

Schools for the "Brave New World":
R. A. D. Berwick and School Design
in Postwar British Columbia

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Addressing the annual meeting of the Ontario Association of Architects early in 1946 on the theme "The Architect and the Post War World," R. Walker enjoined his fellows to promote planned community development — so as to fabricate what Aldous Huxley had ironically rather than literally denominated the "Brave New World."¹ Walker's paper was but one of several homilies on socially conscious progressive design printed in the journal of the Royal Architectural Institute of Canada when the cessation of hostilities seemed to afford the opportunity to introduce social reforms and to realize the comparable tenets of Modernist architecture.² Both those aims enjoyed a broad political and professional consensus during the postwar decades in British Columbia, one notable manifestation being in the school architecture conceived by R. A. D. Berwick of Sharp, Thompson, Berwick and Pratt.³ His functional and economical schemes, while eschewing the rigorous formalism of "International Style" Modernism, made a distinctive contribution to the acceptance of Modernist architecture in western Canada. Consequently, this article seeks to establish the administrative, and wider ideological, context of Berwick's school architecture and to define its leading features.

Born at Shelburne, Ontario, in 1910, trained at the University of Toronto under the temperate modernist Eric Arthur and from 1935 in the Vancouver office of Sharp and Thompson, Bob Berwick had joined the RCAF in 1942, significantly making the acquaintance of one of the early

¹ *R.A.I.C. Journal* 23 (February 1946): 25. The author wishes to thank Bonnie Maples and Ron Nelson, formerly of Thompson Berwick Pratt and Partners (ended in August 1990), for their help in compiling this article.

² For example, P. S. Dryer, "Recent Developments in Education and Schools in England," *R.A.I.C. Journal* 23 (April 1946): 79ff., mainly referring to the 1944 Education Bill.

³ Sadly no history of the firm exists, apart from a short booklet published on the seventy-fifth anniversary of its foundation in 1908; several of the firm's buildings are discussed briefly in Harold Kalman, *Exploring Vancouver 2* (Vancouver: University of British Columbia Press, 1978), and its contribution will be reviewed by this author in the forthcoming *Dictionary of Art*.

postwar British Columbia ministers of Education: W. T. Straith.⁴ Once demobilized, each resumed his career in an environment of rapidly expanding population and demand for increased expenditure on schools and hospitals. In the 1945 provincial election, the Liberal-Conservative coalition just managed to defeat the CCF party on a policy of economic growth and reconstruction. The primacy of education funding would be maintained from 1952 by the W. A. C. Bennett Social Credit government, encompassing the centenary in 1971 of public education in British Columbia.⁵

By 1947, when W. T. Straith became Minister of Education, the recommendations of the 1945 Cameron report had been implemented, reducing the number of school boards from 696 to 89 and equalizing the school tax burden across the province in order to consolidate funds for new construction.⁶ Aided by his senior officials, including Assistant Superintendent of Schools M. L. Campbell, who became superintendent from 1953 to 1957, Straith strove to initiate a building programme and to entrench the province's leading position in Canadian primary and secondary education. For, in his 1948 report, Straith boasted that, among other distinctions, over 31 per cent of British Columbia teachers were university graduates, compared with 21.3 per cent in Ontario; 77 per cent held first class certificates and only 8.2 per cent of children were taught in single-room schools.

Other statistics published in the annual reports of the Minister of Education stressed the demographic imperative confronted by his department. Enrolment charted the baby boom: 130,605 in 1945, 137,827 within one year and a massive 527,106 by 1971. Little wonder that in 1953 the inspector of the Summerland School District, in the less-populous Okanagan, reported the "present classroom accommodation is taxed to its limits." The good news for the architectural fraternity was that the education budget rocketed correspondingly from \$20,176,930 in 1946 to \$269,217,969 in 1971. About the mid-point of Berwick's participation in the school building programme between 1946 and 1970, the ministry was forced to add "portables" — prefabricated wood frame classrooms — or huts to existing

⁴ Some biographical information appears in the obituary printed in *The Province* 12 August 1974, supplemented by conversation with Ned Pratt.

⁵ The postwar political situation and public education policy were discussed in David J. Mitchell, *W. A. C. Bennett and the Rise of British Columbia* (Vancouver: Douglas & McIntyre, 1983); in July 1952 Bennett appointed Mrs. Tilly Rolston to be Minister of Education and the first female cabinet minister in Canada.

