

MONTE CASSINO

By Frederick V. Murphy, F.A.I.A., LL.D.

Certain cities are so situated as to become cross-roads of civilization—sharing the vicissitudes of several of the important movements in the history of art and architecture and retaining permanent monuments scarred by conflict of arms but of considerable value to the student. Cassinum ranks with Paris, Rome and Seville, and while less picturesque than Mont St. Michel, is nevertheless most impressive in its sturdy mass of structures well knit into the rugged hill tops. Seven or more destructive attacks upon a part or the whole of its cyclopean construction have failed to do more than induce the feeling that it belongs there and will doubtless remain to guide future travellers along the Via Latinum.

St. Benedict, after leaving Subiaco, founded the mother-monastery of his great religious order in A. D. 529. As the cradle of the order, its buildings were finally developed into a well-organized plan of fine scale, pleasing variety and unity in spite of its tri-partite composition and change of levels. It affords to an architectural student an ideal example of site development. Internally the composition has great richness and a striking use of stately cloisters in the Doric order, designed perhaps by Bramante. Antonio di San Gallo is also represented there, and there are pavements done in Opus Alexandrinum, Gothic choir-stalls, a richness of display of Florentine mosaic surpassing Florence itself.

As successive generations of scholars passed along the route and turbulency did not subside, Monte Cassino grew in fame. As a seat of discipline and a centre for the display of craftsmanship, artists came from Amalfi and from the Orient to mingle with Popes, Abbots, Emperors and Kings who enjoyed its hospitality.

The plan had to be a good one and relief was sought from the intensity of emotional enterprise of the interior by pleasant views up the valley from the Loggio del Paradiso.

Such an environment seemed to satisfy the demands of location, orientation, accessibility and sufficiency in area. A neighborhood of historical significance dating back to a Temple of Apollo, now destroyed, and a Roman town at the foot of the hill, and, as mentioned by Pliny, an amphitheatre and a less well-preserved Theatre. On the hillside, the Capella del Crocifisso, once a tomb—its plan a Greek cross—is built of large blocks of travertine with a dome of the same material. The tomb of St. Germano of medieval times and some cold but very well executed examples of the work of the modern Bevrton school complete the wide range of enterprises, artistic and architectural, that complete the story of the achievement of Monte Cassino.

Other monasteries are vast, some like the Certosa de Pavia are richer throughout, Monte Cassino with its contrasts of strength and decision created by its exterior

walls with the airiness and grace of its three cloistered courtyards is more dramatic, less transient in effect, for one approaches it most gradually and the unfolding of its plan is gradual and in harmony with the naturalistic surroundings.

Eighty miles from Rome and upon the route between Rome and Naples the ancient town of Cassinum was probably of Volscian origin. Citizenship was granted it by Rome in 188 B. C. There was but little indication in the early history of the town that the ramparts above would sometime later become the metropolis of Western monachism. It was sacked by the Lombards about 580 A. D., rebuilt in 720 and practically destroyed by the Saracens in 884. Its period of greatest influence was attained at the time of Desiderius who later became Pope Victor III in 1087.

Abbots of the mountain monastery became strong feudally and Bishop of several dioceses simultaneously. Extensive territories belonged to the domain of this singular hill-town and its influence at one time spread throughout the then known civilized world.

Its contribution to civilization was to give aid to research in scholarship and as its archives grew in size and selection it was a true seat of learning in a fairly universal sense.

Art was fostered and artists found the partial seclusion of its enclosures stimulating to the imagination.

Away from the imbroglia of commerce and the distractions of larger centres of population, artists could again return to a contemplation of the fundamentals of their craft.

Modern architecture has recently taken a turn toward the study of the larger elements—the cities, towns and communities where men live in large groups, and all structural, social and economic implications of such planning are sought out and carefully analyzed for the betterment of the human race. Living conditions in such entities as Cassinum as they were in the past would easily appear superior to habitation in most modern cities.

We need to go to a cross-roads—not too distant from a main arterial highway, as was the Via Latinum—to be near but to be remote from too great congestion. Perhaps we have already a pattern, for much that we plan to do in the not too distant future—the plan that we have just contemplated.

We could add to its advantages, of course, all of the amenities of our present-day civilization, if we cared to do so, such as central heating, electricity, radio broadcasting, etc., but as a background for good living, such a grouping as this makes most of our highly studied, model towns seem dull and drab, lacking in the inspirational values of splendid site, cohesive construction and daring in scale and composition.

It has been pointed out forcibly by a recent article in the *Journal of the American Institute of Architects* by Warren S. Thompson, Ph.D., that "whether the city has not blinded us to the meaning of life rather than to deny that life has a meaning."

One wonders then, now that we have time to think and to consider our lives and our surroundings with reference to our physical well-being, our intellectual advancement and the cultivation of a better spiritual outlook, whether we should continue blindly to build bigger cities or rather turn to the past and order our living in a more sane and healthful manner, turn back to better patterns.

Cassinum and its environs should teach us something worthwhile, not exist simply as an episode of chronological interest. Basic virtues are contained in the study of the past, partly hidden values—aesthetic, social and economic—and to be iconoclastic and destroy the past is neither logical nor easily possible when so much that is tangible and good remains.

Successive civilizations, as exemplified in their architectural symbols as we consult them at Cassinum or Rome or Paris, have one thing at least in common. Man was recognized to greater perceptions of the beautiful than perhaps we now think he possesses. We now figure that if the factual relationships of size, shape and order are satisfied that he has a satisfactory abode. We believe that his natural yearning for something in the way of building good to look at—that this should be stifled. An Opus Alexandrinum floor in a sacristy does more than furnish an area to walk on; it is good to look at. Graceful arches in a cloister do more than wall the passageway that surrounds the courtyard; it creates a fabric of interest in values of light and shade and an essay in the display of constructive skill. Movement is there and a certain ecstasy of purpose obtained with buoyancy and pleasure.

