

The New Illini Union at the University

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The completion of the new Illini Union Building at Urbana marks the culmination of an effort extending over a long period of time, for it is at least thirty years since the original campaign looking toward the providing of such facilities was initiated. But, like many fine proposals, the earlier project, for lack of sustained support, was crowded out of consideration by more pressing and vocal demands and as a result the two faculty clubs, one for women and one for men, together with the various sorority and fraternity houses and the several religious social centers that have grown up about the University, have been the scenes of most of the student and faculty social functions. It is obvious that in an institution of upwards of 14,000 students and faculty, such facilities could not possibly fill the demand, and as a result there were several thousand students who had no place other than the "coke and smoke" emporiums about the campus in which to meet their friends socially. The need for a place "where every student is equally welcome and in which every student has an equal share" was therefore very great.

The Illini Union Building has been erected under a trust agreement between the University of Illinois Foundation and the University of Illinois with funds made available through a grant from the Public Works Administration and a loan from the Connecticut Mutual Life Insurance Company. The equipment and furnishings have been provided out of funds contributed largely by alumni and friends of the University. The loan is to be amortized out of income from the Union and from student and faculty membership fees. Every student who enters the University automatically becomes a member of the Union.

The Union, occupying as it does the approximate site of old University Hall, the original structure designed for the Illinois Industrial Institute, as the University was at first called, is in a sense a commemorative structure. The old hall, while not a particularly distinguished piece of architecture, had through long association endeared itself to generations of students who were loath to see it come down. There were many who desired that it be fireproofed, and this suggestion was carefully studied. However, a thorough investigation of the building revealed alarming structural weaknesses and, when it was established that the cost of preserving the old hall would be about equal to the cost of a new and adequately planned building (University Hall was still our largest classroom building) the wisdom of such a procedure was seriously questioned. The final outcome was that a new classroom building, Gregory Hall, was erected elsewhere on the campus and the old site, for generations the center of student body life, was reserved as the location for this new center of student social activity.

Student unions are not anything new. They have been with us for some years. The University of Illinois, amongst institutions of its class, is somewhat tardy in providing such a building for its student-body. As every member of the Society knows, the late beloved Irving K. Pond was

something of a pioneer in this field of architecture, designing some years ago the very handsome Michigan Student Union at Ann Arbor. So successful was this structure that various commissions for similar structures came to his firm. Upon the pioneer work of Pond, others built with the result that when Illinois approached this problem a great many such structures were available for study. And of this opportunity the promoters and designers of the Illini Union have made completest use. Thus a vast amount of information regarding union buildings, their requirements, and functions was assembled before actual design of the building under discussion was begun.

For some years the University Supervising Architect's Office has had in hand the design of the institution's buildings. From time to time architects of standing and experience have been associated with University architects in the development of particular projects. Thus for some years the late Charles A. Platt of New York was associated in the carrying out of the development of the University's post-World-War building program. For the Union Project Howard L. Cheney, long of Chicago but more recently of Washington, D. C., was secured as Consulting Architect and John Leavell of Chicago was brought on as Associate Architect. These gentlemen with Ernest Stouffer, Assistant Supervising Architect of the University, and Robert C. Maxwell, Structural Engineer, were responsible for the development of the plans and construction of the building. In the development of the mechanical arrangements Samuel R. Lewis, Mechanical Engineer of Chicago, was employed, while Misses E. Evelyn Smith and Mildred Bonnell, specialists in institutional management on the University staff, assisted in planning the food services. Ernest C. von Ammon of Chicago was engaged as Interior Decorator and Ambrose C. Cramer, Architect of Chicago, assisted in the design of "The Commons," the large cafeteria on the ground floor, and "The Tavern" or grille.

After the requirements and functional plans had been crystallized, the question of the style of the exterior arose. Regarding this, there was, of course, wide divergence of opinion. Many alumni wished something reminiscent of old University Hall; others advocated a design in the latest stream-lined, chromium-steel and black-glass vernacular. The more general attitude, however, was this: that, while the plans and functional arrangements should be as modern as building science could make them, the architecture should be in keeping, both as to style and materials, with the majority of the newer permanent structures on the campus. The building is of pleasant light red Illinois brick, trimmed with Indiana limestone and wood. The roof is of ceramic shingle-tiles.

When the rapid development of the physical plant of the University took place following the World War I, the opinion was advanced that the campus buildings, situated in the muddy terrain of the Champaign County prairies,

should be: (1) built of the common brick of the country side; (2) horizontal in line to harmonize with the surrounding topography, and (3) in the American tradition as to style. To this end the late Professor James M. White, the Supervising Architect, and Mr. Platt cast the newer structures in the vein of the American Georgian, constructed of kiln-run, Danville common brick (the great kilns of Danville are only thirty-three miles distant), trimmed in Indiana limestone. As the program progressed a very distinguished group of well planned modern structures in a modified Georgian style arose. In fact these buildings harmonizing as they did with McKim, Mead and White's Women's Building, Blackall's Auditorium, Llewellyn's *old* Agriculture Building, and other structures, all in brick, may be said to have determined the architectural style of future campus developments. Therefore it appeared that the New Union Building should not do serious violence to this precedent, so the American Georgian of a somewhat domestic strain, in keeping with the purposes of the edifice, was determined upon.

But let no one conclude that this design is only an archaeological essay or that it repeats traditional forms just because they are traditional. The massing and arrangement are the epitome of function and logic, and the architects have been careful to enunciate upon the exterior the varying internal utilities of the design. Thus one discovers that the walls of the east wing are pierced by huge round-headed windows which announce the great ball room, while the walls of the balancing west wing indicate by the superimposed rows of square-headed windows the two storied arrangement. Again the great chimneys of the west wing express its lounges and social halls whereas the ball room wing carries no chimneys. The cupola on the central mass is a concession to University history and sentiment. It houses the memorial clock of the Class of '78.

But the determination of plan and exterior design did not complete the solution. In the first place the building had carefully to adapt its plan and location to existing campus arrangements. It had to center on the quadrangle which it faces; its east and west wings had to center on the so-called "broad walks" that carry pedestrian traffic on either side of the "quad"; ample entrances had to be provided to the two lower stories from the quadrangle; it was required to provide for an ample but inconspicuous service entrance and drive that would not disfigure the campus; it must provide drives and automobile connections to Green Street; and it had to fit in between existing but important buildings of varying architectural styles and scale.