⁶ The following section concerning the development of secondary education in the province is derived from the annual *B.C. Public Schools Reports* and from the Department of Education 1971 publication *One Hundred Years of Education in British Columbia* (Victoria: Government Printing Service).

schools, to operate “split” or “swing” shifts and even to open incomplete buildings. Consequently the chief categories of schools multiplied mightily: elementary from 783 in 1946 to 1,210 in 1971, elementary junior high from 12 to 52, junior high from 7 to 97 and junior/senior high from 37 to 188. This insistent pressure for expansion is obvious on a November 1969 plan of two alternative schemes by Thompson Berwick Pratt for the third addition to the Gleneagles Elementary they had designed in 1949.

Berwick and his contemporaries were, however, motivated by more than mere numerical necessity. They had a clear sense of architectural mission, in Berwick’s case shared by his partner, Ned Pratt, a fellow graduate of the University of Toronto, and their associates, including Rom Thom and Fred Hollingsworth. Contemporaneously they carried the Modernist aesthetic into every aspect of design, epitomized by the pioneering abstract functionalist composition of the Vancouver Vocational Institute (1948-49), which assumed a greater monumentality in the UBC War Memorial Gym (1951-53), and heightened aesthetic sophistication with B.C. Hydro Building (1954-57). With regard to the educational commissions, Berwick sought a less austere interpretation of Modernism, writing in the B.C. section of special schools issue in the *RAIC Journal* for September 1950, “On the whole, the new schools indicate a distinct realization, by the architects responsible, that a new school must be a pleasant place for children to spend a great proportion of their lifetime, as well as to be practical and efficient workshop for learning.”⁷ He was alluding to the social ideal Campbell stated in the 1949-50 ministry report:

The Secondary School of today is no longer a selective institution for the education of the few. It is a school for every man’s child, and must attempt to meet the need for that pupil guidance and development which will result in happy and effective citizenship for all students.

Four years later Campbell would again stress the egalitarian, rather than the purely academic, educational aims of the baby boom period.

Such theory paralleled the socialized architecture polemic which informed the work of Berwick and his generation. It was nicely epitomized in two articles earlier selected for publication in the *RAIC Journal* by its editor, Eric Arthur. In February 1943 he reprinted Le Corbusier’s essay “If I had to teach you Architecture” from the Architectural Associations’ magazine *Focus*.⁸ “Architecture provides the framework for a civilization,” Corbusier declared, “You must not be a stylist. You articulate, you plan —

⁷ *R.A.I.C. Journal* 27 (September 1950): 288-89.

⁸ *R.A.I.C. Journal* 20 (February 1943): 17-18.

nothing more. . . . Architecture is organization. **YOU ARE AN ORGANIZER, NOT A DRAWING-BOARD STYLIST.**" Then, more directly relevant, in July Arthur published John B. Parkin's "Tomorrow's Schools."⁹ Parkin, who in Ontario would achieve for Modernism what Thompson Berwick Pratt did in British Columbia, desired Canada to establish a programme of school construction comparable to those in Britain, the United States, Scandinavia, and Mexico. Besides his own proto-Modernist Sunnylea School recently completed at Etobicoke, Parkin illustrated H. Brechbühler's Technical School, Berne, Lyndon and Smith's Kindergarten at Northville, Michigan and William Lescaze's High School at Asonia, Connecticut, all dating from the late 1930s. Each demonstrated those design features commended in the text, namely a functional, asymmetrical layout and open-plan classrooms.

Parkin preached the Modernist message of a new beginning. He castigated the conventional, symmetrically planned schools faced in the Beaux-Arts or Neo-Gothic styles. The latter had been most popular in Canada, typified by the Point Grey Secondary, designed in 1928 by Fred Townley, or the David Lloyd George High School in the Marpole district of Vancouver of 1929-30, by Twizzell and Twizzell, the leading Vancouver school architects of the interwar years.¹⁰ "The mysterious illusion," Parkin declared, "that one should clothe all scholastic buildings in a pseudo-Gothic or near Georgian garb has unnecessarily increased the problems of the school designer . . . [being] super fire traps, huge halls, ugly and inadequate stairs, high ceilinged class-rooms, dull-stained woodwork, oily floors, mid-Victorian sanitary arrangements and play space sufficient to play nothing more strenuous than blind man's bluff." Rather, architects should "place in the hands of the teachers the best possible tools for the proper execution of their work . . ." He highlighted three design goals: first, health, centring on adequate lavatory facilities scaled to children; second, functional and open plan space that "concerns itself more with utility and orientation than with symmetry"; and third, "new materials and design trends," meaning, for him, reinforced concrete or steel frame structures, cantilevering to free the "entire wall expanse for glass" and sloping ceilings to boost light deflection and acoustics.