Changes of levels and reasonableness of site occupancy give us a feeling of logical security and echo our first impressions of a site and its development as we approach it by a long climb, such as the approach to the Monastery at Cassino. Architects have visited these religious centres. Many of them are national monuments and as archeologists their interest is valuable, and we have carefully measured many of them, photographed and otherwise presented them for our own use and for posterity in a very satisfactory way. But what we need, seriously, I feel, is to study them as design problems having to do with our own responsibilities of today's practice. Not that we should reproduce Notre Dame of Paris, the portal of St. Trophime or Cellini's Perseus with the Head of Medusa from the Loggia Lanzi in Florence. But there is in all of it, whether in classical Athens, Roma, Medieval Chartres or Florence of the Renaissance, much that has eluded us, escaped notice, things that are not basically the result of style but happen to originate in a particular period. Such a thing is the value of a retaining wall of heroic measure and apparent great thickness. Likewise the power of silhouette as illustrated by Durham Cathedral or Salisbury's great crossing spire. Our modern opinion should be flexible enough to admit of corrections from the past, however remote.

I began to write about Monte Cassino with the view that, as a study, it could be more thought-provoking than

merely affording a cursory example of an Italian hill-city. Design appears to me to be what we need to study and the endeavor has been to attach it to our thinking of today. Do we accept all things that we have as being good, as finalities, more or less, or are we still willing to work at the everlasting problem of design? Cassino has been the laboratory specimen selected for study. Any other old city might have served: Toledo, Chester, Venice—but Cassino is in the public eye for the moment. I have sought to express a small part of what I feel it offers to an architect for him to study further. Scale, proportion, unity, variety, integrity, all open up avenues of thought and our modern effort must be directed along the lines of the expression of the same elemental qualities. One should gain in courage from a study of the antique, for in recognizing its variety, we sense its continual shortcomings which leave the way open for the best which is still to be done.

The tireless productivity of the machine may abolish poverty, but it may also corrupt the beneficiaries of its generosity.

—W. F.

Institute of Design

L. Moholy-Nagy's School of Design in Chicago has changed its name to Institute of Design. A newly published pamphlet states the objectives of the Institute as follows:

1. "To develop a new type of designer for today's new needs. To train a man so that he will be able to face every requirement, scientific and technical, social, aesthetic and economic . . . not because he is necessarily a genius but because he has the right method of approach to new problems and advanced knowledge of new and old materials.
2. "To qualify a man so that he can work with greater comprehension of the basic principles and enormously varied tools, techniques and substances which the new technology makes available.
3. "To help him overcome self-conscious fear and thereby learn to employ his native ingenuity without restraint in taking no traditional knowledge for granted.
4. "To integrate art, science and technology."

The summer session (June 26-August 5) offers intensive study in eleven branches beginning with basic workshop, carrying through production illustration, moving pictures, and ending with language in action and group poetry. There is a summer art camp and junior workshop for children of from 6 to 13 years of age, and a Saturday children's class during fall and winter for youngsters 7 to 14. Students are asked to bring pocket flashlights with clear unfrosted bulbs. . . . There is an occupational therapy course for therapists, aides, nurses, etc.

Versatility, thy name is Moholy-Nagy!

The Chicago Plan Commission has transmitted to the Chicago Common Council the resolution calling for improvement of terminal facilities within the boundaries of the Municipal Airport. No additional land acquisition is recommended. The Airport represents a value of more than \$11,500,000 on the part of the City of Chicago and approximately \$3,500,000 additional on the part of airlines companies for facilities and other buildings.

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Editor Monthly Bulletin

ARTHUR WOLTERS DORF, 520 NORTH MICHIGAN AVE., CHICAGO

After most of the chapters of the American Institute of Architects and member state associations and societies had elected delegates to the Institute's annual meeting to be held in Indianapolis May 3, 4, 5, 1944, the Institute, through its Board of Directors, issued notice early in April that the annual meeting was postponed to 1945.

The reasons are: Office of Defense Transportation urgently requested such postponement in the interest of national welfare; the possibility that the invasion of Europe may be in progress by early May; the public generally might be resentful of annual meeting as not being imperatively needed in the war effort; the postponement is a modest contribution to Victory.

The annual meeting of the Board of Directors was held as scheduled and a complete report will be made by the Board to all members of the Institute concerning the affairs of the Institute and policies for the future. A complete report on the financial operations for 1943 will be submitted to the membership by the Treasurer.

The Officers and Board of Directors of the Illinois Society of Architects are pleased over the many letters of commendation on the articles appearing in the Society's Bulletin. These letters come from A. I. A. Chapters and State architects' societies and associations from many states. Often extra copies of specified issues are asked for. Sometimes the address of an article's author is sought for the purpose of inviting him to address the respective society or chapter on the subject of the article.

On the Bulletin's mailing list are the president and secretary of every A. I. A. chapter and every known state architects' society in the country. The I. S. A. Bulletin articles are not copyrighted and other publications are welcome to reprint. The Bulletin should be given credit as the source publication when its articles are reprinted.

Our editorial policy is based on the conviction that with the technical ability to plan and construct soundly and artistically, the architect's cultural background should

harbor a live interest in architectural history, since the history of architecture is the history of civilization.

This issue of the Bulletin features the architecture of Monte Cassino, a place in Italy that is much in the public eye by reason of the war. The writer of the article, Dr. Frederick V. Murphy, besides practicing architecture in Washington, D. C., is professor of architecture at Catholic University of that city and the University's architect. Dr. Murphy is architect of the new Baltimore Cathedral of the Assumption of the Blessed Virgin Mary. On the new Cathedral's completion, the present Cathedral (1806-18) designed by Benjamin Latrobe, becomes the Pro-Cathedral.

The subject Building Codes for American cities and states is very old yet ever new. Illinois has never had a state building code. Through the years there have been many committees of architects, engineers, and builders active in furthering a state code, but the legislature was always unresponsive. Chicago's last building code, passed in 1938 with amendments in 1939, is at the moment under fire as recorded in Society and Chapter meeting reports in this issue of the Bulletin. The Uniform Building Codes of the Pacific Coast Building Officials Conference are said to be in operation in 225 cities and other government units. Originated in 1925, revised in 1928 by committees from the A. S. C. E., the A. I. A. and the A. G. C., the code is now reported to be widely adopted and thoroughly tested. A "code changes committee" functions in keeping the code up to date.

