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PRESIDENT EISENHOWER
AT COLUMBIA UNIVERSITY

Said in his 1947 Inaugural Address

"I propose to see that candidates for the highest rewards in scholarships choose objectives for research that will be of present use and benefit."

THE PROBLEM of the American scholar is to find some place in this world where he can think directly with living processes. Professional study, teaching and writing, are not based on investigation of things-in-action. Instead of dealing first hand with evidence out of performance, . . .

to gain knowledge that will lead to better performance,—
or to better people-as-a-result of this particular performance,—
or to a new performance in as yet unseen relations,—

. . . the type of university scholar now accepted as authentic is permitted to occupy himself only with someone else's opinion, of still some further removed view of long dormant actuality in too many fields. Scholarship has become professionalized as a paper pursuit, a literary caste occupation. It tends to worship the study of study, and of only those aspects of life which can be captured, cyanized, examined dead, and recorded in card index, photograph, and book.

A friend of ours is seeking a Ph.D through an extended and difficult research in four now obsolete dialects of XIV Century French, Spanish, German, and Latin, trying to pin down what some, until recently, unknown writer of the XVIIth Century had to say about Don Juan, as reported 200 years before that, by equally unknown writers in those four obscure texts. Anything more futile is difficult to imagine. If our friend should write a story as good as (or doubtless better than) the one underlying all the above nonsense piled on obscurcation, by fifth rate minds, in an age of ignorance, he would receive no Ph.D.
ARCHITECTS BUILT AS THE TEACHERS SAW

This is the story of how a Minneapolis kindergarten teacher worked fifty years to build a simple but right idea into an accepted practice, that now rules the plan and equipment of every new school building in U. S. A.

BY WILLIAM GRAY PURCELL, A.I.A.

WHEN YOU GO into one of the new and intelligent school buildings which are to be found mostly in California, but often in the midwest and occasionally in the East, you will see teachers sitting on the floor with children gathered about; or children not faced by the teacher and her desk, but with their desks facing each other; you will see the teacher seated among pupil groups led by another pupil.

You need not be an architect, nor especially observant to see that what is here "going on" (potent term) is a process that has completely changed the plan of the building, materials of construction, windows, lighting, finish of floors and walls, all types of equipment, and even the clothing of child and teacher. The obvious change toward a better emotional deportment in the group, and their feeling toward one another is of course the objective of everything done — the achievement of valid experience.

THE FOREGOING brief outline of how our new schools came to be so different is the best example I can give you of how a very simple idea, when it comes to be accepted by experienced practical directors in any business, will produce absolutely new forms which the most original and imaginative of artists could never possibly invent. Competence is still a unique attribute, the listening eye and practiced hand continue the most useful of equipment; both ask for skills you can't possess with a down payment. That is why I now want to show you AS ARCHITECTURE the IDEA which gave American schools a field for free growth in place of vocal pedagogery.

STELLA WOOD thought fast, she talked fast, moved fast. But she was also an attentive observer, and thereby a satisfied listener. She had been a teacher of teachers in Minneapolis since 1896 — and founder in 1905 of its Kindergarten Teachers Norman School, one of the unique private schools of the United States. She made an important contribution to my life as an architect. Let her tell it.

"The first thing I teach my girls is 'never bend over a child.'" "We keep insisting on this until each of our future kindergarten teachers is so conditioned to all the variations and applications of this idea that she really just never could bend over a child."

That may seem to be making quite a fuss over a sort of inevitable act, which everyone is actually more or less obliged to do, just because children are little. Sounds a bit peculiar? How could one not bend over a child?

JACK LONDON once wrote a Yukon story called "To Light a Fire." Setting the point of the story he says, ", . . He was quick and alert in the things of life, but only in the things, not in the significances . . ." That thought keys the effectiveness of those generations of kindergarten teachers and even more generations of good mothers, who graduated from Stella Wood's school, well instructed for four years in her knowledge of children.

ONE COLD MORNING in the Milwaukee Railroad station I saw her tiny figure, tripping toward me as we both alighted from the Chicago train. Thus, in 1907, I renewed an acquaintance with Stella Wood begun in Oak Park, Illinois, when as a child of four on pleasant mornings, I sat on one of our tall, square wood-paneled gateposts and watched her going by to high school with Walter Burley Griffin, the future international architect. I still remember her two beautiful braids hanging below her waist, and her lively, pleasant way with me.

After 1907 she and I mutually agreed that, as with architecture, so in teaching, when you buy a building or a college education, the skill to use it is not in the package. You may be told the "psychology" of children, but these facts are dry chips until they take fire. Stella Wood dealt with very simple and very obvious ideas,
available to any accurate, sensitive and loving observer, but she proved again and so beautifully that it is not what you know that makes you wise, but what you do with what you know.

AFTER I MOVED to the Pacific Coast in 1920, Stella and I kept in touch and on her last trip to California in 1943 she visited me in Pasadena. Overlooking the broad valley below and beyond, we had a renewal of old acknowledgments, matching our further views of personality, especially of little folk, human and other.

I TOOK OCCASION to tell her about my retriever cat, Tommy Kettle. Some years ago I was confined to bed for a considerable period and undertook to raise this tiny all black kitten. Tommy knew me only as a head showing above the blanket edge and a couple of kitten sized hands which sailed about him apparently unattached to anything. This was a world about the size of his mother, with which he could deal on even terms. He had no fear and entered into friendship with the greatest enthusiasm. He took me into his world and developed a whole pocketful of tricks and play which required two "persons" for success. From me, who was his egg-shaped pal, with the flying five-finger mates, he quickly found that our toys which fell on the floor had to be recaptured if the fun was to go on, and quickly knew that he must be the retriever. He would plump to the floor, seize a paper ball, leap with sticky claws to the hanging blanket edge and scramble upon the high bed. He also found that it must then be dropped within reach of the handy helpers or still no further play.

This world in miniature discovered by Tommy and me, re-sized more or less by accident, and the resulting mutual accommodation, began to implement my thinking about all kinds of little people and the psychology of non-dominate "social," or let's say, sociable relations. My wife had a similar experience with a pet chipmunk named Carom — Appolodorus Langford Carom. To one who plays billiards the name will be very apt.

Tommy Kettle's laboratory report will only become useful if it will bring to life the Arcadian world of little men and women, which Stella Wood found to be so much like, and yet so unlike the full scale world in which we grew up children live. What she wanted most was, that more oversize people reduce their egos to where they could enter child-world doors without ducking. I had often asked myself how I would feel if I had to do all my dealings with a creature who was twenty feet tall with a head as big as all of me, and a loud speaker voice. I recalled being frightened by men tossing me too high, breathing in my face, making personal remarks about me, asking silly questions for which there were no possible replies, but only embarrassment. When I grew up, I had made some amateur attempts to solve these problems more as a matter of convenience and for getting on even terms with children.

TO UNDERSTAND the child, as Stella saw the need in home childgardens where children grow best, something much more than acknowledgment

TELL MY future kindergarten teachers to work out each situation just as does any experienced hostess. When, and immediately before you are about to have any dealings with a child, even casual meetings, be sure that your eyes are below the level of the child's eyes. Never speak down to a child, either physically or in what you say. Get down on one knee, sit on the floor, let the child climb to the chair arm, or sit on a table, or on the piano. You may even have to lie down on the floor, but from the first be sure you have entered the child's world by making your size seem his size!" With this basic principle well in hand I began to put into use Stella's detailed recommendations of how it should be done. The results were astonishing and delightful.

For an example from later years — down our street in Portland lived a four-year-old. Her mother, by the way, was a graduate of Stella's Minneapolis school. Cynthia had little white kid gloves to go with her bonnet and a white kid card case with tiny visiting cards. She loved "to call." One day I saw her coming up the hill very prim, so I crouched down as low as possible inside the entrance door. When she rang I reached up above my head for the knob, and very, very slowly opened the door to an inch wide crack. She was looking way up to where she expected my head to be, but a moment later looking down discovered, instead, my eye looking up at her. Said she: "Oh! I know who you are, opening the door so crackily."

I helped her to a chair and took a low seat nearby. What a charming visit we had, a lively, balanced conversation. Treated with the respect due their maturity, children respond in the natural adventure of new ideas, providing they are sure you are not using them as entertainment. Children have everything that adults have, except experience. New experience they enjoy, if they are allowed to make their fair share of contribution.

Mothers, teachers, medical men, psychologists who are studying in the child world will get a vivid account of how far an apparently simple idea like "don't bend over..."
a child," can grow and expand by reading "The Rights of Infants" by Ribble, Columbia University Press, $2.00.

This amazing, incredibly useful, and so simple a book, also well illustrates Emerson's paradox: "When completely convinced of any proposition I at once begin to see that its opposite is also true." I do not know that author Ribble ever heard of Stella Wood, but Ribble's exposition is the obverse of the very same Gold Coin. For "The Rights of Infants" is a book on the text "It is Right to Bend Over your Child," if you know who is going to do it, when and how, and if you also first let it "bend over" you. Read this book; a quarter of a million readers have already bought it.

As a sort of corollary to her general idea, Stella gave me another basis of procedure. It falls into that well-known acquaintanceship psychology, of letting a dog sniff your hand before making advances. Her idea:

When you know that you are about to meet a child prepare yourself to say nothing, and do not look at the child. Address some other person, give attention to other immediate things or events. If the child is alone, no matter how engaging the child, repress your active interest. This gives the child unembarrassed opportunity to look at you, which is exactly the satisfaction that the expanding curiosity of the growing child demands. Every child understands this gesture on your part at once and is grateful. It is exactly what they do with one another. Parents mistake the meaning of children's normal mutual deportment on meeting, which is exactly that of the young animal, and they mistakenly call the child "shy." It is not "shyness" at all, it is simply natural, reciprocal, organic courtesy. Try making your dog look you in the eyes. Dogs don't like it at all. Dogs and children are alike. They love to look; to look at new acquaintances or loved ones until mutual confidence has been slowly built up. They want to be assured that for once this great big lady won't do something silly, or unpleasant or even threatening.

