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### A COMPARISON OF **"CAULKS AND SEALANTS"**

<table>
<thead>
<tr>
<th>Base</th>
<th>Oleo resinous</th>
<th>Butyl</th>
<th>Acrylic</th>
<th>Polyurethane</th>
<th>Polysulfide</th>
<th>Silicone</th>
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<tr>
<td>Use</td>
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<td>Calk</td>
<td>Sealant</td>
<td>Sealant</td>
<td>Sealant</td>
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<tr>
<td>Package</td>
<td>1 part</td>
<td>1 part</td>
<td>1 part</td>
<td>1 and 2 part</td>
<td>1 and 2 part</td>
<td>1 part</td>
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<td>$8—10</td>
<td>$12—14</td>
<td>$16—18 (2 part)</td>
<td>$15—17 (2 part)</td>
<td>$20—22 (1 part)</td>
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<td>TT-C-598</td>
<td>TT-C-598</td>
<td>TT-S-00227</td>
<td>TT-S-00227</td>
<td>TT-S-00230</td>
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<td>30F to 120F</td>
<td>40F to 120F</td>
<td>40F to 120F</td>
<td>40F to 100F (2 part)</td>
<td>60F to 100F (1 part)</td>
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<td>−25F to 225F</td>
<td>−20F to 200F</td>
<td>−20F to 200F</td>
<td>−40F to 220F</td>
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<td>No</td>
<td>No</td>
<td>Some</td>
<td>Yes</td>
<td></td>
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<td>Life Expectancy</td>
<td>1—5 years</td>
<td>5—8 years</td>
<td>10 years</td>
<td>15—20 years</td>
<td>20 years</td>
<td></td>
</tr>
<tr>
<td>Advantages</td>
<td>Low cost, familiar, paintable</td>
<td>Slightly better than putty, low cost, paintable</td>
<td>Better than butyls, no mixing, adheres well</td>
<td>Weathers fairly well, good resiliency and adhesion</td>
<td>Bonds well to many substrates, weathers well, successful history, well known to industry</td>
<td>Very best weatherability, widest application temperature range, bonds well to many substrates, not a formulated material</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>Not resilient, little or no adhesion, high shrinkage, hardens with age</td>
<td>Stains masonry, poor elongation, high shrinkage, hardens with age</td>
<td>Not elastomeric, not very resilient, shrinks 15%, surface hardens on weathering, very hard in cold weather</td>
<td>Slow cure at low temp., tends to be toxic, moisture may interfere with cure. Sometimes bubbles during cure</td>
<td>Many formulators resulting in varying quality, Some colors change on exposure to sunlight, alligators with age, poor recovery from compression</td>
<td>Most expensive to purchase, not good for horizontal traffic bearing joints, some dirt pick-up problem, not good for water immersed joints</td>
</tr>
</tbody>
</table>

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A former selectman once said "When it burns at night, it's spectacular. If people didn't know what it was, they would install picture windows to watch it". "It" is the Newport municipal dump, not very different from many others in New Hampshire although it is visible from a major highway and its smoke settles down over a nearby golf course and a branch of the Sugar River. Fortunately this and other attacks on the aesthetic values of a quiet countryside, to say nothing of air pollution, have come to an end. The New Hampshire Air Pollution Control Commission has ruled that towns and cities which now operate a burning dump must cease the activity by July 1, 1971.

This is the first in a series of photographic editorials on environmental problems facing this state. We are not implying that New Hampshire is overrun with urban blight or rural slums. But they are present in a state which prides itself on natural beauty, clean air and orderly villages. We just want to offer reminders of what still needs to be done.
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Cover: Sketch of Registration area, N.E. Center for Continuing
Education. Photo: John W. McConnell, President, University of
New Hampshire (left) and William Pereira, architect, view model
of the N.E. Center.

Photo Credits: 18-23, Walt St. Clair; 36, Kazys Daugla; 39,
Bernard Sweet.

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upon request.

FIFTY CENTS A COPY THREE DOLLARS A YEAR
As Chapter President, I went to Portland, Oregon to the National A.I.A. Convention this June to get the 3,000 mile view. From there it was easy to see that we are getting help in minding our business — help from The American Institute of Architects. The degree of involvement in governmental activities, urban problems and Chapter affairs is most encouraging. The staff people at the Octagon and the National officers and committee-men serving and representing us are all devoted and most able people. The A.I.A. is a national organization of stature and influence. Not flawless, as Mr. Whitney M. Young, Jr., Executive Director of the National Urban League candidly pointed out, but still a very vital view for architecture.

