

THE
OCTAGON

A Journal of The American Institute of Architects



The Washington Situation

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Architects Society of Ohio Convention

Design and Construction of the Dwelling Unit for the Low-Income Family—Part I

Technical Services Department — With the Chapters

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THE OCTAGON

A Journal of The American Institute of Architects

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The Washington Situation

AS RELATED TO PRIORITIES AND TO THE SPAB RULINGS

The number of inquiries which have come to the officers of The Institute in connection with the release of October 9 from the Supply Priorities and Allocation Board (SPAB) makes pertinent a statement from The Institute on that situation.

Immediately, and following inquiries which had previously been put under way, The Institute initiated collaborative action with the American Society of Civil Engineers, the Associated General Contractors, The Building Congress of New York, and the Building Congress of Chicago, and other organizations whose members were affected by and concerned with the Government's action. Communications were sent to the Associated General Contractors whose Executive Committee was meeting October 15 in Detroit; and to the Board of Direction of the American Society of Civil Engineers, then meeting in Chicago. At that time the New York State Association of Architects was holding its annual convention at Syracuse where The President of The Institute and two of the Directors were in attendance. The SPAB release was discussed with professional men there.

The Board of Directors of The Institute was about to hold its semi-annual meeting in Washington and each of the Directors was especially advised of the SPAB announcement, and was asked by The President to review local regional conditions in his territory and to be prepared to report to The Board as a basis for special action in this connection.

Conference was held with Mr. Sullivan W. Jones, Chief, Housing Priorities Branch, Office of Production Management; and a communication was

addressed to Mr. Donald M. Nelson, Director of Priorities, OPM.

Mr. Nelson arranged to have his representatives meet with The Board of Directors and accordingly Dr. Samuel S. Stratton, Technical Consultant to the Director of Priorities, OPM, and Mr. Charles Henri Rush, Priorities Specialist, OPM, met with The Board on the afternoon of Friday, October 31, at The Octagon. The conference thus made possible was very informing and helpful. Opportunity was given for members of The Board to express to these Government representatives the difficulties in which the architects of the country found themselves as a result of the SPAB announcement.

It was made evident that the difficulty arises from the distribution of building materials and processed goods between defense construction and civilian construction to meet the demands of each of these activities. It was recognized that it is the business of OPM to make certain that the Army and Navy have adequate supplies for defense; that Government must be supplied adequately to make possible carrying out the lend-lease program; that defense housing has the right-of-way over private residential developments not associated with the defense areas.

Civilian construction, that is, the private building industry, does not question directly any of these propositions. It does ask some questions which are implicit in the statement of the propositions:

1. Are the demands of Defense, Lend-Lease and essential Housing properly gauged?
2. Are the available supplies of critical materials accurately measured?

3. Is the proportionate allotment fair?
4. If the answers to these three questions are in the affirmative, are there then materials available for private building?
5. Why are some industries, the automotive for example, allowed to operate on a one-half capacity-basis while building construction is stopped altogether (if it is)?

Let's look at this last question first. The dollar volume of defense construction for 1942 is expected to be approximately \$6,000,000,000. It may be much more. OPM estimates non-defense or civilian construction to be \$2,600,000,000. If the total of these two figures, \$8,600,000,000, were even approached, the building industry would find itself engaged in one of the greatest building years since the depth of the recent depression. This would seem to present for the building industry a condition much better than that permitted the automobile manufacturer.

But, it is argued, this is beside the point. Certain phases of private building are evidently about to be stopped entirely for an indefinite period. In the face of the copper control restriction for instance, there can hardly be any other conclusion drawn than that an indeterminate sentence is being applied to certain types of civilian construction, since copper is today a fundamental element in wiring for light and power, in plumbing installations, in flashing and in other construction uses.

It is on this point that protest is made, and it is just here that the first four questions above stated, particularly the fourth question, appear pertinent.

Architects, engineers, builders, material supply men and labor have the right to require that they be shown that the demands of essential construction exceed the supplies of essential materials; they have the right to ask Government carefully to consider the private building industry's right to live and to recognize that the life of the building industry is an important factor in the economic well-being of the nation as a whole.

Recognizing the importance and the fairness of these questions and others which will arise, The Board of Directors, at its last meeting, authorized a special representative in Washington to deal with what, in a colloquial sense, is called "the Washington Situation".

Edmund R. Purves, of Philadelphia, a former Director of The Institute, has accepted the task of pinch-hitting in this position, to which he brings special qualifications. Mr. Purves is a practising architect of long experience, and understands the nature of the difficulties which the architects of the country are facing. During the past year or two he has been very much in Washington, giving his time in the service of The Institute dealing with Government offices and officers, placing before them the cause of the architects, their qualifications for carrying on work as professionals in private practice, and their right to suitable compensation for a service satisfactorily performed. He will work through the office of The Institute and will collaborate with the Executive Secretary and with the special representatives of other professional or building industry organizations who must deal with the same condition with which the architects are concerned.

Members of The Institute desirous of expressing their views or urging action in this situation, or wishing to secure information about these conditions, are invited to write to Mr. Purves at The Octagon, with the assurance that their communications will receive prompt attention. This has to do especially with questions relating to national policy. Where questions have to do with local conditions the writers should communicate with the Regional Directors, each of whom is desirous of being of service to members of The Institute and especially those in his regional district.

It is hoped that members of The Institute will recognize that the Officers and Directors and the staff at The Octagon are giving the SPAB-OPM dilemma the attention which it should have in the interests of the profession and that the Officers and Directors are acting to safeguard the architects' interest. Further announcements dealing with special conditions in this situation will be issued to members from time to time as conditions warranting such statements develop.

Meanwhile your representatives are determined to do all that they can, and to yield in their advocacy of the rights of the profession only when it is evident that the public welfare requires that "business as usual" must be suspended in the face of a greater necessity.

R. H. SHREVE, *President*

Opportunities For Architects In Defense Areas

BY HOWARD LELAND SMITH, A. I. A.,

CHIEF, ARCHITECTURAL SECTION, TECHNICAL DIVISION, F.H.A.

MEMBERS of the architectural profession located in defense areas have an obvious opportunity today to provide professional services through the "Repair for Defense" program of the Federal Housing Administration.

It now appears certain that non-defense construction—together with other "business as usual" activities—will be sharply curtailed in the near future. Consequently, it behooves the architect who wishes to continue practicing to explore every avenue still open where his services can and should be employed.

The need for defense housing in rapidly expanding defense areas has become a major national problem. To help meet this need in the least possible time and to use as little critical materials as are consistent with sound construction, encouragement is being given to the rehabilitation of old houses suitable for conversion into multi-family use in designated defense areas. Rehabilitation will not only conserve vital and strategic materials but will furnish considerable activity for the building trades and its allied industries during the emergency period. Perhaps the most beneficial effect of the FHA repair program will be the conservation and preservation of many of the valuable old properties which are a part of the nation's estimated 80 billion dollar investment in homes.

Critical materials needed for housing in defense areas will receive favorable action by the priorities officials having jurisdiction, if and when the project has been properly designated as such. Wherever possible, avoid the use of critical material listed on the Defense Housing Critical List to prevent possible delays. The use of substitute materials wherever feasible is required.

In estimating the possible income and the economic soundness of a proposed rehabilitation job, priorities are limited by a general ruling to units having a shelter rental not in excess of \$50.00 a month.

Every encouragement in both financing and pri-

orities is being offered to rehabilitation at the present time.

To encourage this type of work, Congress recently amended FHA's Title I terms. Lending institutions are now insured against loss on Title I loans up to \$5000 (with repayment up to five years) for financing alterations and repairs which create additional defense housing units.

Priority preference is given to materials which are to be used for improvements which add to the supply of needed defense housing. Furthermore, the Federal Reserve Board's new Regulation "W", which places restrictions on most types of consumer credit, specifically exempts the financing of property alterations which create additional housing for defense workers.

An amended Title I, priorities preference rating, and lack of credit restrictions add up to a favorable "climate" for a considerable volume of repairs and rehabilitation work.

Intelligent leadership combined with exceptional vision and technical skill will be necessary, if real and lasting benefits are to be obtained. It seems logical, therefore, that the architect, by reason of his experience and training, should assume a large share of this leadership. He can act as counselor and guide through various phases of the operation, since many owners of deteriorating properties are not aware of the possibilities for financing made available through new FHA terms. Cooperation from banks and realtors may be anticipated, because both groups are vitally interested in any movement which tends to arrest the decline of real estate values.

The architect who actively devotes his time and energy to this program will find himself contributing to the National Defense effort while he is being remunerated for professional services rendered. It is an opportunity for service in a time when architectural help is most needed. Further information about the "Repair for Defense" program may be obtained from your local bank or from any state or district office of the Federal Housing Administration.

Convention of the New York State Association of Architects

BY MATTHEW W. DEL GAUDIO, STATE ASSOCIATION DIRECTOR, A.I.A.

THE New York State Association of Architects held its Convention in Syracuse on October 16-17-18, 1941. This Convention was attended by delegates of the following Societies, all of which are constituents in the New York State Association.

Albany Chapter, A.I.A.
 Bronx Society of Architects
 Brooklyn Chapter, A.I.A.
 Brooklyn Society of Architects
 Buffalo Chapter, A.I.A.
 Central New York Chapter, A.I.A.
 Long Island Society of Architects
 Mid-Hudson Valley Architectural Society
 New York Chapter, A.I.A.
 New York Society of Architects
 Queens Society of Architects
 Rochester Society of Architects
 Staten Island Society of Architects
 Syracuse Society of Architects
 Westchester Chapter, A.I.A.
 Westchester County Society of Architects
 Western New York Society of Architects

The principal topics were:

Unification of the Architectural Profession
 Attempts to adjust the difficulty existing because of Bureaucratic Architectural Departments
 Attempt to alleviate the situation caused by priorities for building materials.

The Convention was opened on Thursday morning, October 16, by the President, James William Kideney, at which time the Convention was welcomed by the Hon. Rolland B. Marvin, Mayor of Syracuse; Chancellor William Pratt Graham of Syracuse University and by Thomas Lyon White, President, Syracuse Society of Architects. Response was made by President Kideney and immediately thereafter the Convention began its business.

The first session was presided over by Charles R. Ellis, vice-president of the New York State Association of Architects. Subjects discussed were as follows:

"Civilian Protection"—Frederick G. Frost, Sr., key speaker; Harvey Stevenson and Harry Prince.

"After Peace, What?"—Lorimer Rich, key speaker; Geoffrey Platt and C. McKim Norton.

"The Slum and Its Causes"—George A. Boehm, key speaker, and Lemuel C. Dillenback.

The first luncheon of the Convention was presided over by Mr. Kideney. The subjects discussed were "Radio Publicity for Architects" and "Public Relations" by William Lescaze.

After luncheon, the business of the Convention continued at a meeting presided over by John T. Briggs, secretary of the Association, and included the following subjects:

"Housing Trends"—William F. R. Ballard.

"Architectural Forum in Two Parts"—1. "Services of Architects"—Frederick J. Woodbridge.

2. "Fees for Architects"—Charles H. Higgins and Electus D. Litchfield.

A meeting of the Board of Directors was held that evening, at which business matters of the organization were discussed, and at which a proposition was made for the holding of the next convention. After this meeting, the entire Convention had been invited to a reception at the Syracuse Museum of Fine Arts, where there was a preview of Architects' Exhibition and National Ceramic Show, all of which was greatly enjoyed by those who attended.

Friday morning, October 17, the sessions continued, under the Chairmanship of C. Storrs Barrows, vice-president, with the following subjects:

"Effect of Federal, State and Municipal Bureaus", presided over by M. W. Del Gaudio, Treasurer of the Association. Discussion was carried out by Adolph Mertin, Lorimer Rich and others, and a resolution was presented relative to this subject. This resolution was put over for further action by the entire convention.

"The Architect and the F.H.A.", was discussed by Mr. Thomas Grace, State Director of the Federal Housing Administration, who emphasized the value of the architect to his organization, and also the fact that drawings by architects were given preference by organizations passing on plans for loan insurance.

The Friday luncheon was presided over by M. W. Del Gaudio, at which a talk by Daniel E. Bellows, Director, Division of Engineering, N. Y. State Department of Labor, was given on "The Architect and the State Labor Law". In addition to this, there was a lecture on "Architectural Concrete" by A. J. Boase and a film "Know your Money" by the United States Secret Service.

Following the luncheon, the afternoon session was opened under the chairmanship of Maxwell A. Cantor, vice-president, and included the following:

"The Future Scope of the *Empire State Architect*" (a publication of the N. Y. State Association of Architects), discussed by Julian L. Kahle, publisher, and by Albert G. Clay and John T. Briggs.

"Speculative Building", discussed by C. Storrs Barrow, collaborated in by Howard Stone, Melvin L. King and Fred Backus.

"Specifications and Forum", lecture by Harold R. Sleeper and Harry Gall. This was most interesting and instructive.

The Annual Dinner, held Friday evening, was presided over by Mr. Kideney and Frederick J. Woodbridge, toastmaster, and was successful from all standpoints, in that over eight hundred persons attended it, making it, perhaps, the greatest gathering of architects in New York State. At this meeting, it was evident that the desire to unite, on the part of architects, was almost universal, and many differences were entirely cleared up because of the social contacts that this dinner resulted in.

The final session was held Saturday morning,

October 17, and the following subjects were discussed:

"Priorities in the Building Industry", by Thomas Holden.

"Professional Practice", by James O. Hoyle, Director of Professional Practice, N. Y. State Board of Regents.

