This article describes a school which is the product of architectural design evolving from educational specifications. The building demonstrates the relationship of pupil learning to the component systems of the building design. Brief explanations and illustrations (from the planning and design stage) are made for an instructional materials center, a teacher work center, the communication system essential for individual pupil study and an auditorium adaptable to team teaching. The interrelatedness of the learning environment to the components reflects the core curriculum concept which is the curriculum style of this junior high school. The article lists the basic construction specifications and a brief cost analysis of the new building. (JZ)
PROFILE OF A
SIGNIFICANT SCHOOL
ATHENS JUNIOR HIGH SCHOOL
ATHENS, TENNESSEE

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John W. Gilliland, Director
Profile Editor: John E. Justus
Southeastern Regional Representative of Educational Facilities Laboratories, Inc.
"An institution is the lengthened shadow of one man."

ANONYMOUS

This profile, developed by the School Planning Laboratory, depicts Athens Junior High School as a significant school, a school with new concepts of design and construction. The succeeding pages illustrate the work of the architect in translating the educational specifications provided to him by SPL and the Athens School Board into a uniquely designed school.

The profile does not detail all essential features of the building. Rather, the profile pinpoints and magnifies the features of major significance. Specifically described are the planning and the program of the school.

Herein, then, are presented, in silhouette and descriptive form, the most outstanding features of Athens Junior High School.
ATHENS, TENNESSEE - THE CITY

"The people are the city."
SHAKESPEARE

Athens is a prosperous town in East Tennessee where little attention is given to the past—such as the town’s origin in 1828 as a log cabin and two-story brick courthouse surrounded by sparsely scattered farmhouses. Instead, Athens is a place where the people talk about “how we can help our town grow and keep up with the changing times.”

Situated in an area where Cherokee Indians once lived, but now inhabited by 12,000 industrially minded people, Athens lies just off U.S. Highway 11 and makes its beautiful scenery available to those who stop and rest awhile.

As the late President of the United States, John F. Kennedy said, “We must go forward.” Athens is indeed moving forward educationally.
PLANNING

A few years ago the Athens Board of Education, seeing a need for a new junior high school, requested the School Planning Laboratory to help provide the finest facility that could be planned. SPL was engaged to help determine the specifications around which the architect would eventually design the building.

The School Planning Laboratory responded to the call of the Athens School Board and proposed that a school be designed to meet the indigenous needs of the City of Athens, utilizing modern research findings in proper thermal control, acoustical control, color environment, and visual environment. It was deemed necessary by SPL and the Athens School Board to construct a building that provided an optimum learning environment and one that would enable the teachers and administrators to provide the best individualized instruction for all the youth.

After educational specifications were determined, the architect, using the specifications, designed the building. Many hours were spent by the architect, SPL consultants, the superintendent of schools and his staff, and the Athens School Board in arriving at the final plans for the building. Once the planning was finalized, a significant school design resulted.

1. The Athens School Board determined the need for a new school

2. The School Planning Laboratory was employed

3. Athens personnel and SPL personnel developed educational specifications
   (a) Objectives were determined
   (b) Enrollments were anticipated
   (c) Space needs were determined
   (d) Space relationships were developed
   (e) Environmental control factors of color, acoustics, visual needs, and equipment were delineated

4. The architect developed preliminary plans for the building

5. Plans were approved by the Board

PLANNING STEPS
The design of the Athens Junior High School was based upon a precisely controlled environment. Thermal, color, and visual factors provided nine circular focal points around which the building was designed. Clusters of circular spaces were specified not to produce a building unique in appearance but one that was uniquely functional. The circular, compacted building took shape with provision for optimum heating and air conditioning control, appropriate color, and adequate lighting without adding to the cost of the building. If a skeptical person asked how it was done, the answer would follow: Savings were effected through a reduction of exterior wall perimeter, shorter electrical, mechanical, and plumbing lines, much less glass, less corridor space, and less wasted space in the classrooms. Lower construction costs were effected.

"Slumber not in the tents of your fathers. The world is advancing; advance with it."

MAZZINI
screening jury comments...

ATHENS JUNIOR HIGH SCHOOL

Instructional materials center, teacher work centers, flexible teaching space, and auditorium specially designed for use of projection equipment are distinguishing features of this compact plan. Window space is sparingly used. Many floor areas are carpeted.

AASA 1965 ARCHITECTURAL EXHIBIT JURY
"Ah, to build, to build!
That is the noblest of all the arts."