⁹ *R.A.I.C. Journal* 20 (July 1943): 99-114; Parkin's career is reviewed by Michael McCordie in "Parkin: John Burnett," *Contemporary Architecture* (Chicago and London: St. James Press, 1987), 673-74.

¹⁰ *The First Fifty Years. Point Grey Secondary School*, (Vancouver: Point Grey Secondary School, 1974); also relevant is the 1982 report on Vancouver school buildings compiled by Diana Bodnar for the City of Vancouver Heritage Inventory.

Several of these ideas, which, as will be indicated, can be found in Berwick's school design, were touched upon in three subsequent RAIC articles. In April 1946 P. S. Dryer's article "Recent Developments in Education and Schools in England" reviewed the 1944 British (Butler) Education Act and also examined the issues of size, lighting, heating, sanitation, and prefabrication with particular reference to Walter Gropius's and Maxwell Fry's celebrated Impington Village College, Cambridgeshire in England (1935-37). Then, in the May 1950 school issue, J. A. G. Eaton contributed a shorter piece entitled "The Post War School Building Programmes in Great Britain and Western Europe," while the American architect L. B. Perkins, of the Illinois partnership of Perkins and Will, responsible for a slate of advanced schools erected in the state, discussed optimum classroom design.¹¹ Eaton included illustrations of Harold Conolly's Modernist Primary Schools, newly built for the Essex County Education Authority, but omitted mention of the structurally more radical school building programme of the Hertfordshire County Council, established by Stirrat Johnson-Marshall.¹² From 1945 Johnson-Marshall had developed a functional and flexible design process employing the Hills steel-frame system (germ of the CLASP prefabricated structural system). This had a module of 8' 3" to provide open-plan, twenty-four foot classrooms arrayed in various, so to speak, "nuclear" layouts. Closest to Gropius's ideal of Modernist planning, Johnson-Marshall's schools represented the progressive values of practical, sanitary and bright space that Berwick introduced, if more attuned to the diverse topography and essentially picturesque local architectural conventions.¹³

Berwick conceived his solutions against this background. He was impelled by a similar urgency to open new schools, also to have twenty-four foot wide classrooms, but governed by somewhat different material conditions. The financial resources of British Columbia were much less considerable than in Britain or in the United States, but the province had plentiful wood. Enjoying the confidence of W. T. Straith and his bureaucrats, Berwick, as he recalled in 1950, advocated timber frame instead of "permanent" construction outside the "No. 1 Fire Areas," which were

¹¹ Dryer's article is cited in n. 2 above; Eaton's contribution is *ibid.*: 151-57.

¹² This innovative programme and Johnson-Marshall's career are examined in Andrew Saint, *Towards a Social Architecture: the role of school-building in post-war England* (London and New Haven: Yale University Press, 1987).

¹³ The Modernist ethos in architecture and Gropius's concept of planning are summarized in William J. R. Curtis, *Modern Architecture Since 1900* (Englewood Cliffs, N.J.: Prentice-Hall, 1983, 2nd ed.), also containing a useful bibliography.

confined to the large cities;¹⁴ almost all the approximately forty school commissions with which Berwick was associated belonged to the West and North Vancouver Boards and in the small interior or cost-conscious communities. His strategy was determined by the considerably greater cost of the reinforced concrete frame required by municipal regulation when he extended the Pauline Johnson Elementary School in West Vancouver from October 1949. Alongside the Neo Gothic fabric of the extant building — akin to the original UBC work of Sharp and Thompson and to their concrete and stucco Templeton School of 1927-28, the first exclusively Junior High School in Vancouver — Berwick packed in a capacious activity room, replete with kitchen and storage, rooms for medical and dental inspection, and three classrooms, articulated externally by modernized version of Tudor mullioned windows.