Continuing with this meeting technique, says Stella Wood: "After a time you steal some quick glances at the child, still not saying anything to "him" (that pronoun exasperates me, as much as does "it" for a child). But you now make some tentative general remarks not looking at the child, but which the child can understand and share. Sooner or later the child will make some advance and only then can you properly say something direct, of such content that the child can make a natural useful reply. Talking, in the view of children, is a very practical matter, an exchange self-expression, a sharing enterprise, a sort of non-singing duet or trio. Listen to their talk, very unlike most adult exchanges."

Consider this technique of Stella Wood's and the unfortunate results of its opposite. Calling on a client, as I seated myself, I was aware of a three-year-old in the living room door, and at once turned to the mother with some passing remark which also held an interest related to the child's world. After a brief interval she came skipping across the room, climbed into my lap, settled herself comfortably and waited for something surprising she felt sure would come from me. The fool mother, with plain astonishment, at once ruined the whole relationship and then pushed the child's spirit back into the cage which this mother plainly was daily weaving around it. She cried: "Why, Mr. Purcell, what... how do you do it? Mary is always so shy with strangers. I never knew her to go to anyone before...?" and so on, no end. This just happens over and over until I am exasperated and incensed at the emotional selfishness and downright stupidity of ninety per cent of all social contacts where children are present.

And this story moves naturally to the next and very extensive section of Stella's far-reaching "don't bend over a child, neither physically, mentally, morally, or by remote control."

Said Stella, "It is rude to make personal remarks about a child in its presence or to make personal inquiries or comments upon its appearance or deportment, good or bad. It is just as rude as it would be toward an adult stranger to whom you had just been introduced. You would not put your hand on the head of a new acquaintance or pinch her cheek; or do you? Anyway don't do it to a child. Keep your hands off children except your own. Don't fondle, hug them, kiss them; they just don't like it. Such things are for parents or nurse, and then only at the proper place and time, as a part of the living together continuity, not as interruptions to their important play or their valued social contacts. In short, don't use the child as a toy or a token by which to express your own feelings.

"Treat the child with dignity and respect. An adult can ordinarily put you in your place for undue familiarity. The only protection a child has is to be naughty, silly, or to develop a pest complex which it usually does. By this time, in its experience with adult nuisances, the child will actually have become 'it,' largely through all these many ill-advised pressures. Thoughtless and selfish men and women also 'spoil' their ill-mannered dogs by similar techniques."

As I write, I can hear the two boys, aged 5 and 7, of our neighbors, talking to their gardener. This man is a "character" and a person of rare gifts in human relations. He is the kind of good-living, whole-souled country man that the radio comedians try in vain to recreate.

There is a little forest of acacia trees between our garden and theirs and I have never seen this man. But like your favorite broadcaster, one knows at once what sort of man he is by the voices of the children. He talks to the boys as if he were addressing men and no pretense about it. They reply in kind. They ask questions, plenty of them, but they also offer their own views. He doesn't talk down his answers, as if he knew and they did not. He reviews what he thinks life has discovered to him so far; a sort of shared wonder about the world. His running phrase is, "I wuz gonna say..."

(Continued on Page 46)
Edward C. Gould, residence
Structural Engineer
Gleason Lake Road, Minnetonka Township,
near Wayzata, Minnesota

Designed with engineering simplicity for ease in housework and meeting the needs of a maturing household with space for visiting children and their families.
Minnesota architects, engineers and their associates turned out in number for the Duluth convention of the Minnesota Society of Architects, August 6 and 7, to make the event one of the biggest and fastest stepping meetings in recent history of the society.

Sidney L. Stolte of the St. Paul firm of Bettenburg, Townsend and Stolte, was selected to head the society for 1953-54 as president. His vice-president will be E. D. Corwin of E. D. Corwin and Associates, St. Paul. P. C. Bettenburg of St. Paul is the new secretary while the treasurership was returned to C. H. Smith of Duluth, re-elected to this important financial post. Reinhold Melander of Duluth, 1952-53 president, became past president and member of the board.

The convention was a lively one, with attendance at all regular meetings and special recreational events well up. The halls of the Spalding and Holland hotels, sites for the convention and its attendant exhibits, were crowded and at times almost impassable as members and others gathered to discuss the business of the society and the projects, materials and methods being shown. Attendance was representative of all parts of the state and the smaller communities were heard from through their practicing A.I.A. chapter members as well as were the metropolitan areas.

Considerable discussion was given over during several of the meetings to a state-level public relations program and the possibility of the society's maintaining an executive secretary to integrate the work of the membership within the profession and where it has vital considerations at stake in the state legislature, city governments, allied industries and other areas of architectural activity.

After thoroughly investigating as much of these programs as possible in its regular meetings, the convention decided to put over consideration to a committee, which will study the proposals and report later. The work of an executive secretary was outlined and the values such a full-time representative for the profession would have were explored. The public relations proposals were based at least in part upon the successful work being done in this field in the Twin Cities, whose chapters jointly have retained a public relations organization to promote the sound interests of architects and the building industry in those communities and surrounding territory.

First day of the convention had no formal business session. Registration was the first item on the program and the annual directors' meeting was held in the Hotel Spalding. The afternoon was well taken up with inspection of the architectural exhibits and informal discussion of the merits—and otherwise—of projects displayed. The Producers Council exhibits were opened and the latest in materials and methods being shown drew the continued interest of the architects, engineers and others attending the show.

The first day was climaxed by a cocktail party in
Compactness is the keynote in this Minneapolis restaurant. Comfortably air-conditioned, well lighted, efficiently designed for smooth 24-hour operation, it is provided—of course—with electric cooking equipment.

4 Reasons for Suggesting Electric Cooking...

...to help a restaurant owner do a good business at a good profit

This cafe's design helped make a client happy for the way it looks to his customers and the way it looks on his books. Here's why:

1. Appearance of cooking equipment is naturally a major matter in so compact a restaurant where the kitchen's in the open. Electric equipment, sparkling and modern, fills that need as nothing else can.

2. Cleanliness is easy to maintain with electric cooking. No soot, no grime, so walls and other equipment can be kept glistening with relatively little time and expense.

3. Air Conditioned Comfort is simplified, too, without soot or grime, and remember electric cooking is cooler cooking.

4. Economical Operation is possible with electric cooking because—whereas fuel runs only 1 or 2% of total operating costs—the accuracy of electric cooking opens the door to genuine savings on raw foods and labor which make up 75% of the total. Cooks can cut meat shrinkage 5 to 15% by accurate slow-roasting, slash crippled runs, other food waste.

Any way he looks at it, the man responsible for efficient operation of a restaurant or any institutional kitchen finds satisfaction with electric equipment. He should be pleased if you suggest it. For details useful in planning electric kitchens, call our Commercial Cooking Section, Industrial Sales Department, Main 6251, Minneapolis.

Northern States Power Company

ARCHITECT
the Holland Hotel sponsored by the Duluth A.I.A. Chapter. Members and their wives had an opportunity to relax and enjoy the genial conviviality of the event and it was voted a complete and pleasant success.

Friday's first business session heard the various regular committee and officers' reports and the public relations discussions bound up into the program item of Seminar I. Members and others attended a luncheon between sessions. The afternoon session was devoted to a seminar on chapter affairs and later another inspection period in the exhibits. The Producers Council's cocktail hour preceded the annual dinner, which had Roger Allen of Grand Rapids, Mich., well-known architect who has a reputation for humor. An informal dance followed the banquet and brought the convention to a close.

While their menfolks were attending the A.I.A. events, ladies of the convention were entertained by the Duluth ladies' committee. Included in the events was a special luncheon at the Northland Country Club, Friday noon.

The 1953 convention's success indicated that architects and other builders more and more are coming to realize that in a community consideration and open discussion of their mutual professional and technical problem lies in the way to assure that their best interests be served now and in the future. During the convention they got a chance to hear those who have made special studies of certain problems give their views based on research, experimentation and resulting data. The success of any such gathering can be measured in part by differences of opinion and the interplay of ideas and in this the society's meetings proved valuable. Actions taken during the 1953 gathering again have given fresh direction to the group's work for the ensuing year and prepared the background for another worthwhile gathering in 1954. Details of future planning will be reported as they are developed.

**At Head Table...**

So long was the convention's head table we had to capture it in sections. At top are E. R. Lambert, exec. sec'y, Duluth Builders Exchange, Duluth Chapter President C. H. Smith, Convention Chairman Harold S. Starin and St. Paul President Louis R. Lundgren...

... then Earl L. Berg, St. Paul commissioner of administration, Minnesota Society Secretary Winston Close, Roger Allen of the Michigan Society of Architects, and Reinhold Melander, 1952-53 Minnesota President...

... Mayor George D. Johnson of Duluth, Regional Director E. H. Berners, W. H. Tusler, former A.I.A. director, Minneapolis President Victor C. Gilbertson and Minnesota Chapter President Bernard J. Hein...

... and finally Minnesota Vice President Donald S. Haarstick, Ray A. Thibodeau of St. Paul Builders Exchange and Minnesota-Dakota Producers Council President Curtis Johnson.

**Business Interims...**

Registration finds W. H. Tusler (above, left) checking in with M. N. Willis and Gene Bourgeault, both of Duluth Chapter.