This last was perhaps the largest and most difficult order. On the right stands Ricker and White's immaculate design in Richardsonian Romanesque, erected in the '90's as the University Library but now housing the College of Law with its library. On the left stands the north wing of the Natural History Building designed by Ricker in what the writer likes to call a "Rickeresque version of brick Romanesque." Just at the rear of the east wing stands Ricker's charming little original Chemistry Laboratory, now utilized by the Department of Entomology, also in a modified brick Romanesque.

Each of these surrounding buildings presented a different scale and different materials. The Law College is of Kettle River sandstone; the Natural History Laboratory of hard, red, pressed brick; the Entomology Building of a local lighter brick. The architects have succeeded, however, in placing this very large building alongside these existing structures without dwarfing either or doing violence from the standpoint of color. The Union is a large building (284

feet by 120 feet) but by a most careful proportioning of its cornice mouldings, window patterns, and other details, its tremendous mass is made to harmonize with the sizes of its less bulky neighbors. This masterful control of scale constitutes a real achievement.

Without plans and photographs it is difficult to do justice to this admirable structure. The following schedule, however, will give some notion of the interior arrangement. The first floor, with its ample lounges, induces an atmosphere of leisure and relaxation. The main lounge adjoins the entrance lobby and serves as a general meeting place and reception hall. In the west wing are two great lounges, that at the south with "masculine" interior and furnishings, that at the north of more delicate interior architecture and fittings. Between these is the homelike Browsing Room, a branch of the University Library, where seated in an easy chair one may examine and read the latest books. In the east wing are located a large game room, with equipment for cards, chess, checkers, table tennis and like pastimes, and a large public and a small private dining room. Also located on this floor are the administrative offices of the Union, a conference room, ticket offices for various University activities, check rooms, telephones, toilets, and other facilities.

The ground floor contains the ample main kitchens with the adjacent cold storage plant, food storage rooms, dish-washing and other facilities, the large "Commons" or cafeteria dining room and service, the "Tavern" or grille with fountain services, various small self-help dining rooms, like the "Federal Room" and the "American Gothic Room", eight bowling alleys with seats for spectators, check rooms, toilets, locker rooms, etc. Service elevators convey the food from the main kitchens to auxiliary kitchens and serving pantries upon the upper floors.

On the second floor, the east wing is devoted to the ball room which will accommodate some six hundred couples and is so located with respect to food service as to be available as a large banquet room. The west wing houses a large faculty lounge with adjacent card and game rooms and the offices of the Alumni Association and of the Illinois Foundation. The central portion houses a large general lounge with southern exposure and rooms for various student activities.

The central third floor contains a series of banquet, conference and committee rooms, all so arranged with respect to food dispensing facilities and so provided with changeable partitions as to be available for large or small meetings, dinners or banquets. The west wing is reserved for an expansion of these facilities when needed, while the east wing houses the upper part of the ball room. The fourth floor is devoted entirely to guest rooms, each with ample closets and bath. The services of the building, like elevators, telephones, check rooms, toilets, etc. are adequate and well distributed.

This building, when the excellence of its interior and exterior design is considered, appears quite the finest structure upon the Illinois campus. As the years go by it is bound to have a marked influence upon the taste of the thousands of students who will come in contact with it.

Our esteemed confrere, Thomas E. Tallmadge, who lost his life in a railroad accident January 1, 1940, left the manuscript of a book, "Architecture In Old Chicago." This book has now appeared with the imprint of the University of Chicago press. A later issue of the Bulletin will discuss the Tallmadge book.

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Editor Monthly Bulletin

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Thirty-two years ago, Charles H. Wacker, as Chairman of the Chicago Plan Commission, popularized the Burnham Chicago Plan by addressing citizens in every ward with illustrated lectures on the plan. Walter Moody, Managing Director at that time of the Plan Commission wrote "Wacker's Manual of the Plan of Chicago" which was given to grade school pupils to familiarize them with the city's ambition.

Then the Common Council in the administration of Mayor Busse ordered the widening of Roosevelt Road according to the Plan. Filling in the Lake to make Grant Park proceeded at the same time. The Lincoln and South Park Boards took up the shore drives as part of the Plan. After that, the Plan was not again furthered until the William Hale Thompson administration. Under Michael Faherty, Chairman of the Board of Local Improvements, Michigan Avenue from Randolph Street to the Water Works at Chicago Avenue was broken through in 1920-21.

In the succeeding Mayor Dever administration (1923-27), the Chicago Zoning Ordinance was passed. Lack of experience with such laws in all American cities has shown many faults in the legislation enacted. Chicago now is ripe for completely new re-zoning, based on the more recent Land Use Survey of the city. Wacker Drive was built, using the detailed plans made under Michael Faherty during Mayor Thompson's last administration, though carried out during Dever's term. Michael Faherty put through the widening of Ashland, Western, and Ogden Avenues, streets many miles in length. LaSalle Street was widened from Washington Street to Lincoln Park.

With the depressed times of 1930 and since, little has been done in furthering the Plan except by the Chicago Park District, who spend their millions on Chicago's front yard (the lake front and connecting boulevards), and leaving the rest of the system looking pretty sick.

Real estate values in the city have shrunk enormously. Unrentable buildings have been razed and the land left, either as open parking lots or improved with one or two-story tax-payers. The city has lost population to the suburbs. Hundreds of millions of real estate taxes remain uncollected.

The Chicago Plan Commission is an advisory board to the

Chicago Common Council. It has no executive powers. There is the Park District, the County Board, the Sanitary Board, and others who make street and other public improvements, besides the Common Council, but there is no cooperation between these. Hence the city suffers.

A year ago, the Mayor appointed a new Plan Commission, and this Commission has employed as Executive Director, Mr. Theodore McCrosky, with education and experience in eastern cities as a town planner.

Chicago citizens, and not the least of these, Chicago architects, are vitally interested in the revivification of the city, and look to the Commission to advance penetrating and thoughtful suggestions to the Common Council for execution.

The Bulletin has Mr. McCrosky's promise of an article in the near future, telling what the Commission feels should be done to bring corporate Chicago back to youthful vigor and enthusiasm. The Bulletin hopes to present this article in its June 1st, 1941 issue.

