 'Farnell, James Squire (1825–1888)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/farnell-james-squire-3499/text5375>, accessed 7 March 2012.

<sup>10</sup> Kirsten Orr, 'Colonial Ambition and City Development: The Influence of Commissioners for the 1879 International Exhibition on Sydney's Architectural Identity', in David Beynon & Ursula de Jong (eds.), *Society of Architectural Historians Australia and New Zealand (SAHANZ) 25<sup>th</sup> International Conference: History in Practice* (Geelong: SAHANZ, 2008), 1-32.

<sup>11</sup> Dr R. R. S. Bowker to Mr Farnell, Secretary for Lands and Premier, 4 May 1878, cited in Edward Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America* (Sydney: Thomas Richards Government Printer, 1880), 3.

<sup>12</sup> Combes was an ideal choice for such a fact-finding mission given his fluency in French, having attended the École des Mines and the Conservatoire des Arts et Métiers in Paris, and his passion for nurturing the fine arts and cultural life of the colony. Bede Nairn, 'Combes, Edward (1830–1895)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/combes-edward-3248/text4911>, accessed 7 March 2012.

<sup>13</sup> Kirsten Orr, 'Empire, Education and Nationalism: the school architecture of William Edmund Kemp, 1880-1896', *Fabrications*, 20, 2 (2012), 60-85.

<sup>14</sup> Geoff Fox, *Orange East Public School, 1890-1990* (Orange: Orange East Centenary Committee, c. 1990), 2.

<sup>15</sup> Oliver Goldsmith, 'The Deserted Village'. (1770).

<sup>16</sup> Jan Burnswoods & Auburn Centenary Committee, *Auburn Public School Centenary 1886-1986*, (Auburn: Auburn Public School Centenary Committee, 1986), 13, 16.

<sup>17</sup> Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, 4-5.

<sup>18</sup> W. E. Kemp, 'School Buildings: paper read before the Sydney Architectural Association by Mr W. E. Kemp, Architect to the Public Instruction Department of New South Wales on Monday July 3, 1893', *The Australasian Builder and Contractors' News* (8 July 1893), 15.

<sup>19</sup> Kirsten Orr, 'W. E. Kemp's School Buildings 1880-1896: 'Seed-germ of the Australian architecture of the future'', *Fabrications*, 19, 1 (2009), 96-121.

<sup>20</sup> Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, Appendix Z, 251-.

<sup>21</sup> Memorandum from Architect to Under Secretary, 7 August 1891, copy held in the NSW Department of Education & Training (DET) Library in the 'History Unit: School Accommodation' folder.

<sup>22</sup> Marion Giddy, *The Meadows Public School 1890-1990*, (The Meadows Public School Centenary Committee, 1990), 13-14.

<sup>23</sup> Giddy, *The Meadows Public School 1890-1990*, 11.

<sup>24</sup> J. J. Fletcher, 'Appendix 4: School Records – A Personal Lament', in J. J. Fletcher, *Auburn North Public School: a centenary history*, (Management Information Services Directorate, Department of School Education, 1991).

<sup>25</sup> NSW State Records, Container 20/12484 Architect 1876-83.

