THE HOUSING DIVISION OF THE PUBLIC WORKS ADMINISTRATION IN ITS ARCHITECTURAL CONTEXT

by

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ABSTRACT

The architectural articulation of American public housing, first introduced in 1933 as an element of the New Deal program, is analyzed with regard to the position occupied by housing within the contemporary political framework and to the administrative measures established to realize the housing program. Within the economic relief policy, housing provided an ideal focus of activity because of its potential to create jobs and low-cost shelter. The Housing Division of the Public Works Administration functioned as the government agent in the execution of the national housing venture, and as such was responsible for the development of those adminsitrative measures deemed necessary, by them, to accomplish the task.

The administrative model established, however, retained a high degree of centralized control, which in combination with the Housing Division's expansion of authority into and over architectural issues produced a uniform character which runs through all fifty Public Housing Projects initiated during the life span of the PWA Housing Division from 1933 to 1936. This uniformity of design obviated any true responsiveness to any local exigencies and hence created an anti-contextualism with regard to surrounding community structure.

Thesis Supervisor: Stanford Anderson
Title: Professor of History and Architecture

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Introduction

In the United States, the subject of housing was almost unknown and without precedent until the establishment of a public housing program, within the National Industrial Recovery Act 1933 as a part of Franklin D. Roosevelt's New Deal policy. Although American housing reformers and officials were quite aware of the European developments in social housing, they were convinced that the differences in social structure and standards of living necessitated the establishment of a unique approach. Consequently, the head of the Federal Emergency Administration, Harold L. Ickes, established the Housing Division and charged it with the responsibility to develop and execute the national housing venture. This decision implanted, at the start, a bias toward centralization which reoccurred at each executive level of development in the housing program. Throughout the development phase of the Housing Division's program particular attention was given both to issues of bureaucratic policy and issues of architectural articulation. However, an examination of PWA literature reveals that discussion of these interconnected topics was fragmented.

The architectural aspect of public housing is, at best, vaguely represented in the treatises on American architectural history. This thesis addresses the original

U.S. public housing program from the perspective of its interrelationship with the larger policy issues of the New Deal era. These policy issues were built on two principal functions, one administrative and one economic. The architectural vocabulary characteristic of American public housing was determined by the administrative goal of central control and the economic goal of reduced unemployment levels.

The analysis of the impact of New Deal Policy on the development of architectural solution for the housing program will be treated in three parts: first, planning issues concerning the reoccupation of slum land versus the occupation of vacant, less centrally located land; second, the impact of the specific design approach developed by the Housing Division; and finally, the impact of the introduction of the public housing issue on architectural education during the New Deal period. Each of these three branches of the analysis are discussed in light of the administrative and economic goals of the PWA. On the planning level, economic issues such as reemployment, the Housing Division's concern not to provoke a conflict between public and private fields of operation as well as the social costs thrown upon society by urban areas in dilapidation, showed a clear predominance in the decisions regarding project locations. As a result of this predominance, slum clearance and reoccupation were chosen as the best possible

guarantor of all those issues described above. The use of a reinterpretation of the "neighborhood community idea" established the architectural articulation of PWA housing projects within their urban context. The Housing Division's design approach was systematized in an effort to produce uniformly controllable and predictable results in each project regardless of its individual context. This systematization of design procedures was intended to minimize time and costs in the design phase for each project in order to allow more rapid and broader reemployment opportunities. The ensuing subjugation of architecture to bureaucratic process provided by the "top-heavy" control of the Housing Division excluded individual creativity and replaced it with a standardized procedure concerned exclusively with technical issues.

Finally, the introduction of public housing ideas was of positive impact within the area of architectural education at the conceptual level. The confining policy developments of the central authority which were transferred to the Housing Division's own notions of appropriate prototypical design principles, however, led to a paradigmatic architectural framework. By the subjugation of project architects' position to that of executing preconceived constructs the Housing Division circumvented the emergence of an evolutionary process in public housing projects over time.