For schools outside the No. 1 Fire Areas, Berwick not only recommended wooden structure but also allowed for future expansion, a specification that became ministerial policy. Indeed, at that juncture, Berwick and the ministry even regarded the new schools as potentially replaceable every twenty-five years, though inflation and increased budgets aborted that concept and eventually led to the general use of reinforced concrete. In 1946, facing the paramount need for cheap, rapid construction, yet only being able to employ non-kiln dried and hence spongy long timber with which to span the 24 foot classrooms, Berwick and Victor Thorson, of the Vancouver engineering firm Thorson and Thorson, developed a series of lightweight, angled timber trusses fabricated from short 2x6 inch or 2x4 inch planks. An immediate savings of five cents per cubic foot was thereby effected over traditional methods. Hence in one obituary Berwick was credited with having developed a “unique and economical truss system.”¹⁵

Berwick's achievement can be gauged effectively by concentrating on his work in the late 40s and 50s, and by examining examples of his two major school types: the Elementary and Junior/Senior High School, each exhibiting his functional and aesthetic aims as well as contemporary educational ideology.¹⁶

Among the earliest commissions, from the fall of 1948, appropriately awarded by his best patron, the Trustees of School Board number 45 in West Vancouver, was Ridgeview Elementary School. Berwick located it

¹⁴ *R.A.I.C. Journal* 27 (September 1950): 288.

¹⁵ See n. 4 above.

¹⁶ The analysis of Berwick's schools is based upon study of the sets of drawings for each commission in the Thompson Berwick Pratt and Partners Archive (now at the University of British Columbia).

diagonally on the sloping site nearest to Matthews Avenue for ease of access and low expenditure on roadways and services. He turned the falling ground to advantage by projecting the main classroom floor over a semi-enclosed play shed. Access was from an internal ramp running down from the main floor past lavatories. The shed itself was subdivided to segregate the sexes and screened by a Modernist peristyle of Corbusian "pilotis" comprising concrete-filled cheap iron four-inch pipe. In order to create a comparably economical building, capable of extension, he chose a simplified "T" plan. The largest space, a 40x70 foot activity room, was placed at right angles on the northern, Matthews Avenue, side of the classroom block. Thereby Berwick entirely separated the school from the service entrance and provided space for such non-teaching facilities as a medical room. Those facilities communicate directly with the main corridor, double doored at either end for emergency egress. Off it, and with the minimum of architectural fuss but the maximum of economy, illumination and space, Berwick situated six large 24 by 40 foot classrooms with, opposite, tiled lavatories together with a reasonably well-insulated staff room. He spanned the interior by versions of his inexpensive wooden truss, really a twentieth century equivalent of the De L'Orme rib of pegged short planks.¹⁷ The trusses afforded the preferred sloping ceilings, supplemented in the classrooms by clerestory lighting that was permitted by the pitch of the shed roof. Pleasantly purposeful, Ridgeview proved Berwick's mettle as an intelligent and inventive designer.

That plan, well illustrated by a photograph of the contemporary Henderson Elementary School, Vancouver (Fig. 1), had the potential for variation. When designing the Marysville Elementary School at Kimberley (1951-52), Berwick simply extended the classroom block laterally; and the suitably regular, non-hierarchic cadence remained even on such contracted versions as the Gleneagles Elementary School at Horseshoe Bay. The surviving drawings for this school, designed in June 1949 and completed not long after the onset of the new school year, include particularly good delineations of his truss system. Berwick again exploited a sloping site, here abutting Marine Drive, to accommodate the sheltered play area below the classroom range on the upper grade level. Four in number and 24 by 36 feet in size, these were ranked along an eight-foot corridor off which were located lavatories, staff accommodation, a furnace room and two internal staircases. Their articulation proves Berwick's comprehension of current progressive educational thought. Each classroom had two closets, one each

¹⁷ The system devised by Philibert de l'Orme is explained in Dora Wiebenson, "The two domes of the Halle au Blé in Paris," *Art Bulletin* 54 (June 1973): 262-79.

for children and teacher, plus a sink, so as to permit a wide variety of activities, and an open-plan or flexible space. The external wall chiefly consisted of window, rising eight feet high atop open shelving and supplemented by clerestory lighting over the black- and tack-boards and side doors. The clerestory was neatly fitted in between the cheap tar and gravel roofs supported on two types of truss. The working drawings of the trusses, and the details and finish, further reveal Berwick's efficient use of materials and radical functionalist intention. The trusses and wooden frame were sheathed in gyproc for fireproofing, while the 2 x 4 inch stud walls comprised 1 x 10 inch cedar boarding nailed onto 1 x 6 inch cedar battens, covered by 3/4 inch shiplap siding with three internal layers (including the then acceptable two-inch Rock Wool, fiberglass insulation), finished with 3/8 inch plywood panels.