If you arrive at the Statler, Washington, D. C., before your room is vacated, you have the privilege of going to a Club, a fancy name for a public dressing room, where you can have a shower, change your shirt, and shave.

The Burnham Library of Architecture, Art Institute, Chicago, is appreciative of donations of exhibition catalogues of the Chicago Architectural Club received through the appeal in the April-May Bulletin. Catalogues of the years 1920, 1921, and before 1894, however, are still missing. The Library will be grateful in receipt of these.

Illinois Institute of Technology announces tuition-free instruction in engineering, science, management, and war-training for filling responsible positions in industrial engineering. The course is authorized by the U. S. Office of Education. The class meets each weekday evening for 16 weeks. Address or phone Room 141, 23 South Damen Avenue, Chesapeake 3000.

The Menai Bridge, built by an engineer, Robert Stevenson, as late as 1850, is a superb piece of architectural design. In the history of civilization it and New York's Brooklyn Bridge are modern bridges. The Brooklyn Bridge is admired, not because it was the longest suspension bridge of its day, but because of the sheer beauty of its design.

—Aymar Embury, II
in the Journal of the A.I.A.

Illinois Society April and May Meetings

Notice of the regular monthly meeting of the Illinois Society of Architects on April 25 at the Chicago Bar Association quarters was responded to by 28 members—a small showing. Perhaps the increased cost of the dinners plays a part in this restricted attendance. Through years the charge was \$1 a plate; but today such price modesty is impossible without a supplemental charge on the club treasury, and this is at the time impossible. Men in the armed forces are excused from paying dues, and many members without jobs in these war times are delinquent. Besides, the Society dipped heavily into its treasury for legal expenses in the Sangamon County trial of the Professional Engineering Act's constitutionality.

Anyway, the dinner was very good. Secretary Fuhrer was absent, so President Ryan appealed to Treasurer Llewellyn to act as secretary. He read the March meeting's minutes, which were approved as read. Mr. Ryan presented the invitation of Metropolitan Chicago Home Builders Association to architects to participate in a conference on May 2 on modification of the Chicago building code. A discussion followed and a feeling was vented that these real estate promotional speculators, together with others in the same line, were out mainly to reduce requirements in the building code in the interest of cheapness regardless of safety. Building Commissioner Paul Gerhardt, Jr., thought, as did others, that architects should be represented at the conference since the architect has a wider knowledge of building features and their why and wherefore, and should defend, in the interest of safety, many clauses in the code that the real estate would like to eliminate. President Ryan asked for volunteers, men who would be willing to sit in to discuss and defend, if necessary, safety clauses in the code. The two men that will act at this conference for architects are Arthur Gerber and John Burnham Maylard. Mr. Ryan next announced the calling off of the A. I. A. annual meeting at Indianapolis and the causes.

On the program as speakers were two men: Ben Regan, Chairman of the Illinois Aeronautic Commission and C. E. Blomgren of the War Production Board. Mr. Regan spoke first. His subject was "Postwar Airport Planning" and he dwelt primarily on Illinois.

Mr. Regan prefaced his remarks by saying that since early youth, he had been fascinated by aviation and he had followed flying ever since as an avocation. Today the U. S. spends \$20,000,000 a year on planes. Shortly after Pearl Harbor, Governor Horner had appointed Mr. Regan state regulator of aviation, and so far, Governor Green had kept him in this position. Aviation, he said, is today a profession of young men with great enthusiasm and application. At the moment, everything is devoted to the war effort; but when the war is over, thousands of young men experienced in flying will return to their native states and look for jobs in this field. Besides, children in school today make paper models of airships and fly them as stated by Mr. Regan from his experience in visiting these children in their school time. He referred to the Illinois Aviation Conference in Springfield on February 2, pointing out that Illinois lagged in airports though it had 5,039 registered pilots with about 1,307 aircraft and about 65 official airports, of which three he considered good. He favored the much discussed lake airport for Chicago on a made island. Because of increased speed in aircraft, great attention must be given to not only the plan of runways but the ground composition and its foundation. He spoke of concrete runways 30 inches thick because of the weight and speed of the newer planes. Underground runways had been developed in Germany but little was known of them beyond this. Illinois has the richest farmland in the world; hence land for airports, each one containing not less than 640 acres, was expensive. A bill to be presented to the next Illinois state legislature had been framed and the speaker hoped and asked for the architect's active support.

Mr. Blomgren's subject was "New Phases of Priorities." He appeared a modest man—perhaps influenced by harassment in his job for priorities. He began by announcing that L-41 dated April 19, 1944 as amended was a new directive. He read from this directive and referred to construction which does not require permission. Under this head come twelve classifications of which Number 8 was deleted March 7, six weeks before the new L-41 was issued. Here are the eleven construction permissions. The speaker, however, stated that more changes are expected about July 1.

(1) Maintenance and repair: that is, work necessary to keep a building or structure in sound working condition or fix it when it has become unsafe or unfit for service because of wear and tear.

(2) The rebuilding or restoring of a house (including a farm house) or other residential building damaged or destroyed after July 1, 1943, by fire, flood, tornado, earthquake, acts of war, or the like, if the cost of rebuilding or restoring is less than \$5,000.

(3) The rebuilding or restoring of farm buildings damaged or destroyed by fire, flood, tornado, earthquake, acts of war or the like if the cost of rebuilding or restoring is less than \$5,000.

(4) The rebuilding or restoring of a building or structure damaged or destroyed by disaster, where the Red Cross has been given priority assistance to restore the disaster area.

(5) Construction necessary to prevent threatened loss of farm products, where immediate construction is determined by the United States Department of Agriculture.