A student of architecture is necessarily a student of architectural history. As his scope enlarges, he includes more general history and archaeology forms a part of his studies. The Supervising Architect's Office of the State of Illinois has found this so. In its expanded work of equipping historic sites, parks and recreation ground resorts with suitable shelters, recreation buildings, hotels, lodges, and cottages, offering enjoyment to the public, the State at the same time extends education in its history.

The Bulletin in this and succeeding numbers will present short articles dwelling upon these interesting spots that have stories to tell of the past. These articles are written by Joseph F. Booton, Chief of Design, Division of Architecture and Engineering, State of Illinois, whose particular task it has been to delve into the story of each site. An instance where an archaeologist plays an important part is in the investigation made at Giant City State Park, where, in the southern end of the State, remains have been found of prehistoric man in a rocky territory of precipitous cliffs with interweaving passages like streets. In these canyons, too, there hid during the Civil War, the Knights of the Golden Circle, a secret organization which favored the Southern cause. Espionage was carried on from here with the South. The Supervising Architect's Office has designed and has had built a beautiful lodge in Giant City State Park. Many other instances bearing out the opening sentence of this editorial occur in the other parks. Illinois Society members, through two official visits, are familiar with the rebirth of New Salem near Springfield. Farm land was converted into the 1831-37 village of that name on the same site where Abraham Lincoln lived.

The Bulletin plans to close the series with a longer article written by the State Supervising Architect himself giving a comprehensive oversight of the work of his division.

Jade gets its name from the Spanish "ijada," meaning colic-stone, because jade was once supposed to have medical values.

Chinese lacquer work has been famous for centuries. The lacquer is made from the exudation of a tree closely related to our poison ivy. This tree—*Rhus vernicifera*—is called *Tsichon*, or *varnish tree*, by the Chinese.

Illinois Society February and March Meetings

The February dinner and meeting of the Illinois Society of Architects, attended by 65 members and guests, was held at the new quarters of the Chicago Bar Association on the evening of the 25th. These quarters are now in the upper stories of 29 South LaSalle Street, remodeled after the designs of Ernest Grunsfeld, Architect. The dining room where this meeting was held is an attractive basilica with a high center nave, a great east window, the nave flanked by lower ceiled aisles where smaller round tables are placed. Besides President Paul Gerhardt, Jr. and the program speaker Colonel Albert Smith, B.S., C.E., there were at the speakers' table, Engineer Penn of the American Institute of Steel Construction, Chicago's Commissioner of Buildings, Richard E. Schmidt, and Past-Presidents Jensen and Fugard. But besides, there was an interesting guest in the person of Señor Mario J. Buschiazio, Professor of Architecture at Buenos Aires, Argentina.

Señor Buschiazio arrived in New York after a sixteen-day ocean voyage in January, and proceeded to make a circle tour of the U. S. A. going first to Washington, Charleston, South Carolina, Atlanta, and then west to the Pacific Coast coming to Chicago on his return east. From here he goes to Boston and sails for home early in March. While in the U. S. A. he is a guest of the State Department at Washington. This is his first trip to our country. In his short address, he showed himself familiar with this country's architectural history, and with the names and works of prominent architects here that had left monuments of note. In Chicago he had looked up the work of Burnham, Sullivan, Frank Lloyd Wright, and others.

The Secretary read the minutes of the January meeting and the President followed with an invitation to have architects visit the House and Garden Show coming to Chicago at an early date, where the Society will be represented in a booth. The President drew the company's attention to the advertisements in the Chicago Daily News that had appeared once weekly lately where the Society tells the public of the work of the architect and how it is to the client's interest to employ such a professional man when he contemplates building. The President referred to the Illinois License Law and said that the amendment to the existing law, recently proposed, has now been rewritten before presentation to the Legislature as an entirely new law, which was in the interest of clarity. The company was asked to contact State Legislators and Senators in behalf of the passage of this bill. The president next read a letter from Victor A. Matteson, a Director of the Society, now actively engaged in the building of Fort Leonard Wood in Missouri.

Colonel Albert Smith, former Professor of Structural Engineering at Purdue University and now a consulting engineer in Chicago, was introduced as the speaker of the evening. His subject was "Wind Pressures and Suction on Buildings." Colonel Smith began by pointing to a chart on which were drawn two vessels partly filled with water, with a drain below and a trap. One diagram had the trap sealed at its upper level, the other unsealed. Here was a problem in hydraulics, to figure the pressure when the drain was sealed and when it was open. He then moved on to wind pressures and suction on pitched roofs, also illustrated by diagrams. He showed little faith in stress-diagrams for wind on such roofs; for construction load and snow load, yes, of course such diagrams were necessary. But, wind pressure on these surfaces had not been reduced to satisfactory formulae. He dwelt on the necessity of strong anchorage of roof trusses into the walls and stated that tension members in such roof trusses should never be made too light; they should be made stiff enough to act as compression members in case of lift of the truss.

Then came diagrams of walls with pitched roofs showing wind directions against such walls, their deflection causing vacuum in spots, particularly when the wind strikes a side wall at 90°, is deflected upward leaving a dead air space about the center of the wall and creating a vacuum above a flat roof. The series of diagrams following showed interesting distortions on pitched roofs from wind pressure. He then passed to wind pressures and wind bracing in high buildings, showing plans of three and five bents by six in the other direction and explained the effect of wind on the narrower parts of the building in particular. Also the action was analyzed on various points in high buildings with offsets. At the end of his address, Elmer Jensen was moved to tell a story of high wind pressure against a 22-story building as observed from an 11-story building adjoining.

It was a humorous story, but Building Commissioner Schmidt followed Jensen with a different version of the effect on the observers from the 11-story building.

And now came the sensation of the evening, the moving picture in Kodachrome of the action of the Tacoma Narrows Bridge in the State of Washington during the months before and at its final collapse on November 7, 1940. This is a most extraordinary picture and should be shown at every engineering school in the country. Probably no such picture has ever been made from nature and the only comparison that occurs is one with Walt Disney's animated cartoons. Crazy movements such as took place in Tacoma Bridge could only be imagined by a cartoonist.

The film begins with the laying of the foundations for the big towers, the stretching, twisting, and heating of the cables, the swinging of the big plate girders into place, riveting, road making, and each important step in the construction of this narrowest of suspension bridges ever attempted for a 2,800 foot span. The swinging of this bridge, and the final collapse as portrayed by photography, is perhaps the most dramatic event that has occurred in the engineering world in the memory of living man. The film closes with the view of Professor Farquharson in his wind tunnel created for the study of Tacoma Narrows Bridge after its weaknesses had been discovered. The Professor adjusted valves to study the effect of the wind on various parts of the model.