The external cedar boarding came nearest to injecting visual appeal, its rougher texture counteracting the angular form. Berwick, in his 1950 RAIC piece, acknowledged the austerity of his first designs, offsetting the stark photograph of the exterior of Henderson Elementary School in West Vancouver with a shot of the corridor at Ridgeview enlivened by an ornamental abacus and polychromatic walls. "In the initial design," Berwick confessed, "clean functional buildings resulted, but lacked if anything, the warmth and domesticity perhaps necessary to an adequate school. In further studies, materials now are becoming equally important. The small elementary school is becoming a domestic building with warmth and natural materials, the are happily accepted by the children and teachers alike. The use of colour is becoming more important." Here he progressed along the lines of Modernists internationally — Johnson-Marshall in Hertfordshire, for instance — adding colour schemes, murals, and tapestries to his standardized design constituents. And in that 1950 school issue of the RAIC, Eric Arthur, in his editorial, stressed the need for greater visual sensitivity, prefiguring one of the major concerns in Paul Rudolph's prescient critique of Modernist functionalism in an article entitled "The six determinants of architectural form" published in 1956.¹⁸ "We can now turn our attention," Arthur commented, "to things of the spirit, of beauty, of joy. So long as emotional appeal is lacking in our school buildings, we cannot afford to be smug about financial, practical and quasi-scientific achievements."

Besides introducing a sense of "warmth and domesticity," Berwick revised his original structural system upon the advent from 1949 of stable

¹⁸ *Architectural Record* 120 (October 1956): 183-91.

