

— By Julian Jacobs —

Living Architecture

A DYNAMIC NEW FUTURE FOR THE PUBLIC SCHOOL

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here are two broad areas of public school design that share a conceptual framework or philosophy. This philosophy may be identified by the term, *living architecture*, whereby buildings are not viewed as inanimate, monolithic, static containers, but rather as living, dynamic organisms. Public schools, perhaps more than any other building type, are especially amenable to being conceived of in this way.

The first area of discussion focuses on how this philosophy could affect the design of schools under normal, current building program.

To communicate successfully such a philosophy through the language of building (form, space, light, materials, landscape, equipment, et cetera), the architect must empathize quite specifically with all those he serves: local preschooler, young student, parent, educator, other community members. He must carefully determine, for each component of the building and then collectively, what message needs to be expressed and then how to deliver it with greatest clarity. While architectural messages may be subject to a variable degree of interpretation, I believe a given community is bound by sufficient cultural and humanistic similarities to make the task of investing appropriate meaning into form a worthy occupation. This approach eschews arbitrary indulgences, such as the *ad hoc* deployment of magazine

imagery, but it welcomes the intuitive power and personal aesthetic sense of the sensitive form-giver, and it celebrates the sheer joy of the process.

For the school to become alive, one must move away from the archaic conception of it as being monolithic or entirely homogenous (both inside and out) without sacrificing harmony and the overall unity of building design. A richer architecture with a richer vocabulary is sought. To ensure unity, this richness must be controlled by a consistent system of thought.

To demonstrate this philosophy, let us consider some of the common elements of a conventional public school program. These elements could be viewed to fall into two categories: salient or *served*, and reticent or *servile*. The *served* elements would warrant individual architectural expression, while the *servile* would be treated in a neutral manner. In the process of finding appropriate expression and

symbolism for these salient parts, let us not at first be concerned with the *gestalt*, or overall design. Since we are dealing with generalized concepts, the enormous influences related to each specific site and context cannot be dealt with here.

ELEMENT ONE: CIRCULATION FORM

Of greatest importance, the circulation not only guides movement between programmatic elements, but creates order and gives meaning, through syntax, to the separate parts, while inherently influencing the organization of the external architectural composition. The standard corridor, which jogs through the building in a relentlessly monotonous way, is more dead than alive. Therefore, it is unsatisfactory.

In a sense, there are only two types of defined space: linear and non-linear. Therefore, let us use *The Mews* and the *The Courtyard* as the two options in circulation format to organize the building. The Mews establishes a wide central spine from which every building element is accessed, including the classroom corridors: the lower level corridor directly; and the upper level corridor via a feature stair in a two-storey foyer terminating the Mews. The Mews is a richly conceived long room. Its floor is inlaid with a controlled palette of terrazzo colours; its structure is poetic and expressive, its display architecture possesses élan. This form produces excellence in building efficiency, in functional and orientational clarity, and in ease of student supervision.

Similar advantages attend the non-linear format, which features a treed, stone-floored courtyard at the center of the plan. Via glazed hallways surrounding the courtyard, all building elements are accessed. While the Mews exceeds in circulatory directness, the Courtyard format has the dual assets of a secure outdoor space and the constant, visceral experience of nature through its containment by the building.

ELEMENT TWO: ENTRY PORTICO

The main entry of the public school should convey signals which are welcoming, generous, uplifting, ennobling and cheerful. Each school should also have its own distinctive, memorable entry. An entry portico might be composed of the following parts: a broad sheltering roof to evoke the right feelings, but also to protect daytime buses and serve as a marquee to cover an outdoor prefunction space for evening events. A cluster of columns, spirited and playful, supporting

a high canopy roof oversailing an opening in the main roof is an uplifting symbol.

ELEMENT THREE: THE SHELTERING ROOF

The main roof described above could continue as a broad cave across the front facade to convey a warm, sheltering feeling to the very young student who is reluctant to leave the nest.

ELEMENT FOUR: LIBRARY/OFFICE FORM

If we were to consider a library work table and its chairs as one planning module three meters wide, and if these tables and chairs continued across a library window-wall, then the rhythm of this linear sequence could be used to create an elegant grid of structure and fenestration infill -- the facade of the library. This facade could continue across the office component. The meanings which are carried by the grid metaphor of this wall, *order* and *discipline*, and by extension *ethics* and *morality*, establish an essential context for learning and guidance.



