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1 Main Street
Nashua, New Hampshire
ASSOCIATE EDITOR
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Front Cover: Main entrance to new state office building.

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FIFTY CENTS A COPY THREE DOLLARS A YEAR
AN OPEN LETTER TO PEOPLE IN THE MARKET FOR A SCHOOL

So you're going to build a school... And it isn't because you want to. It's because you have children tucked away in every available nook and cranny of every minimum standard building in town. You have double sessions in some schools and you're looking ahead to more. Lighting dates from the 1890's in some of your school buildings and increasingly stringent fire regulations are catching up with you in others.

To add the last straw, the pre-school census, if you have one, shows that the population explosion has come to rest in your home town. You've shifted children in every conceivable direction, bussed them, re-districted them, and eliminated kindergartens (wherever the mothers' lobby wasn't sufficiently vital). You've turned the charts upside down and inside out, but there's no escape. You'll have to build a school.

And, what's more, now that your mind's made up, you want to build it fast, probably before next fall. You know you need money, a site, and an architect, but not necessarily in that order. You want the biggest school you can buy for the smallest possible appropriation. You don't want "frills," whatever they are. You don't want talk. You want action.

Well, slow down.

Now's the time to save money, now before you spend it. Now's the time to discuss the difference between school economy and plain or fancy cheapness. Now's the time to analyze what your new school really needs. Perhaps this may even be the time to conduct a complete overall analysis of your community's schools: build-
ings, teachers, administration, students, curriculum, philosophy of education.

A properly constructed school is not merely a building to house a given number of students for a given number of hours daily. A proper school is an integral part of a coordinated school program, following a well-defined educational philosophy. A proper school contributes more than shelter to the education of your community's youngsters.

Such a school will cost no more, and perhaps less, than the quick-to-build, cheap-to-buy, hard-to-maintain box you may have in mind.

Patterns in education are changing; patterns in school building are changing to conform to them. But there's little sense in building a brave new school if the approach to education is ante bellum.

Here in New Hampshire we're often reluctant to change. Partly that's because we seriously question whether change means progress; partly that's because we're afraid; and partly that's because we're afraid it may cost money.

True enough, not all change is progress, but some change is necessary. We can't avoid the challenges which are all around us. Our children need the very finest, the very newest, in education to compete with their contemporaries in other parts of the nation and the world. They need new math, increased emphasis on science, additional hours spent in the study of language, and the humanities. For this they need labs, language labs, textbooks and teachers.

There's little doubt that hardy New Hampshire men can conquer their fear of change as they conquer other fears, but the question of the fear of spending money is something else again.

Fact is, you've got to be afraid not to spend it. For one thing, it's simple economy. What you decide you can't afford today is likely to cost twice as much tomorrow when you'll probably need it twice as desperately. Secondly, what you buy too cheaply today will cost you many times your original investment in undue maintenance costs in the future, and ultimately in replacement costs.
One more uneconomical feature is the cost of a poor education: it’s just about the same as the cost of a good one. The building must be heated; the teachers must be paid; yet the return on the investment is diminished in terms of opportunities lost.

Although school curriculum isn’t precisely an architect’s milieu, making sure a school department gets what it needs is. And this is no mean task when the school department itself doesn’t know.

That’s why it’s time for self-analysis. It’s time to discover whether some new techniques might not save the department money instead of costing it extra. And it’s time to do it now, before you build.

That’s where a school consultant comes in. His knowledge of national standards applied to his study of your own school situation may help you define your strengths and weaknesses, perhaps even help you plan specifically for your new school.

But let’s assume you’ve done all that. You’ve reevaluated everything and decided on at least a middle-of-the-road approach to the ’60s, even if you think you’re not going to like it.

What’s more you’ve got an accurate in-school and pre-school census, and you know where new residential building growth is likely to be.

And you’ve picked out the site. Stop!

It’s time for an architect. It was time at least one step back, before site selection. Your architect is eager to help you select the site for your new school. That’s part of his responsibility.

But before your architect selects a school, you have to select an architect. That isn’t always easy. As a matter of fact, it’s nearly always difficult.

Sometimes building committees use one scientific method to choose the architect from the list they compile, and sometimes they use another. On occasion they may put the list on the wall and throw darts at it; this relieves aggressions, and the winning architect is the one with the most or fewest darts, depending on the ground rules established. Sometimes

(Continued on page 44)
Exhibits In New Hampshire

The Currier Gallery of Art, Manchester, New Hampshire
Opens April 18: Peter Blume in Retrospect: Paintings and Drawings from 1925 to 1964. Blume's first major one-man show.

Paul Arts Center, University of New Hampshire, Durham, N. H.
April 1 - April 30: Black Room, White Room. A presentation of archetypal sculpture designed to produce the effect of architectural space divorced from function.
April 8 - April 30: Fabrics from New Hampshire.
May 6 - June 7: Annual Student Exhibit.
Weekdays, 8 to 4; Sat., 10 to 12; Sunday, 1 to 5.