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On March 25, the Illinois Society again met for its monthly dinner and meeting in the quarters of the Chicago Bar Association. The Association is located in the financial district (which perhaps has a psychological appeal to architects), its newly designed rooms are spacious, colors soft and harmonious, lighting modern and most agreeable. There are no street noises and the food is good.

President Gerhardt had Secretary Fairclough read the minutes of the February meeting briefed. They were indeed brief. Those interested in more detail may read the report in the column above. In attendance were thirty-two, thirty members and the two guests, David Betcone, Field Engineer, Douglas Fir Plywood Manufacturers Association, and Phillip Hill of Harbord Plywood Company. The President read the letter of appeal for contributions for R.I.B.A. women and children, sent out by William Lescaze of the New York Chapter, A.I.A.

The President next introduced the subject of the Chicago Architectural Exhibition League, organized in 1924, to which organization the Society's Board of Directors at its last meeting had elected William Fox and Ralph Llewellyn. This is a very confused history, as shown by speakers at the last Chapter meeting and added to by speakers at this meeting, among whom were Messrs. Loeb, Schmidt, and Gerhardt. Until the atmosphere is cleared, no exhibition of architecture may be expected in Chicago sponsored by the three architects' organizations.

President Gerhardt reported on legislation expected from the Legislature now in session at Springfield. The revised architects' license bill, as written by Attorney Edward Morse, is now before the committee for second reading. After the third reading, a favorable vote by the Legislature is expected. The proposed State Building Code, the President thinks dead for this term of the Legislature. The proposed engineers' bill, as now amended, he thinks cannot be objected to by architects. Official participation by the Society in the Chicago Coliseum forthcoming "House and Garden Show" is rescinded. The Illinois Society elected Eugene Fuhrer as its delegate to the May A.I.A. Convention in Yosemite Valley.

After the President's introduction of Messrs. Betcone and Hill, the sound film in color, loaned by the Denver and Rio Grande Western Railroad, entitled, "Producing and Using Plywood" was shown. Strange, isn't it, that with schools of speech thickly sown throughout the land, that radio speakers' voices still rasp the ear drums when a few preliminary lessons in such schools might tend to make listening more agreeable! Anyway, nature is beautiful along the western slope of the Coast Range through Oregon and Washington, the locale of the picture, with its snow-capped peaks, its giant trees shooting like arrows 200 feet into the air, its waterfalls and babbling brooks, its blue skies with white flaky clouds, all of which appeared in the introduction to the picture.

The woodman, sawing the Douglas fir trunks dextrously at a level of 4½ feet above ground so that the trunk will fall where intended, the sawing-off of projecting limbs part-way up the trunk by skillful

climbers with their sawing tools hanging by ropes or chains from their bodies, the climbers, like cats, running up and down these tree trunks which, we were told, when cut are never less than three feet in diameter and very often reach five feet, were thrilling. The subject of replanting was not overlooked, and the picture showed new growth, appearing like bushes with thick foliage. The felled trunks are cut in lengths from 20 to 40 feet, put aboard auto trucks that scurry over narrow mountain roads to an embankment, where they are dumped from the truck into water, then arranged in parallel lines, lashed together and floated down to the mill. It was interesting to see how the logs, brought to an even diameter at both ends, are unrolled by machines into veneers that keep going like endless rolls of paper, until the log is no more.

Processes of perfecting the board, the glue of the various plies for the particular use, either as concrete forms, exterior sheathing or interior finish, the stacking and bundling and final transportation by train, were all shown. Literature of the industry was shown on the screen, and the picture ends with views of beautiful flowers, accompanied by agreeable music. Mr. Betcone answered questions that were presented after the film ended and offered to supply the architects with a complete line of literature.

Then followed discussion introduced by the President and responded to by William Ryan and others on advertising the profession to the public. Charles Urbanek, of the joint committee of the Society and Chapter on the Small House, was called upon for his report. He said that the committee had been unable to meet with the Chapter representatives of the committee, and hence, asked to have the report deferred.

Changes in Chicago Building Code

Section Number	Action	Date	Council Journal Page
64-28	Amendment	11/6/40	3434
	Fire-resistive requirements for doors in stair enclosures in certain schools and churches.		
62-8	Amendment	11/6/40	3434
	Regulations concerning fire areas in certain garages equipped with automatic sprinkler systems.		
	Amendment	11/6/40	3431
	Regulations governing the erection of single-family dwellings of wood frame construction (with brick veneer) within the fire limits and the provisional fire limits.		
51-82	Amendments	11/6/40	3431
	Regulations governing openings of vent pipes on storage tanks in hazardous use units.		
52-1-81-7	Amendment	11/6/40	3431
	Regulations classifying loading spaces and appurtenant driveways as garages and determination of ventilation requirements therefor.		
52-15	Amendment	11/6/40	3432
	Regulations governing the use of roof areas for garage purposes.		
52-23	Amendment	11/6/40	3432
	Regulations concerning location of vehicle exit doorways in garages.		
57-65	Amendment	11/6/40	3433
	Requirement for windows in stairway enclosures in school buildings.		
62-3	Amendment	11/6/40	3433
	Regulations governing the sizes of spaces without fixed seats in Bowling Rooms.		
62-7	Amendment	11/6/40	3433
	Regulations governing allowable floor areas in certain one-story garage buildings.		
64-62	Addition	2/26/41	4336-7
	Projections over public ways, of fire escape stairways on existing buildings.		
51-10	Amendment	2/26/41	4337
	Regulation governing safety clearance for above-ground oil storage tanks (referring to liquids having a flash point above 175 degrees F.).		
82-109	Amendment	3/5/41	4397
	Width of 5 ft. in lieu of 7 ft. for walls of outside grease catch basins.		

Chicago Chapter February and March Meetings

To the Tavern Club in Chicago on February 11 came fifty-five men (members and a few guests) for the regular monthly meeting of the Chicago Chapter, A. I. A. At the business meeting following the dinner, the minutes of the January meeting were referred to a committee and not read. Then Mr. Shanahan, representing Art Center, Chicago, was introduced. Art Center is a new organization composed of Art Directors' Club, Photographic Illustrators, Guild of Free-Lance Artists, Association for Color Research, Society of Typographic Arts, and the Chicago Society of Industrial Designers. Mr. Shanahan announced the forthcoming series of five co-operative lectures, concentrating on advertising art, extending from February 18 to March 4, covering the re-design of offices, studios, shops, and buildings.