(6) Construction owned by the United States armed forces, Civil Aeronautics Authority, Coast and Geodetic Survey, or Panama Canal.

(7) Insulating buildings with materials such as storm windows and doors, pipe covering, loose fill, blanket or bat insulation, plain or granule surfaced rigid insulation, and weather stripping.

(9) Grading, ditch-digging or similar earth-moving operations if no cement, lumber or other building materials are used.

(10) Various kinds of construction connected with farms, public roads, railroad tracks, utilities, mines, smelters, wells, the petroleum industry, the lumber industry, the chemical industry, steel mills, broadcasting facilities and laboratories.

(11) A construction job which began before this order originally became effective (April 9, 1942), or at a time when the job was not limited by this order.

(12) Construction jobs which are classed as minor capital additions under CMP Regulation No. 5 or under CMP Regulation No. 5A.

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Forty attended the May meeting of the Illinois Society of Architects held on the 23rd in the quarters of the Chicago Bar Association. The dinner was good. President Ryan immediately followed with a short business meeting and had Secretary Fuhrer read the minutes of the April meeting. These were quickly disposed of. Mr. Ryan then read a letter from D. K. Este-Fisher, Washington, D. C., A. I. A. representative, wherein was requested a list of names of all Society members now in the armed forces of the U. S. The President next proceeded with nomination committee appointments to select candidates for Society officers for the year 1944-45. He announced the names to go on the regular nominating committee and for the members committee received nominations from the floor. With these matters disposed of, President Ryan now turned to the program of the evening.

The program speaker was Anton Tedesco, a structural engineer representing Roberts & Schaefer, the engineers who are guardians of the modern long span reinforced concrete shell construction so intensively used in these war years. Mr. Tedesco introduced his subject "Thin Concrete Shell Construction" with an historical sketch of what had gone before. This sketch was purely perfunctory. He stated that large span concrete and masonry arches and domes were very old, that Ancient Rome had them (he no doubt referred to the Baths of Caracalla, Diocletian and Titus, also the dome of the Pantheon), that Saint Sophia at Constantinople had its many domes and that in the medieval period many arched structures were built that are existing today. But the speaker quite overlooked all mention of the recent predecessors of the thin shell construction such as the planetarium domes in Germany and France built in the 1920's and the great domed Centenary Hall at Breslau, which was finished in 1913, and many of his hearers harked back mentally to the wellknown Guastavino's Cohesive Construction introduced in some of this country's finest buildings erected in the late 1880's, through the 90's, and the first decade of this century. However, his presentation by pictures on the screen was most interesting and illuminating, even though exact locations were not given, owing, no doubt, to war censorship.

Tedesco's talk cannot be called an address. It was really staccato shots accompanying features that he pointed out as they appeared upon the screen. His verbal shots were effective too, for they brought out running questions from the company. The pictures were divided

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Chicago Chapter April and May Meetings

On April 4, the Chicago Chapter A. I. A. held its monthly meeting in the Builders' Club. Twenty-five attended—a small number—at the interest was live. President Shaw still professionally absent some western state, Vice President Gerhardt presided.

Secretary Furst read the minutes of the March meeting which were approved as read, after which the chairman called upon Hubert Burnham to function in the presentation of medals which the Society of French Government Architects—American Group, desired to present to the University of Illinois and two of its students. So Mr. Burnham, with fitting remarks, presented to Dean L. H. Provine of the University's Department of Architecture, three medals, one to the department and one each to its outstanding students, K. S. Baker and William Eng. Professor Provine accepted these and with great modesty maintained that any credit going to his department would be shared equally by all members of its faculty; that no individual professor took a dominating place, but that the whole group worked jointly to create well-educated, well-rounded architects fitted to take up the various problems that would naturally come to the architect to solve. Of the two students, Baker and Eng, he spoke highly, adding that one was now serving his country in production of war material, the other serving in the armed forces. Mr. Provine then asked leave to absent himself in order that he might meet his son, now with the armed forces.

The next business was to vote on 12 Chapter delegates to the A. I. A. national meeting in Indianapolis in May. Ballots were passed and 12 men elected, headed by President Shaw and Vice President Gerhardt.

The chairman next referred to a new postwar committee of the Chicago Common Council. Among the things this committee proposed, were changes in the Chicago Building Code and it behooved the architects to take a live interest in the matter if they expected to have any influence in these changes. Certain speculative real estate and building interests were showing such live interest to have changes made to suit their views, that it behooved the architect, with his perhaps less selfish interest, to make his position felt.

The next and last question discussed was the Illinois Professional Engineering Act that had been declared unconstitutional by the Sangamon County Circuit Court. Much interest had been aroused by the judgment of the court as presented in the February-March I. S. A. Bulletin by Mr. Fuhrer. This interest was shown by both architects and engineers. The discussion this evening revolved around what the Illinois Supreme Court would hold, and further voiced the feeling that a new and more carefully drafted engineers' bill in whose wording engineers and architects should participate would be the proper and logical end of the whole discussion, leaving both engineer and architect in a fraternal and cooperative frame of mind. Among those participating in this discussion were Messrs. Ryan, Matteson, Schmidt, Jensen, Gerhardt, and Fuhrer. The chairman announced that the committee's letter appeal to architects for funds to see the case through the Supreme Court, had been responded to generously and up to date more than \$1,000 had flown in; and architects of southern Illinois were yet to be heard from.

On Tuesday, May 16, occurred the regular monthly Chicago Chapter A. I. A. dinner and meeting held at Normandy House, with 16 in attendance. President Shaw was still or again absent. Ditto Secretary Furst. So Vice President Paul Gerhardt, Jr., presided; and L. Morgan Yost functioned as secretary. Yost's reading of the secretary's minutes of the April meeting was approved without change. Chairman Gerhardt then took up the report of the nominating committee who had selected a ticket for officers and directors for the chapter year 1944-45. This ticket nominates practically all the present incumbents except Charles Dornbusch. J. Howard Raftery's name takes the Dornbusch place. The president reminded the meeting that nominations from the floor at the June meeting were always in order. Jerrold Loeb proposed a telegraphic message to President Ashurst who is in the hospital. The message carries a wish and hope for a speedy recovery.