Hopkins Center, Dartmouth College, Hanover, N. H.
April - May: The World of William Shakespeare.
16th and 17th Century European Paintings.
Strauss Memorial Exhibition of 16th and 17th Century European drawings.
16th and 17th Century Prints.
Mannerist Prints (AFA).
Cartographic Masterpieces.

Carpenter Art Galleries, Dartmouth College, Hanover, N. H.
May: Chinese Bronzes from the College Collection.
May 5 - 31: Modern Religious Prints (Smithsonian Institution).

The Sawyer Art Center, Colby Junior College, New London, N. H.
April 6 - 30: Paintings and drawings by Paul Scott. Mr. Scott, as visiting artist of the year, will lecture on April 15th, 16th and 17th.
May 1 - 22: Exhibition of Water Colors by John Hatch, member of the Art Department, University of New Hampshire.
May 22 - summer: Student Art.
Above, the uphill facade, sunporch at left.

Below, skiing: excellent! Lodge: fun to be in!
IT'S a long way, architecturally and financially, from a warming hut at one end of a rope tow to a multi-story, multi-facility ski lodge built to fill the requirements of several thousand skiers.

What do today's skiers want in a base lodge? A place to get warm, to eat, to relax, to socialize, a place to get skis repaired and to rent them, to find first aid when needed, and ski schools, and as many other fringe benefits as possible.

What do the owners of a ski lodge want? To keep the skiers happy and to make a profit.

Each year the competition for ski dollars gets stiffer, and skiers become more selective and more sophisticated and the demands of ski area owners more stringent.

Needless to say, the trails, slopes, and lifts must be to the skiers' liking, or the most luxurious lodge in the world is unlikely to entice them to return. But, equally obviously, an attractive, comfortable lodge is the ski area's "best foot forward."

The directors of the Mt. Ascutney Ski Area, Incorporated, in Windsor, Vermont, knew they needed new base lodge facilities. They anticipated an increase in their uphill capacity, a planned ability to handle 3,000 skiers per hour. At first they considered adding on to their original base lodge, but soon decided that a new building would be more desirable, and, in the long run, more economical.

With architect Brooke Fleck of Hanover, the directors visited many other ski areas to analyze their facilities. Then an analysis of the needs of the Ascutney area followed.

One immediate problem was the siting of the building. There was no really flat area near the slopes. "So we decided to straddle the main slopes, taking advantage of the hillside. The run-out at the end of the slope would end near the lodge's uphill side, and arriving skiers would enter on the lower level on the downhill side," states Fleck. "We also wanted to be sure to take advantage of the excellent views, and to orient

(Continued on page 12)
Ski shop in west wing of ground floor.

Picnic and vending machine area on ground floor. Ceiling beams are design element.

Stairs lead to main floor. At right, parking lot entrance, information desk.
the building so that we could provide as much sun-bathing area as possible. Skiers like to sun-bathe.”

The building was designed with twin prows, one pointing downhill and one uphill. Each allows as much window area as possible, and each acts as a baffle to the wind, shielding relaxing skiers. Other sun-bathing areas were arranged on the west end of the lodge and on the balcony of the downhill side.

The arriving skier walks over a slate-paved entryway and comes into the lodge on the ground floor through a door in the window wall of the central section of the lodge. On his left is an information desk, designed to reflect the prow shape of the facade, and on his right is a ski shop, with adjacent areas for ski rental and repair. Nearby are toilet facilities and a small nursery where the skiing family may leave the very young.

The nursery, first aid room, and

(Continued on page 38)
Dominating the west wing: "the chimneys of a great double fireplace . . . like an 'upended Paul Bunyan'"

Free-standing concrete stairway leading to mezzanine has rope-laced wooden railings.
Individual classroom doors lead from tree-shaded courtyard.

Broad Street School

"When small children enter a school, they should think, 'This is a warm pleasant place; there's nothing to be afraid of.'" These are the words of Bliss Woodruff, of the firm of Carter and Woodruff, architects of the Broad Street School in Nashua. It is this philosophy which guided the construction of the 13-classroom elementary school.

Of course, there were many other philosophical concepts and practical considerations involved in developing the school. Perhaps most important among them was the belief held by Carter and Woodruff that it is not inherently economical to purchase cheap hard-to-maintain materials, nor to construct multi-story rectangular buildings.

The Broad Street School is a complex of three one-story classroom wings and a two-story element containing the main entrance, administrative and teacher work areas, library, health suite, kitchen and cafetorium (cafeteria and stage-equipped auditorium), playroom, music room (used also for speech therapy), and boiler room and service areas.
Main entrance is at far right, service entrance at center.

Broad Street School, Nashua, N. H.