The annual meeting of the Chicago Building Congress with dinner on February 20 at the Palmer House was announced.

President Loeb introduced John Fugard, national A. I. A. treasurer, who announced that \$4000 for the A. I. A. defense fund program had been collected, largely with the annual dues where \$5 had been included in the bill, leaving it optional with the member to pay the \$5, or not, with his dues. Mr. Fugard announced that the new Administration Building in Washington, flanking the Octagon, would be finished on or about May 1. He referred to the coming A. I. A. Convention in the Yosemite Valley in May, asking for a large attendance. President Bergstrom, he said, had been appointed Chief Architect of the Quartermaster's Corps in Washington, D. C. This Corps has through its bureaus employed about 700 men. Through President Bergstrom's efforts, the planning professions of architect, civil and mechanical engineer, and landscape architect will all find their proper place under the Quartermaster's Corps. Mr. Bergstrom, as stated before, has given up his private practice in California and now devotes his entire time to A. I. A. matters in Washington, D. C. Under the circumstances, Mr. Fugard thought it was nothing more than fitting that the Chicago Chapter lead off in resolutions of appreciation, endorsing Mr. Bergstrom for a third term as President of the A. I. A. The resolution was unanimously carried.

President Loeb appealed to the company to push, through letters to their state representatives and senators, the amended Architects' License Bill before the legislature now.

John Merrill was called to the podium to review the last ten years of housing and home ownership, which he did in a very short, concise, business-like way, and then introduced Mr. Morton Bodfish, a Chicago businessman interested in housing and home ownership in connection with city planning. For over ten years Mr. Bodfish has been identified with the U. S. Savings and Loan League. He had much to do with framing the Federal Home Loan Bank Act in 1932. He is Vice-Chairman of the Chicago Plan Commission and Chairman of the Chicago Planning Advisory Board, as well as a professor of real estate at Northwestern University.

Mr. Bodfish spoke pleasantly and well, rambling on about the architect's place in the housing field, the financial interests with which he is identified and which he thought had not covered themselves with any particular glory. He reiterated the story of the making of the Chicago Plan by the late Daniel Hudson Burnham some thirty-odd years ago, backed by prominent citizens, and paid his respects to Charles H. Wacker for popularizing the Chicago Plan, even to the extent of having a manual printed and put into the hands of grammar school pupils some decades ago. But really, it was all generalization—nothing new to the architect who has lived and practiced in Chicago for more than ten years. What is needed is coming down to specific features in the further development of this plan as affected by re-zoning, slum clearance, the breaking through of Congress Street, the thought of a lake front airport, and other features that are to be taken up. Mr. Bodfish stated that the Chicago Plan Commission, after the early days of this plan, had sunk into the doldrums and that the new Commission and its Advisory Board of two hundred citizens drawn from all walks of life, including three or four architects, should be able to accomplish something for revivifying the City of Chicago; that the new Commission had appointed as Managing Director, a young engineer and city planner, graduate of Yale and for a time instructor there, then employee of the New York City Plan Commission, later city planner of Yonkers, and for a time holding a similar office in some city in China—Mr. Theodore McCrosky.

Mr. McCrosky referred to Chicago traditions in architecture, in-

cluding the tall building, and in engineering, covering certain bridges developed here. He prophesied that barring a few monumental buildings, all Chicago as we see it today would be gone in seventy-five or one hundred years, and unless the re-building were properly guided, the newly-built city would again see a highly creditable piece of architecture surrounded by incongruous buildings and neighborhoods. He pleaded for a comprehensive re-zoning, pronounced the Land Use Survey made for Chicago a fine achievement, but again the listeners failed to hear any specific effort in furthering the Chicago Plan movement touched upon.

Bulletin readers may expect in an early issue a presentation by Mr. McCrosky of definite features that he will propose for furtherance by the Chicago Plan Commission, with due consideration for re-zoning, slum clearance, housing, park extension, and the like. The Commission is not an executive body. It is an advisory body to the Chicago Common Council.

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Thirty-six members of the Chicago Chapter attended the March dinner and meeting, falling on the eleventh, in the Edgar Miller room of the Tavern Club. The meeting was opened with the President calling upon Ralph Gross for his committee report on the minutes of the January meeting. Gross quibbled about a number of things, but the minutes were finally accepted with additions. Secretary Suter read the minutes of the February meeting without any opposition. President Loeb read a letter from national A. I. A. President Bergstrom, expressing appreciation of the Chapter's resolution endorsing Mr. Bergstrom in advance for a third term in his present office, but declaring that he was not a candidate. He would not permit his name to be proposed since he thought the tradition of limiting the incumbent in that office to two terms was a wholesome precedent, not to be broken.

Fred Land was announced as a newly-elected corporate member. It seems there is a committee on fees for professional work that is to act jointly for the Chapter and Illinois Society. The report of this committee was so inconsequential that no review of it will be attempted here.

The Chapter having entered into an arrangement with the Chicago Art Institute for an architectural exhibition during April, the question of the Architectural Exhibition League, a corporation created twenty years ago to function as an arranger of architectural exhibitions for all architects in the Chicago territory, was raised. Ralph Gross found fault that the Chapter should assume to sponsor a Chicago Architectural Exhibition when there existed a corporation with bylaws and officers, and more than \$1200.00 capital in the bank, representing the Chapter, the Illinois Society, and the Architectural Club. Members wanted more information. Richard E. Schmidt stated that under the League, exhibitions had been conducted much better than before. Secretary Suter, Paul Gerhardt, Jr., and others spoke on the question, and finally, President Loeb stated that the Art Institute was dissatisfied with the last exhibition held by the League in the Art Institute and wanted to deal only with the Chapter this time. It should be stated that the recent exhibitions, under the League, have been held in the Arts Club and not in the Art Institute. With the Chapter membership, and perhaps other architects circularized for the April exhibition, it is the hope of Chapter officers that an architectural exhibition may be held later, with the cooperation of the Architectural Exhibition League.