We were chided by Mr. Young for our “thunderous silence” in the cause of Civil Rights and lack of involvement with root problems of urban living. Of course these problems concern us as a professional group as well as individual citizens. However, judging from material I’ve been getting, a current of concern has been developing for a long time into a National A.I.A. policy. Now George Kassabian, our new president, will form an interracial task force in August to consider such policy and develop specific programs.

Corporate membership dues were increased $25.00 a year, part of which will support a Center for Urban Affairs at A. I. A. Headquarters. This will strengthen A. I. A. relationship with government and private organizations active in urban affairs and assist chapters with local programs. Other areas of emphasis to be supported by the dues increase are:

a. Strengthening public relations.

b. Launching a National advertising campaign.

c. Development of computer uses for practitioners.

d. Implementation of new concepts of academic and continuing education.

e. Strengthening relations with clients, particularly in commerce and industry.


(Continued on page 37)
NEW ENGLAND REGIONAL CENTER FOR CONTINUING EDUCATION

Reflects a proud association with
the University of New Hampshire
that began over forty years ago.

N. E. Regional Center For Continuing Education
Stoke Hall • Stillings Hall • Devine Hall • Sawyer Hall • Babcock Hall
Gibbs Hall • Engelhardt Hall • Hunter Hall • Scott Hall • Library Addition

Davison Construction Company, Inc. Manchester, N. H.
General Contractors
Detailed model of the Center as it will appear when completed. At left is the arrival building and the Learning Center. The Pavilion is at center with the residence towers at right.
(Editor's note: Construction has begun on the $3.7 million first phase of the New England Center for Continuing Education at the University of New Hampshire. Designed by William L. Pereira & Associates of Los Angeles, the physical plant is being built with funds provided by the W. K. Kellogg Foundation, the federal Higher Education Facilities Act, the UNH Centennial Fund, and a repayable bond issue approved by the New Hampshire legislature. All of the six state universities will share in the development of programs. Davison Construction Co., Inc., of Manchester is the general contractor for the first phase, scheduled for completion in 1969. The following text, sketches, and photographs are from the project master plan, prepared by the architect.)

"Continuing education in its broadest sense is the adult sequence of a lifetime curriculum. Continuing education in its narrowest sense is a form of university-sponsored residential adult education. Whatever the specific interpretation of the terms 'continuing education' and 'residential adult education,' they both belong to an emerging total educational process in which the pre-adult and the adult phases are parts of one continuing whole, and the activities at every level are designed not as separate endeavors but as elements in a single school for life."

For many people today it comes as a surprise to learn that these words were written as long ago as 1832 by Bishop Gruntvig, the ideological father of the Danish folk high school which was the starting point of modern residential adult education. Danish
folk high schools were started in the United States in the early part of this century by immigrants in the Middle West. Some clung to the "school for life" concept with its broad cultural aspects; others concentrated on such subjects as craft training and literacy. In Denmark, the residential aspect of adult education was mostly a matter of physical convenience and appropriateness. Continuing education centers at modern American universities are usually residential. The provision of meals and sleeping quarters in close conjunction with study rooms is a great convenience for adults who may come many miles for conferences. Also, the university residential center capitalizes on the clear psychological advantage of having everyone in a facility engaged in educational pursuits, rather than, as in a hotel or resort, having people engaged in business, recreation and social activities mixed in with learning groups.

The W. K. Kellogg Foundation, Battle Creek, Michigan, which was established in 1930, has already given funds to help create centers for continuing education at seven universities in the United States and Europe, but the New England Center at the University of New Hampshire is the first to join several universities together in the service of a major geographic region.

The Center will operate through workshops, institutes, conferences and other informal study programs, ranging from one day to several weeks in length. It will stress activities that give breadth to continuing education programs which supplement and complement those offered by New England individual educational institutions; focus on the problems of the individual states from a regional perspective, thus strengthening all New England; and supplement formal study programs by developing a reservoir of competent specialists in social, economic and political areas; and by providing continuing education for faculty members in their respective academic disciplines.

Planning Process

Actual planning for the physical facilities to house the Center's unique and ambitious program was started in July 1965, when the firm of William L.,
Hillside paths will connect the residence towers to the rest of the Center. The towers will rise 85 feet but will be barely visible above the treetops.

Pereira & Associates was selected as the architect for the project. This was immediately followed by a conference of experts, who were invited to assist in suggesting the kind of physical environment best adapted to the nature and the purposes of the Center.