Architect—Carter and Woodruff  Contractor—Morris and Son Construction Corp., Lowell
Corridor-less classroom wings connected by "village street"

Lower floor of two-story wing
Site planning allows room for two more four-room wings.

"Children should think, "This is a warm pleasant place...""

The four wings are connected by a main corridor or "village street," a thoroughfare which allows the children from all classrooms to pass to and from the playroom, cafetorium, and library. Mr. Woodruff likens this corridor to the kind of passageway which is open to the weather in California, but must be closed in and heated in New Hampshire. To invoke the atmosphere of such an outdoor area, the architects have used brick for the walls of the corridor, as well as broad expanses of windows looking out on the tree-shaded courtyards. The length of the corridor is broken up visually and spatially by irregular widths and by irregular ceiling heights (some flat ceiling and some pitched where the corridor intersects the classroom wings).

The wings themselves are corridorless. Each room connects with the others, but is a self-sufficient unit. The student reaches his classroom through its individual outside door; these entrances reduce crowding during the hours of peak traffic and allow each child a direct, personal orientation to his own part of the school. In bad weather the children may use the main entrance, reaching their rooms through interior circulation.

The area usually devoted to corridor space is used in each classroom for toilets, sinks, coat closets, built-in cabinets, and library facilities. The built-ins act as a low room divider, separating the traffic flow area from the classroom proper. Class-to-class movement is reduced by the self-sufficiency of each unit and by the complete telephone and intercom system connecting classrooms, administrative area, and kitchen.

The classrooms have broad areas of window on two walls; one interior wall is used for pin-up boards, and one for blackboards. The windows

(Continued on page 35)
Each classroom is a self-sufficient unit; movable desks allow flexibility in teaching program.

Main corridor or "village street" connects classroom wings and administration area.
Skylight over stairwell introduces natural light to both levels of two-story element.
Bowed roof lends charm, provides additional dimension to interior space.

Country Home

Owner—Mr. and Mrs. Roy P. Forster

Architect—E. H. & M. K. Hunter

A quiet facade is turned to the road.
A home should be a summation of what the client needs most," says Mrs. Hunter of the firm of E. H. and M. K. Hunter, architects of the Forster house in Hanover. "We must consider the ages of the people in the family, and indeed the entire family situation.

"Obviously a family full of youngsters is crying for space. A bachelor's prime consideration may be facilities for entertaining and the effect of handsome materials.

"Family needs define the home we build."

The owners of the Forster home are a Dartmouth professor and his wife. The only other member of the family is a daughter who was in high school when the home was built, and who has recently married. Since the family lives in Maine during the summer, the home was planned as a three-season residence. These factors, plus site and budget considerations, were the framework within which the architects worked.

Mrs. Forster says, "We've always liked contemporary architecture. We knew that was what we wanted and we knew we wanted a hillside site with a view of the Connecticut River valley. The property we chose already belonged to the Hunters, and we bought enough land so that we could control the view absolutely."

Mrs. Hunter comments, "A house must be tied to the site, designed for it within the limits of family needs and budget. It's rather like solving a puzzle. Sometimes you get an idea of the solution and you try to fit all the elements into it, but no matter how you adapt them and change them, it just isn't right.

"Then the best thing to do is abandon that idea and seek a new one."

(Please turn page)
When you get the right solution, you become aware that it's really the only answer to the problem posed.

The Forster house is set on the side of a hill, turning a quiet face toward the road which passes it on south and east, and completely exposing itself on the sheltered western side of the site. Mrs. Forster says, “Although we cleared some of the land to enhance our view of the valley, we left most of the timber standing for protection and privacy.”

The site provided only a narrow shelf of land on which to build, since it slopes sharply to the west and more gradually to the north and south. Built with its long dimension along the north-south axis of the lot, the window walls of living room and master bedroom face west for the desired view, yet allow full privacy to the occupants of the house.

Directly off the dining area of the...
Designed to provide the informal family living and more formal entertaining the owners enjoy.

Master bedroom benefits from western view.

dining-living room, at the south end of the house, is an outdoor living area built on a wooden deck. The north-south orientation of the house thus provides sheltered outdoor dining and lounging on the warmest side of the house during spring and fall.

Interior space requirements were limited. The family needed but two bedrooms. An expanded living area in the master bedroom serves as workspace for either Dr. Forster or his wife and provides the “study” which budget would not allow. The main living area functions as both living and dining rooms.

One enters the house from a path of flagstone steps cut into the slope of the hill, passing the kitchen windows. The entryway is paved with

(Continued on page 32)
Artist's rendering shows "square doughnut" shape.
Office Building

Registry entrance at left, main entrance at right.

Brick wall shelters service area from public.
Left, light and shadow play across facade.

Architect—Koehler and Isaak

Over 400 people work in the new State Office Building in Concord. Before this new building was finished, these people were scattered in myriad offices all over the city, working for various sections of the Department of Public Works and Highways and the Department of Safety.