- <sup>26</sup> The orientation of the original school building and teacher's residence is unknown. Booklet Sub-Committee of the Junee School Centenary Committee, *The History of Junee Public School 1880-1980*, (Junee: Junee School Centenary Committee, c. 1980), 46.
- <sup>27</sup> 'Public School & Teacher's Residence Young', Container X18 Young Public School. Drawing dated 2 April 1883.
- <sup>28</sup> Standard Plan E, Memorandum from Architect to Under Secretary, 7 August 1891.
- <sup>29</sup> '12th Architecture and Behaviour Colloquium' (April 2006), [http://www.oecd.org/document/7/0,3343,en\\_2649\\_39263294\\_38157383\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/7/0,3343,en_2649_39263294_38157383_1_1_1_1,00.html), accessed 10 March 2012.
- <sup>30</sup> Murray, 'Children and Schoolwork in New South Wales, 1860-1920', 21.
- <sup>31</sup> Murray, 'Children and Schoolwork in New South Wales, 1860-1920', 20.
- <sup>32</sup> S. G. Firth, 'Social Values in NSW Primary Schools 1880-1914: An analysis of school texts', *Melbourne Studies in Education*, (1970), 145.
- <sup>33</sup> Miles Franklin, *My Brilliant Career* (1900), cited in Murray, 'Children and Schoolwork in New South Wales, 1860-1920', 19.
- <sup>34</sup> Department of Public Instruction Architect's Office, *Specification of Public School and Teacher's Residence Young* (undated), 55-56. NSW State Records, Container X18 Young Public School.
- <sup>35</sup> PDF 18, 'Furniture' folder in DET Photos, electronic resource held by DET Library.
- <sup>36</sup> Mary McPherson, *A History of Lockhart Central School*, (Department of School Education, 1996), unnumbered drawing in appendix.
- <sup>37</sup> Barcan, *Two Centuries of Education in New South Wales*, 149.
- <sup>38</sup> William Denison cited in Murray, 'Children and schoolwork in New South Wales, 1860-1920', 7.
- <sup>39</sup> Francis McPhail letter 11 November 1896, cited in Junee School Centenary Committee, *The History of Junee Public School 1880-1980*, 13.
- <sup>40</sup> Lena Powell, NSW Bicentennial Oral History Collection, transcript 91/1, cited in Murray, 'Children and Schoolwork in New South Wales, 1860-1920', 17.
- <sup>41</sup> Mrs Eva Stone (née Jeffress) in Fairfield Public School Centenary Committee, *Fairfield Public School Centenary 1889-1989*, (Fairfield Public School, 1989), 15.
- <sup>42</sup> Ruth Lewis, *The Belltower: A history of South Wagga Public School, 1892-1992*, (Wagga Wagga: South Wagga Public School Parents and Citizens Association Centenary Committee, 1992), 6.
- <sup>43</sup> Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, 132.
- <sup>44</sup> From a conversation with Mrs A. Dixon and her daughter Mrs S. Broadhead in April 1982, *Orange Grove Public School Celebrating 125 Years of Public Education 1883-2008*, (Orange Grove Public School, c. 2008), 7.
- <sup>45</sup> Barcan, *Two Centuries of Education in New South Wales*, 109.
- <sup>46</sup> *Australian Town and Country Journal*, (1 July 1871), 9.
- <sup>47</sup> 'The Inspection of Cadets', *The Sydney Morning Herald*, (30 June 1884), 5.
- <sup>48</sup> PDF 18, 'Furniture' folder in DET photos, 13, 15.
- <sup>49</sup> Mr William Crawford, cited in Mary McPherson, *Beverly Hills Public School 1892-1956: a centenary history*, (Management Information Services Directorate, Department of School Education, 1992), 4.
- <sup>50</sup> Firth, 'Social Values in NSW Primary Schools 1880-1914: An analysis of school texts', 123-159.
- <sup>51</sup> *Bathurst Free Press and Mining Journal*, (5 October 1895), 2; *Bathurst Free Press and Mining Journal*, (15 July 1896), 2.
- <sup>52</sup> Alfred Stephen to James Macarthur c. 1857, cited in Robert Hughes, *The Fatal Shore: A History of the Transportation of Convicts to Australia, 1787-1868*, (London: Collins Harvill, 1987), 356. While this belief was expressed some twenty three years before the Public Instruction Act, Hughes observes that 'Ultimately the community's reaction to its convict origins proved of more lasting and profound significance than convictism itself', 637.
- <sup>53</sup> Christopher McCallum letter 12 December 1904, cited in Mary McPherson, *Banora Point Public School 1893-1971: a history*, (Management Information Services Directorate, Department of School Education, 1993), 9.
- <sup>54</sup> Jan Burnswoods, *Ben Lomond Public School 1885-1985: a history*, (Department of Education, 1985), 12.