The most important guidelines for the architect which were suggested at the planning conference and strongly reinforced by subsequent research are:

A. The participants are adults — not school or college students. Continuing education differs considerably from the undergraduate or graduate process. The typical undergraduate, for example, brings to the university enthusiasm and natural talent, but not much experience. The adult, on the other hand, brings to continuing education not only those qualities but a considerable backlog of experience as well. Yet this is a resource that can be only fully realized through vigorous intellectual interaction. Individuals coming
to continuing education centers for the most part represent strong community ties. In that such ties are temporarily obliterated, there is a need to create the atmosphere of a community for the duration of their stay. The need to stimulate interaction, the need for a spirit of community, are two important principles which make the phrase "a community of learning" as applied to the Center seem surprisingly relevant. All sources of information and research agree that, because of the nature and age of the participants, the Center should have an atmosphere of informality and comfort. Many of the participants are distinguished citizens in their own communities; most of them are unable to enjoy themselves or to be at their

**The triangular module allows for increased planning flexibility in an effort to design around trees and rocks.**
intellectual and social best in an institutional atmosphere. Large, threatening spaces should be avoided and residential scale preserved in rooms and buildings wherever possible. Again, the Center is for adults, privacy is an important factor, and, as far as economics will allow, single rooms should be available for those who want them.

B. The Center aims at developing leadership by thrusting adults into “action” roles as conference chairmen, speakers, questioners and researchers. This implies the need to provide conference rooms of various sizes with excellent acoustics and audiovisual aids. It also influences the library and reading areas, which permit independent study and research in depth on the subject of each specific conference. There should be plenty of comfortable, informal meeting areas where groups of various sizes can continue discussions while eating or relaxing either in or out of doors.

C. The Center should be considered as a “gameboard” upon which conferences are “played.” Experiments can be stimulating and rewarding and, as the staff of the Center gains experience, there will be possibilities for many interesting experimental conferences. From the architect’s point of view this implies that all physical facilities must be flexible and capable of accommodating a variety of needs. The building must be capable of expansion and sufficiently flexible to accommodate unforeseen requirements such as new types of conferences, new types of visitors and functions and relationships of spaces to one another. By providing flexible living, dining and conference facilities, it should be possible to accommodate visiting
Typical residence tower floor plan.

groups of varying economic and cultural levels. Allowance must naturally be made for a network of conduit capable of receiving the necessary cables for many types of electronic equipment.

D. At least one architectural or design feature should be developed to make the center unique in the experience and memory of visitors. Since the Center depends to a large extent for its functional and economic success on "repeat business," it is obviously important to impress visitors in some exceptionally favorable way. The building itself may be one of the most powerful factors in creating the desired impression. It could be the impact of the actual structure, the use of the natural setting, an unusually appropriate, creative design for the interiors or a combination of all three.

The Architect's Response

Before the existence of an actual program or concept for the buildings, William Pereira expressed reactions to the site and to the project generally which have served as additional guidelines and goals for the planning and design. From the very first moment he was so strongly affected by the extraordinary beauty of the site that it was his immediate wish to build so that every tree and rock would be preserved, so that the buildings would complement rather than dominate their wonderful natural setting. As an architect, it was impossible for him not to react strongly to the traditional building forms and urban patterns of New England with their inherent qualities of human scale and organized beauty of form and space, and to wish to incorporate these qualities into the Center.

The site is a place of extraordinary beauty, heavily forested with pines, oak, maple, birch and a lesser mixture of other trees. Because of the shade from the dense canopy of trees there is little low foliage, and the ground is almost bare except for lichens and ferns clustered among rocks and isolated scatterings of wild flowers. The ground undulates sharply; two steep ravines border the larger parcel (on the south side of Strafford Avenue) one to the south and one to the east. A ridge bisects the site, the shallow soil along its crown laid bare by generations of weather to expose dramatic outcroppings of granite. A year-round stream, Pettee Brook, runs along the boundary separating the Center from the University on the south. The combination of strong forms, rich growth and cathedral-like spaces beneath the trees contributes to make this a magnificent conference setting.

The Development of a Vocabulary

Because of the transient nature of the conference participant, the interaction inherent in "a community of learning" would be more difficult to achieve without the balance imposed by the isolation and natural beauty of the site. One of the goals of this venture was to create a particular kind of learning community within a natural environment by preserving and dramatizing the setting. To achieve this goal a vocabulary of design elements was established which, applied to the specific requirements of the Center would capitalize on the beauty of its setting.