1.Ø Policy and Organization of the Housing Division of the Public Works Administration

The Housing Division of the Federal Emergency Administration of Public Works, commonly known as the PWA (1933-1937), had its origin in the National Industrial Recovery Act of June 16, 1933 for the "construction, reconstruction, alteration or repair under public regulation or control of low-cost housing and slum clearance projects ..."[1] The emergence of the housing issue out of an economic relief policy revealed, to a certain extent, the true impulse which triggered America's sudden housing consciousness. Up to that time, low-rent housing in the United States was confined to a few specialized interests such as philanthropic, investment and cooperative housing ventures. However, all those enterprises were motivated by private initiative and hence operated on a self-liquidating basis, causing rents exorbitant for the lowest income groups. Other than these few attempts to provide a solution for America's housing problem, the housing and real estate market was governed by speculative builders.

The catastrophic consequences of the Depression unveiled the fact that private enterprise was incapable of furnishing appropriate accommodations for the "urban poor" and thus forced governmental action. Robert D. Kohn, first director of the PWA Housing Division observed:

> The Depression has given America one lasting boom. It has centered attention on the greatest physical need of America today -- adequate housing for its workers. The building of new housing presents the largest single field for the safe investment of money to say nothing of its unquestioned social and economic advantages. 2

It was anticipated that the PWA Housing Division occupied an advantageous position over the many other agencies involved in relieving the burdens of Depression because it operated in a field "of capital investment in consumer's goods where the supply available [was] less than half the demand."[3] The supply of that demand, stated Kohn, could keep "if properly directed, ... the construction industry busy for many years."[4] Such a revitalization of the building industry (which accounted, by its breakdown, for a third of total unemployment) represented a major opportunity in the campaign to attack economic ills.

During the first four months of its existence the Housing Division continued the limited dividend program begun in 1932 by the Reconstruction and Finance Corporation commonly known as the RFC under the Emergency Relief and Construction Act signed by President Hoover on July 21, 1932. The Hoover-heritage of the New Deal in housing, the RFC, operated in direct behalf of the building industry by assigning loans to housing corporations which agreed to limit rents and dividends. However, while this 1932 Act induced much legislation, it produced little housing. Fred F. French's Knickerbocker Village, a slum clearance project

situated on Manhattan's Lower East Side, represents the only RFC project, a project which, moreover, did not permit, due to its self-liquidating financial structure, the rehousing of those who formerly lived in the area it now occupied. By adopting the RFC program, the Housing Division started out with a policy primarily lending financial assistance to limited dividend corporations. Qualified applicants for loans were to receive a loan meeting 85 percent of the total project cost. The applicants themselves had to supply the remaining 15 percent in true equity. The Housing Division received 500 applications by the end of 1933. Only seven projects of limited dividend corporations found the Division's approval and were constructed under the Authority's auspices, whereas all the other applications had to be refused either because the prescribed equity was not available, or the proposed projects did not meet the standards for social desirability and financial soundness as set up by the Housing Division. Robert D. Kohn observed:

> Some have called for the erection of towering skyscrapers in crowded districts, with complete lack of appreciation of the expense involved in such construction and the high cost of its upkeep; others have involved the use of sites inconsistent with the logical rebuilding of their communities as projected by city planning bodies; yet others have been formulated without any understanding of the complex financial, architectural and social factors involved. 5

As will be discussed in greater detail in the succeeding chapter, two factors determined the social desirability of a project: first, the compatibility of a project with

regional and supra-regional long-range planning and second, according to the major purpose of the Public Works Administration, a project's potential to "increase employment quickly."

Since the clearance of slum areas and their reoccupation by low-cost housing provided, in the eyes of housing officials, the most effective means of achieving the Act's main purpose, the proposed "real estate developments of a speculative character" predominantly concentrated on the disposal of vacant land, caused the Housing Division in October 1933 to restructure its entire policy. It was observed in "The New Plan of Action" published in the February 1934 issue of The Architectural Forum:

> Hamstrung from the first by lack of adequate quarters, personnel and equipment -- guided by no definite announced policy or procedure -- having no research group to supply the essential statistical and technical information -- deprived of any actual executive or financial powers in its own right -- the Housing Division got away to a poor start. 6