The site had been pre-selected, a hilltop in East Concord with a handsome view of the surrounding countryside. The Public Works Department already had a definite idea of where it wanted the building located to take advantage of the view. Of course, total costs had to be restricted by the size of the appropriation. From time to time, Public Works also suggested materials which they had found satisfactory in the past.

"Aside from that," comments architect Isaak, "we were given design freedom, but they, of course, made valuable suggestions."

Preliminary sketches were presented to Public Works, which at last approved the final plans.

"The biggest problem, an ever-present one," says Isaak, "was getting enough space for the money available. We needed to consider every economy in construction, yet assure ourselves of durable materials, for this building is intended to last a very long time.

"We decided on a rectangular building, since we believe that economy increases as a building approaches the square in shape." Then, by cutting a hole in the center of the rectangle, the architects created an interior facade through which light would enter the offices.

(Please turn to page 41)
Green sculptured clay tile provides decorative element in lobby stairway.

Main lobby has quarry tile floor, mosaic tile walls, courtyard entrance in interior wall.
Courtyard walls are glass with precast concrete panels. Stair leads to lobby.

Lobby stair balusters add interesting design element.
Executive office of Commissioner Morton is duplicate of that of Commissioner Rhodes.
Motor Vehicle registration room projects from building, has easy public access.

Movable wall systems divide and sub-divide non-specialized areas into desired layouts.

Administrative offices lend light to main corridor through their translucent walls.
Elks Lodge

Elk's Club, Keene, N. H.

Architect—John R. Holbrook

Contractor—Bergeron Construction Co., Inc.
WHEN the Benevolent Protective Order of Elks in Keene decided they needed a new lodge building, they sold their old building and part of their downtown-located site to a grocery chain. With the funds thus acquired, they asked Architect John R. Holbrook to build a new lodge on what was left of the lot.

The Elks' building committee clearly outlined the requirements for six specific and separate areas with definite functions: the television room, the reading room, the ladies' lounge, the card room, the men's grille, and the lodge room. The committee placed a financial restriction of $120,000 on building costs.

Beyond this, the committee allowed the architect freedom in his treatment of the building and site. Almost a year of planning went by before the final drawings were approved.

During that period a two-story structure originally projected was abandoned because of cost limitations, causing elimination of some of the facilities the Elks had desired. The final T-shaped plan conforms to the corner lot location, and allows maximum utilization of the land for building and parking areas.

One problem with which Holbrook had to deal was that of traffic within the building. The men's grille and card room areas are strictly off limits for women, and, as such, had to be isolated from the general traffic flow of members and guests through the main lobby.

A service and storage core had to be centrally located to accommodate all areas of the building, with access to the men's grille wing, the lodge room wing, and proximity to the main lobby. This service core needed public access separate from the main entrance.

Within the building itself, Holbrook was able to isolate the reading and television rooms from the rest of the building. Rooms where more social activity would take place were placed in other wings.

In order to take full advantage of (Continued on page 34)
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Home (Continued from page 23)
Vermont slate, as is the hall which leads to the right, down two steps, toward bath and bedrooms.

In the hall, flush overhead lighting is supplemented by three bubbles cut into the roof to allow natural light to enter what would otherwise be a rather dark corridor. Mrs. Hunter says, “I don’t like the feeling of going from light areas into dark ones, so we go to some lengths to bring in light wherever possible.”

Directly ahead of the entryway is the living room, its superb view visible even from the doorway of the house. The entire back of the house is devoted to this living-dining room and to the master bedroom. The living room was so designed that a single furniture grouping would encourage intimate conversation, yet allow one to view at once a panorama of the valley, the often-used fireplace, and the television set built into wall cabinets adjacent to the fireplace.

To avoid car headlights shining into the living room, the south wall has a clerestory high above a solid wall. A glass door leading to the outdoor living area lets in sunlight without destroying privacy. The south wall and the fireplace wall are Philippine Mahogany; the panel of cabinets in the fireplace wall is painted blue.

The pitched roof, slanting upward both ends of the house, places the clerestory higher than would otherwise have been possible. In addition, the pitched ceiling provides a feeling of height within the small house without unbalancing the scale of the rooms with unduly high ceilings.

The kitchen, which is divided from the living area only by see-through, pass-through cabinets, can be closed off visually by a sliding wood-slat screen. This allows the Forsters both the informal family living and the more formal entertaining which they enjoy.

The small square kitchen has yellow cabinets with brown formica tops. Everything is built-in. One wall is yellow factory-finished Marlite, a hard wall with baked-on enamel finish far more durable than paint.

The detached carport masks the kitchen from the road sufficiently to
allow the use of full windows on the southern and eastern walls of that room. The pitched roof of the carport extends visually the identical pitch and line of the roof of the house.