With the regular business disposed of, Chairman Gerhardt called upon Elmer Jensen to introduce the special speaker of the evening, Joshua D'Esposito, an engineer resident in Chicago since the present Union Railway Station was projected. Mr. Jensen had prepared a written introduction citing all the important jobs and

committeeships D'Esposito had held since he became an engineering draftsman for a railway in Pittsburgh. With this completed and the customary applause, Mr. D'Esposito rose to talk on the subject "Chicago Transportation Problems—Have They a Solution?" The speaker cited the enormous difficulties that surrounded a satisfactory solution. He began with the city transportation lines—the street railways, the elevated lines, and the bus lines. The first two were in such a pitifully bad financial condition that every solution proposed seemed hopeless because of lack of funds and inability to raise funds. The Chicago Common Council made efforts and passed resolutions which were uniformly turned down by the State Commerce Commission. Then the Mayor had proposed an entity of all these lines through purchase by the city. This also was received with raised eyebrows and skepticism. It got nowhere. The speaker said tracks on street surfaces were on the way out.

The speaker then took up the question of railways centering in Chicago, and drew a repellent condition because of tracks entering the city from every direction. Unification into a railway terminal was the only way out. But that unification was not in sight. The transportation committee of which D'Esposito is a member (or is he chairman?) had considered 74 solutions, none of which was satisfactory. The railways are now in the money because of heavy war transportation. What condition they will be in to undertake such a large operation in postwar days, is an important question.

There were questions and answers following his address. These brought out many interesting points, but it cannot be claimed anything in the nature of suggested solution. The speaker hoped that the architects, as a body and individually, would not only lend their interest but their influence in rejuvenating Chicago in the matter of transportation.

Michigan Society of Architects' membership of over 400 this past year is very satisfactory. It was cut down for two reasons: The changing of the fiscal year to January 1st, left out many who usually waited to pay in January or February. The other cause was that a number had the erroneous idea that the Society was going out of the picture. This is far from the case. The Society will go on stronger than ever. It is true that it will relinquish local activities to the chapters, but it will take over all state activities. This is as it should be and is the unification goal for which we have been striving.

—John C. Thornton, President
Michigan Society of Architects

Indigenous Form, Function, Site

The Editor: An extract from a letter from Horatio Greenough to Ralph W. Emerson written about 1845:

"Here is my theory of structure; a scientific arrangement of spaces and forms to functions and to site; an emphasis of features proportioned to their GRADATED importance in function; colour and ornament to be decided and arranged and varied by strictly organic laws, having a distinct reason for each decision; the entire and immediate banishment of all make-shift and make-believe."

This was from a sculptor and is quoted in *THE FLOWERING OF NEW ENGLAND* by Van Wyck Brooks; page 453, 1937 edition.

Sullivan may have seen this and condensed it down into his famous aphorism of "form follows function," etc.

Greenough is also referred to in Merle Curti's *The Growth of American Thought*, this year's Pulitzer prize winner in history, as follows:

"This sculptor, of whom Emerson once remarked that he would, if he could, bottle up commerce with Europe in order to insulate the American from the foreign influence that denationalizes him, took his fellow countrymen to task for borrowing architectural forms for purposes utterly alien to those of their first uses and then, by way of adaptation, spoiling the original beauty which consisted in the harmony of materials and lines to use or function."

My only reason for sending this to you is that famous sayings are seldom first said by the famous men to whom they are generally attributed.

—G. Harold Smith

Chicago's First Tall Building

*Excerpt from a forthcoming book on
the Evolution of the Skyscraper*

By Frank L. Davis

On the first of August, 1880, it was reported that plans were expected from the East, but the name of the architect was not mentioned. While work was under way in October, a building permit was issued to the Chicago Sugar Refining Company for their Glucose Works on the south side of Taylor Street between the River and Beach Street. Beech Street skirted the Pittsburgh & Ft. Wayne R. R. right of way on the east. The Construction Engineer was Thomas Gaunt of New York.

The property was approximately 700 ft. on Taylor Street with a River frontage of 400 ft. The building was placed 50 ft. back from Taylor Street and about 100 ft. from the River and was divided into three sections by two north and south fireproof walls. The center section was much the lower and only 50 ft. wide; the west one larger and higher than the one to the east; the whole covering 41,000 sq. ft. of ground into which were driven 8,000, 40 foot piles.

The eastern portion was known as Filter House F and Charcoal Tower G, 113 x 77 feet in area consisting of basement, eight stories and attic with heavy brick exterior walls up to and including the attic and a two story tower. There were iron posts, girders, beams and brick floor arches up to the seventh floor; above that floor they were all of wood.

The main or western portion which was known as Sugar House A, 151 x 152 feet, covered nearly 23,000 sq. ft., was described by the press both as twelve and as eleven stories and basement, while the survey for insurance said "basement, eleven stories and attic." The heights of the stories were 10'-4" basement, then 16'-6", 15'-11", 7 x 11'-10", 2 x 12'-0" with 12'-0" attic, plus say twelve floor thicknesses of 1'-2" each would be 175'-7" checking closely with the report at that time of 180'-0" high. The floors were described as "double, of heavy planks on large joists, sufficient to sustain over 500 lbs. to every superficial foot of surface, in addition to floor weights."

The brick walls, laid in half lime and half cement mortar, were 45½" thick at the water table, gradually diminishing to 16½" for the attic story. All windows and connecting openings were protected by double iron doors. There were no cross walls; the floors were supported on very heavy oak posts, with pine girders and beams and all the door sills were raised so the floors could be flooded in the event of fire.

The posts were about 15'-0" apart east and west and about 14'-0" north and south. Iron tie rods as shown by outside anchor heads were placed in the floors along the line of posts in both directions. On the roof was an iron water tank with a capacity of 25,000 gallons connected with a 4" stand pipe which had 150 feet of hose attached to it at each story.