The awards jury considers a moot point above. Left to right are E. H. Lundie, FAIA, St. Paul, Otto Olsen of Duluth and W. H. Tusler, FAIA, Minneapolis.
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WOOD:
Wood sections shall have stiles and rails of vertical grain Douglas Fir, hardwood dowelled and steel pinned, water­proofed glued. Rails to extend full width of door. Panels to be of three (3) ply laminated fir ¼" exterior plywood manufactured by the hot plate process with phenolic resin glue.

HARDWARE
Hardware shall include safety torsion springs on a continuous shaft across full width of door, rustproofed aircraft type cable (chain not permitted), rollers having a minimum of ten (10) ball bearings ¼" diameter with both inner and outer races of hardened steel (use of roller shaft as inner race will not be permitted), bottom corner brackets mortised under bottom of door and of sufficient height to be secured across both rail and stile. Doors over 12'6" wide shall be additionally reinforced with suitable horizontal trusses to prevent sagging when open. Doors over 16'0" wide shall have suitable support to prevent sagging when closed.

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Dick Taylor of Structural Clay Products Institute takes time out from discussion to pose with Mr. and Mrs. Carl H. Buetow of St. Paul.
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New state auxiliary officers take over (pic at left)
— Mrs. N. H. Mortenson, retiring president, Mrs. G. H. Carter, new president, Mrs. Edwin Lundie, new vice president, and Mrs. Thos. Shefchik, retiring vice president. Above are (seated) Mrs. G. H. Carter, new state president, Mrs. E. H. Lundie, new state vice president, Mrs. A. H. Lange, Minneapolis treasurer, Mrs. C. M. Tammen, Minneapolis chairwoman, and Mrs. E. R. Cone, St. Paul chairman; (standing) Mrs. F. A. Gabbert, retiring Minneapolis secretary, and Mrs. H. Johnson, retiring Minneapolis treasurer.

At the luncheon (clockwise) were Mrs. L. Pinault, St. Cloud, Mrs. R. J. Hendershott, Hopkins, Mrs. P. C. Bettenberg, St. Paul, Mrs. R. G. Zagher, St. Paul, Mrs. K. Backstrom, Minneapolis, Mrs. O. R. Van Krevelen, St. Paul, and Mrs. E. L. Berg, Minneapolis.

Group above is made up of Mrs. A. O. Skaret, Duluth, Mrs. E. Thorsen, Duluth, Mrs. T. J. Shefchik, Jr., Duluth, and Mrs. Harold A. Hansen, Superior, Wis.

These ladies planned the special distaff luncheon—Mrs. C. H. Smith, Mrs. T. J. Shefchik, and Mrs. Otto M. Olsen.

Northwest
Shown here are two new Hamilton All-Science Student Tables that advance the trend to against-the-wall floor planning. These handsome, functional units leave the center of the room free for lecture, demonstration and home-room purposes. They bring new flexibility to your floor plans and new versatility to your classrooms, since they enable you to use science classrooms for teaching other subjects.

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An outstanding one-story, 18-bed hospital recently completed in Winnebago, Minn., may well become a model for small community hospitals of the future. The $150,000 building, total cost of which was financed locally, was designated by Max and Gerald Buetow, A.I.A., St. Paul architects.

Winnebago Hospital is compact. Every square inch of floor area is utilized to the best possible advantage. It is all on one level, including the heating plant and service facilities.

“Cost-of-building is believed less for a hospital of this size using economically planned, one-story construction,” Max Buetow said, “than it would be for any type of multiple-story design. The cost of installing and operating an elevator is eliminated and the space for elevator and stairwells is saved. One floor means easy maintenance and saves duplication of equipment and utility rooms.

“Care of patients is simplified by having nursing staffs and supervision all on one level. Evacuation of patients in case of emergencies can be done much faster from the one-story hospital.”

The Winnebago Hospital was built at an estimated cost of $1.20 per cubic foot. Another 18-bed, one-story community hospital designed by Max and Gerald Buetow, located in Heron Lake, Minn., was erected at a cost of $1.10 per cubic foot, including private office suites for two local physicians.

Erection of the Winnebago Hospital fulfills an urgent need for surgical and maternity facilities, not only in Winnebago but for a number of surrounding small towns. The only previous facilities were in an old converted residence. As the old structure became more and more crowded each year, residents grew fearful of what would happen if fire struck the wooden frame structure. This is one reason why the new hospital had strong community support.

The new hospital, completely fireproof, is steel and
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masonry construction. The roof deck is vermiculite insulating concrete. The deck's supporting steel joists and beams are protected from below by a combination fireproofing and acoustical treatment of vermiculite plaster and vermiculite acoustical plastic. Vermiculite concrete was also used for a 3½ inch sub-slab as floor insulation.

To protect patients from the rigorous climate of Minnesota all windows in the hospital are double-glazed, with sealed air space. These are equipped with roll screens.

Facilities of the hospital are functionally distributed into efficient units. The main entrance on the east end of the north side leads into the waiting room and office. The superintendent has a private office off the reception desk. The nurses' station and lounge adjoins this, making this area a central headquarters for personnel.

Patients' rooms are just across the corridor from the nurses' station and make up a second unit. Medical and surgical patients are in the center portion an isolation ward is on the east end and on the west end just across from a nursery is the labor suite where maternity patients are kept separate from surgical patients.

The third unit, consisting of the delivery room, operating room, an emergency and X-ray room, a labor room and laboratory, is in the northwest portion of the hospital, effectively segregated from other facilities and organized into a functional group. A lounge and ready-room for doctors, including shower and toilet, is part of this unit, as is a small ready-room for nurses.

The ambulance entrance on the west end leads into this section.

Service facilities, including the boiler room, laundry, kitchen and staff dining room, make up the southwest portion of the hospital. The heating plant is set approximately three feet lower than the rest of the building.

Patients' rooms have a sunny southern exposure. All are double rooms. Typical room size is 10½ by 16 feet. Each room has a lavatory and wardrobe cabinets; four rooms have private toilets. At the top of each bed is a "hospitality light," consisting of two flexible-stemmed bullet shade lamps, one of which can be used for reading and the other for indirect lighting off the ceiling. These also house electric plug-in outlets.

Facilities in the surgical-obstetrics section are more than ample for a hospital of this size, as are all storage facilities. Included in this section is a utility room for washing and sterilizing utensils. There is refrigerated storage space here and in the laboratory. The latter connects with the X-ray and emergency room through the X-ray darkroom. There is an examining and formula room adjoining the nursery. The delivery room and operating room both have individual scrub rooms and ante-rooms.

Floors in patients' rooms and utility areas are asphalt tile; in the surgical area, terrazzo floors and base. Walls throughout are a hardwall plaster with smooth finish for easy cleaning. The building is heated by a forced hot water system with convector fin-type radiators.

(Continued on Page 39)
This modern housing development in Los Angeles is the largest single architectural concrete project in the United States. The postwar phase of the development consists of eighteen 13-story cross-shaped units. Each unit contains 153 apartments. Earlier prewar construction consisted of studio-type, two-story units. In all, housing is provided for 13,000 persons in 4,253 apartments.

Architectural concrete was chosen for this job because of its firesafety, durability, good appearance and low annual cost. Only one set of forms was needed for each 13-story building.

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W. H. Wheeler Heads Consulting Engineers

Walter H. Wheeler, well-known consulting, civil, mechanical and mining engineer of Minneapolis, was elected president of the Minnesota Association of Consulting Engineers at its recent annual meeting.

Mr. Wheeler, who has won international recognition for his work in reinforced concrete structures, succeeds T. E. Roche, consulting electrical engineer also of Minneapolis. Mr. Roche will continue as an ex-officio member of the executive board of the association for the ensuing year.

Other newly elected officers of the association include Milan A. Johnston, consulting structural engineer of Minneapolis, who was elected vice-president, and Harry G. Sierk, head of the mechanical department of Magney, Tusler and Setter, architects and engineers of Minneapolis, who was elected secretary and treasurer.

Also elected to the executive board were Homer M. Bird, consulting mechanical engineer of Osseo, Minn.; Gordon Moore, consulting electrical engineer of the firm of Gausman & Moore of St. Paul; Jack Salo, consulting civil engineer of Duluth; and A. L. Sanford, consulting mechanical engineer of the firm of C. H. Johnston, architects and engineers of St. Paul.

J. D. VOIGT NAMED ST. PAUL SCHOOL ARCHITECT

James D. Voight has been chosen as consulting architect to the St. Paul board of education to succeed Richard Hammel, who recently resigned to enter private practice.

Mr. Voight will have direction over construction and rehabilitation work, carrying on the program about which Mr. Hammel reported in a recent story in NORTHWEST ARCHITECT.

The newly named architect graduated from John- son High school in 1940, served in the U. S. Air Force 3½ years in World War II and was graduated with distinction from the School of Architecture of the University of Minnesota in 1949.

He worked for the firm of Ellerbe & Co. until 1950 and has been with Haarstick, Lundgren & Associates until the present. He is a member of the American Institute of Architects and is a registered architect in Minnesota.

Speakers, et al...

R. H. Keer (left), society publicity committee chairman, who was moderator at the public relations session, and Carl Hixon of Kerker-Peterson, Minneapolis.

Architect Editor Hal Fridlund (left) talks with banquet speaker Roger B. Allen about mutual experiences in the enlivening profession of architecture.

Around a luncheon table we found (l-r) A. O. Larson, Minneapolis, George Carter, Minneapolis, S. L. Stolte, St. Paul, John K. Daniels, Minneapolis, Edwin H. Lundie, St. Paul, and Glynne W. Shifflet, Minneapolis.