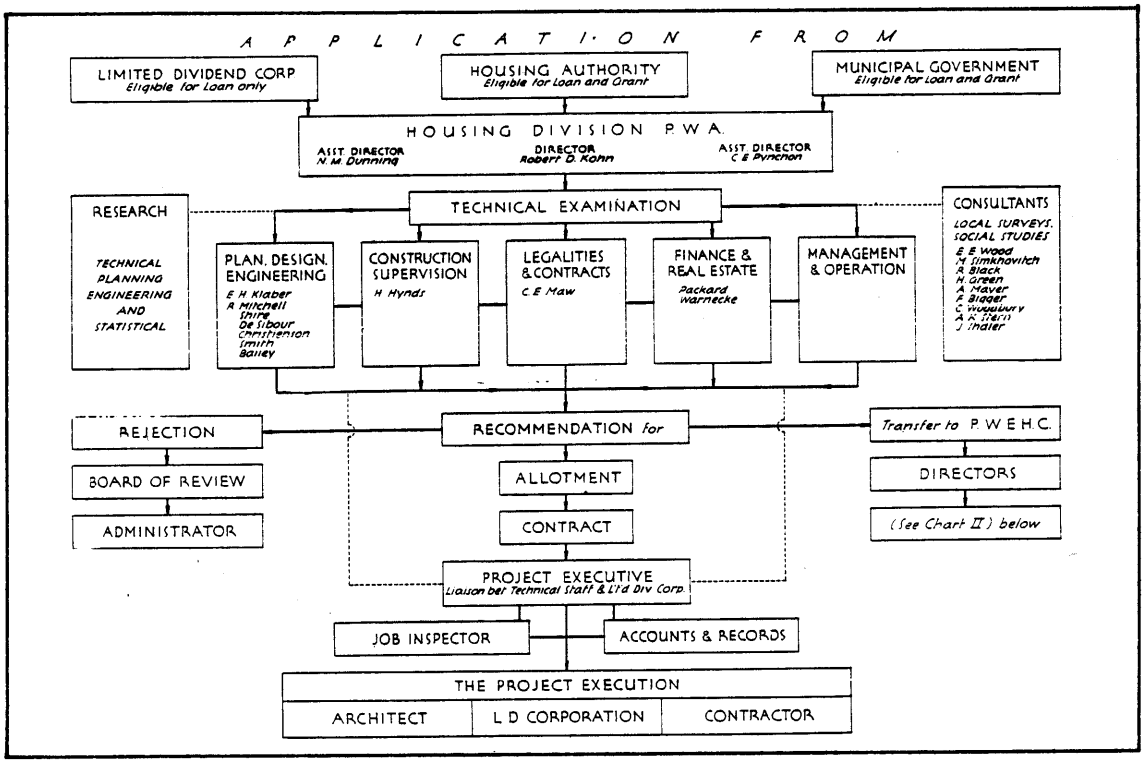
In order to be an effective agency within the national recovery program, the PWA Housing Division shifted its emphasis from a purely loan-oriented policy to a subsidized public housing program. Under this policy a 30 percent grant, suplemented by a 70 percent loan was allotted to legally constituted local housing authorities. The transformation phase, started in October 1933, was characterized by multivarious activities. By calling to Washington "a large corps of experts" including realtors,

architects, engineers and lawyers, the Housing Division's staff was considerably augmented in order to form "an organization with clearly defined and delegated functions."

The chart below (fig. 1) shows the organization of the PWA Housing Division as well as the "flow" of a project from application to completion. As the diagram indicates, the Division intended to operate through housing authorities, limited dividend corporations and local governments, where such were "empowered by law to engage in slum clearance and housing, and financially in a position to provide the necessary guarantees for the loan." Explaining the Housing Policy of the PWA, Harold L. Ickes stated:

> It continues to be the policy of the Public Works Administration to encourage local study and promotion of low-cost housing. The Public Works Administration will continue to loan on slum clearance operations and low-cost housing projects sponsored by Limited Dividident Corporations. Such corporations have a distinct advantage in certain fields of activity. ... The Administrator is particularly interested in projects presented by Municipalities and Public Housing Authorities. To warrant approval in either case, such applications must fully satisfy the requirements of the Administration. ... the Administration will be particularly interested to find ways by which such projects can be helped financially and otherwise. 7