The operation required 9,000,000 brick, 3,000,000 feet of lumber and gave employment to 600 workmen. The piling was finished by February, 1881, the brickwork was up to the eighth floor by August and was finished ready for the roof by the latter part of October. Located more than a mile from the business center, the operation did not arouse the public interest it deserved, even though it was Chicago's first really tall building.

'Twas the two hundred and forty-eight foot chimney, with its coal-black plume waving in the sky, that took their gaze off the Old Water Tower and put a cinder in Chicago's eye. There were no new constructional principles exposed in this big twelve-story processing building that did stay inside the site and did not sink out of sight, but was a mark to shoot at, and it was up to the Chicago architects and engineers to raise their sights and get the range.

The monument commemorating the battle of San Jacinto stands on the battlefield in the outskirts of Houston, Texas. It is a 570 feet high reinforced concrete obelisk, sheathed with Texas buff limestone and capped by a 35 feet high five pronged star.

The obelisk grows out of a 124 feet square block at the base, said base being a museum of history. The monument was dedicated December 7, 1941. Its cost is given as \$12,500,000. The Bulletin, in an early issue, plans to give its readers the names of architect and engineer and more detailed information.

"Master Plan of Residential Land Use of Chicago"

CHICAGO PLAN COMMISSION, 1943.

A Review by Earl H. Reed, A.I.A.*

"Residential Land Use" has been recently issued by the Plan Commission. Here are four meaty chapters presenting a complete picture of Chicago housing conditions and a long term remedial plan as well. There are many diagrams and maps, including ingenious overlays and a photo sequence of home building in Chicago of unusual architectural interest.

It is a chef d'oeuvre of urban land study and deepens regret for the departure from Chicago of Dr. Homer Hoyt, under whose direction it was produced. Comm'd T. T. McCroskey's Master Plan, now being developed by Director Kincaid and the staff under J. Howard Raftery, is perhaps more often mentioned than understood. It consists of a series of related studies like the present one accompanied by maps and other material as required. It must be painstakingly and continuously formed—and executed as opportunity offers. As noted by Harry T. Frost, late veteran city planner, the task is a joint one requiring a policy making Plan Commission of public spirited citizens able to realize beneficial plans, as in the days of Chas. H. Wacker. An exclusively plan-making executive staff backed by competent research should develop them. Recommendations contained in "Residential Land Use" are a challenge to both.

An orderly step-by-step plan is presented for redevelopment of Chicago's residential land pattern up to 1965. It is realistic and economic in approach, all salvageable values are conserved and there is no indulgence in fantastic ideas of planned decay and resulting decentralization.

As a prelude to understanding the city's residential structure "Residential Land Use" first outlines all non-residential elements. Historical development of dwelling types and the grouping of present types of structures, age, condition and rentals then follows, utilizing here as in other portions, Chief Engineer Hugh Young's excellent Land Use Survey data.

As a basis for replanning, classification of residential areas according to expectancy of future useful life has been made and shown in a notable series of maps. The picture presented is not a flattering one. Over 800,000 Chicagoans live in roughly 22 square miles of blighted and near blighted area under substandard conditions. The character of our city is unsatisfactorily set by an additional 4 square miles of conservation area now headed for disintegration. Our heterogeneous stable areas, "stable" principally on account of relative newness, lie outside the conservation area belt. Monotonously planned bungalows and tall apartments depriving adjacent areas of air, are important features of our best areas. Remaining ones are arrested and progressive development, new growth and vacant areas they are all precisely indicated.

In summation the Commission recognizes four types of problems: the clearing and rebuilding of blighted and near blighted areas, the thinning out and remodeling of conservation areas, the filling in of vacant gaps in stable, arrested and progressive development and new growth areas and the development of new type residential communities in outlying vacant ones. In blighted and other areas, present "grid-type" street lay-outs are suggested to be modified and blocks regrouped as for Woodlawn. Appropriate types of structures with accent on row-houses, are indicated for the entire city. Densities of population have been balanced by thinning out at the center and increase along the periphery in accordance with recent exhaustive studies of population by the Commission.

The final recommendation is the replanning of all our communities for protection against traffic and other intrusions now prevailing. Each would be provided with schools, recreation and all other facilities for improved city living as tentatively shown in the "Near West Side Neighborhood." These communities, it is indicated, are to be integrated with express highways, city wide recreation and commercial and industrial land uses.

Land acquisition, building finance, legal and kindred problems which must be solved in order to bring the above program of city redevelopment into being, have been squarely faced by Homer Hoyt and his colleagues in "Residential Land Use." All previous efforts are reviewed and new suggestion offered for solutions on pages 83-85 and 133-134. They deserve most careful consideration. The energies of the Commission will doubtless be centered on efforts to

and a practicable answer here, since it constitutes the sine qua non of urban rehabilitation. Without means of realization meritorious plans are futile.

This reviewer has happened to observe at close range the development of "Residential Land Use" and also of the Chicago Plan of 1909—now so seldom cited. They are complementary in nature, residential aspects having been scarcely touched upon by Burnham and Bennett. But the same breadth of vision and zeal for city improvement characterizes both. Much of the Chicago Plan has already been built into Chicago's fabric and continues to be. The memory of its widely acclaimed architectural qualities still resides in the minds of many citizens. It might then be profitable both from considerations of potential benefit and practical policy for the Commission to initiate a formal reappraisal of the Chicago Plan. Three decades since its official adoption have brought greatly changed conditions.

Suspicion is strong that many of its recommendations still hold true. What of the Civic Center, the Railway Terminal and other locations? Moreover, the grand axial pattern of the Chicago Plan, specifically derived from existing features—river and old highways converging on the lake at Congress Street—might prove to be the very means needed by the present Commission to "integrate" diverse city elements. Only thus or by application of comparable architectural means, (of dubious existence), can the alluring communities for living be worthily unified with the work and play elements to form the finer city envisioned in the "Master Plan of Residential Land Use of Chicago."

