The Physical Plant Influences Creativeness

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School buildings, skilfully designed, can help meet the urgent needs of children and youth. They can also exert a continuing and wholesome influence upon creative living and learning.

TODAY in these United States we are confronted with one of the largest school building programs in all our history of school construction. Schools, ranging in size from the single classroom to that of 40 or 50 teaching stations in our secondary schools, are springing up in great numbers across the country. Within these structures for many years to come, the youth of this nation will be subjected to various stimuli, influencing and molding them as the citizens of the future. The individual teaching enclosures, the general effect of the school plant—its relation to the community, its visual satisfaction or dissatisfaction, its organization, its fulfillment of teaching staff demands, and the way the child reacts to its psychological and physiological aspects—all these as a whole are of major importance to the education of our children.

However, before one can discuss what should be demanded of a school structure, he probably should ask himself why this plant is conceived and erected. My answer to this is best exemplified by the “Ten Imperative Needs of Youth,” adopted by the National Association of Secondary-School Principals:

1. All youth need to develop salable skills and those understandings and attitudes that make the worker an intelligent and productive participant in economic life.

2. All youth need to develop and maintain good health and physical fitness.

3. All youth need to understand the rights and duties of the citizen of a democratic society.

4. All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life.

5. All youth need to know how to purchase and use goods and service intelligently.

6. All youth need to understand the methods of science.

7. All youth need opportunities to develop their capacities to appreciate beauty in literature, art, music and nature.

8. All youth need to be able to use their leisure time well.

9. All youth need to develop respect for other persons.

10. All youth need to grow in their ability to think rationally, to express their thoughts clearly, and to read and listen with understanding.¹

The above statement does not tell us how these needs are to be met, but it does outline the responsibility that our youth have placed upon us in helping them to be good citizens of tomorrow.

**Buildings To Meet Needs**

To meet these needs, our educators have been constantly improving teaching philosophies and methods. But, in order to convey these, some shelter in the form of a building is necessary. And since this is a contemporary requirement, our constantly changing teaching methods and practices demand that the school building of today should meet these requirements for now and for the future.

**Flexibility**

Research and interest on the part of the educator, the architect and community groups have resulted in improvements today, which only a few years ago were beyond our comprehension. We need only to look back as far as 1934 to find an innovation in elementary school design that virtually shocked educators as well as most of the architects of the time. I am referring to the Corona Avenue School at Bell, California, designed by the architect, Richard J. Neutra. Although this theory was not new and minor attempts had been made toward its acceptance, its culmination in a structure proved to be stimulating. Other examples might be cited, but the publicity and acceptance relating to this school created an interest that challenged others to meet the demands of a growing and accelerated society. One of its greatest attributes was that of flexibility which allowed freedom in teaching methods and a latitude for change. While it does not possess all that might be desired in the school of today, still, due to this flexibility, after nearly twenty years, it remains a contemporary structure. Flexibility to meet today's requirements and suitability for tomorrow's needs should be our goal in school design. This basic requirement for creative teaching, however, is certainly not the only one.

**Selection of Site**

The conception of the school plant in its entirety is one that encompasses every aspect of architecture. The architecture of the school plant is not only that of the classroom or that of the exterior of the building, however economical the structure may prove to be, whether it has a low fire insurance rating, so many foot candles of light at seeing level, but one which also possesses all of the above with due consideration for many other important facets, starting with the site and its relation to the community.

I hope we all agree that not all of the child's education takes place in the classroom. The community, whether it be the city block, the neighborhood or the city helps complement the classroom. The child's reaction to his community, its development, its growth and pattern has a direct influence on his future ability to evaluate. The location of the school in relation to his home, the route he must travel to and from the school, the traffic he encoun-
ters, the stores he passes and the pleasant or unpleasant characteristics of all these form an important part of his education. Therefore, the school and its location become primary considerations. The selection of the site, how much land is procured and its building adaptability may prove of great importance in the future development of the school plant. Accessibility to the site in relation to traffic can play an important part in the education of the child, regardless of his age or disposition. Certainly we must be realistic and meet the challenge of today's city. We must not disregard the school plant in the development of the community by not making provision on a long-term basis, since this can project our schools into the midst of chaos and difficulties. Poor planning at the initial stage makes the problem in the classroom and our society more difficult when a good beginning could greatly alleviate the situation.