Toward the northern end of the house, the roof rises at a lesser angle. The double pitch creates positive drainage for all roof drains.

The pitch gives additional dimension to the master bedroom and to the smaller second bedroom. Although this room is very compact, an illusion of spaciousness is created by a full floor-to-ceiling window panel and by the use of built-ins wherever possible. Since the home has only one full bath, a lavatory with built-in dressing table in this small bedroom relieves the family's morning schedule.

A special effort was made to provide a maximum of closet and storage area, even though space was at a premium.

The home was constructed with standard wood-stud framing on concrete or concrete block foundation. The floor slab on grade contains piping for the radiant-panel floor-heating system. Exterior walls of the house are brown fir sheathing and plastic surfaced plywood, painted cocoa. Trim is white.

Throughout the house artificial lighting is primarily from indirect, built-in coves. Ceilings are acoustical tile. Mrs. Hunter says that acoustical tile serves several purposes: it is less expensive than plaster; it fulfills its primary function of sound-deadening; and it is dry construction.

"We take great pains to obtain dry lumber," she comments. "But if then we use plaster, we introduce moisture in great quantity into the house, dampening our dry wood. With dry construction, we avoid that process. Of course, the labor costs are much less, too."

Commenting generally on the Hunters' philosophy of residential construction, Mrs. Hunter says, "We are trying to develop an indigenous American architecture. I love genuine old homes, but I think it's a travesty to copy them. We can and must satisfy the needs of today's families with today's architecture."
Lodge (Continued from page 31)

the limited interior space, the architect placed a folding door between the ladies' lounge and the lodge room. Thus the rooms serve double purposes, functioning as separate rooms when necessary, and providing an expanded area for dances or large meetings.

The site itself presented one problem in that the section to be used for the building had to be levelled off with fill. In addition, its downtown, exposed location demanded a window treatment which would bring light into the rooms, yet insure the privacy desired by the members. On the front of the building this problem was solved through the use of clerestory windows in the lodge room, and by shielding the windows in the office and television rooms with yellow-orange terra cotta grilles.

Windows which open onto the parking area are shielded by drapes and Venetian blinds wherever and whenever necessary.

The Elks lodge was framed with cinder concrete blocks, for economy and for insulation value. The exterior skin is light red brick veneer. The interior skin is a vinyl wall covering throughout the building, except in the men's grille where the wainscoting is pre-finished plywood.

Throughout the building the floor is vinyl asbestos tile over a concrete slab on fill. Windows are stock aluminum prefabricated units. Ceilings are acoustical tile throughout.

Although the same interior finish materials are used in all the rooms, color variations have been introduced to delineate the several areas. The palette used is quiet, with shades of browns and greens for the most part.

Architect Holbrook had no hand in furnishing or decorating the lodge with the exception of the men's grille. In this room he added the rustic appeal of wood paneling, and provided a low divider to define the areas of the large room.

"We used planters in the grille and at the front of the lodge near the entrance to create some effect of bringing the outdoors inside," comments Holbrook. "Budget limitations severely restricted such attempts."

THERE'S A PATTERN IN BLOCK FOR EVERY LIVING PLACE

DURACRETE BLOCK CO., INC.

MANCHESTER, N. H.
Manufacturers of Cement and Cinder Blocks
School (Continued from page 17) may be covered with drapes (not in place when the pictures were taken) to darken the room for film strips or movies.

The long low line of the pitched roofs adds character and a residential aspect to the school. In addition, it permits the low eaves which reduce glare and produce the illusion of low scale, while permitting full height within the classroom itself.

The pitched ceilings are accented by exposed laminated wood beams in the classrooms and administrative area, lending additional warmth to the rooms.

In the playroom or gymnasium, the exposed beams are steel, painted with the blue and red which are used as accents throughout the school. Walls in this room are white concrete block, with clerestory windows on two sides. Repeating the line of the ceiling is a sound-deadening panel of Curon foam rubber, which can absorb punishment from bouncing balls which would injure acoustical tile.

This gymnasium was located on the upper floor of the two-story wing to take advantage of the additional height of the pitched ceiling. Directly below this room, partly below grade, is the cafetorium, a multi-purpose room used for lunches, assemblies, and programs. The floor which separates these two rooms is reinforced concrete, necessary for purposes of fire control and sound-proofing. The architects desired a concrete structure which could span the entire auditorium without the need for intermediate supports. They were also concerned with ceiling height in the auditorium (a problem solved in part by locating the auditorium below grade), and with acoustics.

The solution to the problem was a waffle-effect pan construction ceiling. Plywood panels suspended in the central area effectively reflect sound; on the periphery of the room, acoustical tile liners were inserted to deaden sound and discourage echo. The system works; the ceiling pattern lends interest to the room.