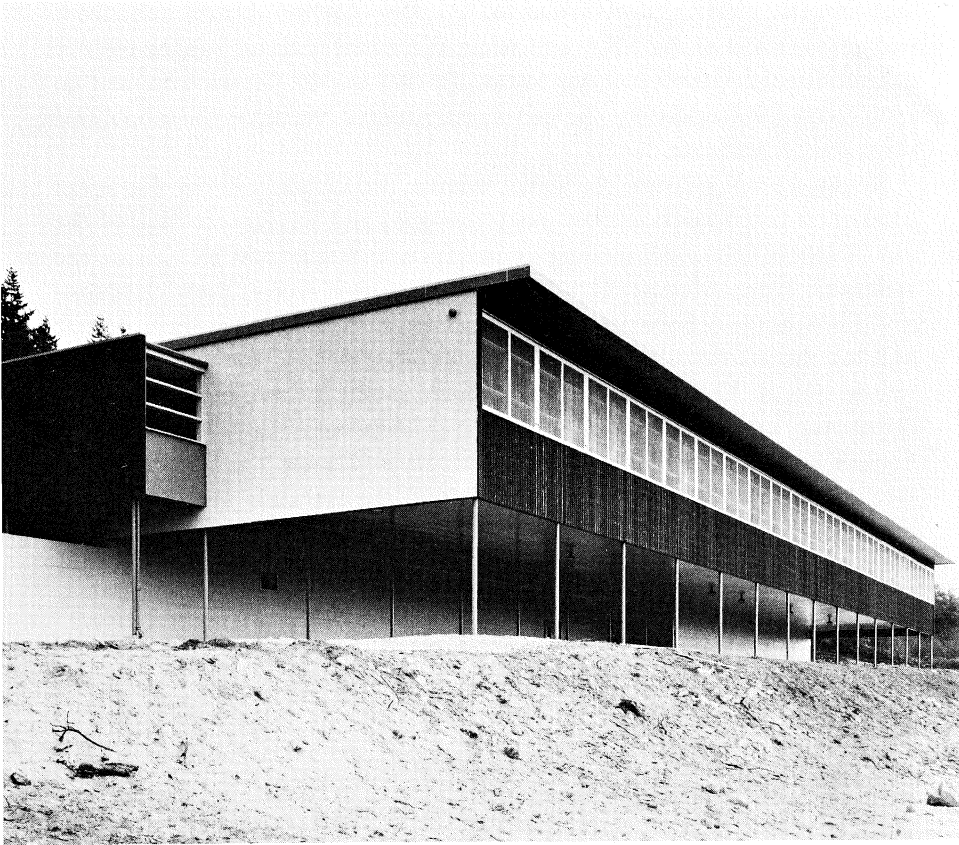


FIGURE 1

Henderson Elementary School, Vancouver

kiln-dried timbers 2 x 14 and 2 x 16 inches. Thus, when commissioned in the summer of 1955 to enlarge Gleneagles Elementary, Berwick switched to glue-laminated 7 x 23 3/8 inch beams. Moreover, he had also evolved a more durable and monumental interpretation of the Modernist idiom in the new schools he designed after 1950. This change, partly influenced by external factors such as school size and budgeting, is typified by his West Vancouver High School of 1950. Domesticity was replaced by a more massive composition, uncompromisingly functional yet impressive by virtue of the stronger regular beat of pier, mullion, and wall. The plain and lucid

architecture, as straightforward as the lettering of school name on the front wall of the stairs of the classroom wing, dispensed with all but the essence of traditional architectural symbolism. In that respect Berwick created an architectural metaphor for the useful and rational teenagers the school was supposed to graduate.

Situated further down Matthews Avenue, the school building was again located on that section nearest the access road and services. Instead of the old “barbell” plan, comprising centrepiece and side pavilions as in the venerable King Edward High School, Vancouver, 1905, Berwick organized the main functions around the austere entrance. Across the entrance hall lay the administration zone, containing offices for the principal and vice-principal. To the immediate left were rooms for two counsellors and the doctor, succeeded by the library and lunchroom/study hall, with the kitchen beyond; over the access corridor he positioned the lavatories, adjacent to the gym-cum-stage. To the right of the entrance, and compacted into one wing, stood the classroom block. A couple of years later he would monumentalize the arrangement further for the Agassiz Junior/Senior High (Fig. 2).

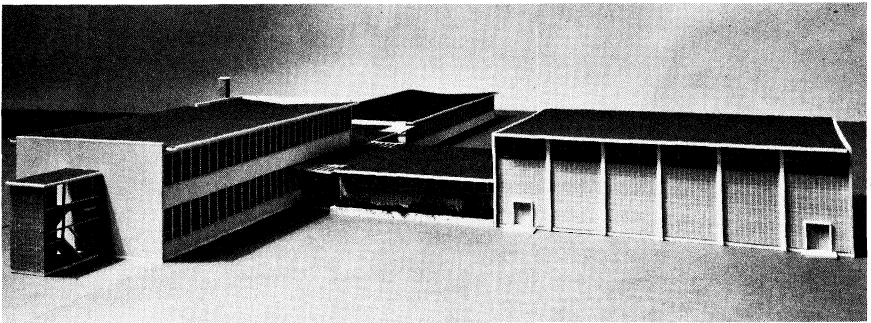


FIGURE 2

Agassiz Junior/Senior High School

Berwick retained his innovative and inexpensive wood construction in the administrative and activity zones of the West Vancouver High School. The classroom wing, however, was of reinforced concrete with continuous glass (“strip window”) walls since it was of two storeys, housed laboratories, and was subject to heavier usage. Either side of the central 12-foot corridor, lined with banks of lockers, were fifteen classrooms, a staff room, and lavatories. The wing was capable of easy extension, although some of

the upper rooms were to be left unfinished awaiting the projected rise in enrolment. The classroom arrangement, incidentally, mixed academic and vocational subjects in accord with Campbell's 1951 statement that the purpose of secondary school education was "to encourage in all students . . . the development of strong intellectual and vocational interests." Characteristic of equally modern architectural ideology, the sheet outlining the plan of the classroom wing includes a sparsely drawn section of the cantilevered sill, replete with a steel rail, at first-floor level. The incisive and diagrammatic rendering of the elevations and sections of the wing embody the Modernist aesthetic and 1950s determinism and missionary functional-