After this, all the resolutions under consideration by the Resolutions Committee were presented by James F. Bly, vice-chairman. These resolutions referred to:

1—Collaboration by the architects with the O.P.M., and other bureaus in their attempt to make building materials available;

2—Proposition by the architects to work with the Federal Bureaus to the end that greater use of the private architect will result;

3—The Unification of the architects to be pressed, and other resolutions affecting the state organization, were also submitted.

The Convention adjourned at 1 P.M., and reconvened as guests of the Central New York Chapter of the A.I.A., presided over by Paul Hueber, president, and at which meeting R. H. Shreve, President of the A.I.A., was the key speaker.

The entire Convention was very successful, from all standpoints, especially from that of the "Unification of the Architects", and emphasized the fact that unity is not only desirable, but a distinct necessity, in order to obviate the differences between architects, to assist the architects in solving their problems, and for the benefit of the profession as a whole.

Eighth Annual Convention—Architects Society of Ohio

BY WILLIAM M. FERNALD, A.I.A., PUBLICITY CHAIRMAN OF THE CONVENTION COMMITTEE

The Convention was held October 1, 2, 3 and 4 in the Commodore Perry Hotel in Toledo, Ohio, and was under the direction of a Board of Governors selected from local architects headed by Willis A. Vogel as chairman, with the support of Charles A. Langdon, president of the Toledo Section of the Architects Society of Ohio; Harold H. Munger, president of the Toledo Chapter, A.I.A., in charge of A.I.A. attendance; Alfred A. Hahn, member of the State of Ohio Registration Board, in charge of Board members attending from Ohio and adjoining

states; Carl C. Britsch, chairman of the Competition Committee; William M. Fernald, chairman of the Publicity Committee; Myron T. Hill, chairman of the Dance Committee; John N. Richards, chairman of the Attendance and Hospitality Committee; Mrs. John N. Richards, chairman of the Ladies' Reception Committee; Mark B. Stophlet, Convention Recorder, and Horace Wachter, Convention Treasurer.

The entire Convention was worked around the idea of Unification and everything possible was

done to keep this idea in front at all times.

However, realizing that work and play must be properly mixed to make the flavor tickle the palate, entertainment and food were never forgotten.

On Wednesday, October 1, the exhibits were installed and the exhibition judges made their awards. The judges, all from adjoining states, were Emil Lorch, president of the Detroit Chapter, A.I.A.; C. William Palmer, president, Michigan Society of Architects, and Warren Miller, president of the Indiana Society of Architects.

Thursday marked the real opening of the Convention with registration and a business meeting in the morning and a business meeting in the afternoon.

The morning session was marked primarily with the address of George B. Mayer of Cleveland, president of the Society. The entire paper is worthy of quotation but attention in particular is called to the following portions therefrom.

Mr. Mayer called attention to the fact that the Architect, the real Master Builder, was being relegated out of his rightful place at the top of the industry by Government Bureaus and their encouragement of the contractor-engineer, and the operative builder who ignores the architect entirely. Not enough has been done, Mr. Mayer said, to counteract the impression that the architect is a "long-haired, high-hatted individual". The architect is really an extremely practical person who can add "a breadth of fitness to utility and beauty to stark structural necessity".

Mr. Mayer urged all architects to so qualify their work so as to make it worthy of the best in the eyes of the public. He urged revisions in the curricula of many of the schools and offered concrete recommendations to this end.

He continued, "we have been doing too little and doing it too late", and that "the only bottleneck is delay in co-operative action".

After Mr. Mayer's address, reports of State Secretary Kempton, State Treasurer Austin, Charles Firestone of the Magazine Committee and others were read and discussed.

The architects and their wives were guests of the Libby-Owens-Ford Glass Co. of Toledo, at a luncheon in the Crystal Room of the Hotel.

An Exhibitors and Building Industry Banquet was held in the evening, with Mr. Vogel, the convention chairman, presiding. Judge Harvey G.

Straub of Toledo was toastmaster and Wm. E. Hall, assistant editor of the *Toledo Blade*, was the speaker.

After dinner a series of Round Table meetings were held, running into the wee hours of the morning, with Paul G. Hill of Cincinnati as chairman of the "Unification" Committee; Mr. Charles J. Marr of New Philadelphia, chairman of the Building Industry Promotion Committee; Kyle Armstrong of Columbus, chairman of the Code of Practice Committee, and Ralph Carnahan of Dayton, chairman of Radio Publicity.

The luncheon on Friday was held in the Crystal Room of the Hotel, with short talks by Matthew W. DelGaudio, State Association Director, A.I.A., and others, together with a transcribed demonstration of radio publicity under the direction of Mr. Carnahan entitled "What! No Architect?"

At the afternoon session the following officers were declared elected:

President, Paul G. Hill, Cincinnati;
 1st V. President, Ralph W. Carnahan, Dayton;
 2nd V. President, E. Milton MacMillin, Cleveland;
 3d V. President, Willis A. Vogel, Toledo;
 Mem. Exec. Comm., George B. Mayer, Cleveland;
 Treasurer, George M. Foulkes, Canton;
 Secretary, Ralph C. Kempton, Columbus.

A life membership in the Architects Society of Ohio was awarded to Mr. Charles A. Langdon, long active in the A.I.A., and present president of the Toledo Section of the Society.

Willis A. Vogel, convention chairman, presided and Roger Allen of Grand Rapids, Michigan, was toastmaster. Short talks were given by Mr. Mayer, Colonel Harsch, and others from Ohio, along with timely comments from Clair Ditchy and Talmadge Hughes from Detroit.

The address of the evening was given by William Pope Barney of Philadelphia, an architect, educator and lecturer of note. Mr. Barney's brilliant address on architecture was an inspiration to all and encouragement to the younger group of architects. His words and thoughts will be well remembered by all, and his masterly presentation, coupled with a smile and personality all his own, made this meeting an outstanding success.

Directors C. Julian Oberwarth and Matthew W. DelGaudio furnished the meeting invaluable information and comments.

A resolution of national importance adopted by the convention follows:

Whereas, The members of this Committee are in strict accord with the National Government's all-out-efforts for defense; and

Whereas, They are willing to endure the hardships such efforts require, one of them being the operation of priorities on materials of the Building Industry required for defense; *Nevertheless*, they feel that unwise and undue hoarding of these materials in excess of the immediate National Defense requirements tends to "choke" Private Industry; and

Whereas, The majority of Architects and others in the Building Industry are dependent for their daily livelihood upon such Private Industry; and

Whereas, The National Government is in turn dependent upon Private Industry to pay out of earnings a large part of the cost of National Defense;

Now, Therefore, Be It Resolved: That the National Government in its, and its citizens' interest, take such steps to relieve forthwith this undue hardship and to stabilize at reasonable levels the primary, secondary and final costs of building materials used by Private Industry.

The Secretary of the Architects Society of Ohio was instructed to place a copy of the above resolution in the hands of Ohio Senators and Representatives, and such other officers of the Federal Government as may be interested in or have jurisdiction over the policy and regulations governing the question of priorities.

Nominations for Fellowships

THE next meeting of the Jury of Fellows may be held in Detroit, Michigan, in the latter part of June, 1942, at the time of the next Convention, for the purpose of considering the qualifications of corporate members whose nominations for advancement to fellowship are now on file, and those who are nominated prior to December 15, 1941.

The Institute may bestow a fellowship on any of its members who has notably contributed to the advancement of the profession of architecture by his achievement in design, the science of construction, literature, educational service, service to The Institute or any of its component organizations, or public service, and is in good standing in The Institute at

the time of his nomination for advancement, and has been so for not less than ten consecutive years immediately prior to his nomination.

The Jury requests that nominators use nomination form A.I.A. Document S38, in proposing corporate members for advancement to fellowship. These forms have been revised and copies of the new forms can be obtained upon application at The Octagon.

Every such nomination shall be made in writing and addressed to The Jury of Fellows, The Octagon, 1741 New York Avenue, N. W., Washington, D. C.

FREDERICK H. MEYER, *Chairman*,

The Jury of Fellows, A.I.A.

Corporate Members Elected, Effective November 8, 1941

<i>Chapter</i>	<i>Name</i>	<i>Chapter</i>	<i>Name</i>
BALTIMORE.....	Benjamin Frank Georges Rodzevitch	GEORGIA.....	Richard Leon Aeck
CENTRAL PENNSYLVANIA.....	Dean Elwood Kennedy	NEW YORK.....	Addison Erdman Alexander Douglas Knox
CHICAGO.....	Max L. Loewenberg	PITTSBURGH.....	Gerald Richard Black John Irwin Finley Harry Leonard Widom
COLORADO.....	Sidney G. Frazier Grant Amann Wilson	RHODE ISLAND.....	C. Reuben Moberg
DETROIT.....	Victor Carl Adler, Leo John Heenan Paul Raymond Sewell	WEST VIRGINIA.....	Ludvig Theodor Bengtson Ivan Richard Lee Robert Alexander Sheffey
FLORIDA SOUTH.....	George A. Coffin, Andrew J. Ferendino George Clinton Gamble, Norman A. Skeels		

Notes on Design and Construction of the Dwelling Unit for the Lower-Income Family—*Part I

BY ELISABETH COIT, A.I.A., NEW YORK

THE following notes form part of a report on a study of lower and low-cost housing design and construction, made in 1937-9, possible through the award by The American Institute of Architects of an Edward Langley Scholarship.

The sections here assembled are those parts of a wider study, which show roughly the tenant's view of his housing, whether as small owner or as rent-payer in subsidized or other low-rental developments: that is, a review of the dwelling unit, with only incidental consideration of financing, site selection, engineering and planning, combination of dwelling units in the layout of the house, provision for utilities.

My study originally included visits to over eighty developments in the eastern part of the country, mostly definitely lower or low-cost, many of them recent subsidized developments, and most of the rest limited-dividend, cooperative, philanthropic, or outstanding rehabilitation projects. During the past two years I have visited about half as many more: chiefly U.S.H.A. lowest-rental and defense developments. A few examples of practices noted in properties not coming under any of these heads are included as illustrating some point; also in a few cases mention is made of properties which, though not low-cost, differ from it little or not at all in the citation concerned. A few references to European practices are based on observations during two visits, totalling together about a year and a half, spent in pilgrimages from Spain to Scandinavia and from Italy to the British Isles.

No attempt is made here to prove the greater desirability of one or another system, or to set up

a design for living, neither is there any attempt to record all solutions of one problem noted, or to credit to each development the solution there adopted. I have tried to learn what the low-income client thinks he needs or would like to have, and what architects and other experts in the more architectural aspects of home-making think he ought to have, or can have, and how this or that solution works out in practice: collating and comparing, rather than criticizing, the opinions expressed, but keeping in mind always the necessity of reconciling as far as possible expressed desires with the present-day procedure as to cost, design, construction.

Some revision of the report as originally written has been made to include a few points in recent housing experience, but principally to eliminate statements made nearly two years ago and either no longer true or no longer significant: cost and other figures; arguments pro and con on matters no longer under debate; various matters on which other investigators have since published papers; and various sections rather meaningless without the almost three score illustrations—mostly unpublished photographs and drawings—impossible to reproduce in the space here available.

The following abbreviations are used for names of organizations occurring frequently in the text:

A.P.H.A.	American Public Health Association
F.E.A.P.W.	Federal Emergency Administration of Public Works (WPA)
F.H.A.	Federal Housing Administration
F.W.A.	Federal Works Agency
N.A.H.O.	National Association of Housing Officials
U.S.H.A.	United States Housing Authority. Now a branch of the Federal Works Agency

WHAT PEOPLE WANT IN HOUSING

The object of housing, I take to be shelter from excess heat, cold, and noise, so combined with adequate provision of light, air, space, privacy and convenience as to be acceptable, and consequently useful, to those for whose service it is intended. And the business of sponsor and architect I understand to be translation into terms of the building

fabric of current ideas of what is acceptable, and translation in such a way that, like other commodities and services, the housing will normally be paid for by those using it.

Whether, as is the case with education, with an increasingly large field of disease prevention and cure, and with most of the arts, housing for many

* Part II will appear in the November Octagon.

people must be, temporarily or permanently, subsidized by the public rather than paid for entirely by the individual user is a matter of secondary importance to the architect. Of first importance is it that good housing be so designed and so produced that either public or private sponsors consider it a sufficiently good investment to put money into adequate shelter for those needing it.

Good housing for some two-thirds of the nation has apparently not been regarded as a good investment for some time past; nor, in general can it be so regarded at the present time. But today's urgent need, the newer public interest, and the later developments in processes and materials combine to promise that long before the completion of the fourteen million dwellings estimated as needed in the next twenty years, housing will have worked its way at least to the level of other major national industries.

The "American" home today and tomorrow

The problem of ascertaining what any community wants in housing is complicated by our not knowing our community and the individuals composing it, and by our tendency to think of the "American" way of living, or the "American" home, in a country of great extent, with attendant great variations in climate, with rapid development and rapid abandonment of whole regions and entire industries, and with consequent suddenness of the ups and downs of individual families, a country with a population of widely differing national backgrounds and different degrees of assimilation even within one community, with widely different ways of living and vastly more different occupations than any population of equal size on earth. The "American" way tends, further, for all but the most careful observer, to be the standard of the more articulate part of yesterday's people: namely, the well-to-do and the upper part of the middle class, whose solutions of their shelter problem have long been recorded in books and journals—solutions already on their way to obsolescence as the record was being made; whereas housing as it concerns us aims at building for today's workers and would-be workers and their families homes serviceable today and half a century hence.