<sup>55</sup> Pia Björklid, 'Learning and the Physical Environment – A Research Overview from Scandinavia', in Eberhard Knapp and Kaj Noschis (eds.), *Architectural Quality in Planning and Design of Schools: Proceedings of the 13<sup>th</sup> Architecture & Behaviour Colloquium* (2008), [http://www.oecd.org/document/7/0,3343,en\\_2649\\_35961311\\_40808263\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/7/0,3343,en_2649_35961311_40808263_1_1_1_1,00.html), accessed 10 March 2012.

<sup>56</sup> Kirsten Orr, 'Women Exhibitors at the First Australian International Exhibitions', *Journal of Colonialism and Colonial History*, 12, 3, (Winter 2011), [http://muse.jhu.edu.ezproxy.lib.uts.edu.au/journals/journal\\_of\\_colonialism\\_and\\_colonial\\_history/v012/12.3.orr.html](http://muse.jhu.edu.ezproxy.lib.uts.edu.au/journals/journal_of_colonialism_and_colonial_history/v012/12.3.orr.html).

<sup>57</sup> From a conversation with Mrs A. Dixon and her daughter Mrs S. Broadhead in April 1982, *Orange Grove Public School Celebrating 125 Years of Public Education 1883-2008*, 7.

<sup>58</sup> *Thirlmere Public School 1888-1988*, (Centenary Committee, c. 1988), 10.

<sup>59</sup> Inspector Kevin Annual Report for 1883 in 'Report of the Minister of Public Instruction, 1883', *NSW Legislative Assembly Votes and Proceedings 1883-84*, 7, 857.

<sup>60</sup> Lawson, 'The Old Bark School' in *A Camp-Fire Yarn: Complete Works 1885-1900*, cited in Murray, 'Children and schoolwork in New South Wales, 1860-1920', .

<sup>61</sup> Combes cites Dr Samuel Johnson (1709-1984), in a letter to Miss Langton 1771. Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, 5.

<sup>62</sup> Dr Franklin, cited in Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, 7.

<sup>63</sup> Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, 15.

<sup>64</sup> The house was built of load bearing masonry and brick with a corrugated iron roof, rubble walls and board/plaster ceilings. National Trust of Australia, 'HeritageSpace' website, <http://www.heritagespace.com.au/national-trust-register/country?resetfilters=0&limitstart4=300>, visited 8 February 2012, Country Register, item 787, Town Bathurst.

<sup>65</sup> Orr, 'W. E. Kemp's School Buildings 1880-1896: 'Seed-germ of the Australian architecture of the future'?', 109.

<sup>66</sup> Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, figures 51-54 on unnumbered pages between 40-41.

<sup>67</sup> Orr, 'W. E. Kemp's School Buildings 1880-1896: 'Seed-germ of the Australian architecture of the future'?', 109-111.

<sup>68</sup> Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, figures 55-58 on unnumbered pages between 40-41.

<sup>69</sup> Ian Sansom, 'The Life and Work of William Edmund Kemp', undergraduate thesis, University of New South Wales (1968), unnumbered photo titled 'Young Public School 1883 classroom ceiling'.

<sup>70</sup> Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, figure 59 on unnumbered page facing 42.

<sup>71</sup> Mr Hutchinson Smith, cited in Mary McPherson, *Berrigan Public School: a centenary history*, (Management Information Services Directorate, Department of School Education, 1991), 6.

<sup>72</sup> 'Rockley', *Bathurst Free Press and Mining Journal*, (22 January 1891), 2.

<sup>73</sup> State Records, container 2-50140 Bundle B, Young administrative files, 19 July 1889.

<sup>74</sup> 'No. 41 Gum Flat School and Residence' dated 1954, in 'GumFlatsPS' folder in DET photos, electronic resource held by DET Library.