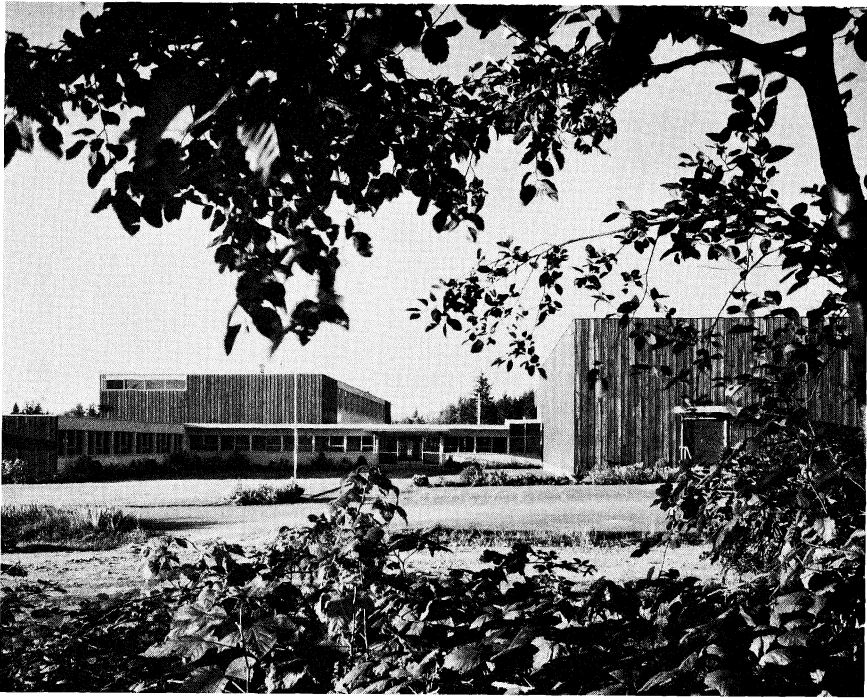


FIGURE 3

Max Cameron High School, Powell River

ism. The result was closer to the formal precision of Mies van der Rohe than to the pragmatic functionalism of Walter Gropius and Marcel Breuer, whose smaller scale work of the late 1930s clearly influenced Berwick's preceding schools.

Berwick did indeed vary the cast of his Modernism. Some indication of his range is afforded by the wood finished "Rustic" Modernist Max Cameron High School at Powell River, 1955-58 (fig. 3), and the more diverse composition and slender forms of the Scandinavian Modernist University Hill School, 1957, including an elliptical laminated wooden arch roof over the assembly hall. Later came the Proto-Classical Modernist Sentinel Senior High School in West Vancouver, 1961-63. The broad piers of the street facade stand like a liberated peristyle that harmonizes the various functional blocks and monumentalizes the main entrance (fig. 4);