Reality, however, yielded a rather different situation. Despite policy changes the limited dividend corporations were, as under the Hoover administration, still only eligible for an 85 percent loan. Hence their competitive position on the low-rent housing market was, from the



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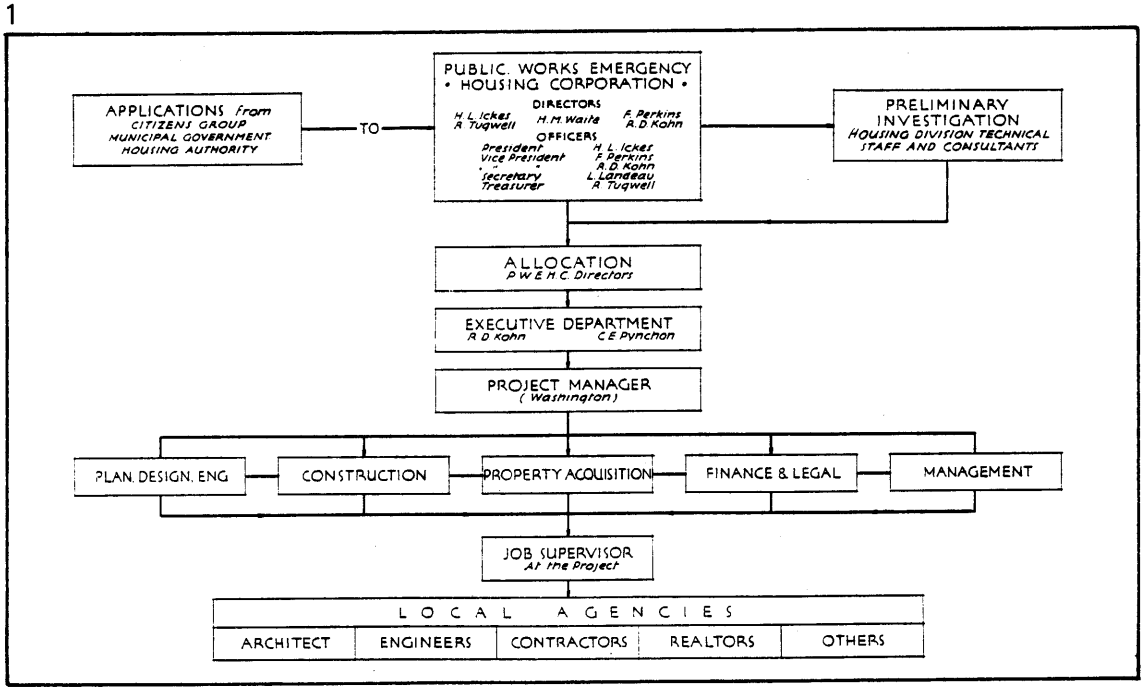


2

1 Organization and Function of the PWA Housing Division
2 Organization and Function of the PWEHC

beginning, weakened in comparison to the possibilities offered to local authorities which received 30 percent grants supplemented by 70 percent loans. Legal and financial technicalities favored the participation of municipalities in the governmental housing venture through local housing authorities. However, in January 1934 only two cities in the country had legal authority to engage in public housing construction. Therefore the PWA Housing Division established the Public Works Emergency Housing Corporation, commonly known as the PWEHC. (fig. 2) This corporation, designated by Franklin D. Roosevelt by virtue of the authority vested in him under title II of the National Industrial Recovery Act was "authorized and empowered to construct, finance, or aid in the construction or financing of any public-works project included in the program prepared pursuant to the act."[8] Furthermore, the PWEHC was explicitly "authorized and empowered to acquire by purchase, or by exercise of the power of eminent domain, any real or personal property in connection with the construction of any such project."[9]

Harold L. Ickes, Administrator of the Federal Emergency Administration described the PWEHC's scope of operation by stating:

> It is the intention of the Public Works Administration to take the initiative in slum clearance and low-cost housing projects in the interest of unemployment relief and recovery only in cases where local agencies are unable to do so or unwilling to act promptly. Such projects will

> be undertaken by the Public Works Emergency Housing Corporation upon invitation from lcoal officials and/or groups of representative and responsible citizen or civic organizations. 1Ø

The Housing Division's policy was constructed in a way which externally pretended to provide multilateral participation of differently organized agencies representing distinct areas of interest. The program was from the outset drasticallly limited by certain parameters. An analysis of the situation reveals that in formulating a new policy the Housing Division intentionally disregarded experience acquired in its first year of existence. By raising the PWEHC to an almost autocratic level, the Housing Division involuntarily presented evidence for its ulterior motive which is characterized by a striving for centralized control. This endeavor for principal control under the disguise of frequently repeated protestation that local participation would be highly appreciated, will reoccur on various levels throughout this study.

A more careful reading of the "flow diagrams" yields further evidence of this assertion of central authority. It is worthy of note that the interlocking of the various executive levels was governed by a rigid hierarchical structure, prohibiting any influence by lower level entities on decisions made at higher levels. The only "loop" in this system, indicating a certain interaction, can be discovered on the level of technical examination of project applications by the Authority. This block, designated as

"Preliminary Investigation" and constituting the heart of the entire organization, was made up of seven branches:

Branch I	Initiation
Branch II	Plans and Specifications
Branch III	Land Acquisition
Legal Branch	
Branch IV	Construction
Branch V	Management
Branch VI	Research and Information

Through all the early stages of a project the Initiation Branch dealt "directly with the local persons or bodies interested in sponsoring a housing project for their community." This branch decided upon the compatibility of the proposed project with the long-range development plan of a city, its financial soundness, as well as its social desirability. The Initiation Branch, moreover, occupied a key position insofar as it recommended and approved projects for further development. According to the Housing Division's own description, Branch I kept itself, throughout such development, informed on the progress of each project and handled the general correspondence concerning it.[11]

Branch II, Plans and Specifications, laid down the architectural design requirements for a housing project, served as a consultant agency for the local architects selected by the Division, and supplied them with basic

information. Checking and approval of final plans and specifications were part of this branch's scope of responsibility.[12]

Steps involved in the acquisition of land, including the obtaining of options, appraisals, title examinations and title clearance were the responsibility of the Land Acquisition Branch in coorperation with the Legal Branch. Local men who, after thorough investigation by Branch III, were "carefully selected with reference to character, ability and experience" took charge of all the Housing Division's appraisals.[13]

The Legal Branch closed options transmitted to them by the Land Acquisition Branch and took title to the sites for the United States. It prepared and executed all contracts, edited all specifications, cooperated with municipalities in the preparation of ordinances for the closing of streets and alleys and other local responsibilities. The Legal branch also handled general legal routine in cooperation with other branches as well as assisting states in the preparation of housing legislation.[14]

The Construction Branch of the Housing Division was in charge of bids and contracts, supervised demolition, and controlled construction, in accordance with the plans and specifications, until the project was completed and ready for occupancy. One of the most important functions of this

branch was considered "the maintenance of a constant check between project managers, architects, and contractors to the end that no commitments or erroneous instructions [were] issued or statements made upon which the contractor might [have] claims for unauthorized extras, extensions of time or relief from any of his contractual obligations."[15]

The Management Branch of the Housing Division supervised the operation of a completed project, selected tenants, assisted in both removal of tenants from areas to be evacuated and their relocation. A management school in Washington offered admission to "candidates bearing special qualifications and trained them in the essentials of successful housing management, at the same time acquainting the students with the management standards and procedures of the Housing Division of the Public Works Administration."[16]

The Research and Information Branch maintained two research and three information sections. One of the research sections dealt with "technical research or habitations" and the other with "social and economic research, or occupants." Information was made up of three sections: Editorial, Conference, and Demonstration.[17]

The seven branches, indeed, represented the Housing Division's control mechanism for the various development and execution phases of a project. The interactive character of operation within this block was unlike the executive realm

where the organization adopted was a one-way, parallel flow pattern which consciously avoided interrelationships between agencies situated on the same level. This fact is significantly expressed in the bottom area of the diagram, where the project execution maintained separated relationships between architects, engineers, contractors and realtors, acting as the mediator between these local agents. The drastic impingement of this organizational set up upon a projects' execution, especially with respect to planning and design issues, will be treated in a more detailed fashion in the succeeding chapters.