In organizing the spaces of the Center, one of the primary objectives was to maintain low site coverage and minimize disturbance to the natural growth and terrain. Some buildings, as a result, developed vertically. Others, whose requirements dictated a minimum number of floors, were situated in the ravines and valleys of the site to avoid advertising their presence. For the most part, the structures ride free of the grade, supported on isolated footings which meet the ground in the form of a low granite base, a subtle man-made transition between building and earth. A modular system was sought which would allow the building to take almost any shape. The triangular form selected—segments of a hexagon composed of small dimensional increments—allows for considerable flexibility in the layout of the build-
Formal dining hall will accommodate 200 people for meals and can be used as a lecture hall for 500 persons.

ing. By careful fitting of the plan to the site, unnecessary earthwork and tree removal are eliminated; the buildings are virtually tailored to the forest.

Covered walkways between the separate buildings would provide some degree of protection during wet weather. However, since these walks would tend to bisect the site, an effort was made to develop as light a canopy as possible, random in plan and seemingly supported by trees, causing a minimum of disturbance to the natural setting.

To give conference participants the maxium visual exposure to the site, considerable amounts of glass were employed in spaces where control of light was not of paramount importance. Where possible, isolated windows were located to frame particularly delightful views of rock outcroppings and tree massings. The glass itself is either clear or bronze in color, the tinted glass serving not only to control glare, but to reflect from the outside the images of the surrounding forest. Where walls are solid, similar re-

Raised walkways will lead to the residence towers.
flections will come from glazed brick surfaces in warm, earthy tones of mottled browns, greens and ochre. The movement of the reflected images, the patterns of the branches, the play of light and shadow, all tend to dematerialize solid walls, to soften hard edges and make the architecture a part of its environment.

The buildings' structural steel columns are held outside the line of the wall. Their close, somewhat random spacing combined with their dark vertical form echoes the rhythm of the surrounding pines. Where trees of necessity have been removed to accommodate the buildings, the images of the trees, reflected in the glass and the abstracted columns, have in effect been re-introduced. Thus, the voids in the forest are filled and the environment remains virtually uninterrupted.

The first Increment of the Master Plan

Designed to function as a complete Continuing Education Center, the first increment of the master plan will include seminar rooms, auditorium and formal dining facilities in the Learning Center; audiovisual facilities necessary for the preparation, recording and dissemination of conference materials;
a sheltered arrival area; one tower housing a maximum of 80 conferees; and administrative functions which will be housed in the converted fraternity house. This portion of the project is now under construction.

The ultimate development will have more seminar rooms; a 150 seat amphitheatre; a 5,000 volume library with audio-visual carrels; expanded administration and dining facilities; two more residence towers; plus the Pavilion. The latter, perched astride two granite outcroppings, will serve as the "crossroads" and the "hearthstone" of the Center. Glass walls and translucent roof, designed in the spirit of the traditional conservatory, allow the conferee during any season to sit in comfort yet completely exposed to the drama of his surroundings.

Interiors Concept

The qualities which are associated with New England craftsmanship and art are as alive today as they were two or three hundred years ago, and the Center is being built by and for people of the second half of the twentieth century. From the outset, therefore, the architect determined to use only contemporary work, with a few historic items, if they can be obtained, to act as keynotes in various areas of the center. Thus the interiors will interpret the New England tradition in terms of craftsmanship, integrity and ingenuity, but they will be products of today's artists and craftsmen.

The dining area will be dedicated to the maritime tradition of the region and may be the one public place in the Center where windows are covered at night with curtains, to create the maritime illusion. Seminar rooms will reflect the four seasons with appropriate colors in fabrics and furnishings. This will serve to identify the rooms and eliminate monotony as conferees move about the Center.

The towers will have the major items of furniture such as beds, desks and chairs specially designed. They will be made of wood — elegant, plain and unpretentious, designed to make the most of the limited space available.

Landscape Concept

In developing the landscape surrounding the buildings the objective is to preserve and dramatize the setting which already exists. The transition between the natural and the man-made environment should be purposefully vague; a subtle treatment of the relationship of the landscape to the architecture will do much toward giving the impression that the building has always been here. Rather than introducing new landscape materials, the design will take advantage of existing situations wherever possible. Throughout the site, the native trees, shrubs and ferns will be identified by plaques. Bird and animal shelters and feeding programs to encourage native game to frequent the area, will make it possible for conferees to enjoy a short course in wildlife during their strolls outside.
Hargate

Carter and Woodruff
Architects

Louis E. Lee Company
General Contractor

Opening off the Lounge is the exhibition area which has specially designed lighting and display panels by Carter and Woodruff.
The furnishings in the Lounge were selected by Carter and Woodruff to center on a red, orange and ochre rug. Designed by the architects, the rug was made by V’Soske. The side chairs are Stendig, while the larger pieces upholstered in charcoal gray velvet, are Dux.