One can ill picture the details of life as it will be lived half a century hence; and it is only the realization that housing thought really good in any generation has continued to be so considered ages—

or generations—long which justifies present-day expensive erection of housing units unlikely to fall asunder three score years hence, however ill they may function before that time is past. Even at the moment "lag" is well in evidence in our difficulty in gauging equipment needs of members of an apparently homogeneous group: What is their position between industrial production of necessities and luxuries and the home production recently made easy by home-size power equipment for cleaning, laundering, preparation of foods, etc.? The relative costs of home and factory production in foods and clothing are vouched for as about fifty per cent saving through home cooking and from forty-seven to sixty-four per cent saving in home sewing respectively (94). But the measure of satisfaction a home-maker and her family find in home production is a different story; for satisfaction depends on skill and custom as well as convenient equipment, both for the doing and the quality of the results. And these drag some years behind opportunity.

Health, freedom, privacy

In trying to learn what the lower-income family wants in housing, one finds not a little illumination in expressions of what it either does not want or wants only moderately, or relatively with regard to other desirable things. Especially striking is the record of how little apparently some of the not so very poorly housed, as well as the slum dweller, care about modern housing and about the major comforts, conveniences, and safeguards considered their right by safety, hygiene, and other welfare organizations, while valuing highly a feeling of freedom, of independence, and of opportunity for self-expression. Discoveries made by Dr. Davies in his exhaustive examination of about a thousand statements of some eighty objectives or values recorded by housing research organizations, writers in social service journals, etc., (29) are well supported by the reports of housing managers (62, 74, 40), who for the time being best represent to us the ideas and wishes of the lowest income family.

Of these values, as determined by frequency of mention in the literature of the subject, Dr. Davies finds that "experience of freedom, resulting from plenty of room", "privacy", "creative expression of . . . personality", and "economic security" stand second only to "physical health"; while comfort and

decency rank only fourteenth and fifteenth respectively. Convenience comes seventh, safety eighth, opportunity for recreation ninth, and esthetic satisfaction eleventh.

This summary of opinions, not of low-income families but of social experts, which Dr. Davies continues down a long list, tends toward legitimizing some, at least, of housing's heretics: the shanty-town family, not yet aware that a man's home is no longer his castle; the trailer group, still far below Roger Babson's estimate of half the population but estimated as about a million people in 1936 (132), and about twice that number at the beginning of 1939 (141), living in some 600,000 trailers half of which are home made; the conventional family, exemplified by the ten thousand surveyed by a middle-western university, which would like to own a home, but only as thirtieth in a list of desirable things, with waffle-irons in the thirty-first place and vacuum cleaners, automobiles and radios in the first three; and the author of an otherwise convincing government publication on how to plan the subsistence homestead who does not mention the house, not even in his list of references for further information (142).

Then there are the people to whom good subsidized homes renting at little beyond the sub-standard alternative are not desirable if they cost just a little too much and give not enough elbow-room. The N.A.H.O. records for one southern project a turnover of one hundred and fifty families in the first thirteen months (62, Ap. 29, 1939), with twenty-five families moving out in one spring month, while another development reports an occupancy turnover "nearly as heavy", with twenty-two tenants moving out as soon as February brought a pleasant temperature—and this in spite of the management's known policy which "refuses re-admittance of all families who move out merely to satisfy their annual urge for the country". "The situation seems to result", says one of the managers, "from the local habit among certain income groups of moving to the surrounding countryside where the family will have plenty of room to itself, and can obtain at very low cost a house with a porch to 'set on' and a garden to cultivate". Some families in subsidized projects about that time were paying not far from thirty per cent of their income for rent; and the

fact that the percentage of the family income spent on rent by the forty F.E.A.P.W. projects reported on by the U.S.H.A. in 1938 was almost twenty-five (124) helps to explain a certain instability of tenure in quarters of a type for which there is ordinarily a waiting list.

Social intercourse

Some families will not bridge the distance between the new development and the old neighborhood where friends live, although many parents will move for the sake of their children, and some young folk will force the move. "Mother won't want to move; but we'll get her out" (147). Possibly one explanation is that of the London County tenant in new estates who disliked the social "coldness" of the new neighborhood, and moved back to the cosiness of the slum where friends lived (30). Possibly a soft drink parlor and beer garden, in addition to adult education facilities would prove a help to both tenant and manager, more especially in projects housing many tenants who do domestic work, for most of whom physical weariness and lack of prospect of any social or economic advantage combine to make organized evening education rather pointless.

Within the dwelling too, a normal life is desired. The family consisting of a mother and her working son, or of a married couple with an adolescent daughter or an adult relative, may be unhappy in the model subsidized apartment of the type available, however well equipped, the living room of which does not afford privacy for the odd member of the family, either for sleep or for personal affairs; whereas the slum dwelling at similar rent offers at least some sort of separate bedroom, leaving the living room free. Another score against the compact new dwelling is the low-ceilinged room, which, however well arranged, oppresses the family accustomed to the lofty room often found in outmoded houses.

Convenience and order

"Do we", asked a leading civic speaker at the 1938 Washington conference of the N.A.H.O., "need closets in these [publicly subsidized] dwellings? I am not at all sure of their relation to health and delinquency. . . . Every family has a right to . . . the essentials of decent, happy living, but we

can't afford to give any extras. . . ." (80, Sixth: 1938). And the affirmative to this question is undoubtedly the most unanimous demand in housing today. Broom closets, wrap closets, in the hall and near the back door, cool storage closets, kitchen closets near the stove and near the work surfaces, linen closets, bedroom closets, toy closets . . . are demanded almost vociferously by a people still rather inarticulate as regards most of its housing needs. The latest wail is this year's, when Boston's Old Colony, designed for lower-income subsidized housing, was taken over for defense workers, and all discontents regarding lack of privacy and smallness of living space seemed to some of the management to pale by comparison with the universal cry for storage space: no closets within the units except the shallow hanging and linen closets, no basement, no common storage space elsewhere, not even a utility room to help out in accommodating necessary family equipment.

And when the layman rests, the expert takes up the tale. The National Safety Research Institute points out the frequency of serious falls caused by keeping household equipment on the cellar stairs for lack of closet space (31), of falls by people climbing on flimsy furniture because they have no closet in which to keep a step ladder, of children's falls when climbing to a high shelf for toys which ought to be kept in a low toy closet, of accidental poisoning caused by lack of a lock-provided medicine cabinet—not to mention one of the most successful manufacturers of prefabricated houses who in his confidential instructions to his sales staff brackets together "closets and a knowledge of the amount due monthly on the house" as forming the foundation of "that order and security which are at the base of a successful home". Physical safety, which figures little in the homemakers' expressions of their needs and desires, is stressed also by the insurance companies in a day when accidents in the home cause about as many fatalities as those caused by automobiles (5, 31, 89). Falls account for a third of all accidents in the home, and for one-half of the fatal home accidents of aged people, to whom, therefore a ground floor bedroom should be assigned if possible. Scalds and burns are also serious, and should be guarded against by avoiding slippery floors in kitchen and dining spaces.

Space and ease

Convenience, labor saving, possibility of ease and rest in a strenuous domestic life seem to dominate tenant requests. And "clients are not what they used to be, . . . don't plead worthiness . . . but argue their rights", says one social observer. Working people will no more carry heavy baskets of clothing down to the community laundry than will better circumstanced people, if they can at all avoid it, observes one manager, who thinks a laundry lift to basement or roof a reasonable piece of equipment in view of the many wash days in his project accomplished without benefit of the power laundry. A more than convincing instance of the rôle convenience plays is the case of a city project which, having for economy's sake installed coal-burning ranges advantageously acquired, found that applicants were not biting in the sense desired, and when reported on, the project was but eighty per cent rented (74, p. 14), in contrast to the pressure of ten applicants for one dwelling in other projects. And convenience seems to be arrived at by the relatively simple recipe calling for adequate work and storage spaces and for opportunity to dry, if not wash, clothes where they will not irk the family at meals, at home work, and at rest.

Not flush toilets, not bathtubs, not hot—or even cold—running water come first in sanitary equipment desirable, according to a U. S. Department of Agriculture survey in which thousands of rural owner and tenant families in forty-four states took part (144). First place went to a kitchen sink with drain, second to cold water piped to that sink, third came a bath tub with drain, and fourth cold water piped to that tub. Hot water piped to the tub came ninth, but a shower stood next above it in the eighth place. The flush toilet came fifth.

Neither does mechanical refrigeration appear to be an obsession even among the people answering the questionnaire of a utility company (114) who, too, want more closets. I used to think the ice I saw delivered to luxurious metropolitan homes was for the champagne, and wondered at its form and the time of delivery. On investigation I learned that many well-to-do people had not yet even in 1939 been educated beyond association with a quiet old ice-box.

Beauty and amenity

Astonishingly little direct demand for beauty and amenity on the part of the low-income tenant comes to light, beyond the universally expressed desire for order. Even a distinct lack of appreciation of beauty might seem to be indicated in some places. Abuse of lawns is frequently reported. Shrubbery is ill-used. Purchasers of the pretty little Emergency Fleet Corporation semi-detached and group houses in Yorkship (121) near Camden, (now called Fairview) have painted in different colors their respective halves of the porches common to two adjoining houses, or have built additions in such a way as to mar the mass of the building to which their respective units belong. Again, many miners in a Pennsylvania town I visited preferred living in wretched old company houses near a worked out mine to moving to the subsidized dwellings not far away which would cost a trifle more and perhaps somewhat curtail their freedom. And so on.

On the other hand, lack of interest is not necessarily indicated by lack of articulate expression on the part of a people displaying a good deal of interest in such amenities as they can themselves control: cosmetics, dress—especially children's dress—cozy and coquettish interiors with dainty curtains, colored kitchen and table ware, all requiring time, thought, and money to maintain. Indeed, the high degree of skill shown by many housekeepers in making pleasant interiors in substandard houses, and even the very "disorder" of the forbidden fire-escape gardens, are a strong bid for beauty, as are the tenant-maintained gardens frequently seen, and, perhaps strongest of all proofs I have seen, the tenant care of company-owned beautiful old houses at Chicopee, near Chicopee Falls, by people mostly on relief.

A working class is limitedly lettered, and has little opportunity to tell the world what it likes. For social service needs it has many skilled mouth-pieces. I wish some managers would collect for us information on how housing strikes the tenant from the point of view of esthetic satisfaction or the reverse. Some expressions have come to my attention: those of the Red Hook Italian who spoke glowingly of how he and his friends on a sunny Sunday afternoon enjoyed the handsome shadows in his court, of the Emerson Tenement

women eager to show the visitor their pergola-embellished roof, well provided with seats and giving the impression of a pleasant club well frequented on the chilly afternoon I was there, and the eagerness of women in another development that I should see the nicest suite—for its fire-place, of all things.

Poverty has been thoroughly legitimized during these last years, and the pride of the poor dies harder than ever it did—and much less piteously. Toil, too, is worn with a difference: Katherine Anthony's long accepted picture of "Mothers Who Must Earn" (7) and Jacob Riis' account of "How the Other Half Lives" (109) are no longer true. Mothers who go out to work as well as running their own homes have more mechanical aids today, and generally improved conditions, with corresponding improvement in health, spirits and looks. The fight to keep up appearances now takes on a different form, including a little bridge and a measure of brightness and beauty—heaven-born, perhaps, but profitably nourished by a good psychologist named Woolworth.

Notable, by the way, is the success on the part of managers of many low-rental projects in establishing and maintaining those pleasant relations which enable the tenant to get the maximum use and enjoyment from his new housing. Striking, too, is the economy in maintenance where tenant cooperation seems strongest, and astonishing the extent to which good management can minimize the weak points and enhance the strong points in design. From among many visited it is a thankless task to select: but the neatness and the sense of well being at some projects is striking: Stanley S. Holmes at Atlantic City, Old Harbor Village, where one gardener suffices for 1,013 units, Yonkers, where tenants have done planting and made the curtains for their own halls and for the Housing Authority office, and many more.

Dr. Goldfeld's "Diary of a Housing Manager" is as readable as it is packed with useful information on tenants' needs and views (40); and the various tenants' handbooks, letters of welcome for incoming tenants, as well as discussion of managers in council (62, 74, 80: Ninth, 1941) are a source of practical information useful to the architect who, as a rule, has little opportunity to learn many economic-national-racial complications of gen-

erally human needs. In this connection mention should be made of Mr. Kastner's suggestion that the architect and his family should live in the project he has designed (preferably in the least desirable unit) as a source of information on what the "housing consumer of the lower-income strata" needs in housing (66).

People want what others have, whether a blue house, or a brown crockery pot on the porch, according to one of the country's most successful operative builders, in speaking of a large suburban development where construction and equipment costs were just under \$5,000. His efforts to avoid repeating one house design within the block were "without complete success" (36). A quite contrary experience is reported for a similar class of tenants at Buckingham Village, where, the manager says, people want to live in a house "which to them appeared distinctive"—in this case merely in one of the few buildings with exteriors differently colored for the sake of variety in the project (74, p. 74).

Discontents

Discontents registered seemed to concern mainly not a shortage of luxuries or novelties, but rather errors in planning or equipment, most of which could have been avoided with little or no extra expense. "I'd as soon live in a jail," said a traffic officer who directed me to a city medium-rent project; and I felt as I saw the project that he voiced perhaps, the feeling of the tenants, whose high walls enclosed echoing courts where children on roller skates tore along concrete walks. The planting, though careful, was ineffective, and the youngest children played on the dump outside the project while their playground was locked up. One community is bitter about its houses, many of which are so oriented that, while the house duly faces the high road with its interest and sociability, it is built on the wrong side of that road which the homestead straddles. Thus the front porch gets the prevailing winter winds and snow, but not the prevailing summer breezes. A southern community, accustomed to much outdoor living and outdoor kitchen work, finds these possible only in its few old houses, for the new houses are built with porches facing the dust and

the publicity of the highway. Minimal houses on stilts offend a group in another state, transplanted when their land was needed for a national park. Here wretched houses, poor in design, situated on arbitrarily fixed acreages too small to support power, or even a mule, and too large to cultivate by hand, are alike discouraging to the homesteaders; and here, again, the old homestead, well placed on arable land, the delight of its tenant who pays no more than the others, serves as a measuring stick for the community's discontent. Sagging of the rather flimsy construction with resulting disturbance of the unprotected stove pipes will probably send those particular houses up in smoke; and then one can begin again.