One wall of the cafetorium is glazed structural block; one is a window wall, and one is covered with pegboard. (Please turn page)
School (continued from page 35)

When the playroom or cafetorium is open to the public after school hours, the two-story section can be locked off from the classroom wings, easing the problem of control. The public uses the main entrance, passing under a painted plywood canopy supported by blue steel columns, and entering a ceramic tile paved lobby. The cafetorium is down several steps on the right. The playroom is reached by climbing the broad double staircase to the second story.

The railing for this stairway was designed by the architects. The balusters are steel, but the railing is walnut, introducing the warmth of wood to the coolness of the tiled lobby.

The principal's office at the head of the stairs is well located for control. From the administrative area all interior traffic zones are visible. The teachers' work area located nearby encourages faculty-principal cooperation.

Similar teacher-to-teacher cooperation is aided by the coupling of classrooms on the same grade level, and the encouragement of an open-door policy.

Classrooms are, however, acoustically separated by sand-filled concrete block walls. Areas of occasional high noise (corridors, classrooms, stairway and entry) are all finished with acoustical ceilings.

Floors are asphalt tile in the classrooms; vinyl asbestos in the cafetorium, library, administrative areas, and corridors. Walls are glazed structural block in the lobby and kitchen-cafetorium, and painted concrete block in the classrooms, lobby, playrooms, music room, and administrative area.

The foundation, lower floor walls, and second floor of the two-story element are poured reinforced concrete, as are the slab floors of the one-story wings. Concrete-filled fireproof pipe columns frame the classrooms, administrative area, and library. Laminated wood beams and wood joists frame the roof areas.

Exterior skin is brick cavity wall, with aluminum mullions and sash in window areas.

For general purposes the light is
artificial, supplemented by major windows on the north. Lighting is fluorescent in the classrooms, flush incandescent fixtures in the corridor, and shielded incandescent fixtures in the playroom and cafetorium. A skylight over the stairwell introduces natural light to both levels of the two-story unit.

Provision for expansion of the school by the addition of two more four-room wings has been made in the site planning and construction. Future loads were anticipated in designing the cafetorium, playroom, administrative areas, and heating plant. Although still further additions would be technically feasible, Mr. Woodruff maintains that 21 classrooms is as large as an elementary school should get.

The 12-acre site of the school, designated before the architects were selected, is attractively contoured, pleasantly wooded. Some leveling was necessary during construction.

In school construction today, the question of cost is paramount, whether or not it should be. Both John Carter and Bliss Woodruff are very explicit in their views on real and false economy.

Is it economy to buy cheap materials which will cost many times the original investment to maintain? Carter and Woodruff think not.

Says Woodruff: “It is folly to use in a public building materials that private industry has long decided are too expensive to maintain, despite their low initial cost. It is frugal to use durable materials — good door hardware, for instance.”

Carter comments, “Some people view economy as a short-term project. But you really must consider the cost over a fifty-year period, for that’s how long a school should last. And there are at least three questions to consider: how much will it cost to maintain for fifty years? how much will we use it during those fifty years? what will be the pleasure in its use over fifty years’ time? I believe that any price is too high if one is purchasing fifty years of unpleasant surroundings.”

The campus-style one-story buildings were built at reasonable cost because of the repetitive nature of their design. While one crew moved from room to room and wing to wing repeating the same process, another crew followed repeating the next process. Carter and Woodruff believe that this style of construction lends its own economy by allowing many operations to go on at once, with no crowding of different crews into one area, and no waiting for one process to be completed before another can be begun.

Space needs for the school had been programmed by Engelhardt, Engelhardt and Leggett, educational consultants. Cost of construction was $553,685, exclusive of land, landscaping, furniture, and fees.

The school is attractive to the eye, inside and out. According to the teachers and pupils who use it daily, it is a most pleasant place in which to work.

Do pleasant surroundings contribute to the educative process? Carter and Woodruff believe they do. The teachers at the Broad Street School agree with them.
Ascutney (continued from page 12) service areas comprise the ground floor of the east wing of the building; the ski shops utilize the ground floor of the west wing. The central room is a picnic and vending machine area for skiers who bring their lunches with them. The nursery, a separate enclosed area, is a small room with gay multi-colored vinyl flooring.

The ground story of the building, up to and including its ceiling and the floor of the area above, is framed with reinforced concrete. The ceiling beams are placed at angles to make them interesting to the eye, and to carry out the pattern of the diagonal exposed beams in the main floor area above.

The concrete floors are painted grey, and the exposed columns and beams in this area are light buff. Non-bearing walls in this ground floor section are wood panels and glass. Ceilings are acoustical tile.

From the rear of the picnic area, a broad concrete stairway rises to the main floor of the lodge. On this floor, most of the central section and the entire west wing are open to a two-story height. Fleck explains, "By heightening the ceiling and by planning a mezzanine over half of the space, we were able to provide more eating space without obstructing the view. And, we could provide those on the mezzanine with a view of our fireplace on the main level." Floor-to-ceiling windows reveal a panorama of the snow-covered Vermont valley below, and the full sweep of the slopes and trails above. Light streams into the room from all sides.