<sup>75</sup> John Gunn, *Along Parallel Lines: a history of the railways of New South Wales*, (Carlton: Melbourne University Press, 1989), 169.

<sup>76</sup> Orr, 'W. E. Kemp's School Buildings 1880-1896: 'Seed-germ of the Australian architecture of the future'?', 112.

<sup>77</sup> James Inglis, 'Report of the Minister of Public Instruction, 1886', *NSW Legislative Assembly Votes and Proceedings 1887*, 3, 3.

<sup>78</sup> Eric Hobsbawm, *Nations and Nationalism since 1780: programme, myth, reality*, (Cambridge: Cambridge University Press, 1992), 80-81.

<sup>79</sup> Orr, 'Empire, Education and Nationalism: the school architecture of William Edmund Kemp, 1880-1896', 61-62.

<sup>80</sup> Sir Henry Parkes, 'Opening of the Fairfield Public School: Sir Henry Parks on Educational Progress', *The Sydney Morning Herald*, (25 February 1889), 9.

<sup>81</sup> Petitions can be found in the school files held by NSW State Records, for example for Pymont and Young public schools.

<sup>82</sup> Eric Hobsbawm, *Uncommon People: resistance, rebellion and jazz*, (London: Weidenfeld & Nicolson, 1998), 68.

<sup>83</sup> 'Opening of the Balgownie Public School', *Wollongong Argus*, cited in Balgownie Publications Committee & Jim Fletcher, *Balgownie School Centenary 1889-1989*, (Balgownie: Balgownie Centenary Committee, 1989), 7.

<sup>84</sup> Frederick James Cram, 'Former Pupils Reminiscences', in Balgownie Publications Committee & Fletcher, *Balgownie School Centenary 1889-1989*, 26.

<sup>85</sup> W. E. Kemp, 'School Buildings: paper read before the Sydney Architectural Association by Mr W. E. Kemp, Architect to the Public Instruction Department of New South Wales on Monday July 3, 1893', 15.

<sup>86</sup> Mike Dillon, 'Buildings and Betterment: influences on the design of state school buildings 1900-1920', *International Education Journal*, 2, 2 (2001), 109-115.

<sup>87</sup> Dillon, 'Buildings and Betterment: influences on the design of state school buildings 1900-1920', 110.

<sup>88</sup> Peter Tonkin classifies Kemp's school buildings into three styles: the 'Grand Classic', 'Cottage' and 'Simple Class'. Peter Tonkin, 'School Buildings 1848-1930: An Analysis of the Form and Function of Public Schools in New South Wales,' B. Arch (Hons) thesis, University of Sydney, 1975, 97-99.

<sup>89</sup> Orr, 'Empire, Education and Nationalism: the school architecture of William Edmund Kemp, 1880-1896', 75-76, 81.

<sup>90</sup> Orr, 'Empire, Education and Nationalism: the school architecture of William Edmund Kemp, 1880-1896', 64-65, 79-80.

<sup>91</sup> G H Knibbs and J W Turner, *Interim Report of the Commissioners on Certain Parts of Primary Education*, (Sydney: William Applegate Gullick, Government Printer, 1903), 7.

<sup>92</sup> Barcan, *Two Centuries of Education in New South Wales*, 171-173.

<sup>93</sup> Knibbs and Turner, *Interim Report of the Commissioners on Certain Parts of Primary Education*, 407.

<sup>94</sup> Knibbs and Turner, *Interim Report of the Commissioners on Certain Parts of Primary Education*, 409.

<sup>95</sup> Knibbs and Turner, *Interim Report of the Commissioners on Certain Parts of Primary Education*, 403.

<sup>96</sup> Knibbs and Turner, *Interim Report of the Commissioners on Certain Parts of Primary Education*, 437.

<sup>97</sup> Henry Lawson, 'The Old Bark School', 521.