"They", "Washington" and other greater and lesser gods seem to scourge the ultimate consumer in a variety of ways in his effort to get what he wants. Thus, the bank in many places has still never heard of a house backing on to the street. For generations houses have faced the street, and therefore only for such houses are loans available. Similarly barred have sometimes been the house built further back on the lot than usual and the one built close to a quiet street to permit of greater garden privacy at the back. In some communities organized labor prevents use of economic processes, and so on. But banks do yield; and the well written bulletin in which the F.H.A. discusses design traditional and modern is a good weapon for the client to hurl at the bank slow to learn new ideas. And "Washington" shows a good deal of ability to steer between the ideally best and the expedient. Labor, too, once asked us to wear homespuns exclusively and to break our stone by hand; today it is cooperating usefully in several large-scale operations. Further, good inexpensive housing has been achieved in a variety of ways, under different auspices, and in sufficiently large quantity to prove that the housing designed with the ultimate consumer in mind is a lasting achievement. One idealist's properties which two and three score years ago, respectively, realized all the law and the prophets regarding what people want in housing, are here cited as illustrating how the public need was quickly recognized and profitably satisfied, with every promise of continuing a serviceable and profitable existence for three score years more.

Two Early Model Tenements

These are two Brooklyn developments of Alfred Tredway White, which were so well designed and so solidly constructed, "Tower and Homes" in 1877-8 and "Riverside" in 1890, in a busy downtown location, that they are today in good condition and proving well worth the gradual modernizing now being made to meet changing demands. They were privately financed, they have always paid taxes, and, except during a short depression and remodelling period, modest but steady earnings.

Exteriors in brick, handsome in the style of the period but not florid, coverage fifty-two and forty-nine per cent respectively, courts grassed to avoid noise and to delight the eye, provided with walks, a fountain, a music pavillion, a children's playground with sand pile, house walls surrounding the court are covered with ampelopsis, most living rooms face on the tree-planted quiet court, "with a few exceptions every room receiving direct sunlight for many hours of every day in the year", every apartment with through ventilation, all partitions "deafened", apartments of from one room and scullery to five rooms, fitted with sink and one or two laundry trays, toilet for each apartment. Little balconies for access also provided sunning space, a small hallway within each apartment gave direct access to each room, each unit had a closet, a dumbwaiter was installed in each staircase, there were ash chutes, paved cellars with locked storage space, each tenant having the key to his own space, these lockers "so arranged against the wall as to leave no dark holes or hiding places". Patent metal garbage receptacles in several places in the yard were so constructed as to

"attract no flies and emit no odor", they were "sunk flush with the driveway and no one notices them", and there were drying racks on the roof and in the yard (134-137). So as to avoid violating family privacy rents were received at the office, and every effort was made to "treat tenants as if they were occupants of private houses living in complete independence".

No baths in the apartments, it is true; but bathing was infrequent even in the better-class home of the period, also free hot water baths were provided in the basement and could be reserved in advance for the hour preferred. Only one closet in each apartment; but it was about the period of Tower and Homes that a proud women's college boasted that it had provided each student with a hook on the back of the door of her room in the dormitory for the dress she was not at the moment wearing. No steam heat naturally, when central heating was a novelty and a luxury, but steam heat was supplied to the most exposed of the sculleries to prevent freezing of the pipes. Built-in furniture was rare then as now; but in some of the kitchen-living rooms a drop-leaf table was installed. No general community room; but one, if not both developments had a reading room.

Two per cent of the income went for repairs when Riverside was twenty years old, a fraction more than that paid for administration, and over a long period a small sum was laid aside for "betterments" such as electrification. Earnings averaged 4.7 per cent for the first ten years of Riverside, and 5.1 per cent for the next ten. About 1884 or 1885 the earnings on the Tower and Homes property were so satisfactory that they were shared with the tenants.

WHO ARE THE PEOPLE WHO WANT HOUSING?—UNIT SIZES NEEDED

"Group after group I have talked to will forgive the costs of the projects when they hear the ruling that insists on children", according to the executive secretary of a middle western housing authority (74, p. 45), voicing the popular impression that subsidized housing is planned for the family with children: a thing that executive could well do, since the authority represented was managing the only federal urban project in the country at that time with an average as high as four to a family,

(4.05), or just over two children to a pair of parents (124, p. 52).

At that, the project referred to, while admitting up to ten per cent of childless families, was housing families averaging twenty-one per cent larger than the then average of the forty F.E.A.P.W. projects in the country for which full figures are available, (3.33), forty-two per cent greater than the average of twelve of those projects, which was 2.85, or less than one child to a family.

The American family

Miss Lansing's population study offers applications pertinent to housing from Thompson and Whelpton's "Population Trends in the United States" (69).

Half the population of the United States is at present over thirty years old; in another forty years probably sixty per cent will be over thirty; people of forty-five and over now form about twenty-seven per cent of the population and people of sixty-five and over some six to seven per cent, with the trend indicating an increase to about double that percentage by 1970. Children under nineteen, on the other hand, showed a percentage of forty-four at the turn of the century; today they are a little over thirty-five per cent of the total; about 1950 they will probably be about thirty-one per cent, and about 1970 only some twenty-seven per cent.

In one city, New York, eight per cent of all families consist of one individual. Families consisting of one or two persons form 31.3 per cent of all the population, while families of three persons form 21.7 per cent. That is to say, fifty-three per cent of all New York City families consist of three persons or fewer, and addition of the four-person family would account for seventy per cent of the total, while not quite seven per cent have seven or more members. These percentages represent the City as a whole, and one assumes that professional and other upper-income families account for a high proportion of the smaller families. The figures for the Negro family, which enjoys few high or even moderately high incomes, is therefore the more striking. For the Negro family of one person forms sixteen per cent of the whole; the two-person family 31.9 per cent, the three-person family twenty per cent, and the four-person family 13.2 per cent, which is to say 81.1 per cent of the whole Negro population consists of families of four persons or fewer. Only five and a half per cent contain seven or more members.

New York is in many respects not typical; but the general national and rural averages offer no striking contrasts. The average American family at the 1930 census numbered just over four persons (4.10), while the New York family averaged 4.02; and the estimated national average for the

present time is 3.79 (26, p. xiv, p. xvi, table opp. p. xviii), while the forecast for 1950 is 3.3. Even the rural family is small. "The average number of occupants per occupied dwelling", as reported in the Agricultural Census for 1935 ranged from 3.51 in California to 4.99 in North Carolina. These figures include all occupants, whether related to the head of the family or not" (144).

The "unattached" and the non-typical family

For the numerous "unattached" and non-normal" small families several authorities plead a place in housing. Miss Lansing's study of community planning in terms of the span of life already cited (69) tells of people who spend half their income for the privacy of a home of their own. Professor Ford, the N.A.H.O., the A.P.H.A.'s Housing Hygiene Committee, and more than one city housing authority point out that housing's clientele actual and potential is not merely a young family with n-plus-one-or-two children, but includes also possible cousins, aunts, and that often present help in trouble, a grandparent.

Emphasizing the importance of the familiar neighborhood in the life of the low-income family, depending on friends and sociability for much of its spiritual well being, the American Public Health Association points out: "Continuance of the family in the community of its choice will be greatly fostered by the provision in every housing project of living units sufficiently varied to provide accommodation during the whole cycle of family development, from the phase of child rearing and gradually increasing family size on to the period when parents whose grown children have set up their own homes will live normally by themselves". . . . "Designers of houses should visualize the varied uses of family life and provide all reasonable variety in plan and arrangement". . . . "Related problems which must be solved are those of the non-typical household, a group of adults, unrelated to one another and possibly desiring more than normal privacy, or the normal family with grandparents, or including an invalid member". . . . Managers' difficulties in "reconciling the living units they have to offer with the needs of the families applying" leads to the conclusion that "these fundamental needs of family life have been much neglected in American housing" (5).

Objectives of modern housing, according to the N.A.H.O., include provision of "a range in sizes of dwellings that will accommodate a normal cross section of the families in the group to be housed, and that will accommodate individuals as well as provide for the normal development of families from the newly married couple through the phases of child rearing and on to childless old age. . . ."

Professor Ford's presentation of the plight of the "unattached" in lodging houses and elsewhere is well known (38, p. 753-70; 39).

The "club" residence

The boarding-house type of home or "club," often endowed to the point of enabling residents to have rooms for three dollars a week, fill a real need, especially for those at the very start of their earning career. While there are not enough such residences to meet the need for shelter for the unattached, it is to be noted that the vogue of this type of residence club is already passing; and few workers' residences have recently been endowed. Indeed professional and business people's residential clubs in central, and even fashionable, locations, show a tendency to give up a club house, with its attendant amenities, to take a suite in a hotel or a business building, or to double up with another club; while some clubs and associations, committed to considerable real estate obligations, are finding income from renting to sympathetic people roughly in the category of their members. Again, groups of three or four young men, or young women, rent an apartment together, such groups including presumably the more resourceful and better equipped of the young worker type which formerly lived in the endowed "club" or association quarters. Fashions change; and the style and fabric of the club no longer please, even if the house have duly modernized itself as to showers and wider social views. But the main cause lies probably in the irksomeness of the institutional atmosphere, inseparable from even the best managed of such homes, to a generation free to make its move from home to the outer world at a swifter pace than was formerly possible, and needing more privacy and better opportunity for rest and for self-development in an increasingly competitive existence. It will be recalled, too, that while a small proportion of men and women of all ages—and especially of young

people—live happily in communities: convent, monastery, school or club, such a life does not suit a great part of the people. Furthermore, whether or not it is because the more dynamic people move away while they are young, if free to do so, leaving behind those with less spiritual and material resource, it is found that older people live less pleasurably and profitably together, and indeed, as Professor Ford points out, some residences do not receive people over thirty-five. Sweden's housing provision for isolated single women shows similar experience (30).

With old age pensions just beginning and the average age of the population far from slowly rising, the elderly candidate for public housing is becoming steadily more numerous: and the present-day desire for privacy and independence on the part of elderly relatives, preferring hardship to doubling up with their in-laws, adds to that increase. Also the young family contributes to the tale of those requiring small suites; for a generation of youngsters, accustomed as long as it can remember to small and precarious incomes, often from relief sources, and regarding parenthood as a voluntary rather than an accidental or inevitable responsibility, marries young and begins life if need be in one room—often without much hope of eventually acquiring a great deal more.

In passing it should be noted that, while housing seems to have simplified its program by tacitly confining its attention for the moment to building for the more "desirable" or at least the more docile and convenient of the lowest-income class, the remainder of that class continues to dilute the effect of the expensive housing program now in progress. Enlargement of the present program to meet, in ways not necessarily expensive, the needs of the others would soon simplify housing's main program. No additional architectural problems arise, and patterns have been well worked out. Statement and solution of the problem on a basis of cooperatively managed housing for aged men and women—including ex-loggers and some other individualists—and, for the younger men, in addition, some rehabilitation for re-employment, are well stated in Mr. Neff's story of two years' experience in Washington State (84); and the rehabilitation of families of inconvenient habits of mind and body in Holland, well known to students of

European housing, are described briefly by Miss Denby (30), and in some detail by Mr. Ratcliff (103).

The normal community

Without making any radical change in policy, but merely by extending somewhat present practice to include some of the more easily assimilable of these groups and individuals, sponsors of large-scale public and semi-public projects might simplify planning and operation.

A higher percentage of two-room suites, a fair allowance of the one-room suites only recently finding foothold in public housing projects, arranged by giving access where possible from the outside instead of the main hall, as is done at Carl Mackley and at Hillside, could be made available for elderly and invalid people who must avoid stairs, and who fortunately prefer to live where they can see and hear what is going on out of doors. Continuation of the normal-sized apartment one story higher than is advisable for mothers with young children, would provide for many an adult family of normal type or for groups of friends. Cardiac troubles are on the increase, it is true; but one more flight to walk up, usually once and rarely more than twice in a young worker's day, will contribute little or nothing to that increase, particularly as there is less urge to go out seeking amusement if home offers opportunity for relaxation and for simple entertainment. Again, preferred exposures have little to offer the worker who leaves home before eight o'clock in the morning, returning during most of the year only after the sun has gone. Furthermore, the unattached worker is free to spend weekends away from his quarters as the family with young children rarely is. Small suites on the less sunny frontages for workers might also simplify economic planning, as at Thornycroft, where a stack of one-room suites runs up among the three and four room apartments.