Dominating the west wing are the chimneys of a great double fireplace in the shape of a figure eight. The chimneys, with prefabricated flues, rise to the ceiling, looking, as Fleck notes, like an "upended Paul Bunyan." The floor of the fireplace section is Vermont slate; that of the rest of the main floor is grey-painted concrete.

The ceiling with exposed steel beams (which are the framing for the upper levels of the lodge) is wood deck painted a warm red-brown. Double-paned insulated glass panels are alternated with yellow Glasweld, an insulated asbestos sandwich panel with a baked-on finish prefabricated
in Belgium.

Skiers enter and exit from the main level through protected double doorways in the central area and in the wood-paneled west wall. Each doorway has a shingled, slanted roof.

The exposed beams in the ceiling follow the slant of the roof and the prow-shaped contours of the building. In the west wing they are parallel, conforming to the peak of the roof. In the central section, where the ridgepole is perpendicular to those of the wings, and where the exterior walls come to a point, the scheme is more complex, resembling the familiar herringbone pattern of the climbing skier.

The ceiling under the mezzanine is acoustical tile to deaden sounds in that more enclosed area.

On the main floor, the east wing is devoted to a cafeteria and the preparation of food for it. The cafeteria can serve 1,000 skiers per hour in two lines, or it can be half-closed on a quiet day. The warm yellow of the cabinets repeat the yellow panels of the window walls, and the blue tiles of the kitchen area repeat the blues used throughout. Peaked openings in the wall reflect the peaked roof and the pointed facade.

Rising from the main floor is a free-standing reinforced concrete stairway, leading to the mezzanine, which covers about half the central floor area. A handsome wood rope-laced railing serves as a protective wall.

From the mezzanine one can walk through to the third floor of the east wing. Here is a room which will be used for a bar and cocktail lounge in the future. Separated from the mezzanine by a folding door, this room has yellow walls and a blue and yellow tile floor.

The rest of the third floor is given over to the directors' room and manager's office. The former, paneled with pre-finished cherry plywood panels, has its own shower and toilet areas, and miniature cooking facilities. The windows of the manager's office overlook the main floor and mezzanine and provide a full view of the slopes and the lifts.

Throughout the building, colors have been held down, kept simple. (Please turn page)
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Ascutney (continued)
“Skiers’ bright costumes provide enough color,” states Fleck. “If we use too many bright shades in the building itself, the result would be a dizzying mass of color.” A recurrent theme is the yellow of the wall and the blue of the tile. Interior doors and exterior shutters are painted with a yellow-and-blue striped herringbone pattern.

Exterior colors are also simple: the yellow Glasweld panels, blue louvers on the downhill side, brown and brown-red of wood and steel beams, and the white split block which forms much of the skin of the building. This 4 x 4 x 16 split block was specially made for the Ascutney lodge, with white cement and white Vermont marble chips as aggregate.

Many details have been added to the building to cater to the skiers’ desires. Footrails have been placed at all windows; the fireplace has a broad lip for leaning or foot-resting. Near the stairway to the mezzanine is a specially devised mitten-warmer with heated coils under shelves. The ladies’ room is provided with a full-length mirror. Fleck says, “I put flagpoles on the downhill sides of the building, and I told the owners I wanted to see flags flying from them. If you’re the first car into a ski area, it all looks very quiet and very cold, but flags provide color and movement. They look festive and welcoming.” Flags are flying, and there is a small skating rink which is also available to the skiers.

Details were also added to the lodge to prepare it for future use as the center of a year-round recreation area. The kitchen is far larger and more elaborately equipped than required for the simple cafeteria service supplied to skiers. A dumbwaiter in the east wing carries food and supplies to the upper floors. Lights on the wall of the west wing, main floor, have been placed to illuminate pictures which will be hung on the walls in summer.

Construction of the Ascutney ski lodge took seven months, after more than a year of planning. It was ready for use at the beginning of the ’63-’64 ski season. Costs for the lodge, grading, septic field, etc., were $380,000.
Office Building (from page 27)

The entire structure was designed with very few interior supports, to provide almost complete flexibility in office layout. The structural steel frame of the outside and courtyard walls is bridged on the first and second floors with a cellular steel floor through which pass electrical conduits and telephone wires, ready to serve an infinite number of possible office arrangements.

Almost all of the interior walls are non-bearing. The external skin of the building, also non-bearing, is large concrete panels, 12 feet wide by 20 feet tall, designed and engineered by Koehler and Isaak. The panels were precast in special steel forms before delivery to the site.

These prefabricated sections contributed both to the economy of the construction and to the rapidity with which the building went up. Once in place, the panels were held rigid by welding to the steel frame anchors which had been cast into the concrete. Grey granite panels cover the joints of butting sections.