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ELEMENT FIVE: THE KINDERGARTEN/DAY-CARE FORM

A form lower than the sheltering roof, lyrical or curvilinear in massing and fenestration, perhaps even playful in material and colour, would be identifiable and most attractive to the preschooler. The outdoor play areas could extend

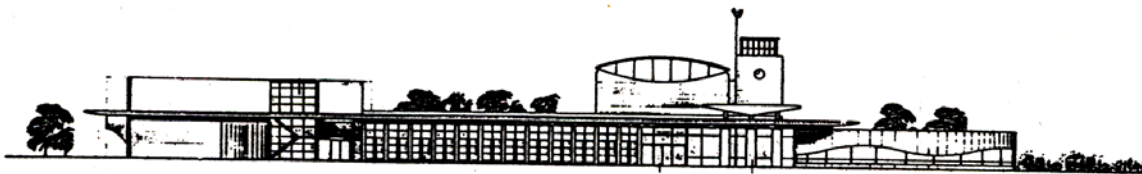
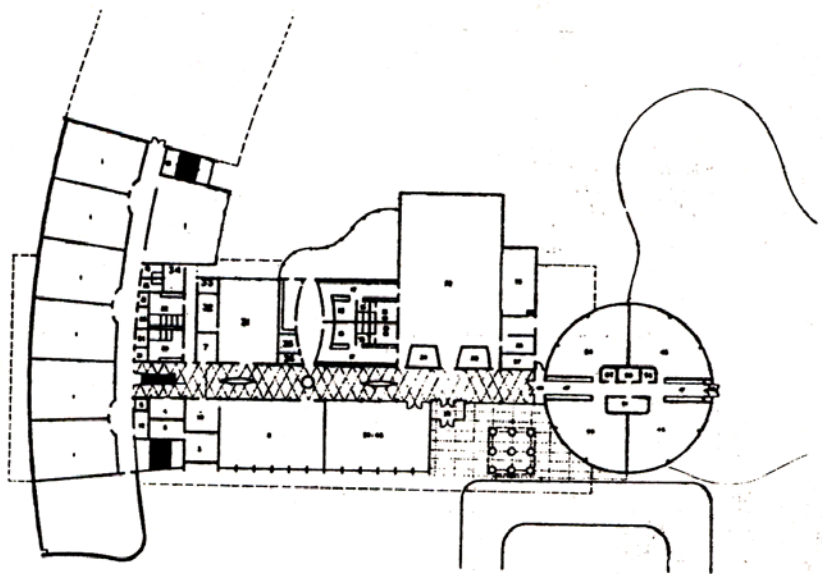
these ideas through nature: curvilinear play area shapes, soft landscaped boundaries and even earth integration of building and outdoor play area. The latter concept contains a subtle message, never too early to learn, about the harmony of man-made artifact and nature, of humankind and mother earth.

ELEMENT SIX: THE GENERAL PURPOSE ROOM AND STAGE FORMS

From the exterior, to their community, these forms together should possess the greatest significance: non-religious cousin of the church and campanile of the Italian town. These forms must be separate from the other two-storey building mass to read clearly. The GPR roof could be the most evocative in this ensemble; the stage form could be the highest, perhaps holding aloft a standard bearing an emblematic weather vane different for each school, such as a brightly painted rooster. Since the GPR's use as a venue for evening events is growing, the relationship of its entry to the building's main entry must be direct and axial.

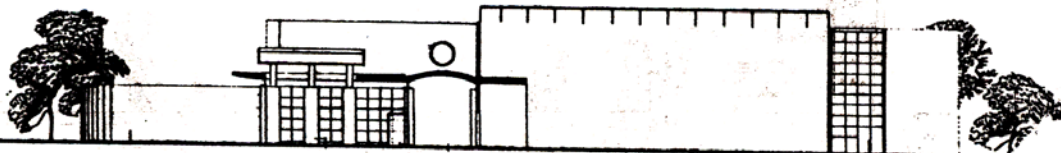
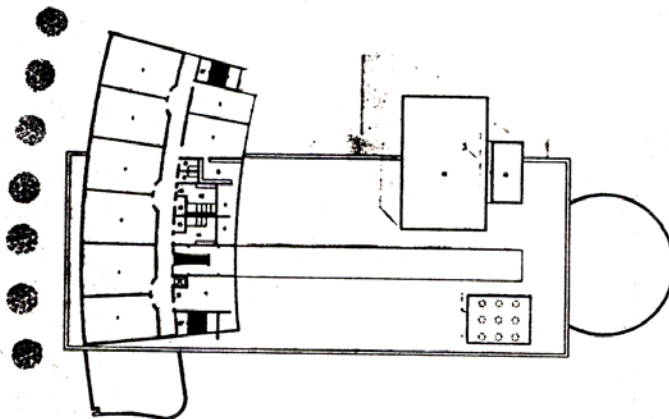
FIRST FLOOR ROOM LEGEND