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A.I.A.-A.G.C. Co-operation Explained to Duluth Convention Session

The first complete résumé of five years of co-operative activities between contractors and architects in Minnesota was discussed by George Darrell, head of supervision contracts for Ellerbe and Company, St. Paul, at the convention of the Minnesota Society of Architects in Duluth.

These activities have been carried on through what is known as the Joint A.I.A.-A.G.C. co-operative committee, which is headed by two co-chairmen. Darrell is chairman for the A.I.A. and H. D. Black of Minneapolis, is co-chairman for the Associated General Contractors of Minnesota. Other committee members are, for the A.I.A., W. A. Backstrom, K. A. W. Backstrom, Mark Hayes, W. H. Tusler, Roy N. Thorshov and Gordon M. Combs, with Harold H. Crawford and Otto M. Olsen serving as alternates, and for the A.G.C., W. H. Baumeister, James A. Leck, H. D. Lovering, John E. Ganley and C. H. Bingham, with T. J. Powler and O. A. Stocke serving as alternates.

Darrell pointed out in his discussion at the architects' convention that the first objective of the committee's activities was to bring about more efficient and economical construction in the interest of the owner, whether a public body or a private corporation, and second to standardize practices in an effort to remove misunderstandings and achieve clear specifications.

The joint activities carried on have covered a wide range of subjects, such as the standardization of subject matter of specifications by title, not only including general construction but the mechanical branches of the work as well; development of different types of standard forms designed to provide for more orderly prosecution of construction work; and recommendations as to standard practice to be followed by architects and contractors.

Study and analysis of types of insurance coverage are being carried on to eliminate duplicate coverage between the owner and the contractor, to segregate properly the risk between the parties involved and to provide proper coverage where it may have been lacking in the past.

In closing his report Mr. Darrell paid tribute to past members of committee over the five-year period and to individuals and groups in the insurance business, the Minnesota Association of Consulting Engineers and mechanical and specialty contractors who have co-operated.

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NORTHWEST
A.I.A. SELCECTS C. W. DITCHY
AS PRESIDENT

Clair VV. Ditchy, F.A.LA., of Detroit was named president of The American Institute of Architects at its 85th convention in Seattle.

Mr. Ditchy had served six years as secretary of the Institute, as well as three years as Great Lakes Regional director.

He has been active in his state and local architectural organizations, having served as president of both the Michigan Society of Architects and Detroit Chapter, A.I.A. He also is active in engineering and other groups. The new president has been in private practice in Detroit since 1921 and has specialized in schools, hospitals, and housing projects.

Mr. Ditchy became a member of A.I.A. in 1924. He was made a fellow because of his outstanding contributions to the profession in 1944. He has since served on the Institute's Jury of Fellows committees on bylaws, unification, national capital, housing and chapter affairs. He earned his B.A. degree from the University of Michigan in 1911 and his bachelor of architecture in 1915, following which he was an instructor at the university's college of architecture. He succeeds Glenn Stanton as president. Norman J. Schlossman of Chicago is first vice president; George Bain Cummings of Binghamton, N. Y., is secretary; and Maurice J. Sullivan of Houston, Texas, treasurer. Regional directors are Waldo B. Cristenson, Northwest; Marcellus Wright, Jr., Middle Atlantic; Raymond S. Kastendieck, Great Lakes, and Clyde C. Pearson, Gulf States.

Wilbur H. Tusler of Minneapolis was among those elevated to fellows of the Institute during the annual banquet. There also was a special awards luncheon to break the pace of the regular discussion and speech sessions.

NATIONAL HOME WEEK SET
FOR SEPTEMBER 20-27

The big national home promotion event, National Home Week, has been set for the week of September 20-27, according to word from those planning the shows. The "1952 Parade of Homes," title of last year's event, drew wide interest and sponsors reported that in Minneapolis 200,000 persons inspected the homes opened for the public, augmented by some 2,000 persons from outside the city.

UP FROM ADOBE

When white men first came to Texas they found the Indians dwelling in adobe structures, the use of which date back many generations before the coming of the Spaniards. Indications are that the Spaniards first showed the Indians how artificial heat would give additional hardness to the clay units. It is known the padres taught the Indians how to form roofing tile over their naked thighs to give the desired tapered half-round shape. Thus was introduced in Texas the making of roof tiles like those used in the beautiful old structures of Spain, southern France, Italy and other Mediterranean countries.
WALL DATA

CONSTRUCTION OF WATERTITE MASONRY WALLS

INTRODUCTION

The design and construction of walls to resist rain penetration should be based upon the exposures to which they will be subjected. These exposures vary greatly in different parts of the United States; the more severe in areas of high precipitation (over 30 to 40 inches of rainfall per year), accompanied by winds of high velocity (50 mph and over). Extensive laboratory tests indicate that, with controlled workmanship, it is possible to construct brick and tile walls which are watertight and will resist penetration of rains of 12 to 24 hours' duration when accompanied by winds of 50 to 60 mph velocity. For this reason, it is recommended that in areas subject to severe exposure, walls be designed on the assumption that some moisture will penetrate the exterior surface and that positive means be provided to conduct this water to a drain or to the outside of the wall before it reaches the interior face of the walls and storage structural tile walls, in which the units themselves contain drainage channels, incorporate this feature in their design and are recommended for such locations.

There are three principal factors affecting the watertightness of masonry walls:
1. Workmanship
2. Suction Rate of Masonry Units
3. Water Retentivity of the Mortar

WORKMANSHIP

Workmanship has been found to be the most important single factor affecting the permeability of the walls tested. When the mortar for the bed joints is spread to a uniform thickness and the head joints are completely filled by heavily buttering the ends of the stretcher brick and the sides of the header brick before they are placed, such walls are highly resistant to water penetration.

Another type of workmanship which produces walls of satisfactory resistance to water penetration is the parging of the back of the facing or the face of the backing, either position being effective.

In general, the types of workmanship which result in walls highly resistant to water penetration are those providing either solidly filled head joints or a barrier consisting of a continuous parging of mortar within the interior of the wall.

A method, too commonly used, consists of "slushing" the open vertical joints with mortar as each course is laid. Unless extreme care is taken, however, slushing does not produce full and tight joints.

The method of finishing the exposed mortar joint has much to do with the resistance of the joint to water penetration. Toodled joints which compress the mortar tightly against the masonry units produce the best resistance to rain penetration. The "Conceal" joint is perhaps the best from this standpoint. It and the "V" joint are formed with special jointing tools after the mortar has reached its initial set.

SUCTION RATE OF MASONRY UNITS

In order that the mortar may reach its ultimate strength and develop complete and full bond with the units, it must have sufficient water present for complete hydration. A masonry unit with a high rate of absorption will separate the water from the mortar before hydration is complete, thus weakening the bond between the mortar and the unit and making possible the penetration of moisture through cracks between mortar and masonry unit.

Therefore, the suction rate of the brick or the tile when laid has a marked influence on the subsequent performance of the wall with respect to its resistance to moisture penetration.

WATER RETENTIVITY OF MORTAR

Within a wide range, the type of mortar used had no appreciable effect upon the resistance to water penetration of the walls tested at the National Bureau of Standards. However, the workability and water retentivity of the mortar is of great importance. Good workmanship, described earlier, is more difficult to obtain with a mortar of poor workability which stiffens rapidly in contact with a highly absorptive unit, or tends to "bleed" when used with very low absorptive units.

The water retentivity of a mortar is, in a degree, a measure of its workability and, as such, becomes a very important property in considering the resistance to moisture penetration and strength of the wall in question. It is recommended that for best results a mortar shall have a water retention, or flow after suction, of not less than 70 per cent. The flow of mortar is related to its water content and, generally speaking, for any given ingredient, the higher the water content, the greater the flow.

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The Why and Wherefore of the "Smooth Ceiling" System of Reinforced Concrete Flat Slab Construction

BY WALTER H. WHEELER
Consulting Engineer, Minneapolis

Architectural design and building methods are taking long strides since the war as new methods and materials step up the pace and vary the styles with which the architect works. Among the developments of general interest is the "smooth ceiling" system, which is here discussed by its originator for the reference of our readers. Mr. Wheeler, incidentally, is the newly elected president of the Minnesota Association of Consulting Engineers.

Soon after the first flat slab or so-called "Mushroom" System of flat slab construction was built in the United States I was a member of the Jones-Wheeler-Cranmer Engineering Co., Inc., of Denver and we were the engineers and contractors of the Century Building, a four-story and basement store and office building designed with columns and footings to support four additional stories. This was the first skeleton frame type of reinforced concrete building to be constructed in Denver and the first flat slab building to be built in the Rocky Mountain states. The building inspector refused to give us a permit for the construction of this building until after the structural work was completed and the first floor had been given the "Fire, Load and Water Test" but we were allowed to go ahead and build it at our own risk. This we did and the building passed the test so well that there was never any question raised about the design of any of the numerous buildings and other structures which I have since designed to be built in that city.

In 1920, the Century Building was extended 50 feet to the corner of 17th St. and Stout St. six stories were added to the existing building, extensive alterations made in it and the whole merged into the present 10-story and basement United States National Bank Building.

Architect

My experience with this first flat slab job convinced me of the many economics and practical advantages of that type of construction and I continued to use it extensively. However, there was always the objection of the architect to the flared column (Continued on Page 30)

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caps in any type of finished building as well as in industrial and warehouse buildings, although naturally much less in the last two types mentioned. Therefore, I was constantly considering various ways to find a substitute for the flared concrete capital that would be acceptable to the architect and economically feasible and which would at the same time meet the requirements of city building codes.