Charles Dornbusch, entertainment committee chairman, raised the question of continuing round-table discussions in the Chapter. He felt that should they be continued, advance thought should be given by Chapter officers as well as those asking for the floor. Edwin Clark told a story on the late Howard Shaw, and another on the Haytossers' Club. John Fugard, national A. I. A. Treasurer, was called on as usual to tell of the happenings in Washington, D. C., bearing on the architects' status and the prospect for government work. He referred to the attitude toward architects of various alphabetical bureaus. Apparently, the bureaus do not estimate such services as highly as the architects would wish. President Bergstrom, said Fugard, with his classification and organization of the planning professions would aim to be helpful to the professions in regard to fair pay by government.

The Chicago Chapter is entitled to twelve delegates to the forthcoming A. I. A. convention to be held in May in Yosemite Valley. Questionnaires, asking members to signify their willingness to serve as delegates to the convention, were returned by but four.

Standing on the floor against the walls of the Edgar Miller room, was the exhibition on stretchers, prepared by a group of the Washington, D. C. Chapter, presenting an analytical study of problems in Defense Housing. The exhibition has been called a post-mortem and a diagnosis, presented on some twenty-five stretchers or panels. It has traveled from Washington, where it was first shown, to Philadelphia where it was exhibited by the National Association of Real Estate Boards. It was then shown in Toronto, Canada, and from there it came to Chicago.

The Council of New York University announces that its School of Architecture and Applied Arts will be officially discontinued at the close of the present school year. "The decision is based on no dissatisfaction with the work of the school or with its record. It is based purely upon financial considerations."

A. I. A. Convention in Yosemite Valley

The American Institute of Architects will hold its 1941 convention (73rd annual) in Yosemite Valley, California, May 17-19. Not alone every Institute member but every member of the architectural profession, teachers and students of architecture, Producers' Council members, and all friends of the profession are invited to attend the meeting. Their families and friends will be welcome.

The Institute has arranged with the Santa Fe Railroad to run a special train in as many sections as reservations will warrant from Chicago to California. It will be a specially conducted tour where reservations must be made with Charles T. Ingham, Secretary, A. I. A. and tickets secured only through him. It is planned to travel by night and sight-see by day on the convention train. Every class of accommodations will be offered on this train, from Pullmans to day coaches. The cost will include food in diners on the American Plan. The itinerary worked out and published in the January Octagon is as follows:

Lv. Chicago, May 12, 10:00 A. M., Ar. Kansas City 8:00 P. M. Lv. Newton, Kansas 11:35 P. M.

Lv. La Junta, Colo. May 13, 6:05 A. M., Ar. Raton, N. M. 8:30 A. M., Raton to Taos by motor car, lunch at Taos, Taos to Santa Fe by motor cars, Santa Fe to Lamy by motor cars, Lv. Lamy, N. M. 6:00 P. M., Ar. Albuquerque, N. M. 7:30 P. M., Lv. Albuquerque 7:45 P. M.

Ar. at Grand Canyon May 14, 7:30 A. M. The choice of three trips at Grand Canyon is offered. Lv. Grand Canyon 8:45 P. M.

Ar. Kingman, Ariz. May 15, 2:30 A. M., motor to Boulder Dam and return leaving Kingman 4:30 P. M.

Ar. Fresno, Cal. May 16, 3:45 A. M., motor cars to Yosemite via Mariposa Big Trees, Ar. Yosemite hotels 3:35 P. M.

May 17 to 20, Convention Sessions.

Leave Yosemite Valley, arriving at Los Angeles, May 21, 8:00 A. M.

Trips arranged from Los Angeles to Pasadena and San Diego, to Catalina Island, to Orange Groves, Redlands and Riverside for May 22 and 23.

May 24 and 25 provide trips to Santa Barbara, to Del Monte, and San Francisco.

The price of transportation including meals on the train and side trips, not including the Yosemite Valley hotels, ranges from \$148.80 to \$104.65 per person depending upon railroad accommodations. The return trip from the coast is not included in the price.

Octopus Roosevelti

Dr. Waldo L. Schmitt of the U. S. National Museum, was one of the party on the presidential cruise to the Galapagos Islands in 1938. While at the Islands he found an octopus species, hitherto unknown to science. This octopus has been named, according to a new Smithsonian Institution publication, the *Octopus roosevelti*.

Triboro Hospital for tuberculosis, Borough of Queens, New York City, was winner for excellence in design and construction for all public buildings built in that Borough during the year ending October 31. The award was made by the Chamber of Commerce. Egger and Higgins, New York, were the architects.

Earthquake-Resistant Brickwork

Brick wall construction which resists cracking in an earthquake better than reinforced concrete finds general use in Los Angeles now, according to J. A. Muller, Jr., writing in the February *Bulletin*, *Society of American Military Engineers*.

He prophesies a greater use of reinforced brickwork by the War Department in fortifications to resist impact from explosives. He declares further that "reinforced grouted brickwork" is best for reinforcing walls, bridges, and conduits, and for structures to withstand wind forces of tornadoes and hurricanes.

An 8-inch thick wall, for example, should have a series of $\frac{3}{8}$ -inch vertical steel reinforcing bars 24-inches on centers, with bricks $\frac{3}{2}$ -inches thick built up on each side of the rods, leaving a one-inch space at each rod. With each course of brick laid, a liquid grout is poured into the space. The grout hardens and binds the two sets of brick and steel rods into a single solid structure.

Mr. Muller says the method described has resulted from the disastrous Long Beach earthquake of 1933, whose principal damage is attributed to brickwork of ordinary construction. "It has been found," he says, "that reinforced brickwork is more elastic than reinforced concrete, and therefore, less likely to crack under seismic strain."

Brick Engineering Handbook

Barring tamped earth and adobe, perhaps the oldest building material known to man is brick made of burnt clay. We have specimens of this material made centuries before Christ, such as Babylonian walls with figure decorations under a glazed surface. Brick has been used in every age of man's known history and it is as modern today as when first used. It can be made to resist violent temperature changes and hot fires, and while with time, some of its applications and its techniques change, it is as modern as the latest synthetic product.

To further its scientific use today, there has recently been published a four-hundred page handbook, entitled "Brick Engineering," written by Harry C. Plummer and Leslie J. Reardon, the former Director of Engineering and Research, Structural Clay Products Institute, the latter Chief Engineer of the same Institute. The book is published by Structural Clay Products Institute, Washington, D. C. It is illustrated with half tones and many graphs and diagrams as well as sectional views and details. While not the first book on brick engineering that has come to the architect's and engineer's attention, it is perhaps the most comprehensive. After a preface written by the two authors, there is "An Appreciation of Brick," by Henry H. Saylor of the Architectural Forum, Editorial Staff, which we remember reading in the *American Architect* some four or five years ago.