In February 1934, the Administrator Harold L. Ickes announced the pre-programmed suspension of the limited dividend loan policy. Limited dividend projects which were in the process of approval and accorded with the Division's socio-economic desirability standards, but were lacking the required equity were shifted over to the Federal Housing Program which from then on prevailed. B.M. Pettit, chief of the Initation Branch of the Housing Division, discussing the government's entry into its public housing venture, observed:

> What a delightful thing it is to feel that we are standing on the threshold of a thing grandly old and grandly interesting. Feeling that, we may approach it wisely and continue along that path. So that, if we may start out with the understanding that, socially and architecturally, we have a national problem before us with a local interpretation of local needs, I think we may then begin to say: What shall we do in going in and meeting the problems which may arise?" 18

The Housing Division's recognition and evaluation of these problems as well as the methods of approaching them will be the subject of the following chapters.

NOTES

1. Federal Emergency Administration of Public Works, The Purposes, Policies, Functioning and Organization of the Emergency Administration. The Rules Prescribed by the President, Circular No. 1, p. 17.

2. Robert D. Kohn, "The Government Housing Program," The Architectural Forum, LX (February 1934), 89.

3. Ibid.

4. Ibid.

5. Ibid., 90.

6. "The New Plan of Action," The Architectural Forum, LX (February 1934), 97.

7. Harold L. Ickes, "The Housing Policy of PWA," The Architectural Forum, LX (February 1934), 92.

8. "Copy of the Executive Order Establishing the PWEHC," The Architectural Forum, LX (February 1934), 91.

9. Ibid.

10. Ickes, op. cit., 92.

11. Federal Emergency Administration of Public Works, Urban Housing. The Story of the PWA Housing Division 1933-1936, p. 16.

12. Ibid., p. 17.

13. Ibid., p. 18.

14. Ibid., p. 19.

15. Ibid., p. 20.

16. Ibid., p. 20, 21.

17. Ibid., p. 21, 22.

18. B.M. Pettit, "The General Aspects of the Low Rent Public Housing Movement in the U.S.," Bulletin Georgia School of Technology, XXXII (July 1935), 101.

2.Ø Technical Standards and Specifications Established by the Housing Division of the Public Works Administration

2.1 Site Selection for a Housing Project with Respect to Planning

The National Industrial Recovery Act, part of the reconstruction legislation, provided that the Administrator, under the direction of the President, should prepare a "comprehensive program of public works."[1] The precarious economic situation, however, caused the legislative power to introduce the so-called immediate comprehensive plan as a kind of intermediate phase, which involved the formulation of a long-range national plan. Hence, it was one of the duties and functions of the Emergency Administration to determine the eligibility of Federal or public projects from the standpoint of national planning as well as with regard to the projects' potential for "increasing employment quickly, while reasonably securing any loan made by the Administrator."[2]

Housing ideally served the act's declared purpose to further employment. As was observed in the "Policies of the Administrator Applicable to Housing" published as of July 31, 1933:

> The building industry includes both, skilled and unskilled workers. It distributes purchasing power promptly; payrolls constitute a very large proportion of the cost of housing. The construction of adjacent parks, open spaces, playgrounds, etc., will provide employment for additional groups. 3

Section 202(a) of the act, referring exclusively to housing, specified that the "construction, reconstruction, alteration or repair under public regulation or control of low-cost housing and slum clearance projects"[4] were included in the comprehensive program of public works. In accordance with the general concept of the act, requiring consistency between immediate plan and national planning, the Administrator considered each project with regard to "trends in the shift of population and the relocatin of industry."[5] Article II.4 of the policies of the Federal Emergency Administration described in great depth the incorporation of the single project into the larger structure of planning.