During this period and as far back as 1915 to 1927, I designed a number of flat slab office buildings, including a 10-story and a 12-story one in Denver and several in other smaller western cities in which I used only a small fillet around the tops of the interior columns and nothing on the wall columns. These designs partially satisfied the architects and I was permitted to use them in the cities where I was well known. The designs were made on a conservative basis and the buildings have been eminently satisfactory but they would not be accepted in the larger cities of the country.

I had made some flat slab designs in which I had used four brackets on the columns instead of the full cap. In fact, I did that same thing in the design of the deck slab of the Fort Snelling-Mendota Bridge. During the depression days, when I had plenty of time to think and study, I gave considerable thought to this matter. Structural welding had come into considerable use, although it was not permitted in most cities at that time. One day when I was thinking about this problem, the thought suddenly came to me, why not structural steel brackets embedded in the slab to take the place of the flared concrete capital. That was the basic idea and from there on out it was a case of development and getting acceptance of the design in the various cities of the U.S.

Acceptance Took Work

The matter of getting acceptance in the cities of the U.S. and Canada proved to be a major undertaking for the reason that most city building codes had written into them the requirement that there must be a flared concrete capital of a certain minimum size at the top of the columns and there were various and sundry other restrictions. Of course, there was the clause in most of the codes which gave the building inspector the authority to approve new systems of construction but no building inspector wanted to use that authority unless it was proved to him beyond all doubt that the construction would meet all the requirements of strength, deflection, etc.

I concentrated my efforts on the City of New York, feeling that approval there would go a long way with the rest of the country. While
I was able to convince the chief engineer of the department that my analysis of the design was correct, which did not get me the approval I was seeking. The building inspector wanted a load test on an actual building which could be witnessed by his engineers. One small building had been constructed in Montana and tested under the supervision of the architect but that did not meet the requirements of the New York Building Department, which required that the test be witnessed by the building inspector or his authorized representative.

About this time I had a lucky break. I was commissioned to do the structural engineering on the proposed Appraiser's Stores Building in Baltimore, Md., and given a contract direct with the Secretary of the Treasury which permitted me to use my "Smooth Ceilings" System in the design of the building if my design when made was approved by the supervising architect of the treasury. I was permitted to write into the specifications for the structural work a requirement that the contractor should make a load test on two adjacent bays of the first floor, selected by the supervising architect for the test, and during the test strain gauge measurements would be taken of the strains on the reinforcing steel and on the concrete and on the channels of the grillage or column head by the Bureau of Standards and a report thereon made to the supervising architect of the treasury.

Major Cities Watched Tests

All this was done and when the time arrived for making the test I arranged with the building departments of New York, Philadelphia, Washington and Baltimore to have their representatives there to witness the test. New York decided to send three engineers, one from each of the burroughs of Manhattan, Bronx and Queens. I paid the travel expenses of these men who came to witness the test. The commissioners of Philadelphia, Washington and Baltimore came themselves. The New York engineers took back with them a copy of the structural drawings and a copy of my calculations. I heard nothing for several months and then the approval of the City of New York was published in their official bulletin. This gave me a start but it...
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proved to be only a start and it was a good many years before I could say that I had approval in most of the large cities of the U. S. and Canada.

I had designed one building, the extension of the Railway Exchange Building in Denver, with hollow tile fillers in the flat slabs. As far as I know that was the first time they had been so used. In 1940 we had a job at 7th Ave. and 50th St. in New York City which we designed with tile fillers also. When this went to the building department for approval they said, in effect, this is different from the solid slab construction on which you were given approval, therefore you will have to get a new approval from the Board of Standards and Appeals. However, they issued a permit for an experimental structure and let us go ahead with the construction, reserving the right to make a load test on the construction after it was completed if they chose to do so at our expense. I accepted those conditions and hoped they would decide to make a test. They did and it was the most severe they could think up but the results were so gratifying to them that they published a four-page, illustrated report in their official bulletin of date July 8, 1941, and that was the end of my difficulties in the City of New York.

I should add that when it came time to run the test on the Appraiser's Stores Building in Baltimore, the Bureau of Standards advised that it did not have anyone available who was qualified to run the test. The bureau did collaborate by running tests on control cylinders of the concrete to determine the modulus of elasticity under load conditions that corresponded to the unit stresses in the concrete during the test. Therefore, I was asked to come to Baltimore and run the test, which I did under the supervision of a representative of the supervising architect of the treasury.

Readings were taken on 107 gauge lines. Six sets of readings were taken for the different conditions of loading and, as duplicate readings were taken each time, that meant that about 1,500 readings were taken in all on the gauge lines. In addition, deflections were measured at 25 points and these readings duplicated for each set so there were some 300 deflection readings taken also. Running this test required a full week of good hard work. When the report was completed and delivered to the construction engineer of the supervising architect on the job, he transmitted it to the Supervising Engineer, Public Works Branch, Procurement Division, Washington, D. C., with a letter of transmittal in which he stated:

"From a review of the compiled data, it is evident that the survey was carefully and competently handled and the results should prove of practical engineering value towards reducing slab thickness and excess reinforcement."

The design was made according to the then Navy Code, which allowed only 18,000# psi on reinforcing steel and 875# psi fiber stress on 2500# concrete. Under a test load of 500# psf on slab designed for 250# psf, the maximum unit stress in a reinforcing bar was 8400# psi.
and maximum fiber stress in negative bending on concrete was 812 psi. These were adjacent to the outside wall. The maximum stress in concrete at interior column was 510 psi. The outside wall of this building into which the first floor slab was bonded is extremely stiff, which resulted in large negative moments at the wall. However, all unit stresses were well under the stresses used in designing for 250# psf load, which undoubtedly caused the construction engineer to comment as he did.

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REVAMPS SALES SETUP
The Mason City Brick and Tile Company has announced expansion of its sales organization to further improve its service to the trade in this area in the sales of Denison Clay Products as well as the clay products manufactured by its associate companies in Iowa and the additional lines handled as distributor.

G. E. Haverkamp, former manager of the firm's Twin City office, has been appointed assistant sales manager and will be in charge of work directly concerned with specifications, promotions and sales on publically advertised projects.

C. R. Pearson, assistant sales manager, now will assume complete charge of all dealer promotional and sales work and will correlate Mason City's production with sales and shipments.

This expansion of sales organization has resulted in changes in the firm's Twin City office setup. The Minneapolis office has been moved to 554 Builders Exchange Building with John E. Nelson in charge. Mr. Nelson will cover the dealer, architect and contractor work in Minneapolis and surrounding areas. A new office of the Mason City Brick and Tile Company has been opened at 433 Endicott Building in St. Paul.

G. C. Olstad, former sales engineer in southwest Minnesota, is in charge of company business in that city as well as the adjoining area and northern Wisconsin. Aldis Johnson, formerly with the Soil Conservation Service, is assuming the duties of sales engineer in southwest Minnesota replacing Olstad.

The associated companies' products sold by the Mason City organization are Des Moines Clay, Johnson Clay Works, Redfield Brick and Tile, Oskaloosa Clay Products and the Ottumwa Brick and Tile.

HAL FRIDLUND, NORTHWEST ARCHITECT EDITOR, MOVES OFFICES
Hal Fridlund, editor of NORTHWEST ARCHITECT who has a Minneapolis architectural practice, has moved from his loop offices to a suburban site. New Fridlund offices are at 6009 Wayzata Boulevard, in the Barrett Building designed by Mr. Fridlund's firm. The structure is a combination office and warehouse unit, the Barrett firm being a moving and storage business. Offices are provided in the building for other activities.

Mr. Fridlund felt that his clients would be better served in the new site, which provides better facilities, improved parking and a more congenial environment for architectural discussion and planning both with customers and within his staff.

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W. H. TUSLER ON HOSPITAL ASSOCIATION PANEL

A Minneapolis architect was one of four persons to serve on a hospital design panel during the recent American Hospital Association's annual convention in San Francisco, Calif. He is W. H. Tusler, of the firm of Magney, Tusler and Setter.

The discussion centered in two themes, "Some New Approaches in Hospital Planning" and "An Inside Look at Hospital Design." Mr. Tusler is also chairman of a national study group surveying design and construction of hospital facilities for the chronically ill sponsored by the National Commission on Chronic Illness and has served as vice-chairman of the committee on hospitalization and public health of the American Institute of Architects.

Kasota Stone Picked for "Ideal Store"

Design of the new type suburban store which caters to the outlying residential areas of our larger cities takes into serious consideration a blending of site and building so that the building will not conflict with the area in which placed.

Typical of this type of design is the charming Wannamaker Company's store in Wilmington, Delaware, shown here, whose designer came to Minnesota for the right stone for its subtly colored facade. The main area of the front is Pink Buff Kasota Stone, supplied by The Babcock Company of Kasota, Minn., quarriers of Kasota and Man-Sota stones and marbles. Architects Massen & Dupont of Wilmington designed the structure, whose contour is related to the swept-back pattern of a modern airplane. It is in strict keeping with the fine neighborhood in which it is located. Counterpoint to the Kasota stone are the "wing tips" of a rubble fieldstone called Avondale Ledge Stone. Trim and entrance accents are of Virginia Greenstone.

Choice of the pleasant shades of the Kasota stone and the contrasting shades of the other stones fully carried out the architects' concept of properly fitting a business establishment into the site.

LONDON TOWN WAS CHANGED

The great fire of 1633 changed London from a city of wood to a city of brick. The art of brickmaking, which had languished in England for centuries, was given great impetus by the demand for more fire-resistant homes, churches, and government buildings.