**Relation to the Child**

The school, as a piece of architecture, is a three-dimensional-time-space enclosure and possesses characteristics that help form a pattern of sensory values for the child. It forms a part of his educational process and, accordingly, the schools he attends ought to be a series of pleasant, transitional steppingstones to maturity.

Scale in relation to the child is an element of architecture that until recently was not a factor in the design of most of our establishments of learning. The impact of scale plays a formidable part in a child's basic education. The transition from home to school should be a gradual and informative one, constantly changing with growth. Also, good proportion cannot be intelligently acquired without due consideration for scale; nor can these two elements be successfully incorporated into the architecture without consideration for all of the other requirements placed upon the school plant. What better laboratory for teaching could we have and what more stimulating environment could we want than to have a school that incorporates the best as an example? We should thereby directly influence the child, whether in the elementary grades or at the secondary level, with the very thing we wish to teach. Textbooks, artificial examples and photo-visual impressions cannot replace a living environment.

If we can accept the physical plant as a three-dimensional-time-space laboratory, then the integration of the interior and the exterior as a whole can-
not be refuted. The classroom and its relation to the play yard, its relation to the general surroundings and its relation to the plant organization begin to command serious consideration. To expect that every school must have an arboretum outside its glass line is to approach the ridiculous, but to have only concrete enclosed with a wire fence is bordering on insanity, for such are the enclosures employed for mental institutions. It is questionable whether we as adults would care to attend such an environment, but we have thought little in the past about subjecting formative, adolescent minds to this sterile arrangement of material. Moreover, we have expected our educators to mold appreciative citizens out of our youth under these environmental conditions. With continued forethought and consideration and less emphasis on maintenance, economy and monumentality, the school of today can become a flexible, living laboratory, conducive to any educational philosophy or methods which may develop in the future. With continued forethought and consideration and less emphasis on maintenance, economy and monumentality, the school of today can become a flexible, living laboratory, conducive to any educational philosophy or methods which may develop in the future.

To design for the present, with the future in mind, ought to be the basic objective when contemplating the erection of a new school. Our changing society with its constantly increasing acceleration does not seem to permit us to have enough time to make a thorough and comprehensive analysis of the many problems before us. Our schools are not without exception. New materials, new concepts and new ideas dictate that we should not remain static, and, for that matter, do not let us remain static. Therefore, since we are ensnared in this physio-psychological web, should we not make this one of the basic points of departure when contemplating a new school? Should we not provide our youth and their teachers an opportunity to adjust themselves to meet the changing pattern of society? This I firmly believe can and should be accomplished through providing the necessary facilities in the school.

Provision for Change

Provision for change is slowly being incorporated in many of our schools today through close cooperation of the educator and the architect. It is accepted that these two have a community educational obligation to perform in many localities and we are beginning to see the results of such combined action. The question is—how far should this time-space flexibility be carried? That naturally depends upon the community and the teaching methods employed. There are basic parts of a school structure which do not readily lend themselves to change. These might logically be the toilet facilities, boiler rooms, heating lines and foundations. However, with constant improvement in building techniques (we must hope the imaginative architect will employ these) we may see radical changes even in these categories. But, assuming that these must and will remain as they are for the future, certainly the architect and the educator should encourage the respective school boards and other community organizations constantly to use the most contemporary planning methods. This would not only be for the child’s benefit but would enable the teacher to have some latitude in developing and using new creative teaching techniques.
Consideration for the basic structural and safety requirements in our schools is essential, but protection from fire hazards, sanitary precautions, economy in structure, etc., alone do not and should not mean that these and only these considerations should be the point of departure for the design.

With a better appreciation of city planning, new materials, construction techniques and teaching methods, is it not our social responsibility to provide our teachers and children with the most contemporary in school plant facilities? Let us enable the teacher, through various means of lighting, to adjust her environment to meet her teaching requirements without undue strain on the child. Let us allow her to have color at her disposal for change of educational purposes, instead of making maintenance the first consideration. Let us allow the teacher to take her children out of doors to trees, grass and interesting yards that are inviting. Let us enable the teacher to change the pattern and character of the room to provide an interesting place to teach and a place of interest for the child. Let us provide well lighted, sanitary corridors that are places of learning and conducive to social gatherings. Let us provide lunch rooms and play facilities that are pleasant areas of learning with light and a changing pattern of interest.

In other words, let us provide our teachers with an environment to stimulate creative teaching. If we are going to encourage and foster a continuing creativity in our classrooms, then we as citizens have a responsibility to provide not only space for housing, but a changing, functional, well designed teaching environment that will meet the needs of our youth.

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