The handbook is divided into fifteen chapters whose subjects consecutively are: Brick; Mortar; Brick Masonry; Footings, Foundations, Piers and Columns; Walls and Partitions; Chimneys, Fireplaces and Stacks; Floors, Walks and Garden Structures; Moisture Control; Reinforced Brick Masonry; Beams, Lintels and Slabs; R-B-M Columns and Piers; Footings, Foundations and Retaining Walls; Building Regulations For Reinforced Brick Masonry; Brick Sewers and Culverts; and Miscellaneous Structures of Reinforced Brick Masonry. Specifications are given. There is a glossary of terms and finally an excellent index.

Low Cost USHA Housing

A record for low-cost construction has been established on the first of a three-unit, \$1,700,000, low-rent housing project completed at Phoenix, Arizona, erected by the local housing authority in co-operation with the USHA. The cost is \$1,684 per dwelling unit, the lowest yet achieved among the 100,000 homes for low-income families erected under the USHA.

The first unit consists of one-story, two-family and row houses, built on concrete foundations, brick walls, concrete floors and wood ceilings. The roofs are of vari-colored clay tile. Interior walls are made of 4 inches thick, with special brick to allow conduit, pipe, and electrical fixtures to be placed in the walls. Ceilings are insulated and special ventilators are placed under the eaves and at the apex of the

Building Fort Leonard Wood

Rolla, Missouri, February 24, 1941.

We have been extremely busy, including Sundays, holidays, and even evenings. As you probably know, I am a part of the organization known as the "Architect-Engineers," in charge, as a part of the Constructing Quartermaster's Staff, of the Construction of Fort Leonard Wood, a permanent army post located 35 miles southwest of Rolla in a tract of about 75,000 acres in the Ozark Mountains. The present construction is wood, considerably better than the old cantonment construction, but similar. There is little "architecture" about it in an aesthetic sense, and the main drawings are made in Washington. They revise them about once a week causing no end of confusion and trouble, and then revise the revisions!

The contractor's organization now numbers around 18,000 men. Our own organization is rather interesting, now numbering around 425 including field men, inspectors, etc. My own department has charge of all buildings, including, besides the usual quarters, five theaters, a laundry for 25,000 men, a bakery for 40,000 men (we will house over that number), a water works larger than that of Glencoe, Illinois, a sewage treatment plant of a capacity for a city of 40,000. There are over 60 different kinds of buildings, warehouses, cold storage warehouses, ice plant, etc.

Besides this we are building 23 miles of railroad to connect with the nearest railroad—the Frisco System. I don't know how many miles of pavement. There is an 18 mile high tension line being built. All this is under our direction.

At present, all materials, water, and workmen have to be transported by truck or auto over crooked, crowded, narrow mountain roads. The water has to be hauled 8 miles. The workmen live anywhere, in tents, cabins, trailers, bunk houses, etc. Our own office men live where they can too, many in tourist cabins, private homes in Rolla, hotels, etc. I, like most of the "key" men, drive the 35 miles twice a day from Rolla. Our main diversion is passing trucks on the road without being killed. Many have been. On the way to the office this morning (Sunday) I counted six auto wrecks that occurred since I passed over the road last night. So you see we have an exciting and precarious existence!

Our office organization is as follows: Camp Planning and Layout, Frances A. Robinson; Buildings and Architecture, V. A. Matteson; Roads, C. P. Loechner; Railroad, R. F. Bundy; Electricity, J. O. Jordan; Water Supply, F. Gordon; Sewers and Treatment Plant, R. C. Crawford; Mechanical Equipment and Heat, B. Whisler. These eight departments, together with clerks, accountants, progress charters, surveyors, etc., run the works, under the direction of the Construction Quartermaster, Major Frank Reed, Jr., and Alvord Burdick & Howson, Engineers.

The contractors are an organization of four contracting firms, known as the K. N. W. L. Construction Company, organized for this particular job. The cost is estimated to be \$30,000,000. We hope it will be done by the middle of May. I expect to be through by then myself, or before, but the work is now only 30 per cent finished.

In spite of real hard work—harder than I have experienced since 1917-1920 in Washington, and long hours, I'm feeling quite well, except for throat trouble which we all have, probably from talking so much.

We are located in a beautiful country—very picturesque. Have had fine weather all winter. No snow at all, and but little weather below freezing. Not over 1 inch of frost in the ground at any time. But there has been considerable rain and for a couple of months our problem was deep mud in which cars got stuck and equipment bogged.

—Victor A. Matteson.

roof. An air cooling mechanical system of the evaporation type is installed in each apartment.

Plans provide for a living room, kitchen-dinette, bath, utility and storage rooms and from one to three bedrooms in each housing unit. Equipment consists of gas-fired heaters, stoves, and hot water heaters and automatic refrigerators. Assembly line technique was used in the construction.

Lesther & Mahoney are consulting and supervising architects.

Cheaper than installing blinds is the German blackout of factory buildings achieved by orange illumination and windows painted in the complementary color—light-green.

Illinois' Historic Sites

Have you ever wished that you could visit and roam about the locale of an absorbing biography or bit of history after reading the book? Or, after you have left an important historical spot, have you felt an urge to find a good book on the subject and read more about it? Facts alone are often dry and meaningless, but coupled with something tangible they at once spring to life and become real. We read of Lincoln, the surveyor, and his work in this connection may mean little to us, but when we gaze upon his instruments or see a street we are told he surveyed, it takes on a new meaning. Study the relics of Black Hawk and see how the Indians lived, tilled the soil, worked and played; see the sunny creek banks where they hunted and fished and the Indian ceases to be merely a troublesome creature of history, but a hero of a great racial tragedy.

It has been truly said that the ideal way to study geography, history, biography, and related subjects, is to travel extensively with a good library, were such a system practical. This method would cement the facts to the memory in a permanent way with knowledge becoming vital, understandable and fundamental, comparable to our learning by experience. By virtue of the restorations completed and under way we now have an opportunity to make such a study of the State of Illinois. Inspecting them makes her history more understandable and presents to us many of her illustrious citizens and visitors of the past, in a manner that makes them seem real. It reveals the working and living conditions and the cultural attainments of our ancestors in a graphic way.