Carl Reed locally represented the Home Owner's Loan Corporation organization of the Woodlawn Conservation Project, promoted by Pierre Blouke, Advisory Architect. It established a pattern for the protection of urban home neighborhoods against decay through community rehabilitation. In 1941 he served the Chicago Plan Commission as Consulting City Planner on the Woodlawn physical studies and again the year following on the Near South Side replanning studies. Informally he contributed to the Commission's "Forty Five Cities" and participated in numerous inspection tours of the city with Homer Hoyt and his research staff. He was consulted on minor architectural phases of the present volume.

For a person to be comfortable, thermally, he must lose body heat at the same rate at which it is produced within the body. The rate of body heat production in human beings varies from about 100 Btu/hr for a small child at rest to about 4,000 Btu/hr for an adult engaged in violent exercise.

For an adult at rest or engaged in only light activity, the rate of heat production is about 400 Btu/hr. If he loses heat at a higher rate, he feels cold; at a lower rate he feels too warm; if he loses heat at the rate of 400 Btu/hr he feels comfortable.

—F. E. Giesecke, past president
Am. Society of H. & V. Engineers

To be comfortable at zero is the theme of experiments now being conducted at Purdue University's Department of Housing Research under the supervision of Carl F. Boester. Based upon radiant heating theories, Boester's ideas would have a tremendous impact upon conventional house design and construction. He points out that, if it is unnecessary to provide a bathingsuit-clad skier in Sun Valley with a portable radiator because the snow surface reflects sufficient sun heat to keep the skier warm, it should not be necessary to provide a heat resistant wall for buildings. Instead, he proposes an electrical heat source and heat reflective interior wall surfaces which need not resist heat transmission. Walls could be thin aluminum shells. We wish we knew more about this tantalizing prospect. When we do, we will pass the information along.

—Pencil Points

Architects young and old—modernists and traditionalists—have spoken and written much about the depressed state of the architectural profession. The majority seem to agree on one point—that our profession has reached a low-watermark. This is not only not so, but a defeatist attitude. Our method of expression may be changing—but not what we have to say.

—William A. Delano in *Journal of the A. I. A.*

Wider Horizons for Community Planning

On Tuesday, May 2, 1944, Dr. Clarence A. Dykstra, President, U. of Wisconsin, spoke before a joint meeting of the Chicago Plan Commission and The Chicago Association of Commerce, at a luncheon in the Stevens Hotel, Chicago. The subject of his talk was "Wider Horizons for Community Planning." Mr. A. H. Mellinger, Chairman of the Chicago Plan Commission, presided. First to be introduced was Mayor Kelly of Chicago. The Mayor gave a brief talk in which he enumerated the recent accomplishments of the City of Chicago in transportation, recreational facilities and in the growth of its industries.

Dr. Dykstra spoke next. He urged the need of coordination between municipal authorities and private interests. He spoke on the need for proper living conditions for the workers and made clear the necessity for removal of slums and adequate provision for educational, health and recreational facilities. He discussed the need of proper transportation for the employed in traveling between their homes and their places of employment and the necessity for provision of convenient shopping facilities. To maintain the city's financial and social security, the worker's living conditions must produce contentment.

He emphasized that all of these conditions must be considered by the municipal authorities and the citizens alike; that differences affecting either group must be met on common ground and be amicably adjusted. He stated that without these conditions existing, industry could not be maintained and there would be no means of obtaining revenue for the proper operation of the civic services necessary to a community.

In closing, he stated that the future pattern of a city would be determined by the ability of its residents to have good homes, in proper surroundings, with an opportunity for continuous employment, so that health and security would be assured.

—William J. Ryan

The annual meeting of The Producers' Council at Indianapolis in early May was cancelled with the cancellation of the A. I. A. meeting. The Chicago Chapter of the Council held a special dinner and meeting on the evening of May 3 in the Merchants & Manufacturers Club, Chicago, with the national officers present. C. J. Cullen, Chicago Chapter president, presided. National President Douglas Whitlock spoke on planning the future of construction and announced the Council's joining the U. S. Chamber of Commerce Construction Group. The subject "Bidding Practices" followed in the addresses of Managing Director Follin, Messrs. Sansone and Morse. Mr. Follin said the Council's postwar plan was finished, awaiting application. Open discussion of the subject was invited though little more was added. I. S. A. and Chicago Chapter A. I. A. officers and directors were present as invited guests.

The Citizens Conference on Postwar Planning under the auspices of American Planning and Civic Association has issued invitations for a meeting in St. Louis, Mo., June 14, 15, 16 at Hotel Statler. Addresses by the following well known men are programmed: Ernest J. Russell, St. Louis; Horace M. Albright, New York; Frederick A. Delano, Washington, D. C.; H. Evard Kincaid, Chicago; Thomas C. Holden, New York; Edward Bettman, Cincinnati; Rodney Gibson, Omaha; Robert Kingery, Chicago; Major Gen. U. S. Grant, 3rd, Washington, D. C.; Newton B. Drury, Director National Park Service, Chicago, and many others.

Registration fee is \$2.50; three conference luncheons, one dinner, municipal opera, river trip and registration—\$12.50.

Harvey Wiley Corbett is chairman of a committee that has already arranged for an exchange of survey exhibits between the Soviet Union and America of Soviet architecture and planning. The committee's address is 232 Madison Avenue, New York 16, N. Y. The committee intends to be a medium for an exchange of data on housing, community planning, industrial building, new materials, building methods, and problems of postwar reconstruction.