> New housing should preferably be located with reference to a long-term plan for the economic development of the community, and with particular reference to availability of employment, existing housing, transportation facilities, schools, and utilities. 6

Applicants for loans were required to file statements whether or not a project was part of a larger plan or long-range program of development; whether the community was part of a metropolitan district and, if so, whether the project was coordinated with the plans for metropolitan development. Furthermore, the Adminsitration required information on the existence of city or regional planing and housing boards as well as their views in regard to the submitted project application.[7]

Robert D. Kohn, Director of the Housing Division of the

Public Works Administration stated in "The Government Housing Program" that although the PWA Housing Division was labeled an emergency organization, there was nothing temporary in the character of its program.

> Its immediate purpose is the provision of jobs for one of the largest and hardest-hit industries in America. Like the rest of the Administration's highly integrated program for national recovery from one of the major economic catastrophes of history, it looks ahead to a prevention of such conditions in the future. 8

Kohn clearly expressed the Housing Division's general perspective to enter a new era in housing by means of an established long-term policy in accordance with New Deal ideology.[3] To structure this policy, the President had provided, in the National Recovery Act, for the creation of a long-range Planning Board. Its function was to advise and assist the Administrator in the preparation of the "comprehensive program of public works," through:

> 1. The preparation, development and maintenance of comprehensive and coordinated plans for regional areas in cooperation with national, regional, state and local agencies, based upon
>
> 2. Surveys and research concerning (a) the distribution and trends of population, land uses, industry, housing and natural resources; and (b) the social and eocnomic habits, trends and values involved in development projects and plans; ... 9

In order to effectually and promptly perform these functions, the administration was, as point 1 reveals, organized "decentrally with centralized control."[10] The Board's objective to coordinate and stimulate the old state and regional planning agencies from the 'twenties

corresponded with the frequently expressed PWA ideology of encouraging the participation of different bodies in the Federal planning process. It also indicated a tendency which foreshadowed the decentralized policy under the Wagner Seagall Bill which eliminated the Housing Division of the PWA in favor of the United States Housing Authority. However, the reactivation of the old boards reflects, to a certain degree, the true social position which public housing held in the framework of national planning. Roy Lubove clearly states in Community Planning in the 1920's that "particularly in the case of public agencies, the planning did not extend much beyond roads, parks, and utilities and was remote from housing or community planning."[11]

Since it was recognized that the formulation of a long-range national plan would require "consideration of the functioning of the national economy as a whole"[12] the initiation of surveys was conceived as a pivotal measure, providing a factual basis for this very purpose. The individualistic "guesswork speculation," as Robert D. Kohn called the familiar rule of thumb method "plan, finance, build" which had governed both builder and banker, was broadly recognized as one of the main factors responsible for the depressed economic situation in the building sector.[13]

In the beginning of 1934 the Federal Emergency Administration had set ten nationwide survey projects into motion among which at least four were concerned with architecture and the building industry (the Real Property Inventory, the Farm Housing Survey, the Survey of Urban Tax Delinquencies and the Subsistence-Homestead Study) in order to provide a factual basis upon which the Federal Public Work Program could be articulated. According to the government prospectus outlining the survey research program, especially the Real Property Inventory, was thought to "manifest its ultimate potential in efforts for an immediate recovery and eventually a permanent endeavor to rid cities and towns of obsolete buildings, slum areas and blight."[14] The Real Property Inventory, initiated by the U.S. Department of Commerce as a Civil Work Administration project, surveyed 64 cities in 48 states affording a representative cross section of the nation's urban conditions.[15] In describing residential structures according to their condition, the Inventory revealed that more than 17 percent were either requiring structural repairs to the roof, foundations and walls or were structurally obsolete and in apparently dangerous condition.