Our State has a rich and varied past. Its history in many ways reflects, in miniature, the record of our country as a whole. We find relics of the primitive man in the southern tip of the State and the mound builders in the central and southern areas. The Indian followed with his era. Black Hawk and his tribes roamed the hills and streams near Rock Island. The first white man appeared in Illinois when Joliet and Marquette paddled the quiet Mississippi, Illinois, and Desplaines, and shouldered their packs over the portage to the Chicago River and Lake Michigan. LaSalle built a crude fort at Starved Rock. Soon the French settled here as a part of their vast American claim, transplanting their civilization and culture. Later the English took over the government until Clark's capture of Kaskaskia and Vincennes. We then became a county of Virginia with the seat of Government at Williamsburg. Later Virginia relinquished its claim and we became a portion of the Northwest Territory with a separate government of our own and finally in 1818 we became the twenty-first State. Here Lincoln and Douglas rose to fame. Grant lived and worked in Galena when the Civil War broke out.

As tabulated above, the statements are mere facts, but a visit to New Salem, Galena, Black Hawk State Park, Starved Rock or Giant City State Park, or the Cahokia Court House, to name a few, will give these events and personalities new interest and understanding.

The State of Illinois is growing up. We realize now that she has a voluminous and absorbing history as evidenced by the necessity of building an Archives Building to house and preserve the records of her past and to augment the State Historical Library now filled to capacity. We also realize that buildings, ruins, hidden foundations, and other relics are records of another sort, which if not preserved and maintained will be lost forever. Too many structures have been permitted to decay, be torn down, sink into deplorable decrepitude, or vanish altogether. Many of these have been restored and others are now in the process. Archaeologists are at work at other sites, ferreting out the facts for future diagnosis.

Illinois can now boast that most of her historical eras are represented in her list of State Parks and Memorials which are maintained by the Department of Public Works and Buildings. The Division of Architecture and Engineering, with C. Herrick Hammond as Supervising Architect, is proud of the part it has played in this restoration work. We have been assisted by the State Historical Library, the Division of Parks, the National Park Service and local historical organizations. It has been our responsibility, however, to dig up the facts, assemble them, make conclusions, prepare drawings and specifications, award contracts and supervise the work generally.

Because this is "architecture" of a different sort, it is thought that architects would be interested in a behind the scenes peek at how this work is done. With this in mind we plan to focus our attention from time to time on some of the work, to point out interesting

facts and data concerning the program either as a whole or in part and to describe in succeeding issues of the Bulletin what is being done and how we are going about it.

—Joseph F. Borton, Chief of Design,

Division of Architecture and Engineering, State of Illinois

Archibald S. Morphett of Milman and Morphett, Chicago architects, died March 19 in Evanston Hospital, age 49. Born in Bristol, England, he came to the United States in 1908.

William Jean Beaulieu, well-known artist and architect, died at Presbyterian Hospital, Chicago, on March 2, age 66 years. Mr. Beaulieu was born in Joliet, Illinois, and beginning at the age of eleven after school, began working in Architect Barnes' office in Joliet. At the age of sixteen, he came to Chicago and got a job with the Department of Construction of the Chicago World's Fair in 1893. Later, he had charge of the exhibit in the Agricultural Department of that Fair.

In 1894, he went to Paris for two years of study in painting and architecture, associating with Jules Guerin, Henry Bacon, and Paul Barclay. Returning to Chicago in 1896, he formed a partnership under the name of Peabody & Beaulieu, Architects. This association continued to 1900, when he became Art Director for Hart Schaffner & Marx, clothing manufacturers, who used his talents in their national advertising. In the latter work he made a national reputation. As a painter, his work was exhibited in many of the country's art museums, and it is also found in permanent exhibitions of New York galleries.

The Century Magazine reproduced some of his paintings. He wrote a book entitled, "A Peculiar Type of American Art." Besides the art work for Hart Schaffner & Marx national advertising, he was associated with the architects entrusted by that firm in designing clothing establishments in a number of American cities, from New York to San Francisco. He retired as Art Director in 1932.

Gutzon Borglum, prominent sculptor, died in Henrotin Hospital, Chicago, on March 6, aged 71 years. Mr. Borglum was born in Idaho and received his artistic training at the Julian Academy and L'Ecole des Beaux Arts, Paris. His most conspicuous work is the group of gigantic heads, representing Washington, Jefferson, Lincoln and Theodore Roosevelt at the mountain peak in the Black Hills of South Dakota, known as Mount Rushmore Memorial, still incomplete. His huge sculptured head of Abraham Lincoln at the Capitol at Washington, figures of the Apostles on the Cathedral of St. John the Divine in New York are well known. Works of Borglum in Chicago are the monuments of John P. Altgeld in Lincoln Park, and the equestrian statue of General Phillip Sheridan on Sheridan Road.

Emil Rudolph, prominent Chicago surveyor, died in Michael Reese Hospital, Chicago, March 4, aged 85 years. Mr. Rudolph was born in Chicago and in the late 1870's established his practice as surveyor here, becoming very prominent in his profession and known to practically all the architects of the older generation. He is credited with having directed the surveying of 90 per cent of the buildings in the loop. So familiar was he with property boundary lines throughout the city that he was often called into court for expert testimony involving properties. Outstanding work by him was the laying out of the Northwestern Elevated Railroad, the survey for straightening out the Chicago River, the survey for Union Station, that of the Broadway and Wilson shopping district, and many real estate tracts. Some twenty years ago he organized the Chicago Guarantee Survey Company with himself as president. In 1932 he retired. He lived on his farm on Old Mill Road, Lake Forest, Illinois.

Walter T. Bailey, Chicago architect and leader of the colored race, died in Chicago Hospital, February 21, age 57 years. Mr. Bailey was born in Kewanee, Illinois, graduated in architecture at the University of Illinois and became head of the Architectural Department at Tuskegee Institute under Booker T. Washington. Mr. Bailey was architect of a number of churches and public buildings in the South. In 1910, the University of Illinois conferred upon Mr. Bailey the honorary degree of Master of Architecture. He was one of the architects of the Ida B. Wells Federal Housing Project recently completed in Chicago. At the time of his death, he was planning the rebuilding of Olivet Baptist Church in Chicago.