Both the, say, fourth floor workers and the ground floor elderly tenants will presumably cost less for supervision and maintenance. Further, they will ordinarily use play areas and sitting spaces at somewhat different hours from those preferred by school children and mothers with young children. Some of these adult tenants are likely to possess such positive social virtues as a knowledge of gar-

dening, sports and other hobbies, as well as some organizing ability and leadership, doubly valuable because unofficial, and, without competing with professional recreation leaders, may be available for promoting hobbies and otherwise contributing to the community life. Even if they prove merely decent neighbors, these adults are valuable to dilute an otherwise too purely parent-and-child community, which keeps child and adolescent perpetually in an atmosphere of authority between parent, teacher, recreation director, housing manager, guardian of the public lawn, and the rest, whereas it is their right to mix unofficially with their fellowmen of all ages as a preparation for adult life and work. Emphasis today has been strong on the advantages of the large project with its possibilities of segregation; and the smaller rehabilitation schemes in the minds of many social service experts are out of favor and for that reason if for no other. But housing must avoid establishing a new type of unnecessary segregation in addition to those already effected by school, by religious and political affiliations, by age, by sex, and by national backgrounds, even if the new segregation wear the badge of the disappearing so-called "normal" family.

Some housing authorities have declared themselves as a matter of policy ready to receive as tenants elderly or other childless people and some small suites have been designed in public developments. Since the family dwelling requires about the same amount of plumbing and other cost-consuming equipment whether it be large or small, it might well become the rental basis instead of the "room"; then the equipment spread over many rooms for a large family carries the brunt of the rent and all bedrooms beyond, say, three or four would be rented at a lower rate to the family with many children or other dependents, while the adult "worker family" will pay the maximum project rental per room, with whatever other dues the childless owe to the public cause. Before our birthrate falls to that of Sweden we may find good some adaptation of the Swedish plan for housing the large family—that is, the family with a minimum of three children—which enjoys rent reductions of thirty to seventy per cent, according to the number of children.

There has been discussion (147) of the advisability of designing some units in each development

with movable partitions or with sound-proof doors to facilitate re-dividing adjoining, say, four-room suites into three-and-five or six-and-two room dwellings. Requirements like those of the New York State Housing Division of this year (87) for an additional lavatory in public projects for each unit

for six or more persons give further impetus to this discussion. For while some vacancies are inevitable—and even wholesome—even in subsidized developments, an excess in vacancies may be avoided by easy subdivision of the suites of a type less in general demand.

ROOM USES

From many sides come the lament that the low-income family has never lived in anything but second-hand dwellings. And perhaps it is because architects and sociologists—like the poor, and the good old families, and the nobility and royalty—have also ordinarily known only makeshift quarters, that we design the new poor man's home as we do.

The butler's pantry, it is true, has been eliminated from the butlerless home; the middle-class drawing room is gone, as is the slightly upper middle-class bookless library. The dining room has yielded in a wide range of homes to dining space in either the living room or kitchen. Even the mongrel den is gone; and state laws or some other rental regulation may eliminate the dining-alcove or dining foyer which often call for half a room's rent without giving much service beyond permitting sponsor and architect to extend the entrance hall and thus simplify the layout.

Yet the workingman's home and the lower middle class home are designed as a somewhat abbreviated edition of the large scale home.

A thorough study of space use, or rather of time-and-space use on the principle of Dr. Riemer's (108) Stockholm analysis of a family's use of its quarters is needed. One of the research foundations considered the matter a few years ago; but seems to have shelved it for the moment.

Congested living room and kitchen

There are obviously congested areas. From the people who use their living room as a family center there comes via the President's Conference (97), Dean Amos' survey (6) and others much the same complaint in slightly different wording: Too much living in the living room. Homework suffers. The breadwinner becomes inefficient for want of rest at home. "Too close companionship when we are in one room". "No place for children to play

without bothering their father who wants to rest". "My husband wants to read". "The radio disturbs study". "We have no playroom, no workshop". And so on, to include the drawback of eating in that already congested space.

Decentralization for the middle class family started a few decades ago with the "library" and the "den" which have fallen into disuse; today the family which can afford one extra living room tends to make it a practical workshop-playroom or game room.

Few families in the lower-income half of the nation can afford one extra room. Few can even take the trouble to live in their living room.

The congestion then occurs in the kitchen, where there is even greater discomfort, as well as a certain stigma attaching to having only one room for washing, cooking, eating, dishwashing, drying steaming linen, ironing, bathing the baby, changing him, handling his daily quota of diapers, homework, recreation, and the informal entertaining which is all the lower-income family can ordinarily manage. Homework is done there because there light has to be maintained, and because in the poorest home that is the warmest room in winter, says one large group reporting; and over eighty per cent in the same group eat meals there, not only because it is too much trouble to serve meals in the living room but also because one room must be kept neat, and not "mussed up" two or three times a day. The farm family naturally eats in the kitchen; but tries to keep washing and other major operations out of it (145: 3) although ironing is approved because it is a clean job. Preparation of food, eating and clearing away make some nine fixed items on the day's schedule for that room; and laundry work alone is endless. It is not done once a week, but three or four times a week, or daily. Few, if any, working-class families can pile up a week's supply of dresses, play frocks

and suits, mechanics' overalls, etc., to say nothing of underwear.

"They use their kitchen for things they ought to use their living room for", says one manager, more in sorrow than in anger. Eating, perhaps, or dressmaking, or mending or just sitting? "Whether architects realize it or not", writes N.Y.C.H.A.'s Miss Lansing, "people who do not have servants enjoy sitting in a cheerful kitchen, and will continue to do so whenever there is enough room to put down a chair" (69). I think her's, too, is the expression a "true kitchen", which, save by an evil chance, must be also, I suppose, "a cheerful kitchen". "By all odds, the most important room in the house", according to a survey of slum dwellings. "Often the most attractive room in the house", says a rural survey, speaking of the kitchen which often serves from two to five dozen meals a day to workers living outside the farmhouse, and without calling itself a restaurant at that.

Unused spaces

On the other hand are the great unused spaces, which must be paid for by someone, whether entirely by personally earned wage or salary, or with the aid of public subsidy. The living room is idle most of the day, as is the bathroom. Bedrooms are used only for one-third to one-half of the less productive hours of the twenty-four, for sleeping and for the storage of beds, bureaus, a chair or two, and, ordinarily, thus equipped, useless for any other purpose.

The teen-age girl, meanwhile, longs for some practicable low-cost variation of the Hollywood boudoir; often all she is looking for is a quiet place for her homework. Equally the boy, of whatever class or income-bracket, needs some place for his own affairs and room for discussing them with his peers—who are ordinarily not his parents and sisters. Fathers, too, have hobbies, and, like other people, sometimes need quiet and some measure of solitude.

Wanted: A new nomenclature and design for combined uses

A new nomenclature, combined with changes in plan and detail, neither radical nor costly, would restore to use these areas, increasing the efficiency of the shelter, and at the same time embellishing

the small-scale family scene. Some kind of all-the-time name, substituted for "bedroom" would help to turn that space into the daytime use also to which it is entitled in modern heated dwellings, and thus relieve pressure in the general living quarters.

Thus a "children's room", if no better word is found, is simply a playroom by day for safe, unsupervised play, out of reach of gas jets and hot surfaces and the wash, and a sleeping room at night. If furnished with a low table and one or two small chairs this space could be used for serving minor meals which a child in the pleasant company of his own things, and without the pressure and excitement of grown up company, will eat at his own leisurely rate and without coaxing, while a toy closet or chest will tend toward developing a neat young housekeeper of either sex. A "girls' room", or a "boys' room", or otherwise designated spaces thus dedicated, could contain one or two cots or bunks. But instead of the tenant supplied bureau, expensive to buy, especially on the installment plan, soon dated and sooner shabby, a simple set of shelves and a few inexpensive trays built into a closet to store clothing. There is now room for a table for work or hobbies, a good chair or two, or the backless stool at the moment highly fashionable but never quite out of style. School friends can work or play here undisturbed, leaving work or playthings when meals and errands call. A "parents' room", similarly equipped for daytime use would find many uses. The U.S.H.A.'s suggestion for enlarging the fifth and sixth bedrooms in defense housing "to permit the design of the bedrooms for some daytime use" is a move in that direction (130).

Combined uses of rooms vary somewhat with climate and region for the same income class. In the low-income home, however, there is little choice. In many urban low-cost housing developments it is assumed that the living room doubles as a bedroom. This space cannot therefore be used as a living room when the day's work is done unless the sleeper is sufficiently grown up to keep the parents' hours. The same applies almost generally also to the small farm house (144, p. 4). Exception is to be made for some southeastern families, which demand a separate kitchen and a combined living room and dining room, this demand

coming presumably from the white family with Negro helpers. The southeast differs too in room use in that the parents' bedroom, "furnished as a bedroom, with double bed, is generally used as a living room if there is no other living room in the house" (144, p. 12).

The living room: a reception-sleeping space?

Allowing as much space as possible for the "bedrooms", and that somewhat at the expense of the living room area might better serve a great variety of families, especially as the progressively shorter working week and seasonal unemployment are gradually more and more compensated for by intensive recreation and adult education activities requiring some isolation and a little space for use without interruption. The living room, nowadays no longer used as a rule for weddings or funerals, and only occasionally for a formal meal, if treated frankly for what it is, namely a sleeping room and a reception room, can have more, rather than less charm than has the present wasteful, often little used omnibus living room, and that would apply particularly to the many recent dwellings in which the living room is merely a kind of lounge extension of the passage from the public hall to bedrooms and bath, with no lights except tenant supplied lamps.

The kitchen

As for the kitchen: there seems still too much congestion and too much variety of function. Some investigators report preference for a clothes drier in the bathroom to one in the kitchen, and many U.S.H.A. projects have a drying rack over the bath-tub, while Parkchester's model furnished apartment places the rack above the toilet—an original solution. Space is needed too for a second hanging of the clothes after ironing (23). And one laundry tray is not enough even for the smaller wash; the sink is used also, and blankets, quilts, and other heavy pieces are washed in the bath-tub. One ingenious housekeeper tells me that after soaking in suds these pieces are best trodden by foot, both during washing and rinsing. It is the least heavy way of doing this serious task, it uses different muscles and is pleasant.

In N.A.H.O.'s good company, one scouts the "hypothetical risks of food contamination through

splashing from the laundry tray" (82). But the unrest, the discomfort, and the generally unesthetic result of too close juxtaposition of food processes and laundering, which used to drive father to the corner saloon, still contributes to the reason "why girls (and boys and mothers) leave home", washing which is done largely while the family is absent probably making a much smaller contribution than drying.

A bathroom-laundry?

A combined bath and laundry would probably better meet the needs of apartment dwellers with children, as well as those of the family living in a house with most of the rooms on the ground floor. Apart from the advantage of eliminating from the kitchen the discomforts of steam, dripping clothes and a wet floor, discouraging both to homemaker and to the family members coming in for meals, work or rest, such an arrangement would enable the washing to be done at a pace suited to the washer, without interrupting processes at awkward times to fit the meal schedule.

Utility room

Indeed, the utility room, whose functions have been distributed for one reason or another, seems now disposed to collect them, and to hang out its own shingle. Several types of utility rooms are found in F.E.A.P.W. projects. One serves in the atticless, cellarless family house as storage place for articles which cannot find a place in closets. U.S.H.A. recommends in the row house a "utility room and a small laundry with each unit: This is a vestibule, storage room, laundry and pantry combined", and this recommendation tends to speed its more general adoption. In many of the individually heated cellarless defense houses a utility room opening off the kitchen is designed to accommodate a heater and to store the washing machine. Such a room recalls the English workingman's back kitchen or scullery, which houses some or all of such functions as washing, sometimes cooking by gas, dishwashing, storage of the bulkier cooking and other utensils, as well as a bicycle or two on occasion, serves as a back entrance, and thus helps to conserve the warmth as well as promote amenity in the kitchen-living room. In the American rural home, and particularly in the purely farm home,

where the functions of the utility room are extensive and varied, the basement sometimes offers space for a glorified utility room, accommodating curing, canning, washing in winter, cold weather workshop operations, and many other activities often taken care of in summer on the back porch.

Odd spaces

In seeking to use space to maximum efficiency, some developments have created new difficulties. A dining-alcove or dining-foyer looks well in the plan and in the publicity text of a medium-rent development, rates as half a room in statistics and rent; and weary house-hunters may sign an agreement before realizing that there is no natural light, that bathroom, bedrooms, kitchen and living room are all entered via that "foyer", and that when the table is in position with its complement of surrounding chairs little passage is possible in any direction, as in the case of two medium-rent developments I know. Access to living rooms, bedrooms and bathroom from the foyer of a similar development in another city may blind the house-hunter to the fact that most of the living room has

to be traversed before the kitchen is reached. Again, light, exceptionally good cross draft, and a sense of space are achieved simply by separating kitchen and living room with a wide opening to carry a curtain. But cookery fumes from a hoodless stove will settle on the living room walls and finery. There seems to be a wide difference in opinion as to the social advantages and disadvantages of separating kitchen and living room.

"Nobody in his senses would ever dine there", says a friendly critic, of one lowest-rental project's dining-alcove (*New Yorker*, Feb. 17, 1940: see also Oct. 18, 1941). And perhaps no one in his senses would use the "utility room" as a sleeping space in either of two middle west apartment developments. Still, with laundry tubs, clothes closets, and heating apparatus provided for elsewhere, the "utility rooms" tempt the housekeeper to abstain from making up the living room couch for sleeping—unless the project management has some way of insisting on the ruling that rooms of such small area be not used for sleeping. "Can American people be regimented in barracks like Europeans?", asks the Los Angeles Housing authority.

ROOM SIZES

Much variation in size and shape of room is shown not only in existing housing surveyed, but also in recommendations of government authorities and other experts.