The concentration of three separate dining functions into one large unit at St. Paul’s School in Concord provided the opportunity to change a former dining facility, Hargate, into a modern art center and campus lounge.

The architects, Carter and Woodruff of Nashua, made very few exterior modifications but completely renovated and remodeled the interior. The main floor now has an audio visual room and an exhibition area, plus a large lounge designed as a meeting place for parents and students, and for receptions and small functions. The lower floor contains a craft shop, art studio, classrooms for design and architecture, a dark room plus supportive storage areas. The gallery and its storage room have humidity control and will have air conditioning to encourage the loan of first quality art work.

Working with the architects were Reardon and Turner, mechanical and electrical engineers; Albert A. Goldberg Associates, structural engineers; and Edison Price, Inc., lighting consultants and fixture manufacturers. Bolt, Beranek and Newman were acoustical consultants.

(Continued on Next Page)
The Audio-Visual Room is adjacent to the Lounge. Surfaced in hard plaster with a carpeted floor this room, seating 98, has a bright clear acoustical environment.
The Studio opens at right toward Turkey River. At left are spaces for the design classroom and studio work.
At the rear of the exhibition area is a raised alcove suitable for seminars and containing an art library. Furnishings are Risom.
Announcing
the era of the
gas-cooled American.

He's the guy with a feather in his cap because he won't have to go scouting for a new air conditioning system for, say, 20 years. He's discovered great new gas air conditioning. It lasts about three times longer than other cooling systems. And it operates at peak efficiency all that time. That's because gas air conditioning has fewer moving parts, so hardly anything can go wrong. And, of course, gas air conditioning is beautifully clean and quiet.

Over the years, gas cooling saves the Gas Cooled American a nice piece of change—and gives him nice peace of mind, too. Now, what could be more American than that?

Gas makes the big difference. Costs less, too.

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Industriial plant for Watts Fluid Power Corporation is under construction at Kittery, Maine.

Erickson and Dennis are associated architects for this seven story, 100 unit housing for the elderly in Laconia. Bids were received in April and construction began this summer.
Keene Post Office and Federal Building will be constructed of brick and precast concrete. Elevations show front (upper sketch) and side of structure.

School of Nashua Vocational Institute shows entrance porch, classroom wing and elevator tower. Construction is due to begin this fall, 1968.
Planning Educational Facilities For Tomorrow's Schools

A Panel Discussion

This is the final article in a three-part series on the school planning conference held at St. Paul's School in Concord and attended by architects, educators and interested laymen. This segment continues a panel discussion begun in the June '68 issue. Participants include Dr. Robert Anderson, Professor of Education, Harvard Graduate School; John E. Marshall, Educational Consultant; and Christopher Arnold, a San Francisco-based architect.

How do you define the separate roles of the school board, the building advisory committee, and the professional educator in these building projects?

Mr. Arnold: I could define these roles in the way in which I would like to see them played as an architect. I think this is a very important issue which I would define really as who gives the orders to the architect. Because there is no question in my mind the architect's role is really a service role and he needs to get his directives from someone, and he needs to get very, very clear directives if the project is to have any chance of success. I would say it's my feeling that the school board's role is as a general policy maker situation. It's their right to have a go-no go situation and they should be far enough away from the detailed questions to be able to evaluate these things and to make good decisions. And the way in which they make good decisions I think is by being given very, very clear information from their start and the point of contact is the superintendent. We have found much the best results in terms of the way we have worked when you have a really first-rate superintendent backed up by good staff work doing the sifting and the hard labor, as it were, in terms of preparing information which then goes through to a school board in a very simple way. And a school board which trusts its superintendent and knows that if it gets three sentences about a very major decision that in fact this represents a tremendous amount of work behind it and as a result a very simple policy statement can be made. The building advisory committee which I assume to be perhaps some form of citizen's committee in relation to the building program I think is potentially a useful thing and potentially also a very dangerous thing. I don't think it should get involved in decision-making either in detail or in general policy. I think the general policy is the Board's matter and the detail is between the superintendent on the educational side and the architect in terms of materials and the solution. It may be that the building advisory committee may have certain rules as a source of information from the population at large which should go in to the staff side, to the superintendent's side, and it may have a role simply as a public relations force in terms
of feeding out from the staff side to the population at large. I think the worst thing that can happen from the architect's point of view is when he gets a confused decision-making body to work with. I think the ideal situation is where you really have one architect and one professional and they work together and it's understood that behind the professional educator is this whole triangle of information fanning out into the population and into the school board and into the education world. And behind this one architect is a whole triangle of information fanning out in terms of materials and costs and things which are being done elsewhere. But it's very difficult if the architect has to work with a confused decision-making group or with somebody that doesn't really carry the weight of the decision. And the school board I think should not be expected to delve deeply into the details and problems. That's the superintendent's job. I think a lot of problems in school building come from a lack of very clear distinction about these roles. Again I think this goes back to some of the things I said this afternoon about the complication of life. As life becomes more complicated, it becomes more and more important to ease the confusion of who is doing what and who is responsible for what.