LONGFELLOW
The Athens Junior High School Instructional Materials Center has expanded the library concept to provide a center for many educational activities. Not only are books and periodicals housed here, but also maps, pictures, slides, films, records, tape recordings, film strips, programmed learning materials, and other learning aids are available in the IMC. Here the curious youngsters will come to look, to browse, to search for facts, and to find materials for study and research. The many materials in the IMC will help encourage good reading and study habits and develop a taste for good literature.

Teachers and administrators will be served by the IMC. From this center the librarian will help teachers with professional books and with supplementary reading materials for their students.

The IMC is centrally located for the convenience and comfort of all users. Carpeting provides the beauty and acoustical treatment so necessary for appropriate IMC usage. The IMC provides a space for group work involving the use of library materials.

The IMC is a space different and unique. The warm tints used in the room create a pleasant environment—a very nice place to read and to do individual study. The lighting is designed to give eye ease. The furniture blends with the surroundings and even adds a distinctive flavor.

"A desire of knowledge is the natural feeling of mankind; and every human being whose mind is not debauched, will be willing to give all that he has to get knowledge."

SAMUEL JOHNSON
COMMUNICATIONS

Rapid change is taking place in methods and ways of communication. Athens is cognizant of the change; and efforts have been put forth to provide the finest facilities to insure that spoken and nonspoken, written and nonwritten materials are utilized in the teaching-learning situation. The IMC will be the hub of the communications center with satellite sub centers (teacher work centers) located in each circular cluster of the building.

From the communication center will flow audio and visual programs to every area in the building.

Wedge-shaped rooms were designed to provide optimum conditions for television reception and viewing. These spaces also provide the best line-of-sight possible.

Audio-visual programs will be stored in the IMC and made available to every space as needed.
The finest eloquence is that which gets things done; the worst is that which delays them.

LLOYD-GEORGE

TEACHER WORK CENTERS

Teacher work centers are strategically located within each circular cluster and the IMC to function as production centers. They exist for the purpose of building instructional materials and programs.

New demands will require television programs for large-group instruction. Graphics, including transparencies for overhead projection, will be prepared and stored. Motion pictures will be previewed and scheduled. Photographs may be selected, mounted, and displayed on bulletin boards. All audio aids will be developed, stored, or scheduled in the production center.

The production facilities will be versatile by providing for facilitation of all phases of communication. Old materials can be stored while new materials can be made. Individual students and teachers can use this space to develop creativity.
Of course the auditorium will be used for assemblies and similar activities. This one differs, however, in that it will be equipped to accommodate large group instruction.

The image projection screen will equip the auditorium to function as a large television teaching space. When the space is not used for television, it may be used as a large lecture area.

The Athens Board of Education and the Superintendent felt that the large and small group approach was the only sensible approach. More efficient use of teacher time can result. Good teachers will be able to improve the quality of instruction by making better presentations.

The auditorium is fairly large and will be made available to community groups.

"The drama is the book of the people."
WILLMOTT
"He is wise who can instruct us and assist us in the business of daily virtuous living."

CARLYLE

TEAM TEACHING

Team teaching has become a trend and Athens has not been caught lagging. The trend is significant and can be followed if the facilities aid the concept. The new Athens building will definitely provide the spaces and flexibility so necessary for team teaching.

Teachers will like team teaching because they will be enabled to spend more time doing their specialty—what they can do best. Students will share the attentions of the best teachers in each particular area rather than study under one who teaches all subjects and spreads himself too thin. Through cooperative efforts each teacher can reinforce and aid others. The production center and teacher work centers will serve as places where teachers can meet and plan together.

The spacious auditorium is divisible into variable-sized shapes.
INDEPENDENT STUDY

The school provides for individual differences because each pupil is unique, has purposes that differ from others, and wishes to shape his own learning and life rather than have it determined for him by the school.

More important perhaps than improving arrangements for teacher-pupil situations is the trend toward designing a school to provide facilities for individual study. This building has more than adequately provided for individual study space through: study carrels in the IMC, conference spaces in each cluster of the building, a student activity room, and a flexible auditorium.

THE CORE

The core curriculum will become a reality to students at Athens Junior High School. The curriculum will change as the teachers, students, administrators, and parents contribute to a process of change. The curriculum fundamentally begins with a central emphasis upon the culture of the Athens people and develops as objectives are identified.