Current requirements and recommendations

A survey of lower- and low-rent developments made by the Housing Study Guild (64) shows the effect of adequate size on rentability: the apartment with an average net room area of 168 sq. ft. proved satisfactory, while that with a net room average of 113 sq. ft. was "very difficult to rent, the bedrooms especially proving too small". U.S. H.A. minimum areas of 1938 were: Living room, 150 sq. ft.; first bedroom, 120; second, 90; third and fourth, 80; kitchen, 60-70; dining room, 100; which, in the usual arrangements and with even liberal allowance for the required net aggregates (122), would give averages of the kind "very difficult to rent" to lower-income families even in depression years in congested New York. The N.A.H.O. at about the same time advised a mini-

mum of 150 sq. ft. for a living room for two or three persons, major bedroom 120 sq. ft., and minor bedrooms not less than 80 sq. ft., with occasionally a smaller bedroom designed for a single occupant.

Naturally N.A.H.O. does not recommend that minimum dimensions obtain throughout. Neither does U.S.H.A.; yet in its "Unit Plans" (122) the average room areas for some two dozen arrangements for apartment, flat and house areas is approximately 114 sq. ft. Where an area has been developed in more than one way, I have used the plan giving the greater net average.

The 1939 revision of U.S.H.A. recommended areas not only increases the minimum areas for second and third bedrooms from 90 and 80 sq. ft., respectively, to 100 for each, but also suggests more generous areas all along the line. Nevertheless, adoption of dimensions in the 1939 "Checking List" (127) would give little space beyond that necessary for circulation around the usual furniture. It is therefore a matter of congratulation that, as the List points out, "there will be cases,

generally in row houses and three-story combination buildings, where the exigencies of the plan impose a greater aggregate area". It will be noted in support of this that areas of F.E.A.P.W. projects often went well beyond the required minima of 110 sq. ft. for main bedroom, 100 for second bedroom, and 150 for living room (100). U.S.H.A. standards for Lanham Act defense housing range thus: principal bedroom 120-130 sq. ft.; additional bedrooms for two persons 110-115, and for one person 65-80; minimum living room area in units with five bedrooms or fewer 160 sq. ft., and in six-bedroom units 170. Extension of the principal bedroom to 135 sq. ft. in units with five or six bedrooms is suggested to permit the design of bedrooms for some daytime use (130).

Professor Hamlin's recorded impression that it would require a shoehorn to get two children into Williamsburg's smaller bedrooms (56) entirely agrees with my own impression of similar rooms in many projects, and continues to do so even after I find that any Williamsburg secondary bedrooms I have checked have areas of at least 102 sq. ft. Again, the Fort Wayne house, built for families on relief at exceedingly low rentals brought forth strong disapproval for its 92 sq. ft. bedroom, although the proportions are good (7 ft. 8 in. by 12 ft.) and the built-in two-decker bunks in the children's room economize floor space more than sufficient to bring the area to the equivalent of 100 sq. ft. (42, 43; 46; 79: Feb. 28, 1939).

Recent New York State recommendations were for living room 180 sq. ft.; bedrooms 140; kitchen 70; with ceiling height 8 ft. 6 in., the State Board of Housing, like the U.S.H.A., using "reasonable flexibility" in applying requirements (86). The present New York State Division of Housing's recommended standards for public housing do not specify minimum dimensions for living rooms, but require a 120 sq. ft. minimum for two-person bedrooms, and 80 sq. ft. for a bedroom for one person. Its minimum total areas per dwelling unit divided by the room count vary from a possible 120 in one case through 150 for several others, to 185 in one case, with 150 as an average. This rough average includes of course such passages as are within the unit as well as the bathroom; but it does not include stairs in one-family houses (87).

In its practical study "Housing for the Family"

the Women's City Club of New York, while recognizing that "many architects believe that 200 sq. ft. of gross area per room is adequate for the lowest rental housing", recommends in its "Principles of Good Planning for Low-Rent Housing" a gross of 237 sq. ft. The net averages have not been worked out in that study; but, by applying the average of ratios obtaining in twenty-three projects studied by the New York Housing Authority, namely, approximately 100:75, the net room areas would average 178 sq. ft. If the ratios of current design and construction are applied, for example those of the U.S.H.A. "Unit Plans", the net room averages would be about 155 sq. ft. The Club recognizes that its average is "larger than is usually regarded as a minimum acceptable standard"; it justifies its recommendation, which is supported by plans to show the placing of necessary equipment, by explaining that "While it may not now be possible to build such apartments for the lowest-income groups . . . the additional area makes for housing which is good and not really extravagant. Such apartments should withstand obsolescence, even if new methods of construction enable us a few years hence to build more cheaply" (147).

An interesting recent estimate of the lowest-income family's needs is that of the Alley Dwelling Authority of the District of Columbia, as illustrated in the restoration of Hopkins Place for a Negro population (32). About half the project consists of old dwellings restored, and half of new buildings; and whereas in the old houses living room areas average 120 sq. ft. in the new they are 203, while bedrooms are 114 and 158 respectively, and kitchens 100 and 166.

Some earlier standards

In view of the great variety of opinion on space needs, and especially in view of the fact that U.S.H.A. and N.A.H.O. minima (which however carefully offered must tend toward setting standards) approach the tenement standard of room-sizes of thirty to forty years ago, it is worth while to examine some typical dimensions in housing erected under different auspices over a long period.

Chicopee Falls Village, a Massachusetts mill town, in the 1830's built its rooms so that with deductions for space necessary for added bathrooms,

closets, etc., in recent remodelling, the living rooms today average 188 sq. ft.; the bedrooms 146; kitchens 103; with ceiling heights 8 ft. 6 in. Some forty years later a model tenement, "Tower and Homes", was erected in downtown Brooklyn in 1877-8, and after similar deductions for modernization, including additional rooms contrived by replanning, now give average net room area of 148 sq. ft. for the living room-kitchen; living room (with adjoining kitchen) 129; and bedroom 108.

Families were larger two to four generations ago. Home industry was important: Dressmaking; general plain sewing; laundering; food storage and food preparation without canned helps; nursing when sickness-and-health had not yet become an industry; amusement in the pre-cinema, pre-Ford age; and entertainment of many hues including weddings and funerals—more often taken care of today by restaurants, hotels, and the undertaker's parlor.

A more useful comparison therefore might be that with twenty-three New York workers' and small "white-collar" projects, built in the thirty years from 1904 to 1933, including the pre-war

decade, the prosperous '20's and the worst depression years. An unpublished survey shows gross apartment areas as 253, 235, 233, 229, 227, 225, 209 sq. ft. and down, with an average for the twenty-three of 176, while net areas per room in sq. ft. run from 182, 171, 169, 165, 162, 154, 153, down, with an average net room area of 133.7. Quite different averages emerge, however, if we eliminate from that list six developments: first, the three oldest; next, one which, though comparable in most respects with the others, is not strictly low-cost in the same sense; and thirdly, two which are out of scale with the planning of their respective decades. The remaining seventeen developments show an average gross apartment room area of 190, and a net of 142.9. Similar areas are found in the fourteen projects built in the same city under the state housing law of 1926, most of them for similar types of tenant, and indeed some of them contributing to the averages just cited. Average living room areas are here shown to be 192.8 sq. ft. and average bedrooms 145.7. The averages of the projects in this group (85) are significant because many of them were built for workers by workers, some in the boom years, some in depression time.

KITCHENS

Of many hundreds of homemakers whose opinions and wishes have been collected by recent investigators, relatively few express any considerable dissatisfaction with the house as a whole in comparison with those discontented with the kitchen and related spaces. Changes desired relate chiefly to inadequate size, poor finish, and unsuitable heights of work surfaces, and to poor planning with regard to other work spaces, rather than to lack of more and better equipment.

Functions: Workshop, dining room, place of assembly

Preferences as to type of kitchen vary naturally with urban and rural life and with income brackets of the groups reporting; but the variation between the various groups is astonishingly small.

The lower-income family, even with a convenient living room, uses the kitchen not only for work and meals, but also for general assembly. Light and heat cost money, and in the house not ade-

quately heated, the kitchen is often the only comfortable room in winter. Carrying meals into the living room makes too much work. It is not merely a matter of setting and clearing the table: children drop greasy and sticky things on the rug with as much abandon as adults drop crumbs.

Of urban women reporting to the President's Conference Committee on Kitchens (97) some seventy per cent want laundries separate from the kitchen, where otherwise steam, dripping clothes, stacked dishes, children playing, preparation and serving of meals mix together to the discomfort of all concerned. Farm women want canning, laundering, and other functions beyond preparation and serving of meals taken out of the kitchen (144, 145: 2, 3). This desire in one form or another occurs again and again: in some cases with a cellar suggested to supplement the kitchen space, in others a utility room to house many of the functions, leaving the kitchen free and pleasant for meals and for a family center. One of its strongest expres-

sions comes not from houseworkers but from the jury's comment on the recent nation-wide Productive Home Competition which underlines the homemakers' complaints: Monsignor Ligutti, founder of the Granger Homesteads (33) and President of the National Catholic Rural Life Conference, points out that: "Little attention was paid to a place for preparing food. . . ." Mr. Neutra, architect, urges: ". . . A living space protected against dirt and disorder . . . muddy shoes . . . , defended by the very layout itself against a perpetual reverting to an unclean and messy condition. . . ." Miss Davison, home economist, comments: "A noticeable lack of storage space. . . . Not enough attention . . . to protecting the homemaker from noise, confusion, dirt. . . . An additional washroom should be given serious consideration. . . ." (146).

Whether or not use of the public project laundries equipped with coin-operating washing machines was insufficient to justify the space they required I do not know; but some of the more recent developments have no basement, and laundry work therefore is done in the kitchen.

Sixty per cent of the urban apartment dwellers of a somewhat higher-income group, reporting to Dean Amos' survey (6) deplore inadequate work surfaces. "We have the last word in modern, perfectly equipped kitchens, yet no place to work. I have to put dirty dishes on the floor, under the stove, the refrigerator, in the sink. . . ." This is one of the commonest complaints. "I have to walk miles to do my kitchen work," says one householder reporting to the President's Conference; and the number of miles is established by one study as between 155 and 162 a year merely for the preparation and serving of meals as well as ironing—all with the help of economical equipment well placed.

Dimensions and arrangement

It is not for want of well illustrated studies, views, and opinions that unsatisfactory kitchen spaces are found. Ramsey and Sleeper (102) Don Graf (44), Bureau of Home Economics studies (116), the President's Conference (97) and others (67, 145, 45, etc.) differ little if any regarding the amount of free space needed in front of equipment, the space for door swing, and for one person

to pass another. Substantial agreement is also found regarding the desirability of logical arrangement of equipment, and regarding the best alternatives when the position of doors or windows prevents the best time- and labor-saving arrangement. There is also comfort in the fact that of five distinct types of arrangement worked out in one study showing variations in the relative positions of meal table, working space, etc., "no one is distinctly superior to the others", and these arrangements are at the base of most of the extensive literature of the subject (145). In still another arrangement the sink, with work surfaces at each side and storage space below, stands at right angles to the window. It, and its attendant work surfaces, are thus approached from either front or back, and all are well lighted (45).

If agreement on theory is general, dissenting practice, even in newer buildings, is not uncommon. Thus, one finds, for no apparent reason, the single drain board at the right side of the sink, an arrangement which a leading authority classes as belonging only either in a museum or in the kitchen of a left-handed person. Again, to find the stove so close to the refrigerator that the oven blisters its neighbor is the more astonishing when it occurs in a kitchen whose plumbing stack would have been better served by placing the sink between these two pieces, while nothing in the position of doors or windows prevented such an arrangement. (No, not an operative builder, but the design of an otherwise good and reputable Institute member for a higher rental apartment.) Less than satisfactory, too, is the metal and masonry kitchen with no shelf or cupboard near the sink, and no possibility of driving a nail, so that only several feet distant can the miscellaneous items of varied shape used at the sink be stored—unless they are heaped on the drain board. Those same masonry walls permit of no convenient surface on which to lay spoons, slice, ladles, etc., used at the stove.

Work surfaces

Work surfaces seem to present the main difficulties in the unsatisfactory kitchen, and faults relate to surface materials, to areas, and to heights alike.

Enamel chips and discolors, chrome finish flakes and rusts, wood decays (64). One study suggests scrubbable hardwood as being durable and not noisy

—an important point (147). This introduces a new cleaning problem, however, or rather re-introduces an old one which most homemakers would gladly forget; and probably the vote today would be for some hard surface, however impermanent, which can for the most part be cleaned by merely wiping.

There are never enough work surfaces, according to all accounts, and while the compact modern kitchen is too small to permit of enough well placed permanent work surfaces, interchangeable or movable surfaces might be made to supplement the main work surfaces. Thus a drop-leaf table built along one wall in the larger kitchen takes care in turn of clothes in the process of sprinkling or folding, of dishes used in serving meals and of those on their way to the dishpan afterwards, of preserve jars about to be filled, covered, etc. When the table is folded down the floor space is available for sewing machine or ironing board, later stored elsewhere. If no wall space is available, as will be the case in most of the smaller kitchens, small extensions to any convenient horizontal surfaces are easily attached by hinges or otherwise if space is allowed for in the plan. Even the window sill will serve to hold one. A double-deck zinc-topped work table on casters is suggested to supplement the surface of an inadequate stove-top, to extend the sink work counter, or to stand temporarily in any other position desired for preparing meals, collecting and stacking dishes, etc., and the recent U.S.H.A. Checking List (127) suggests consideration of wall space for a small work table. Since such a table would simplify kitchen design it may well come to be included with the enamel-topped pieces of equipment now general. The newer type of hot water heater for the single family home, which has already come down from a height of about 54" or 50" to about 40", may by dropping to 36" contribute also to needed work surface.