Do you have any concrete evidence that team teaching organization is more productive in terms of children and education-progress than the traditional graded organization?

Dr. Anderson: There is a mistake in the question which perhaps I can correct and then assume what these people meant. Team teaching is one thing and nongraded is another. And one can have team teaching in a traditional graded organization and, therefore, there are two mutually exclusive ideas being identified as equivalent. Let me assume that the question means, do you have any concrete evidence that team teaching is more productive than the traditional self-contained organization. Let's try it that way for once. Thus far, the evidence from projects in which the only variable has been team teaching as opposed to self-

(Continued on Next Page)
containment but where gradedness has remained constant has tended to show that the educational progress of the children remains in approximately the same general wave length as far as test results are concerned and so on. But slightly in a positive direction and the longer a project exists, the surer it is that the increments of advantage will begin to be statistically significant. However, I think that it’s important to realize that this is a moderate answer and that the educational achievements of children in the team teaching organization have not been spectacularly greater than have those in the conventional pattern. I think the reason for this, however, is that organization, this kind of organization, makes relatively little difference. What really makes the difference is whether the curriculum itself gets modified and whether the pedagogical treatments to which children are submitted will be in some ways different. The evidence is quite clear on this that after having developed the pedagogical repertoires that have been in use in American schools over centuries and so on that it’s not surprising that the repertoire modifies itself and modernizes itself only rather slowly. However, on the other side, in terms of the social and personal and emotional well-being of children, in

if you will, with the emotional well-being of children because we had been come into believing that having just one mother hen in an egg-crate kind of school so that there was only one adult to deal with and a limited number of other children somehow was good for children. It came as a surprise to us to discover that rather to the contrary it seems to be much better for children when we open it up and when they have more than one adult with whom to deal. Evidence in this respect has been collected through several doctoral dissertations, a number of research projects using socio-metric devices with children, and through various kinds of interview procedures and personality test instruments that have helped us to come to that conclusion.

Now if the questioner wanted me to compare graded with nongraded, that would be a different question. If the question has to do with graded versus nongraded, I’d give essentially the same answer. That is to say, there hasn’t really been any good research in this area partly

(Continued on page 30)
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because non-gradedness is relatively new.

What is the first choice of a person, specialist or otherwise, that would do education in New Hampshire the most good? And where would he best meet this and how?

Dr. Marshall: I suppose such a person, to do education in New Hampshire the most good, might very well be serving in the state department of education. Maybe he would be the vice president in charge of heresy as was mentioned earlier today. But since we're talking in school planning terms, at least partly, since I am talking in school planning terms primarily, I'm going to say that the person who would do your development of school plant facilities the most good, is not necessarily the school plant specialist at all. There's been a tendency in state departments of education, and I've served in them in two states, to set up standards. And the standards of today become the millstones of tomorrow. When I helped to write, or wrote, the West Virginia standards for schoolhouse construction 25 years ago, it was considered I think I may say, one of the very best state documents on school plant planning; and I'd be ashamed for any one of you to see it today. So, my first choice for somebody to help in the area that we've been discussing is not necessarily a person to impose standards for improved plans. If, instead, however, he were a school building man who put his emphasis not on how low can you go and we'll still approve it, but rather on where should you be aiming and how far have you gone toward that? When a state establishes standards for school approval, the standards have got to be so low that the poorest, least imaginative community in New Hampshire can hope to achieve them or they couldn't promulgate these standards. What kind of leadership is that going to give to your better communities? Now, the focus has got to be not here, not there and another part of it is to remember that school buildings and school plant and school program are
extricably inter-related. I can remember, and I'm one of the old men in the school building scene, when I said to one of the old standbys in the school planning field I knew that the ASCD was meeting in his home town and I said, "Are you going to the ASCD meeting?" He said, "What's ASCD?" I said, "Well, it's the Association for Supervision Curriculum Development." He said, "What would I go to that for? I'm a school building man."