An Estimate of Lutyens' Architecture

*Excerpts from an appreciation in the
Journal of R.I.B.A., January 1944*

The transcendent skill that Lutyens possessed in the pictorial combination of building forms and the lovely shaping of those forms in themselves was acquired in the practice of domestic architecture, and it is therefore upon his domestic architecture that any estimate of his total achievement must in the first place be founded. He worked in an age that was gradually losing all fixed standards of artistic propriety, but which was still susceptible to the poetry of form. With little law beyond his own mood, sometimes his own whim, he did, in his art everything he felt inclined to—suitable things, unsuitable things, logical things, illogical things; and he did them all quite beautifully. In his many efforts to recapture completely the architectural atmosphere of the late seventeenth century he set himself a peculiarly difficult task, since in that atmosphere so many elements were accidental at the time and at any other time must be evoked artificially. The fascinating confluence of fine craftsmanship, sound and comely building materials, native tradition, French and Dutch fashions, that had mingled with the products of a brilliant and slightly perverse invention to produce what most Englishmen worship as WREN—that confluence, if a Wren Redivivus was to bring it together again, had to be all his own work from the start. This was sometimes Lutyens' undertaking, and so great were his powers and gusto that he often ran past his goal and improved upon his model.

Lutyens sometimes let his great tenderness for the memory of Sir Christopher support him in small cognate naughtinesses. The design that he has left behind for a cathedral grander than St. Paul's is a miracle of self-assurance and consummate technique, and promises a wonder of Christendom. So relatively small a part of the huge area covered will have any view of the High Altar that the conception may be said to be architecturally that of a pantheon, of a fusion of numerous very stately temples; in the central and largest of which will assemble the worshippers at the principal rite. When it is realized that that central temple can contain the congregation to be expected in a city of the size of Liverpool, the dimensions of the whole stagger the imagination.

To most of us the entire conception needs more intense study than has yet been possible before it can be critically judged. That its author should not be here to guide its realization and growth is a major architectural tragedy.

The largest undertaking that Lutyens brought to a conclusion was his share of the great works at New Delhi, where, in spite of the disasters that always seem to attend architectural collaborations, his personal achievement is of outstanding excellence. At Delhi there could be no country gables or Surrey carpentry to set off the solemnity of dome and portico—but charming, veiled, allusions to native architectural forms are brought to serve the same purpose. The front of the Viceroy's House shows its designer's technique, and his peculiarities, at their highest. Nothing could be better done, and nobody else could have done just that thing.

*H. S. Goodhart-Rendel
Past President, R.I.B.A.*

The newest addition to the University of Illinois' facilities is a 722-acre class 4 airport which will be ready for use by fall. This will be the center for an aeronautical program which will touch almost every part of the university, not only engineering but also commerce, medicine, law, agriculture, architecture, and many other fields. University committees have prepared plans to meet the educational needs of returning war veterans and war-plant workers and of young people training for service and leadership in the postwar world. The university is ready to train the workers and to tackle the problems of peace. Indeed, it already is doing so, and need only expand its activities when victory comes.

At an exhibit, sponsored by the magazine Modern Plastics, a transparent lunch box made from cellulose acetate was exhibited.

Privacy has been invaded enough.

We don't intend to reveal to every Tom and Harry what we are going to eat for lunch, and if the thermos leaks we don't intend to spend half our free period cleaning the bucket, so that we will make a spick and span appearance on our way home.

(Continued from Page 4, Column 2)

into four parts. Part One comprised of still pictures, showing section and diagrams and details of spans, their reinforcement, their structure. Part Two was moving color pictures of buildings for the War Department, beginning with the erection of wood centering rollers, said centering dropped a few inches to be moved along its entirety ready for the next sectional reinforcement placing and pouring. The curvature is such that only wood centering on the under surface of the concrete is necessary. No top centering is used.

Part Three, again moving pictures in color, showed the application of this construction in industrial buildings and distinctive features pointed out. In answer to the question how many days the wood centering was left undisturbed under the newly poured concrete, the speaker said, "From two to four days"—certainly a rapid movement. In comparing this modern shell arch construction with the ancient structures where thrusts are counteracted by dead weight in huge buttresses, he stated that the modern shell reinforced concrete construction weighed about one twentieth of that of the ancient arches.

Part Four was devoted to navy buildings, principally hangars. The huge iron sliding doors, the catwalks on the roof, the cantilevered concrete platform above the doorhead, and other features aroused curiosity and interest. The speaker was asked how long a span had been achieved in this construction. The reply was that a San Diego building spanned 192 feet. The speaker also mentioned cost per square foot of these buildings as compared with those constructed of wood and steel.

A guest architect from the Pacific Coast present, a man well known to many, was introduced and asked to speak. This man is Kem Weber, with headquarters in southern California, whose work is not confined to California but is found in various other states—a man of fine architectural training and experience though practicing not as an architect but as a "designer." The President called on Arthur Woltersdorf to introduce Mr. Weber. Mr. Weber responded gracefully, pointing out his friendly relations with the Southern California Chapter A. I. A. members. He said further that though he was a modernist in design as he assumed all architects in his presence were modernists since they were building for use today, he did not disparage the work of architects, designers, and engineers who had gone before. In fact, in his home he was surrounded with many carvings and objet d'art of historic periods. In closing, he expressed his pleasure at finding himself in the company of Chicago architects.

The Russians have a practice of firing a couple of hundred guns to celebrate a victory.

Churchill would rather have the British do their victory celebrating by ringing bells.

Pennsylvania's Representative Hugh D. Scott offers an American formula:

"The United States should celebrate its next victory by firing a couple of hundred bureaucrats."

Frederick E. Gatterdam, Chicago architect retired since 1938, died in his home at Alamo, Texas, March 28, age 79. He had practiced in Chicago as a brewery architect for 50 years. He had been a member of the Illinois Society of Architects.

William G. Krieg, Chicago architect, died in his home in Riverside, Ill., April 13, age 70. Mr. Krieg was born in Chicago. He first practiced in partnership with F. E. Gatterdam as Gatterdam & Krieg, Architects, 1896-98; with T. T. and M. D. Hetherington did town planning and architecture of the Florida town Indrio, 1924-25; on appraisal work and street widening for the Chicago Board of Local Improvements, 1925; in recent years he practiced in association with his son Arthur W. Krieg. Mr. Krieg was founder and first president of the former Midland Terra Cotta Co. He was a member of the Illinois Society of Architects since March 1910.