After the city of Boston was destroyed by the great fire of 1679, brickmakers set up their kilns on Boston Common to make the material to rebuild on the charred ashes of the old wooden city. The brick produced was of uniform size, 9" x 4" x 2", the city fathers making it a civil crime to vary that dimension.

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PICTURES AT AN EXHIBITION

Moussorgsky's exciting program music from June, 1874.

LISTENING to what has now become a popular classic we have all been assuming that, in this piece, that the great Russian composer was rebuilding, in sound, his emotional reactions to paintings of one scene and another, such as any of us might see at our Art Institute shows.

But he was doing much more than that.

It was ARCHITECTURE that was moving him! He had just seen the designs for buildings by the then famous Victor Hartman, 1854-1873. One "picture" was a heroic project for a gateway into the city of Kiev; another a fantastic building for the printing establishment of Mamon-tov in Moscow; and many of the drawings were heart-warming proposals for recovering the art and national feeling that lay in the historic log and timber architecture of old Russia.

And so next time you listen to this tone poem, think of all kinds of buildings, which he "saw" in pictures of architectural projects—not just genre paintings of flowers, flouncy ladies or ruined castles with an owl and a moon above the snow.

If you wish to furnish your listening-eye with some examples of more of the kinds of experience with "Building" of power that Moussorgsky is trying to tell you about, go to the library and look at the portfolios of Piranesi, for Victor Hartman is now forgotten. Piranesi still carries more than enough dramatic power to startle even our sales-called "reader attention."

OVER THE DRAFTING BOARD

"What can we do to it?"
The futile reach for originality.

No DESIGNER can give "style" to his work. Nor can he "design in a certain style" because while he is "doing something" to his work to make it be this or that, the work itself and the times in which he lives are doing something else to him. For example, the "classic" forms, when applied as a style in the Eighteenth Century, produced one kind of Renaissance in France, but a very different kind in Italy, England, Austria, Sweden. However, few, if any, realized this at the time it was being done.

SYMBOL vs MEANING

Not what you said, but what they heard

The DESIGNER easily recognizes his own ideas in the forms he makes. But at the same time he "reads into" his creations many characteristics which actually he has not been able to put into them. But other people viewing his work see something quite different to what the author sees. People, by and large, also think they "see" evidences of their own day in familiar objects which as a matter of fact hold no such meanings. This is because these people are driven by emotional necessity to find what will give them peace.

That is one of the reasons things go "out-of-style." People gradually come to see them with a different "eye." That is the reason a man's work looks different when he returns to it after "sleeping on it," or next year. Just for the moment we are not saying whether it looks better to the author or not so good, but just different, and different to just the extent that he reads into it those tokens and characteristics that were not there in the first place.—W. G. P., replying to a letter.

CLOVER UNDER FOOT

Enjoy luxurious austerity

LIKE TO HAVE something that costs a nickel, or nothing at all, but which shows some sort of perfection. Have little perfect things around you. These will raise hope. Refresh with insignificant perfection (that is, insignificant to others).—John Jager, Vermillion Island, September, 1927

ARCHITECTS' LETTERHEADS

Are always of especial interest.

Here is a letter from Rudolph Shindler, first graduate student to reach the U. S. A. from Austria right after World War I. He was job co-ordinator at Taliesin East when the dozen Japanese craftsmen imported to make working drawings for F. L. Wright's Imperial Hotel were in the midst of their struggle. Desire to study and work with Sullivan and Wright brought him to America. He made the most of his opportunities and has produced brilliantly in Los Angeles since 1922. Let's make his work better known.

ALL RAKE—NO FORK

Yugoslav folk saying about chislers

USEFUL THINKING in this day must learn to work with verbs. Creative operations must be giving-out, not reaching-in.

We live in a world of myriad pressures. The symbol of our lives is the antennae; but the ear is giving up to the eye, which is every huckster's darling; the hand has surrendered its joy to the first finger, pressing push buttons. Some of us must break free—please try

CHRISTIANITY SPREAD EAST

Persian Legend from Marco Polo

THERE WAS A TIME, and there were three Wise Men. The first was young, the second middle aged, and Melchoir, the third, was old when one after another they came to see the infant Jesus.

One saw him young.

One saw him middle aged.

One saw him old.

They conferred, and then all three, together, again went to see him, upon which they saw him in his true age.

Christianity also spread North along the Volga, around to the Balkans and became the Byzantine Church; and South to Africa to grow into the Nestorian and Coptic Churches. It also reached Rome, and the Western Isles beyond the Strait of Gibraltar, to be the Pictish Church.
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More Conventioneers...


Airxpelers were the subject of conversation when we interrupted Winston Close of Minneapolis and Tom Ammerman of C. L. Ammerman Co., Minneapolis.

The enticements of the buffet had Mr. and Mrs. Kenneth A. Backstrom deeply enthralled in the picture above.

Duluth members C. E. Thorsen, D. E. Stanius and N. K. Fugelso were keenly interested in the projects set up for awards consideration.
The way in which a wash rendering delineates the building in a project is discussed by (l-r) John Peck, Leon Simich of Duluth and Norman Nelson of Otis Elevators.

Winnebago Community Hospital
(Continued from Page 18)
Exterior walls are brick with a back-up wall of clay tile. The trim is ornamental stone.
The hospital is located on a main thoroughfare in a quiet residential district. The shape is roughly a "T." Main dimensions are 39 by 167 feet. The bar of the "T" is 41 by 81 feet. The building is designed so that more patients' rooms can be added at a future time by extending the east wing. Existing service facilities were planned to accommodate more than the present number of beds.
Cost per bed was $8,300. Cost per square foot was $18.

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The Babcock Company
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THE ANSWER, recounted below, is really "Time-when" because the date of this, so radical an idea, is not credible without photographic proof and still harder to realize.

1903, THE IDEA!
1906, THE BUILDING.

PRIMED WITH ENTHUSIASM, at age 26, Mr. George Feick, Jr., and I set off for Europe and eight months of study. We resolved not to be drawn into the unproductive sketching and view-photographing which was then expected of all the traveling architectural students. In fact those receiving scholarships were obliged to produce sketches, and measured drawings! We wanted to study architecture in such a way as to become better practitioners.

We decided to make our project a study of the personalities of the living European architects themselves; to see the buildings they were producing; to take photographs of basic ideas; and draw only reason-why analyses. Meantime we would not overlook the joy and poetry that was to be had from the old work of any era — yes, "Gothic" too, then in considerable disfavor.

So we traveled from Norway to Constantinople, from Scotland to Switzerland. The overall result was very rewarding. We met and were most cordially received by leaders of the new architecture in Europe; Bull in Norway, Boberg in Sweden, Nyrup in Denmark. Those men we were meeting in Europe were to be the fathers-in-architecture of the great men of architecture in the 1910-1940 years of our profession; and grandfathers to the ideas of new-world building in our year of 1953, both in America and overseas. In Holland Dr. Berlage became our life-long friend. I met him at the boat in New York in 1911 and traveled with him about our United States. Upon his arrival we were interviewed by the press in New York. "What did we think of the proposed Lincoln Memorial in Wash­ington?" "We both had a low opinion of it. It was no memorial of Lincoln by any logic."

And so it was that in Amsterdam, in 1906, I came to take the photograph on the cover. Hurrying one morning to meet Dr. Berlage, this building really stopped us. It appeared that here was vigor and sincerity that did not fail the Sullivan thesis, to which George and I already adhered. And yet there was something more — much more.

How good prophets were we — just beginning our careers? Not one of the thousands of architects traveling throughout Europe then and for the next fifty years, ever reported this building. Yet there it was, the most demanding object in many blocks —
and still is. We had found THE WORLD'S FIRST ALL PLATE-GLASS-WALLED OFFICE BUILDING; glass from floor to ceiling, pier to pier, and no openable sash. There was not to be another in this spirit and character until two generations of designers had matured. This was the new office building of "Levensverzekering Maatschappy, Utrekt," at Damrak 26-27, and occupied by the same company that built it. In creative character, in restraint and imaginative manipulation of structural envelope it leaped directly over Sullivan and Wright and reached today's preferred values a half-century in advance of the flow of total world building.

Who were its architects? Messrs. "Staal and Kropholler"; Staal married a Miss Kropholler, also a graduate architect, and they became at 30 and 28 the world's first husband and wife team. The elder Kropholler went on his own and became well known for quite another type of building. The young Staaals together had the power, and in addition to good buildings soon produced Arthur Staal who became famous as an architect in his own right.

The elder Staal died April 8, 1940, early in the German occupation. During his very active life he built many distinguished dwellings and commercial buildings. As a student he came under the influence of the great architectural thinker Berlage, but already at 27 in this "Utrecht" insurance building he

Night scene of the Telegraph newspaper building shows its walls of glass.

Another Drake Installation!

Veterans Administration Hospital

Minneapolis, Minnesota

Entire marble and tile interior . . . completely furnished and installed by the Drake Marble Company.
had found a personal expression of far ranging vision. He built Holland's first skyscraper on Victoriaplein, Amsterdam, in 1931; also the newspaper plant for "The Telegraph" in 1930. His last work won in prize competition was the Rotterdam Exchange still uncompleted at the time of his death.

The Dutch "A.I.A." known as the Bond van Nederlandsche Architecten have given most cordial response to our request for some word about the building we admired so long ago and are sending more pictures which we will try to print for you in a later issue. Altogether I believe you will agree that we did well to forego "sketches" for more substantial values; and this story is only one from eight months of travel trophies. What charming men were Myrup, Bull, Berlage, Boberg. All kept writing us and sending us records of their work for two score years and more.