This was typical and to a certain extent still is in too many of the people in this field. The curriculum is on the one side, and with only the tenuous links that have to be drawn, the school plant still is something completely other. I think if you were selecting a state school plant man, maybe if you put your best curriculum leader in that field you'd be doing something. The point I'm making is that school plan doesn't exist in a vacuum, that it's got to reflect some understanding on the part of the teachers. And most of all, I think I can say publicly, if you haven't got all those things, you haven't got the leadership you need. So the person I would recommend, if I understand this, would be a school curriculum person with some ability to talk in practical terms. So many of the curriculum people can't or won't. Who would talk about curriculum without any consideration that it might have implications for school plant design? He'd be that sort of a man and he'd be functioning. I think, on the state level providing information and leadership service to all of you.

How does the cost of an open school compare with the cost of a traditional building? If more, why? And would you enlarge upon your view of flexibility of the rectangular school especially in view of our New England winters?

Mr. Arnold: I think one can't give a hard and fast answer to the relationship between the cost of an open school and the traditional building. We tend to think that the open planning is most effective if you allot a little bit more space to it. Not a great deal, but a little bit

(Continued on Next Page)
more so that if you have small groups working, perhaps doing rather different things, you can get a certain amount of space between them and this tends to seem to add up to a little bit more space in the building. However, this is also offset by certain, or can be offset by certain, detailed arrangements. One of the most expensive things in interior division of space is a door. By the time you put a door in and you put a decent quality hardware on it that won’t get torn to pieces and you’ve installed it, which is a pretty tricky operation, you have quite a lot of money. And we have found that moving away from the door as we have started to do (and, you know, the first step is you just sort of leave out the door), you still have classrooms but you don’t have a door. And then you start making this opening. Instead of it being three feet wide, you make it five feet wide or ten feet wide. You’re starting to open the thing up. Here you’re actually quite definitely saving money in material. We’ve had some very good results in that respect because you’re simplifying the whole interior division problem. So that on balance, we see no particular reason why the cost of an open school should be more than a traditional one. And I think, judiciously handled, it may even be less. Now, if you make an open school and then you put back into it a lot of very expensive operable doors, then it may well come out expensive. But I think as John Marshall mentioned, we’re really experiencing now that these expensive mechanical devices may not be

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necessary at all. With careful design, acoustical control, and a sort of sensitive adjustment to what's going on, these things can really be quite economical.

The second question I don't quite understand although I think I see, perhaps, what is being driven at — flexibility of a rectangular school, especially in view of the northeastern weather. And I assume that there is in the mind of the questioner the relationship between the sort of school which we showed on the screen which you entered from the outside and the basic idea of a rectangular, deep space plan. And I would say that is a regional thing. We design a school like that and we can do it and it's very appropriate. It's very, very pleasant in California for the kids to go out of their room and take a nice walk in January and get some sunshine and then go back into the classroom. But intrinsically, there is no reason at all why this shouldn't work in a differing situation. You'd substitute an enclosed circulation system for an exterior system and one could simply reverse the whole set-up and have the circulation going on the interior and eliminate the exterior. The work we're doing in Pittsburgh at the moment is resulting in spaces which are far more flexible than the ones which you saw there but completely enclosed. In fact, they make the sort of things that we were doing there look very stiff and rigid. So I don't think there is anything intrinsic in that and I think one looks at each problem on its merits and then tries to do the best thing for that. So we certainly wouldn't suggest that you scuttle along outside when you're going from P.D. to English in this climate in the wintertime.

How can we make better use of our educational facilities both on a 12-month basis and on a 24-hour basis per student and for student and for community?