The curriculum will functionally provide a program emphasizing the intellectual growth through which skills are acquired. Humanities and fine arts will be equally stressed. Efforts of all school personnel will be united in helping guide and reshape the curriculum as the need arises.

Individual study is possible only when the student has access to many kinds of learning materials and aids. These can be obtained from the IMC, the production center, and the communications center. Films, slides, tapes, records, and all other learning materials are to be made available to the youth in and out of school.

The core curriculum, as conceived by the teachers and students, will lend itself to team teaching and large and small group instruction. Flexibility of scheduling, exploration, and experimentation are the key factors involved.
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INDIVIDUAL STUDY CARREL
THERMAL

The building contains a heating and cooling system to provide an optimum temperature year round. Air conditioning is not included for luxury—it is provided because of the need for a satisfactory learning environment. An optimum temperature of 70-75° in summer, spring, fall, and winter will be maintained. Students and teachers will be comfortable and will avoid the fatigue caused by an uncontrolled thermal environment.

VISUAL

The color of furniture and fixed furnishings may contribute to the learning environment. Through the correct usage of color combinations, the builder has provided a pleasant and stimulating environment to enhance learning.

Color selections in classrooms include blues, greens, and grays. Variations are evident in moving from classroom to office to corridor. Ceilings and reflectance areas are soft white.

Indirect cove lighting provides the appropriate 3 to 1 ratio of light evenly distributed throughout the building.
ACOUSTICS

Sound control was not overlooked in the building. Studies have shown that energy and physiological capital of pupils are unnecessarily consumed by uncontrolled sound.

Acoustical control was effected by the use of acoustical tile, acoustical plaster, insulation, baffles, wall coverings, and carpeting. Carpeting, used in the IMC and work centers, prevents sound production at its source, the floor.

Carpeting may be cheaper than the conventional tile floor. Savings in heating and cooling may result because of the insulation given to floors. Maintenance costs and expensive acoustical costs may be lowered.

Teachers and students like carpeting because of the contribution made to the learning environment.

EQUIPMENT

On first thought, it may seem that carpeting is a luxury and can be afforded only by wealthy schools. The contrary, however, is true. Carpeting is less expensive to maintain. Wall-to-wall carpeting has been tried in other schools and found to be successful.

Scientific design was the primary criterion in providing furniture for the school. Flexibility and adaptability determined equipment selection. Comfortable, attractive, and efficient furniture was selected.

Furniture unique to offices, classrooms, and laboratories was chosen, with matching colors receiving due attention.
"The best is the cheapest."

BEN FRANKLIN

CONSTRUCTION SPECIFICATIONS

<table>
<thead>
<tr>
<th>Footing</th>
<th>Concrete</th>
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<tbody>
<tr>
<td>Structural</td>
<td>This shell concrete dome roof structure supported on concrete columns</td>
</tr>
<tr>
<td>Exterior walls</td>
<td>Brick</td>
</tr>
<tr>
<td>Interior walls</td>
<td>Concrete masonry units and brick</td>
</tr>
<tr>
<td>Floors</td>
<td>Carpeting, ceramic tile, terrazzo, vinyl asbestos tile</td>
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<tr>
<td>Ceilings</td>
<td>Acoustical tile, acoustical plaster</td>
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<tr>
<td>Roof</td>
<td>Vinyl coated shell concrete</td>
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<tr>
<td>Heating &amp; Cooling</td>
<td>Unit ventilators - hot and chilled water. The air conditioning system is one-pipe using a gas-fired hot water boiler and centrifugal water chiller</td>
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<tr>
<td>Lighting</td>
<td>Indirect with some cove lighting</td>
</tr>
<tr>
<td>Sound Control</td>
<td>Carpeting, acoustical tile, acoustical plaster</td>
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SIZE AND COST

<table>
<thead>
<tr>
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<tr>
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<td>Architects</td>
<td>Galloway and Guthrey</td>
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<td></td>
<td>Knoxville, Tennessee</td>
</tr>
</tbody>
</table>

"Economy is a savings bank into which men drop pennies, and get dollars in return."

H. W. SHAW
"Let us present once more the true face of America—warm and modest and friendly, dedicated to the welfare of all mankind, and demanding nothing except a chance for all to live and let live, to grow and govern as they wish, free from interference, free from intimidation, free from fear."

ADLAKE STEVENSON

Additional copies may be obtained from:
John W. Gilliland, Director
School Planning Laboratory
University of Tennessee
Knoxville, Tennessee 37916