**Convention Asides...**

Progress of the convention is discussed by R. A. Chynoweth of Johns-Manville and Vern Arnold of Armstrong Cork Co., above.


The convention issue of "Northwest Architect" was the subject of interest during the meetings for J. R. Corwin of St. Paul, left, and Don Nelson of Producers' Council.
In an impassioned condemnation of the sterility and totalitarian threat of the so-called “International Style” pervading American architecture, Frank Lloyd Wright declares in a current magazine article that our entire American democratic tradition is utterly opposed to “an international level either of style or life.”

Such a “style,” he says “would be the communistic shadow descending over our own tradition, disgracing the great individualities that gave us our tradition, in all their bewildering and wonderful fascination, color and variety.”

Writing in the July issue of House Beautiful magazine, Wright says that the “international style” is neither international nor a style. “Essentially it is totalitarianism, an old totalitarianism cult made new by organized publicity.”

The prophets of this “style” are destroying the inner spirit of truly organic American architecture whose real strength lies in its love of individual, human traditions. Wright sums up his distrust and defiance of this “internationalism” in these words:

“I see collectivism in all its forms—especially in this cliche architecture—already becoming far too expedient in our midst. The drift away from quality toward quantity, toward all forms of standardization, can only mean the eventual success of the communist or of the totalitarian. All collectivism such as the so-called “international style” tends to diminish the human soul, because it relieves the individual of a developed conscience, and takes from him the reward of being true to himself as himself, which is the essential spirit of Democracy.”

The UN Buildings are “modern.” McKim, Mead and White was also “modern.” French-Renaissance “modern” and Lessismore internationalist “modern” do not “look” alike but they both express a similar fascist-communist mentality. They are alike, threateningly alike.

Opposite to these twin evils—American totalitarianism of 1903 and American fascism of 1953—is the true American Continuity in national LIFE and ART, which is indigenous, organic, honest hearted, style free, and truly democratic in principle and practice.—W.G.P.
In the picture at left air removal is the topic of Victor Gilbertson, Minneapolis chapter president, left, and Tom Ammerman of the Ammerman Company. At right are the Robert E. Olsons; Mr. Olson is with the lighting division of Northern States Power.

Here . . . There . . . Everywhere at the Convention

Progress of a seminar is under consideration at left between John Magney (left) and Stowell Leach, both Minneapolis A.I.A.'s. At right are Kermit and Mrs. Johnson. Mr. Johnson is with Crown Iron Works, Minneapolis.

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The Champion Lignites
Mr. and Mrs. Raymond Wood, Mr. and Mrs. Curtis Johnson and Mrs. and Mr. Willis Bloomquist enjoyed the recreational aspects of the convention.

James Erickson and Norman Springstead, Duluth, are shown above as they discuss Pella wood folding doors.

Program notes are made above by (l-r) George Townsend of St. Paul and W. A. Johnson and Donald Heath of Minneapolis.

Pausing in their study of the project presentations were Ed Jackson and Earl Branstrom of Superior, Wis.

Don Cress of Duluth, Rollin Child of U. S. Quarry Tile Co., and C. Alexander of Duluth are shown during the PC exhibit period.

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But the quality that you notice most is the charming tone and address of his voice, conversation at its best, satisfying talk as a beautiful necessity.

From the very first, Stella went to live in the child's world and learned to do it successfully as few but her own pupils have done. But let's be quick to write down here, for her, that the child's world is not what most people think it to be. "Except ye become as little children," is no condescension. Stella did not take her students down to the children, but up into some share of their Kingdom of Heaven. The other Sunday I heard a couple of Ph.D.'s discussing Tolstoy's "WHAT IS ART" on CBS "Invitation to Learning." Their exalted professional egos, performing in unashamed importance, were a perfect example of the very issues which unleashed the scorn of Tolstoy's deep-seeing esthetics. The verbal sophistries of the professors, framed to discredit Tolstoy, were at once the perfect proof of his contentions.

One said: "Tolstoy in his praise of peasant traditional art, interesting as it is (sic!) is trying to drag the great artist down to the level of the herd." There you have the brain snob at saturation. He couldn't know that when a culture produces artists as exhibition personalities, separated from the root and branch of the folk—the race as a culture stock—you have a declining, archaistic art. We have "concerts" by artists because unfortunately that is the best we can bring off in this machine age. The test of creative contemporary music is not more and better two legged or revolving disk reproducers of "compositions," but more music making by people listening to themselves. That is why the negroes have made the only considerable basic living contribution to North American creative sound. The American Indians world of good sound disappeared before it could have any considerable influence.

**In the Greatest Arts.** Egyptian, Gothic, Early Christian, Samoan, Chinese, you either do not know the names of the individual artist-authors, or they are sincere servants of their fellow men whom they certainly don't think are beneath them.

**An Individual** cannot be a great artist unless he feels himself a very part of what he has to express. "I am the sailor," said Whitman. And so we must say of the life work of Stella Wood that to really understand children and then express what you have learned in all human relations, is one of the greatest of arts. The "art" of anything, is not some material quality of the thing created, but the quality of the creating—of THE ACT. Art is a spiritual skill engaged in creating happiness and health. If you can't find the soul of the artist at work in what he has made, either you are lacking, or he is.

It seems to me that the important message of Stella Wood as a great artist, is that she did not leave to posterity material things—no art objects—and she was not a re-reproducer* of art works. Stella built a structure as solid and enduring as those beautiful arts of the spoken languages, whose memorials are the sound of word shapes, and which continue fresh and fair in the mouth for thousands, yes for hundreds of thousands of years. The "ng" sound in the word hu(ng)er, for example, goes clear back to the apes, and is still used by them! Through the teachers, and the girls who graduated from Stella's school into home and motherhood instead of into the kindergarten, or often both, Stella's work will go on to thousands of children and ten thousand of their children and grandchildren. Best of all it will continually be rediscovered and given force and meaning toward a better society. Stella Wood built a better "little world" which was always growing into a larger world; she laid a foundation of mutual respect for what was potential in the differentials of custom and spirit. She showed the way toward a more and more neighborly planet.

**When I Tell** people about this, as I often have for two score years, they always react the same way. They say, "How interesting. How sensible. Funny we never thought of it that way—but of course you never could do it!—Why how could you—you couldn't just lie down on the floor all the time—now could you?"

**Miss Wood** said that was what the girls said too. "But we just kept saying to them for four years,

*The contemporary reproducing artist-musician is here a special case with other implications.*
‘you not only can but you must,’ and finally we got most of them to believe it. It takes plenty of imagination and experience to meet all the situations. You have to condition your responses so that you do the unadulterated thing instinctively. I can promise you a new and delightful world of human contacts, more pleasure with your own children — all worth whatever you put into it.’

In 1925 I gave a lot of thought to the tent as architecture and made myself a teepee. This interest led me to make some measured drawings of American circus tents, and to watch their roped erection and equipment. I had once known an acrobat who wrote about his art of tumbling and had made diagrams of the turns. Meeting clowns is an experience quite different to what you’d expect. Theirs too is an art and directed mostly to children. They earn their living by doing it right.

Said one: “In the noise and confusion of a circus, children dislike to have a clown looking at them. When they get scared you just have to work away from them — just quietly draw away, and in no time a scared kid will soon start to laugh. You know it’s a good bit like these nuisances who tell you a joke with their face right in yours — sort of push the cracker on you. A person can’t relax enough to see the point, and laugh, that a’way. It’s no different with kids, they just don’t like big people to crowd in on them, either one at a time or people milling around. Just give children the break and they’ll be all for you.”

Sign-Off for 1953

and present prospects for
ARCHITECTURE IN EDUCATION

FROM STELLA LOUISE WOOD’S SCHOOL went teachers to every state in the Union; yes, American Indian girls, too, and negro, and oriental. They taught your mothers and your grandmothers. From their good hearts and honest lives grew three generations of teacher-citizens. About 2,500,000 individuals have been directly touched by this power, not counting the families of those who married and whose children are now teaching or raising families. I know some of them.

All told, more than 5,000,000 living Americans implemented Stella Wood’s ideals with their lives in the child world. Here flows a pure stream of clean Americanism; people as citizens and people as teachers, who were unafraid to speak out their views, to argue with the neighbors, to advocate unpopular measures they believed in.

Then came McCarthy.
The newspapers built him up.
Congressmen ran for cover.
The State Department apologized
Remember . . . ?
“It can’t happen here.”
It is happening here.
Remember . . . ?
“Don’t let them take it away from you.”
“Taking it” . . . well:
What do you think of school teachers?
What do you think of clergymen?
I think you will find in the whole world no two groups who so completely express in their lives the living treasure which is the Anglo-Saxon contribution since Magna Charta at Runnymede in 1215.
If school teachers and clergymen will stand together
for their American rights, refuse to acknowledge the new unconstitutional courts now operating under the misleading name "committee," and then vote together, regardless of vote collectors of any party, we can replace the evil men.

Architecture? Already "the fear" in Pasadena has cancelled the school building program, in Los Angeles has cancelled $350,000 worth of desperately needed teachers, in California has destroyed normal school teacher projects. Only 15% of the graduates of California State "Normal" Schools (established and state supported to insure an adequate supply of teachers) are now willing to accept teaching jobs under the political hazards that increasingly harass the teaching profession. Congressional thought control courts with their pretrial travel-expense fines, newspaper "candid" presumption of guilt, and no equal or effective broadcast of innocence, have all but destroyed American educational free enterprise to learn by experience in choosing. Minority pressure is driving the children back into their fixed seats, and the teacher as school-master back behind her desk. Actions speak louder than clothing and clothing proclaims the man. The architectural forms of our school buildings will all too soon be remodeled to conform to the new U.S., Fascism.