Dr. Anderson: Many communities do use their schools year around at least for a fraction of the school population by running summer programs which may have as their purpose bringing some children up
to snuff or you know, the remedial kind of thing, or which may have the more laudable purpose of providing enrichment and an opportunity for some unusual kinds of programs that may be difficult to fit into the year. When the purpose of these kinds of programs is also to provide training for staff and opportunity for research and development activities generally, it seems to me this makes good sense. Historically, there have been people who have advocated running schools 12 months with the children’s vacations staggered, so that some would have their vacations in February and others in August and others in October and so on. A man in Detroit had advocated this plan seriously but unsuccessfully for a number of years. And in general there has been community resistance because we’re so in the habit of the calendar year that gives the youngsters the summer off. Paradoxically, there is increasing pressure, especially in the affluent neighborhoods, for children to be excused from school during the winter months when (Continued on Next Page)
their parents would like to take vacations to Puerto Rico and so on. And so, it's at least possible that an idea like this might be used in some places, but generally at the moment there is nothing even resembling a trend in that direction. As far as the 24-hour basis is concerned here, there is indeed a real opportunity. It's wasteful to have an expensive plant that has specialized facilities in it like shops, swimming pools, and gymnasium, and classrooms of certain kinds not used at least some of the time during evenings, weekends, holiday periods. And with the example of places like Flint, Michigan, the notion of running adult education and recreation programs on a 24-hour, 12-months basis is gradually gaining in popularity. In the schools that we're planning for Boston, in the ghetto regions in Roxbury and Dorchester and so on, we have found that there is tremendous pressure. These kids and their parents literally are at a loss for what to do with their time in the evenings and weekends and so we're building extra space in of the basement sort that Dr. Marshall referred to. We're building them at least temporarily community spaces where Golden Agers can play cards and things of that sort. We haven't got any schools all the way through approvals that are necessary but certainly we hope that we will.

END

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g. Improving student and chapter relations.

h. Gearing up facilities, staff and functions of the Institute to better serve the needs of a growing membership.

The section on contingency fees was deferred pending coordination with various engineering societies, planners and landscape architects.

The resolution to allow individual chapters at their own option to accept professional affiliates was adopted. Thus, engineers, planners, landscape architects, sculptors, muralists, and others related to architecture, and who must be registered professionals where legal requirements exist, may be affiliated as non-voting members.

We saw, at the convention, an exhibit of student work from architectural schools in the Western area, and I want to report it is of real high quality reflecting good, young talent soon to enter the field.

The word “talent” brings us to Miss Barbara Ward, who is an influential writer in England, an editor

(Continued on Next Page)
and an economic interpreter, and gave an outstanding lecture, "Hope For An Urbanizing World." Certainly no 18 inch horizon for that lady.

It was intended that the highlight address be given by Mrs. Lyndon B. Johnson, and that is exactly the way it turned out. She is indeed a distinguished woman, interested in our Country's physical environment, poised on the lecture platform, and one who knows how to reach an audience of architects and their own first ladies.

After five days in Portland, the convention moved on to Honolulu, Hawaii, but then it was time to come home to mind my own business once again.

AIA Convention Quotes

Miss Barbara Ward, Purves Memorial Lecturer:

"Our young people look at our priorities and revolt in an affluence which carries so grim a face. But, we can do better. We can make a new urban vision one of the motives and energies of our national life. And, surely in this task architects, who should be the fashioners of worthy homes for citizens, have a first responsibility to see that 'home' in the full sense is the whole urban environment, and set their sights and their influence to work so that a great nation, forerunner in a new urban era, thinks greatly enough about its cities to survive."

George E. Kassabaum, FAIA, President, AIA:

"...we must not forget that the primary concern of a professional must always remain the best interest of the public. Therefore, as our environment faces rebuilding, we must quickly determine the architect's proper role. We must not be arrogant and brag that better structures are the answer to everything that plagues our cities today. But we must hold true to the firm belief that what tomorrow builds is very important, and that tomorrow will be better if the architect is on the spot when the basic decisions are made."
Ultra-Modern Language Lab At PSC

The new Robert Boyd Science and Arts Center at Plymouth State College houses the most modern, completely automated language laboratory on any college campus in New Hampshire.

The $1.6 million building, designed by architect Andrew C. Isaak, AIA, will officially open for regular classes in September, and will be the headquarters for the departments of natural and physical science, mathematics, educational media and foreign languages.

The second floor, 42 station language laboratory is fitted with Raytheon equipment and thirty-six of the stations are fully audio and recording active. The remaining six function as audio and recording centers plus as a "language library" for research, reference and independent listening.

In use, the student tunes into the program for his express language class and follows the directions from the tape as to whether he should listen, imitate, answer, write, read or otherwise participate. The headset is equipped with a small microphone, thus the student hears the tape and simultaneously records his speech for his own or the instructor's evaluation. At any point, the student may replay the tape to hear the master voice and his own.

The laboratory can be expanded to include television receivers plus dial access to program sources providing further extension to other buildings.

(top) A portion of the new language laboratory, fitted with $37,000 worth of recording and audio equipment. (above) In addition to a planetarium, two greenhouses and a chemistry laboratory, the new PSC building has this 280 seat lecture amphitheatre.

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