- | | |
|------------------------------|-----------------------------|
| 1. CLASSROOMS | 32. INSTRUMENT STORAGE |
| 2. LUNCHROOM & KITCHEN | 33. & PRACTICE ROOM |
| 3. HYDRO PANELS | 34. GARAGE ROOM |
| 4. ELECTRICAL ROOM | 35. CARETAKER'S STORAGE |
| 5. GENERATOR ROOM | 36. CARETAKER'S OFFICE |
| 6. ELEVATOR FOR HANDICAPPED | 37. CARETAKER'S CLOSET |
| 7. SEMINAR ROOM | 38. ENTRANCE FOYER |
| 8. LIBRARY RESOURCE CENTRE | 39. VESTIBULE |
| 9. OFFICE | 40. GENERAL OFFICE |
| 10. WORKROOM | 41. STORAGE ROOM |
| 11. ACADEMIC STORAGE | 42. VICE PRINCIPAL'S OFFICE |
| 12. ELEVATOR MACHINE ROOM | 43. PRINCIPAL'S OFFICE |
| 13. STAFF WASHROOMS | 44. GUIDANCE OFFICE |
| 14. P.E. EQUIPMENT STORAGE | 45. HEALTH ROOM |
| 15. SHOWERS | 46. WASHROOM |
| 16. WASHROOMS | 47. PLAY AREAS |
| 17. CHANGE ROOMS | 48. COATS |
| 18. INSTRUCTOR'S OFFICE | 49. VESTIBULE |
| 19. INSTRUCTOR'S CHANGE ROOM | 50. TOILETS |
| 20. GIRLS' WASHROOMS | 51. OFFICE |
| 21. ENTRY | 52. STORAGE ROOMS |
| 22. BOYS' WASHROOMS | 53. KITCHEN |
| 23. GENERAL STORAGE | 54. STAFF WASHROOMS |
| 24. CARETAKER'S CLOSET | 55. ENTRY |
| 25. GENERAL PURPOSE ROOM | 56. COATROOM |
| 26. PLATFORM (STORAGE BELOW) | 57. STORAGE |
| 27. OUTDOOR STORAGE | 58. WASHROOM AREA |
| 28. COMMUNITY STORAGE | 59. VESTIBULE |
| 29. ATHLETIC STORAGE | 60. KINDERGARTEN |
| 30. HALLS | 61. CORRIDORS |
| 31. INSTRUMENTAL MUSIC ROOM | 62. STAIRS |



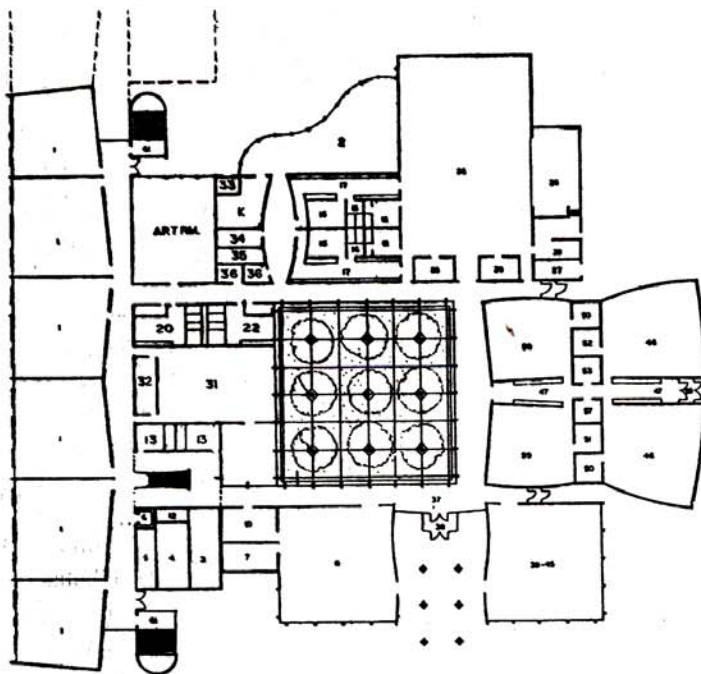
SECOND FLOOR ROOM LEGEND

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|--------------------------------|
| 1. CLASSROOMS |
| 2. SCIENCE ROOM & PREP. ROOM |
| 3. ART ROOM |
| 4. SPECIAL EDUCATION CLASSROOM |
| 5. TEXTBOOK STORAGE |
| 6. ELEVATOR |
| 7. STAFF LOUNGE & LUNCH ROOM |
| 8. STAFF WASHROOMS |
| 9. KITCHEN |
| 10. STAFF WORK ROOM |
| 11. BOILER & FAN ROOM |
| 12. GIRLS' WASHROOM |
| 13. ENTRY |
| 14. BOYS' WASHROOM |
| 15. GENERAL STORAGE |
| 16. CARETAKER'S CLOSET |
| 17. STAIRS |
| 18. UPPER PART OF G.P. ROOM |
| 19. UPPER PART OF PLATFORM |