Studies of working surface heights brings out, among other things, that the graceful, streamlined one-height work surface is not the most economical in use. Stove top, drain boards and many other surfaces are approved at 36", but several authorities agree that 32" or 32½" is the right height for beating and mixing, processes for which many people use their sink bottom instead of the 36" high top (111, 82, 145, etc.)

The stove

Better insulation for stoves would save fuel and refrigeration cost, as well as making the kitchen pleasanter when the oven is in use: while return to the hood over the stove found in many old kitchens would not only carry off cooking odors but would also reduce the amount of smoke film which settles in other rooms. The A.P.H.A. says "any gas ovens . . . which involve the possibility of partial combustion must be provided with an adequate flue opening to the outer air" (5). A Committee of the President's Conference years ago recommended that gas stoves be vented with a flue to the chimney or outer air; and Mr. Gray in the OCTAGON deplors the lack of an electric fan or other device to avoid accumulation of cooking odors in lowest-rental housing for families on relief (46).

The low, shapely gas stove contributes to the good appearance of the kitchen. It is inconvenient in use, however, and one I saw in a medium-rent development near Washington was so low, and so awkwardly placed with regard to the door leading to the dining room, that the housekeeper, after having shut that door, had to kneel at an awkward angle to use the broiler. To handle a heavy joint would be almost impossible. A letter a year or two ago in one of the architectural journals reminds us that a few decades ago an oven at such a height that no stooping was required for basting was hailed as progress in the right direction.

Pilot lights have their disadvantages, especially when naphtha or benzene used for cleaning are brought too near to them. That is scarcely a reason for depriving everyone of their convenience, any more than is the experience of one management reported to be opposed to them on the ground that would-be suicides in that development cause expensive explosions when the pilot light ignites the escaping gas. Neither, I believe, is the fact that some tenants stand on the stove cover an adequate reason for depriving all tenants of the amenity and convenience of a stove cover, as proposed by another good management-mind.

Storage

Storage shelves for utensils and cutlery are often too high, according to the reports of managers. Cooperators in a western study are well suited if shelves for light-weight utensils and packaged groceries are not higher than 72", where there is no

countershef or other obstruction; that shelves for stacks of plates, glass, etc., ought not to be higher than 67" without countershef or other obstruction, and 64" with an obstruction amounting to 12" (111). Many Eastern city dwellers will probably prefer them an inch or more lower.

Lack of sufficient storage accommodation is generally complained of: more shelves are needed, more drawers, more closets. Staples are usually bought once a week in the city worker's home, vegetables and other perishable foods daily, as a rule. Few medium and low-rent kitchens have adequate storage space for convenient quantities of staples which would permit of economical individual buying or of the cooperative buying so often advised to cut costs. The Swedish workwoman's glass-fronted food drawers rather shame our miscellaneous odd cartons of minute quantities.

The draft, or cold cupboard, open to the air, which supplements refrigeration storage in many rural homes, will probably come into its own when we temper our present enthusiasm for year-round mechanical refrigeration with consideration of its cost and its limitations in use. A great part of the population of this country lives in the latitudes of its largest cities. Now, excluding the Coast cities, Los Angeles and San Francisco, the remaining twelve of the country's fourteen largest cities have an average temperature from November 1 to May 1 of 39.2° F; while nearly half of them, namely Milwaukee, Detroit, Chicago, Cleveland and Buf-

falo, average 35.5° F for those months. That is to say that for a great proportion of homes east of the Rockies little beyond draft storage is necessary during half the year. Such inexpensive roomy storage space would, among its many advantages, include avoiding mixture of odors and flavors inevitable where too many different kinds of foods are stored together in a refrigerator.

For larger developments, buying power at wholesale rates, there is little advantage in the draft cooler from the point of view of economy. For the family with an individual meter retail rates are a serious item; and at least one public body, the Alley Dwelling Authority, has installed draft cupboards in one or more of its projects in the District of Columbia. The ice-box with access for ice delivery from the outside, featured in the John B. Pierce Foundation's low-cost house at Lebanon, N. J., might lend itself to adaptation for iceless cooling when the weather permits.

Much ado about little, one is inclined to think; yet this space is often at once workshop, factory, laboratory, nursery and family center, operated over a term of years by one individual on whose health and efficiency depends largely the effectiveness of the rest of the family arrangements. Even in 1929 at the peak of our prosperity only 20 per cent of American families had any paid servants; and the figures worked out in a U. S. Department of Labor survey for the economic value of the kitchen product are staggering (94).

BATHROOMS

Showers

Showers are now required, says a Housing Study Guild survey of some low-rental quarters in 1935; and one lower-rent project studied, which was built in the prosperous late 20's without showers, was obliged later to install them (64). Notwithstanding, subsidized showerless housing has in most places more applicants than it can accommodate.

Substitution of a shower for a tub is in general not liked by occupants of low-rent housing, according to N.A.H.O. and other investigators, one of whom attributes this dislike to the association in the mind of the slum dweller between the shower and the stark discomfort of the public bath house.

As a substitute for the "desirable but costly"

shower and tub combination the N.A.H.O. suggests tubs provided with inlet fittings threaded to receive a shower connection furnished by the tenant (82). Just why the shower head, purchased in the quantities required by large-scale housing, should be expensive is not apparent; in any case planning is for three-score years ahead and means planning for five or six generations of shower-trained school children.

Where there are showers, regulating equipment to minimize the danger of scalding, as well as a non-slip floor are urged by the National Safety Research Institute (31), and the National Safety Council (65); and a grab bar about breast high is help when one inadvertently slips on the soap whereas

the grip about the level of the tub rim is not. Desirable also is general adoption of hot water faucets of such a height and form that the bather who does slip does not turn on the hot water faucets either by being hurled against them or by seizing them for support in his panic.

Bathtub

As for the tub: many of Dean Amos' clients want "Smaller tubs with one side bowed out to provide a seat" (6); and the Journal of the R.I.B.A. suggests that for older people the sitting bath is to be preferred to the usual tub (75).

The built-in hand grip for tub users is often in poor position; and A.P.H.A. urges temperately that it be placed "sufficiently in front of the bather's position to be within convenient reach". Safety suggests too that all grips be made of metal, as serious cuts have resulted from the breaking of ceramic grips (65).

Toilet

"Are toilet seats and covers necessary?" asked a southern authority in 1939, "for people only yesterday accustomed to the old privy?" The practical answer comes from another who points out that without them the puppy is as likely to find itself in the bowl, as are rubber balls and miscellaneous metal objects.

Granted that a toilet seat is necessary, the open front seat is urged by both the N.A.H.O. and the A.P.H.A., the latter from the standpoint of avoiding venereal disease transmission. So far as I recall, they have not been used much in public housing projects I have seen, which is not amazing in view of the fact that they are not general even in public buildings, and even in a leading architectural school where new seats have recently been installed the old form is used. One state, at least, now requires the open front seat for all work. A large proportion of the people reporting to Dean Amos want a foot-operated valve flush. On the other hand, a tank, instead of a flush valve was suggested somewhere not long ago as an economy measure for low-rent developments. This has the disadvantage of prolonging the toilet noise which the N.A.H.O. characterizes as one of "the most irritating to be found in multiple dwellings". Insulation of the soil pipe would help diminish this noise, of which a certain

amount must be tolerated within the dwelling unit; and insulation between the back-to-back medicine cabinets of adjoining apartments would not only cut off much of the neighbor's plumbing noise, but would also render his conversation inaudible—and designers of hotels, clubs, and expensive apartments may one day become aware of that simple device and adopt it.

Door and window

Neither children nor the shorter adult can open the window set above the bathtub without stepping into the tub, which nullifies U.S.H.A., F.H.A., and other good counsel about windows made to open. This window forms a feature of U.S.H.A. and F.H.A. planning recommendations. Most architects adopt for the small dwelling unit, especially in the apartment house, the solution shown in the great majority of U.S.H.A. plans (122, 130, etc.), namely placing the window above the bathtub, while agreeing with the Authority that this is a poor, though convenient solution. Well hung sash operated by a removable handle would seem to be indicated, since placing the window elsewhere would ordinarily require a more costly general layout.

Placing the lock of the bathroom door too high for small children to lock themselves in would save mental anguish for the family and rescue time for the management. Since taller children and even adults may be trapped also, a door latch to permit release from the outside would be good so long as the young fry do not abuse it, and so long as its key, if it has one, is not kept in the medicine cabinet in the bathroom.

Minor fittings

A number of small annoyances are recorded, many if not most of which can be foreseen.

The extending soap tray, glass holder, toilet paper fixture and bath grip, all easily broken, are common. No additional expense would be involved if soap trays were provided with drains; those usually found, even in better class houses need endless wiping for reasonable neatness. Toilet paper fixtures fit as a rule only the smaller rolls comfortably. A non-slip towel rail would cost no more than the type commonly found; and this is the most frequently requested "small item" in Dean Amos' survey. Simple provision for the great variety of items ordinarily or most conveniently used in the bathroom is

easy to install at the time of building; later make-shift provision is difficult, looks badly, damages walls and woodwork. Such items are clothes brush, shoe-buffer, hot water bottles, enema, bath brush, toilet brush, cleaning powders, wiping cloths, bath mat, and *all* the family's towels, washcloths, toothbrushes, etc. An average family uses far more medicaments and semi-medicaments than can be kept in the regulation cabinet.

N.A.H.O. suggests that "where requirements of low-cost housing preclude initial installation of towel bars, medical cabinets, soap dishes, and inset toilet paper holders, bathrooms should be provided with suitable nailing strips to which tenants may attach their own fixtures" (82); and the U.S.H.A. in its Checking List seems to agree with the transfer from initial construction to tenant maintenance of this trifling cost. The main thing is that there be some way in which an orderly family can arrange its indispensable equipment.

A simple wood cupboard, or, where the plan permits, a closet, would probably better solve the storage problem of most families than does the usual small metal cabinet. The need of a lock medicine cabinet

for storage of poisonous or irritating medicaments, urged by the Safety Research Institute, is indicated by the fact that accidental poisoning occurs fifty per cent oftener in the case of the adventurous climbing boy than it does with his more sedentary sisters; and designers might well transfer this lock cabinet to the parent's room, leaving the bathroom cabinet for the family dentrifices, cosmetics and shaving materials.

The lavatory is reported as too low for average-height housekeepers by a New York survey which emphasizes the fact that 33" or 34" would be much more comfortable for the "average person" (147). The combined hot-and-cold water faucet which, when the water is turned on, splashes from the patent stopper to the floor or the user, is found a nuisance rather than a convenience.

Toilets separate from bathroom and lavatory are reported good by many families, principally as a time saver during the morning rush hour; and a combination bathroom-laundry-utility room, as suggested in the section on space use, would leave the kitchen free for meals, homework, and general assembly.

Recent Appointments

The President of The Institute has announced the appointment of the following corporate members to serve as representatives of The Institute on the technical committees indicated:

Mellen C. Greeley, *Florida North Chapter*, on American Standards Association, Building Code Correlating Committee—1941-42, with Theodore Irving Coe, *Washington, D. C. Chapter*, as alternate.

Harold R. Sleeper, *New York Chapter*, on American Standards Association Sectional Committee on Chimneys and Heating Appliances.

Dewey A. Somdal, *North Louisiana Chapter*, on American Standards Association Sectional Committee for Iron and Steel.

Herbert M. Hathaway, *New York Chapter*, on Ameri-

can Standards Association and NFPA Sectional Committee on Building Exits Code.

S. F. Voorhees, *New York Chapter*, on American Standards Association Sectional Committee for Elevators, Dumbwaiters and Escalators.

M. Edmunds Dunlap, *Philadelphia Chapter*, on U. S. National Bureau of Standards Committee on Commercial Standards for Burners for Pennsylvania Anthracite.

Abraham Levy, *Philadelphia Chapter*, National Fire Waste Council of the U. S. Chamber of Commerce.

Karl Schmill, *Buffalo Chapter*, on U. S. National Bureau of Standards Standing Committee for Recommended Commercial Standard for Hardwood Stair Treads and Risers, CS89-40.

Lebon Seron, *Chicago Chapter*, on American Standards Association Committee A58—For Minimum Design Loads in Buildings.

The Department of Technical Services—Notes

BY THEODORE IRVING COE, TECHNICAL SECRETARY

Conservation of and Substitutes for Essential Metals.

The use of metal, in a variety of forms, has become essential to the construction of buildings, particularly in the development of the mechanical equipment and conveniences which contribute to labor saving, comfort, and convenience.

The imperative demands of defense for these essential metals has clearly demonstrated the present impossibility of providing sufficient material to satisfy the needs of defense and the normal requirements of non-defense construction.

Many of the materials which enter into construction are still available and are not, as yet, subject to priority restriction, and certain types of structures can be so planned as to require a very limited quantity of the metals which defense needs and must have.

This presents to the architect and the construction industry the challenging problem of devising construction techniques which will limit the need for essential metals and the finding or developing of substitutes, where conditions cannot permit the elimination of materials which are not available for non-defense construction requirements.

In its program for repair, modernization and rehabilitation the HOLC has suggested the following substitutes in lieu of essential metals, all of which have practical application to new construction:

Wood for gutters and downspouts in lieu of metal, Wood frame screens for metal frames, Wood louver ventilators in lieu of metal, Wood sash for metal sash, Wood or composition shingles for metal shingles, Composition flashings in lieu of metal, Wood shingles or composition roofing in place of metal roofing, Masonry piers or wood columns in lieu of pipe columns, Plain concrete walls of greater thickness or masonry walls in lieu of reinforced concrete, Masonry or plain concrete piers or columns in lieu of reinforced concrete, Thicker concrete driveways, walks or floors in lieu of wire mesh reinforced concrete, Plain concrete footings of greater dimensions in lieu of reinforced concrete, Soap stone or cast cement laundry trays in lieu of enameled iron, Vitreous ware plumbing fixtures in

lieu of enameled iron, Glass door knobs and escutcheon plates instead of metal, Plastic or glass switch and outlet plates in lieu of metal, Wood or reinforced lintels in lieu of steel lintels, Wood cabinets in place of metal, Wood girders in place of steel beams, Wood hand rails in place of pipe or other metal, Wood fences in lieu of metal.