The windows, part fixed, part movable, with tinted panes, were then fixed into the concrete panels, and the exterior walls were, to all intents and purposes, complete.

Mr. Isaak believes that the sculptured quality of the panels, with the play of light and shadow across them, adds eye interest, and softens the "squareness" of the building.

The skin of the courtyard wall, non-bearing, is glass panels, alternated with white precast concrete panels.

The roof of the building is structural precast concrete tees, which offer a long span without the need for intermediate columns, and at the same time provide a ready working platform for roofing.

Large non-specialized areas fill the space between the exterior and the courtyard walls. With very few exceptions, most of which are described below, the loft-like space can be divided, sub-divided, and redivided to suit the needs of any given department at any given time. Koehler and Isaak selected and specified a system of movable walls and laid them out for the current pattern of usage.

(Please turn page)
Office Building (continued)

These walls are combinations of solid panels, glass and opaque panels, and doors.

On the second or top floor, with the exception of the toilet facilities and the stairwells, all partitions are movable.

On the first floor, the police laboratory (including a brick vault), detention cells and an examination room, the main lobby and the administrative offices presented a more specialized problem.

The main lobby, entered from a canopied granite-columned outside stairway, is a wide open area, with glass walls looking on the courtyard. Quarry tile flooring and mosaic tile walls add color to the area.

The administrative offices for the Commissioner of Public Works and Highways are in the northwest corner of the building. With very little variation, they are duplicated in the northeast corner of the building for the Commissioner of Public Safety. These comfortable offices present a dignified atmosphere for the directors of the complex departments.

From the first floor one can cross the enclosed courtyard even in mid-winter, for the warmth of the storage area on the ground floor below the court quickly melts all snow.

On the west end of the ground floor, which is really mostly below grade, a pitched roof tilts up and out away from the building. This is the Motor Vehicle section, an area which receives much greater public contact than any other part of the building.

Grey granite side walls define the area; a broad expanse of windows allows light to stream into the large registration room. The tilted ceiling seemed to provide the best solution to the problem of introducing extra light into this partly underground room. A low flat ceiling would have left the room too dark; a sufficiently high flat ceiling would have cut across the windows of the floor above.

This area was specifically designed with its own outside access to allow the public to get in and out without disturbing the routine flow of office traffic in the rest of the building. The registration section is a self-contained unit, with its own stairway from
ground floor to first floor.

At the rear of the ground floor is a cafeteria which helps to alleviate the problem of the building's out-of-town location. Serving this cafeteria, and with direct access to the storage areas, is a well-defined trucking and service area, devised at the rear or south side of the building, shielded from the public by a brick wall.

Architect Isaak is very conscious of the appearance a public building should present to those whom it serves: "The building is essentially an office building and this must be expressed in the design, but, because it is a public building, it should also express a certain calm and dignity that is associated with government," stated Isaak.

"In addition, a public building should, in part, use materials indigenous to its environment. For instance, granite has a definite place in a public building in New Hampshire. We used it extensively in the motor vehicle section and as accents in other parts of the building. We also believe it offers a nice contrast against the white concrete panels."

Isaak believes that a public building must be built with quality materials, although their use may stretch the budget to its utmost. In the new State Office Building, all corridor walls are ceramic tile which offers beauty as well as years of maintenance-free use. The main corridor floors are quarry tile. Almost the only distinct touches of bright color are introduced in the ceramic tile in the corridors and stair wells.

"Our design was simple, and we had very little money available for 'frills'; yet we wanted to add a little extra character and color to the main lobby, so we positioned green sculptured clay tile in the open stair well," states Isaak.

The building is a quiet one; acoustical tile ceilings mute the footsteps in the corridors and the clerical noises in the large office rooms.

The cost of the building was $1,367,000, approximately $14.08 per square foot, or $1.15 per cubic foot. Ground was broken in August of 1962; the building was occupied in November, 1963.
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THE TWO MAIN CONSIDERATIONS ARE THE ABILITY AND THE ATTITUDE OF THE ARCHITECTS IN QUESTION. ABILITY MUST BE JUDGED ON BACKGROUND, EXPERIENCE, AND TALENT. AS IN ANY FIELD WHERE CREATIVITY PLAYS AN IMPORTANT ROLE, EXPERIENCE ALONE IS NOT THE CRITERION. THE ARCHITECT YOU SELECT MUST BE A FIRST CLASS ENGINEER OR HAVE SUCH ENGINEERING SERVICE AVAILABLE TO HIM. HIS ATTITUDES ARE A MATTER FOR MORE PERSONAL JUDGMENT. OF COURSE HE MUST BE ABLE TO COOPERATE AND COMMUNICATE WITH THOSE OF THE COMMUNITY'S OFFICERS WITH WHOM HE MUST WORK.

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