THE MEWS CONCEPT
NEW PUBLIC SCHOOL PROTOTYPE << ALPHA >>





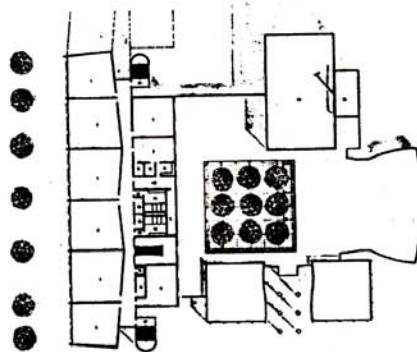
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SECOND FLOOR ROOM LEGEND

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14. BOYS' WASHROOM
15. GENERAL STORAGE
16. CARETAKER'S CLOSET
17. STAIRS
18. UPPER PART OF G.P. ROOM
19. UPPER PART OF PLATFORM



**THE COURTYARD CONCEPT
NEW PUBLIC SCHOOL PROTOTYPE << BETA >>**



Other elements may include: the artroom, pulled out of its usual place in the middle of the classroom wing, to be expressed as a typologically *creative* form; the lunchroom similarly pulled out and, with a contiguous eating terrace, placed adjacent to the GPR at the rear, to encourage use for extracurricular events; the exit stairs, if clearly visible through a glass exterior wall, project a peculiar phenomenon of schools: little humans darting about in the precise time-spaces between classes. The exit stair form becomes, not a static mass, but a kind of open machine for moving children, an automatic theatre. Once all the *served* elements are created and the *serve* elements are designed, then these are arranged in relation to the desired circulation format, and to the site, its topography, vegetation, context, *et cetera*. Now the *gestalt*, the overall design, is resolved through a substantial iterative process.

This system of design, wherein the programmatic elements are articulated first and then composed about a central circulation form, is component-oriented, making a kind of *architectural bouquet* with the circulation form an agent of unification, as a vase.

This living architecture of the public school is richer, more human; its elements are invested with more meaning and these meanings are lucid for the community to which they belong. The only educational prototype that is somewhat equivalent, albeit larger and more static, may be the traditional collegiate-gothic university campus in its original town context: Oxford, for example.

The second area of discussion explores how this view of public schools as living organisms may lead to expanded uses for them and even to a new building typology. With the exception of transportation-driven building prototypes, such as the train station or airport, new prototypes often emerge after an iterative process motivated by societal changes. This process forged the Christian nave church out of the earlier Roman Basilica, which had civic assembly functions; the multi-storey urban office building from the Florentine palazzo; and the art gallery from the Florentine office building. The *Uffizi*, the prototypical art gallery, originally served as Lorenzo de Medici's offices.

If one plotted on a map every public school in the literate world, it would not only take a long time, but that map would pinpoint the very bosom of every community, and form a gigantic irregular grid. Like the ubiquitous shopping mall, no community is without at least one. Like the mall, it is expanding in its significance and use beyond what its name suggests.

Given the proliferation of elementary schools and their central locations within communities; the ecological movement away from the destruction of arable land and towards intensification; the financial limitations of governments; the cocooning of families in their homes and communities; and the growing use of schools for other purposes, I suggest that the time has come to consider the

creation of a new building type which combines public school, community and social functions. The term, *Community Enrichment Centre* comes to mind. In Ontario, since these functions would bring together various ministries and sometimes municipalities, obviously a central management system would need to be created for their successful operation.

In addition to the normal school functions, this new facility may have an expanded library, an expanded day-care, a community outreach centre (such as Meals-on-Wheels, the V.O.N. and home-care), and an elderly person centre, a youth centre, a family planning and enrichment centre, some continuing education, and greater recreational programming.

Almost any non-commercial or non-industrial use would be potentially integratable. The public schools which currently exist would obviously need to be modified and expanded.

Given current demographics, which indicate a growing aging population, one must also consider, as part of a comprehensive study, the possible obsolescence of some public schools, and their use for community and social purposes only. The school designed by the component-oriented method discussed earlier would seem to lend itself naturally to recycling since the individual parts could be used and accessed autonomously, even modified separately if required. This dynamic, *vital* approach to structures therefore also produces longevity in buildings, particularly if they are planned with future obsolescence in mind. I believe that the forms designed by that process could be compatible with the new uses to which they may be put.

The only element whose image may need special care in its design, in this regard, may be the classroom wing, which, due to its cellular organization, lends itself naturally to recycling for residential purposes. Each 900SF classroom can become a family apartment. If it is combined with the classroom above, a townhouse can be made. Otherwise, the classroom can be subdivided to create two suites for bachelors who want to leave home but not their community. The same small flat can be used for an elderly single or couple who similarly want to stay near their previous home. The entire wing could be converted into a small medium-care residence for frail seniors or individuals with special needs within the community. The public school lunchroom near the parking area could be converted into a small clinic to serve both the seniors and the community. The classroom wing also contains the potential for an intergenerational living option. □

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