Prior to the developing of defense needs an apparently inexhaustible supply of materials of all kinds called for little thought of conservation or the development of acceptable substitutes.

The time for such thought has now come and the supplying of the desired amount of non-defense construction, under present conditions, will, to a considerable extent, depend upon the ability of the architect and the producers of building materials to solve the problems of the conservation of essential materials and the finding and development of practical substitutes which will provide the necessary degree of durability and minimum maintenance cost.

Standards for Streets and Roads in New Subdivisions.

The Federal Housing Administration has announced that there is now in prospect for practically the entire United States uniform standards for street and road improvements in new subdivisions.

The establishing of such standards has long been the objective of FHA in the interest of a better investment for the home owner, a more stable and livable community and a sounder mortgage for the lending institution and the FHA.

In determining the standards consideration has been given to local conditions, in different areas, traffic requirements for various types of subdivisions, the types and widths of pavements for different densities of traffic and the high cost of inadequate pavements to both the city and the home owner.

Basic costs have been determined for streets in different sections of the country and these have been broken down into their component parts of streets, sidewalks, storm and sanitary sewers, curbs, gutters, planting, park strips, etc., with differences in cost between various materials.

Possible Substitutes for Aluminum Paint.

The Specifications Branch of the Bureau of Industrial Conservation, OPM, has made available copies of a statement prepared by E. F. Hickson, Chemist, National Bureau of Standards and H. S. Gardner, Chemical Engineer, The Institute of Paint and Varnish Research, describing substitutes for Aluminum Paint which are recommended for use in the painting of various types of materials.

Copies may be obtained by addressing Mr. C. L. Warwick, Room 5326, New Social Security Building, Washington, D. C.

Effect of Freezing and Thawing on Painted Brick.

The Structural Clay Products Institute advises the failure of painted brick, due to the effects of freezing and thawing, is not an unusual condition.

Instances have been noted where a considerable percentage of the face brick has disintegrated, in many instances to a depth of $\frac{1}{2}$ inch or more.

It is the opinion of The Structural Clay Products Institute that highly absorbent brick, which may have satisfactory weather resistance when the pores are open, permitting the rapid escape of absorbed moisture, are subject to disintegration and spawling, due to the freezing of absorbed moisture, when these pores are sealed with paint or a waterproofing compound.

It is, therefore, recommended that exterior brick to be painted be of a hard burned type meeting the requirements of Grade SW of ASTM Specification C62-4OT, and having a total absorption, by five hour boil, of not over 10% to 15%.

Cornell Offers Degree In Planning

AS a result of a successful six-year experiment in offering courses in City and Regional Planning as a field of undergraduate study, the Graduate School at Cornell University announces that, beginning this fall, graduate students may elect to major in this field of endeavor leading to the degree of Master in Regional Planning.

Properly qualified students who enter the Graduate School at Cornell and who, during their undergraduate years, majored in any one of the fields of study related to large-scale planning may elect to become candidates for the degree of Master in Regional Planning.

Thus, through its Graduate School, Cornell of-

fers unusual opportunities for study in the field of large-scale planning. Many related courses of study are open to the graduate student in addition to the special required technical courses in planning for all students, candidates for the degree.

The graduate work in planning is under the administration of Professor George H. Sabine, Dean of the Graduate School. Gilmore D. Clarke, Professor of Regional Planning and Dean of the College of Architecture, and Thomas W. Mackesey, Assistant Professor of Regional Planning, are in charge of planning instruction, while faculty representatives of several related fields of study are actively cooperating in the program.

Steedman Fellowship Competition

The Governing Committee of the James Harrison Steedman Memorial Fellowship in Architecture hereby announces the opening of the sixteenth annual competition.

The Fellowship is open to all graduates of recognized architectural schools, who are between the ages of 21 and 31 at the time of appointment, and who have had at least a year's practical work in the office of a St. Louis architect.

Forms of application for registration can be ob-

tained upon written request to the Secretary of the School of Architecture, Washington University, St. Louis, Mo., to whom application blanks properly filled out must be returned not later than January 31, 1942.

The preliminary exercise will be held on Saturday, Feb. 14th in the School of Architecture Building, Washington University, or in the case of candidates residing outside of St. Louis, during the same hours under duly approved conditions.

With the Chapters

NEWS NOTES FROM CHAPTER SECRETARIES

Albany.

One of the most successful meetings of recent months was held by the Albany Chapter, Wednesday evening, Nov. 5, 1941, at the Troy Club, in Troy.

Reports from the Public Relations Chairman Henry Blatner and Historic Monument Chairman Van der Bogert indicate that an energetic program will be undertaken in these fields in the near future. Education Chairman Bannister proposed thirteen advanced students from the Department of Architecture, Rensselaer Polytechnic Institute, for student associate membership, and they were admitted. The Education Committee was instructed to report means of establishing a student chapter to be chartered by the Albany Chapter at Rensselaer.

Ellis Rowlands was named as the new student member of the Education Committee, and Lorenzo Albre was appointed the new student member of the Entertainment Committee.

As the special program for the meeting, Russell White reported his participation as sergeant-at-arms and member of the Resolutions Committee at the Syracuse Convention of the New York State Society of Architects, and described the discussions on professional practice and conditions held at the various meetings.

The second speaker was Regional Director Clement R. Newkirk, who journeyed down from Utica to report the activities of The Institute's Board of Directors in the face of the present emergency caused by the defense program. He told of the difficult problem of priorities, and explained the procedure now used in obtaining priority ratings. Mr. Newkirk then discussed The Institute's proposals to broaden the basis for membership.

These talks precipitated a great volume of discussion in which all present took part up to an unusually late hour.

TURPIN C. BANNISTER, *Secretary*

Arizona.

The regular meeting of the Arizona Chapter was held at the Pioneer Hotel in Tucson, Saturday, October 11.

Running in competition with Defense work and the Arizona-Nevada football game we did not do so well on attendance, but enjoyed seeing Clement K. Chase's moving pictures taken in Mexico. Most of his subjects are architectural and he has done such an excellent job that he has achieved several amateur awards for his work.

Business of the meeting included discussion of plans for this season's architectural show and reports of the several committees covering the program for this year.

F. W. WHITTLESEY, *In Charge of Publicity*

Brooklyn.

The Chapter held its regular monthly dinner meeting in Brooklyn, N. Y., on October 27, with Chapter president Joseph Mathieu in the chair.

The meeting was well attended, President Mathieu presiding in an atmosphere of unity and co-operative spirit.

The program was enriched by the guest speaker, Clement R. Newkirk, our Regional Director, whose talk on the future and present work of The Institute in behalf of the profession was of especial interest to all members. Upon conclusion of Mr. Newkirk's talk he was given a rising vote of thanks.

The president spoke on the fine attendance of our one of our illustrious Past Presidents, Mr. J. Monroe Hewlett, architect and painter and former resident member of the Academy in Rome, who passed away at the age of 73 years. The Chapter Board of Directors previously voted on a suitable memorial resolution to be presented to his widow and family.

The president spoke on the fine attendance of our members at the New York State Association's three day Convention at the Syracuse Hotel, Syracuse, N. Y., attended by the eighteen member Societies and concluding with a banquet Friday evening, October 18.

Our members were well represented in the activities of the Convention and Miss Olive F. Tjaden, Messrs. Joseph Mathieu, Ralph M. Rice, Adolph Goldberg and Adolph Mertin spoke on

the various subjects comprising a very rich and instructive program presented by the speakers on almost every subject of vital and timely interest to the profession.

ADOLPH MERTIN, *Secretary*

Central Illinois.

Ike Harrison, of the Public Action & Information Committee talked about the Public Information programs sponsored by several Chapters throughout the United States, and it was moved and seconded that the president appoint a committee to work with the Illinois Society of Architects and the registered architects of Southern Illinois to plan a scheme for such programs in Illinois. President Pleins read a letter from L. Morgan Yost, a member of the A.I.A. Committee on Public Information, in which he requested the appointment of a chapter representative to act as liaison officer to The Institute Committee. Mr. Harrison was appointed as our representative.

As a result of a letter received from Mr. Alexander Eschweiler, Jr., Chairman of the A.I.A. Committee on Industrial Relations, in which he requested a report from the Chapter regarding any experience we have had with unfair encroachments on the professional field of the architect and engineer, a resolution was passed, directing president Pleins to reply to this letter, suggesting methods to counteract such encroachments.

We had the pleasure of hearing our Regional Director, Mr. Peter Brust of Milwaukee, discuss the many problems of The Institute in Washington in regard to the numerous federal departments having appropriations for building and the difficulties of private architects to get any of this work. He also talked about the methods used in Milwaukee and other places to get the architects' work before the public.

A. N. SCHAEFFER, *Secretary*

Florida North.

The Florida North Chapter held its quarterly meeting October 13, in Jacksonville at the Windsor Hotel. The meeting was very well attended. This meeting was a regular business affair and when the trivial business, including a tender steak dinner, was executed and put into its proper digestive place,

the more current highlights of the profession came into the foreground.

Several committees reported on their work. Mr. Greeley reported on and explained the new registration law in Florida and its effect upon the present practicing architects and on future registrants. Mr. Hall reported on the new modernized building code for Jacksonville. In the round table that followed several interesting items were discussed.

O. E. SEGERBERG, *Secretary*

Georgia.

Arthur Neal Robinson, Sr., reported on the Georgia Engineering Society, pointing out that individual members and the Chapter had taken an interest in the formation of this organization but that the Chapter had taken no official action. Therefore, he made a motion that the Georgia Chapter of the American Institute of Architects assume responsibility, together with other technical societies, to act as one of the sponsors of the Georgia Engineering Society and agree to contribute towards organization expenses to be paid out of the Chapter treasury.

Announcement of the organization meeting of the Georgia Engineering Society at the Biltmore was made. The chair appointed A. N. Robinson, Sr., H. Bush-Brown and Clement Ford to represent the Chapter.

HAROLD BUSH-BROWN, *Secretary*

New Jersey.

Marcel Villanueva led a rectangular table discussion on the part of the architect in the post-defense period at the October joint meeting of the New Jersey Chapter and the New Jersey Society of Architects. With large maps which were so expressive that they were readily understood even by those of us who have but little intelligence, he brought out the shortcomings of zoning after twenty years of operation and outlined the objectives of town planning and the part that architects should take in it.

Herbert Moffett reported that the Historic American Buildings Survey is going to present a full set of the record drawings covering this state to the New Jersey State Library at Trenton in December. The said set comprises between eight and nine thousand drawings with their historical

data. The Chapter and Society hope to be well represented at the ceremony.

Under a new set-up, the Secretary's rough notes of the executive meeting are read at the members meeting. This was done and they were received in glum—but not ominous—silence. At least, it seemed so to the Secretary, who saw nothing un-

usually vindictive in the glances he got.

Paul Drake, Harry Stephens, Victor Reynal, Gilbert Higby, John McLeod and Charley Ackerman were all mentioned in dispatches, as one might say, in scanning the notes of the meeting.

CLEMENT W. FAIRWEATHER, *Secretary*

New Books

Shelter for Living.

By Ernest Pickering, A.I.A. *John Wiley & Sons, Inc., New York—\$3.75.*

An architect who reviews "Shelter for Living" says that the author, Ernest Pickering, A.I.A., Professor of Architecture at the University of Cincinnati, has presented a subject of increasing interest with a broad and detailed background of sociological and cultural development, architectural history, physical-social environment, economics and functionalism.

The author's statement that the book was written primarily for students in schools of architecture and home economics, and for architects, builders and prospective home-owners, is amply demonstrated in the completeness of the analysis of fundamentals and the inclusion of practical examples and data of informative value not only to the student but to the architect who has been more interested in the results than in the factors which deserve consideration if shelter for living is to not only meet economic and the mechanics of home use and occupancy needs, but to express the aesthetic qualities associated with a truly architectural solution.

While giving sympathetic consideration to "functionalism", as applied to shelter for living, Professor Pickering does not subscribe to the theory that anything which functions adequately is sufficiently beautiful and that appearance is relatively unimportant so long as the subject—whether vase, automobile, or home—does the thing for which it was made.

He points out that this philosophy is contrary to history and that functionalism alone cannot satisfy, for long, either today or tomorrow.

The illustrative material has been well selected and adequately supplements the practical and informative value of the text to the student, the architect interested in housing, and the prospective home-owner.

Architectural Graphic Standards (Third Edition).

By Charles George Ramsey, A.I.A., and Harold Reeve Sleeper, A.I.A. *John Wiley & Sons, Inc., New York, N. Y.—9" x 11½"—344 pages—\$6.00.*

"Architectural Graphic Standards" have long served the architect with a most useful drafting room assistant in the preparation of the large scale and detail drawings which, without its aid, usually call for time consuming reference and research.

In the new, and third, edition, *Architectural Graphic Standards* more than ever justifies the objectives of its first edition to serve the needs of architects, engineers, decorators, builders and draftsmen.

Landscape architects, building superintendents, industrial plant managers and students will find much of interest and informative value.

The Standards have not only been revised to agree with the most modern recommended practices, but some 72 entirely new sheets have been added.

In addition to a table of Contents there is a comprehensive Index to facilitate easy reference.