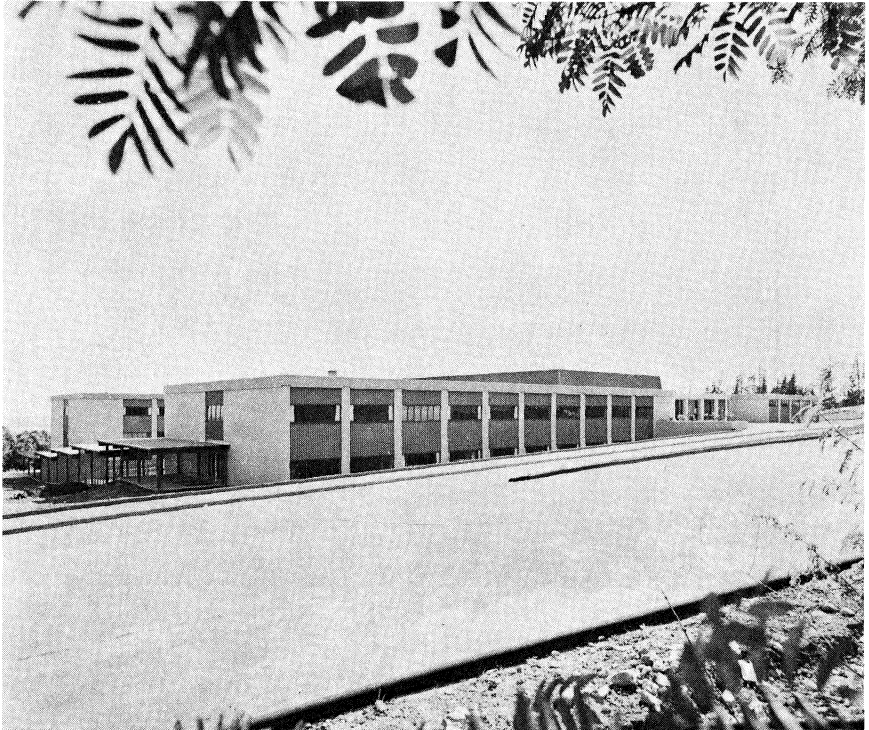


FIGURE 4
Sentinel Senior High School, West Vancouver

beyond the building is disposed around an open quadrangle reminiscent of the Roman forum plan (fig. 5). Internally, Berwick reverted to a less adulterated Modernism, most evident in the spacious and neatly equipped gymnasium and in the amply illuminated, hygienically functional chemistry laboratory. (Figs. 6 and 7)

Bob Berwick's school architecture in B.C. represents a remarkable legacy of an age and its social and architectural aspirations. In terms of architectural quality, his schools satisfied official specification and displayed efficiency of planning, economy of construction, and diversity of expression within the Modernist aesthetic. Their number, in addition, places them on

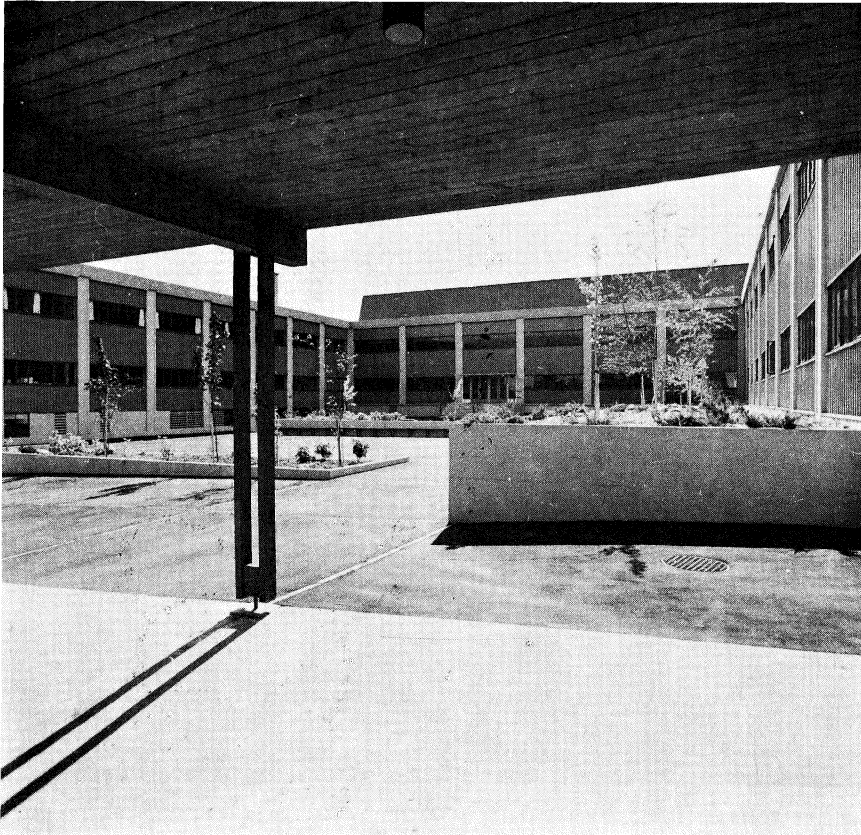


FIGURE 5

Quadrangle, Sentinel Senior High School

a par with the series of generally better funded schools J. B. Parkin designed in Ontario. Berwick, however, did not intend to achieve such a precise and analytically based relationship between structural system, plan, and form as Parkin, who, furthermore, had a deeper allegiance to International Style Modernist theory. Nevertheless, the schools that Berwick designed around British Columbia helped, as he predicted in 1950, to “influence the children that there will be no question as to what types of houses they will insist on when they are in a position to do something about it.”



FIGURE 6

Gymnasium, Sentinel Senior High School



FIGURE 7

Chemistry Laboratory, Sentinel Senior High School