Well . . . maybe you have a different and better idea. Healthy controversy made America strong and great. So, continue unafraid, we hope, to say what you think, as have I.—W.G.P.

Architects Winston Close and Victor Gilbertson, Minneapolis, talk drafting problems with Otto Olsen, Duluth.

Presentations are talked over by E. M. Spearin of Standard Salt and Cement Co., Duluth, and S. M. Hockman of Keasbey-Mattison-Ambler.

State problems are considered by (l-r) D. R. Van Krevelen, assistant commissioner of administration, Earl Berg, state commissioner of administration, and Louis C. Pinault, St. Cloud.

Time out is taken by Cecil Tammen, St. Louis Park, Loren Abbott and Hubert Swanson, Minneapolis.

IF THE AIR IN YOUR PLANT IS all fouled up...

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BILLINGS ARCHITECTS PLAN A.I.A. CHAPTER

A prospective chapter of American Institute of Architects is being talked up in Billings, Mont., where 14 architects gathered recently to explore formation of such a chapter.

MITCHELL'S WALTER DIXON HEADS SOUTH DAKOTA A.I.A.

Walter J. Dixon of Mitchell, S. D., has been elected 1953-54 president of the South Dakota State Chapter. Other officers are W. F. Blatherwick of Sioux Falls, vice-president, and L. E. McLaughlin of Sioux Falls, secretary-treasurer.

Bruce Wallace of Oliver Mining Co., B. J. Hein, Albert Lea, and Andy Albert of Crown Iron Works, Minneapolis.

Architect Harold Hanson of Duluth, center, talks materials with Phil Taylor of Fiberglas Corp., and Six Benson of U. S. Plywood.

Problems for the younger architect are talked over by (l-r) Gil Langseth, Minneapolis, Irving Schneider, Duluth, Carl Nelson, student chapter, U. of Minn., and Jene Sigvertsen, St. Paul.

Before the big doings—Mr. and Mrs. Dittenhoefer, Mrs. and Mr. Larry Ochs of Ochs Brick and Tile, and Mrs. and Mr. Vern Larson.

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Bill Orth of National Gypsum Co., Jack Bissell of Pittsburgh Plate Glass Co., and Ivan Spurlock of Fiberglas Corp.

Charles Rice (standing) seems to be supervising couples (l-r) Mr. and Mrs. Andy Albert, Mrs. and Mr. Robert Bowman and Mr. and Mrs. Robert Olson.

Pause for camera by R. W. McCann, E. R. Cone and D. S. Haarstick.

Mr. and Mrs. Richard Hammel of St. Paul and Mr. and Mrs. Carl Braffunder of Minneapolis.

Exhibit examiners were Harley H. Johnson and Kenneth Backstrom, both from Minneapolis.

Architect

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RECENT BOOKS OF PARTICULAR INTEREST TO ARCHITECTS
Urban Redevelopment: Problems and Practices
The Future of Cities and Urban Redevelopment
Group of authors
A sociological background of urban redevelopment which will be appreciated by architects working in this field is presented by these two new volumes resulting from studies of many experts under direction of Coleman Woodbury, Norton Professor of Regional Planning at Harvard. He edited the volumes although they are made up of papers by 19 men in the fields of city planning, housing and metropolitan government, law, sociology, economics and political science.

Primary emphasis is on cities as a collection of persons, social groups and institutions rather than on buildings, streets and utilities.

Published by University of Chicago Press, 5750 Ellis Ave., Chicago 37, Ill.
Price: Urban Redevelopment — $7.50
Future of Cities—$9.00.

CONDENSATION CONTROL STUDIED
A committee to round up and correlate the latest developments and ideas on condensation control, so vital in the colder northern states, has been formed by the Building Research Advisory Board and included from this area is Prof. C. E. Lund of the University of Minnesota.

In applying research results to specific construction problems, the group will consider problems of venting walls, attics, crawl spaces, etc., flat roofs, qualities of paints and mechanism of paint peeling, paint and paper limits of permeance, condensation in steel construction, materials used in combinations. Tests will be directed toward actual service conditions rather than under laboratory conditions.

Goals are standardization of definitions and terms, standardization of units of measuring permeance, furthering basic research in vapor movements, studying human humidity requirements and establishing appropriate standards and criteria and studying climatic variations beyond the scope of existing research.

George Rappp of the John B. Pierce Foundation, New Haven, is chairman of the committee, and Tyle S. Rogers of Owens-Illinois Fiberglas Corp’n., Toledo, is vice-chairman.

MANUAL AIDS AIR DIFFUSER SELECTION
Technical details to aid in selection of the proper air diffusers in air-conditioning systems are well rounded up in a new publication of the Anemostat Corporation of America.

The book is of 64 pages and is the third revised edition of the volume, generously illustrated with photographs and drawings. Its tables on performance data, case examples and other features make it a comprehensive presentation of all aspects of these problems and of considerable aid to the architect and construction engineer.

Copies of the Anemostate Selection Manual No. 45—1953 can be obtained from the corporation at 10 E. 39th St., New York, N. Y.
VERMICULITE PLASTER UNDER NEW SPEC

A new ASTM specification has been written for vermiculite plaster aggregate and others, precisely detailing proper density, gradation and other qualities.

"This specification (C35-52T) represents a decided advance for the building industry," said E. R. Murphy, managing director of Vermiculite Institute of Chicago. "It need no longer rely on previous ASTM specifications for sand only, with variations to cover vermiculite. Plaster aggregates processed by our member companies meet C35-52T."

Under the new specification, the weight, or density, of vermiculite plaster aggregate ranges from a minimum of 7½ pounds to a maximum of only 10 pounds per cubic foot. This small range of density, coupled with specified screen sizes, insures a well-balanced product, making for good working qualities and a better plastering job, Mr. Murphy said.

MASONRY BALSAM WOOL DESIGNED FOR NEW STYLE WALL CONSTRUCTION

A new Balsam-Wool product designed to be used with SCR and other new style masonry walls has been introduced to the building industry by Wood Conversion Company. The new product is designated Masonry Balsam-Wool.

It is made to be applied between 1- and 2-inch furring strips and comes in two widths for application between 12 and 16 inch o.c. strips. The wool, in sealed blanket form, has a thermal conductivity of .25. It is sealed in asphalt saturated and coated liners, vapor resistant, wind resistant and bonded to the covering so it will not shake down in the walls. A special flange allows it to be readily stapled or nailed to the furring strips.

Details will be obtainable from building material suppliers or from the company in the First National Bank Bldg., St. Paul 1, Minn.

FROST ACTION STUDIES REVEAL HOUSE SLAB DATA

Frost action's important effects on shallow foundations and slabs used for basementless houses have been studied for the past two years by the University of Illinois's Small Homes Council, which has released a set of recommendations based on the studies.

To establish these design and construction requirements, the relationship of temperature, soil type, soil moisture and vertical movement were observed on four experimental floor slabs of house size. The foundations and drainage conditions varied for the slabs, all of which were of 4-inch concrete laid on a moisture barrier over gravel.

The floor and the foundation of such concrete slabs, according to the recommendations, should be "monolithic"—built as one piece to eliminate differences in vertical movement due to frost action. All footings should be placed on undisturbed soil. They should be of a width dictated by good practice and they should be sufficiently deep to be beneath any organic matter.

The various types of soils on which slabs are laid, it is pointed out, is an important factor in design

ARCHITECT


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recommendations. The use of a shallow foundation, for example, is not recommended on a silt or a silty-sand soil. Shallow foundations can, on the other hand, be built directly on soils made up of clean sands or gravels since frost causes practically no movement in this type of material. In a mixed soil, there must be sufficient clay to make the soil act as a "closed system" over the most prolonged freezing period—that is, there must be enough clay to prevent capillary rise of moisture during the freezing period. Any ice forming in the soil would be due, therefore, solely to the moisture content within the clay. Fill of clean sands or gravels should be used beneath the floor to the bottom of the footing so that the floor and foundation can be subjected to the same amount of frost action.

QUICKIES

being footnotes on some news developments in the industry

MACHINE TOOLS MODELS true to scale, are now offered building designers by the South Bend Lathe Works so they can mock up their plant layouts and see how they will look when actually built. Several models of each of nine different standard machines found in plants, together with models of mechanics and cross-ruled layout sheets, are included in the kit. The three-dimensional layouts reduce drafting work and allow for testing of lighting, work spaces, traffic lanes and other features of the proposed plant setup. The models are scaled 3/4" to 1'. The kits are available to any established architectural firm and can be obtained by writing South Bend Lathe Works, South Bend, Indiana, specifying Bulletin 5301.

POWDER ACTUATED TOOLS are proving time-savers in new construction jobs around the country. One report from two new Los Angeles county buildings tells of 250,000 powder-driven steel pins and threaded studs being used to fasten all manner of building materials. The powder tools use a small explosive charge to drive home the pins and they can be fastened into wood, concrete and steel. L. A. officials said thousands of man-hours will be saved through use of the tools.

PROGRESS BUILDS UP

Although brick is the oldest manufactured building material, dating back to the dawn of civilization, it is only in the past few years that an organized scientific study of its properties and potentialities has been in progress. An industry-wide, $1,250,000 Research Foundation was established in 1950 aimed at reducing the cost and improving the quality of structures built with clay products. New products, offering the public better houses at lower cost, have already been developed by this Foundation and more are on the way.

Perhaps the most famous bricklayer in American history was Thomas Jefferson. He built a brick wall at the University of Virginia that artists consider one of the country's masterpieces.

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