17.1 percent of the dwellings were overcrowded

49.4 percent had no furnace or boiler

30.4 percent had no gas for cooking

24.5 percent had not tubs or showers

17.3 percent had no private indoor toilet

9.4 percent had no electricity

Edith Elmer Wood, a recognized housing expert, observed in the January 1935 issue of the Survey Graphic, discussing the results of the Real Property Inventory, that

> The provision of housing in this country up to now has been exclusively the field of private enterprise. The disgraceful living conditions of a third of our population are the result. No one can claim that this most colossal failure of private enterprise has been produced by government competition. 16

The program manifestations of the PWA Housing Divsion were, with regard to governmental intervention into the realm of private enterprise, always characterized by a rather apologetic attitude. Hence, the Inventory's incontestable facts, proving the indifference and disability of private initiative in replacing degraded housing by decent accommodations at reasonable rents, co-determined the Division's scope of operations. When in February 1934 Harold L. Ickes, Administrator of Public Works shifted the emphasis of the Housing Division from the hitherto adopted policy of the Reconstruction Finance Corporation to a public housing program, he substantiated this reorganization by arguing:

> Experience based upon hundreds of [limited dividend] applications clearly indicates that under present conditions local agencies privately financed are rarely prepared to provide the equity required or to engage in the kind of work that would best further the interest of recovery. Only a small number of applicants have proposed plans for slum clearance and very few have presented

> plans for housing projects which could be self-sustaining at rentals sufficiently low. The large majority proposes the use of vacant land in suburban areas and houses of other than comparatively low rental. 17

Such housing, observed Ickes, was not needed and would have been furthermore in "direct competition with properties that now provide[d] decent housing facilities." Consequently it was anticipated that by slum clearance and the production of low-cost housing with a similar capacity, the Administration could "stimulate one of the basic industries without encroaching upon its field of future opportunity."[18]

The costs imposed on society at large served the Housing Division as a further argument to back its slum clearance and reclamation concept. Again Ickes explained in a more detailed fashion the government's fundamental expectations for this joint venture. Addressing the National Association of Real Estate Boards in 1936 he did not omit to mention the advantages which grow from the Governmental intervention on behalf of private interests.

> I will say to you frankly that unless someone stops the spread of the slums, your investments in real estate are bound to suffer. If we take counsel of our intelligence rather than of our fear, we shall realize that to replace with decent modern dwellings the hovels that now infest our slum areas will have a regenerative effect upon real estate values generally, and particularly in the backward neighborhoods, since they are contiguous to the slums and therefore are in greatest danger of contracting economic hookworm. 19

Considering the decline in population growth, the recently developed trends in migration showing a clear return movement

to rural areas, the negative growth in physical production during the preceding 23 years, as well as the contemporary facts of Depression led Federick L. Ackerman to the conclusion that, "Slum clearance and the relamation of blighted urban areas provide[d] the only broad field wherein operations of suficient magnitude to affect unemployment conditions [might] be undertaken."[20]

Although "in any case preference [was] given to projects located in congested areas occupied by obsolete structures in an advanced stage of decay or dilapidation" Harold L. Ickes mitigated this concept by stating that this "preference [did] not exclude the use of vacant land where it [might] be found advantageous to combine the use of vacant land with a clearance operation."[21] This strategy was in accordance with the act which laid down that "Slum clearance and low-cost housing [were] differentiated so that slum clearance [would] not necessarily involve the construction of low-cost housing, and vice versa."[22] It was undoubtedly the legislator's intention to permit the furnishing of housing for the lowest income groups while maintaining a certain level of living standard, when he laid down that new housing should not be confined to urban regions or crowded centers but should also include sections with low-priced land.

"It is of course probable" observed Angelo R. Clas, to the

Convention of the American City Planning Institute, "that high land costs or other factors may indicate the advisability of rehabilitating slum areas for a higher economic use than now prevails ...". And he continued "With the exception of land assembling, which may never be achieved without the aid of public agencies, such slum reclamation should probably be left to private enterprise."[23] It would require further research to prove the Housing Division's conscious profit-oriented misinterpretation of this legal arrangment, however, both Clas' statement cited above and the so-called "Schenectady model" allow for a certain assumption along this line. Colonel Horatio B. Hackett evaluated the model which proposed "to demolish all existing slums, to devote the razed areas to commercial and industrial uses, and to rehouse slum residents in modern buildings in new areas," as a valid concept to make "low-rent housing and slum-elimination an integral part of a plan for a general civic improvement."[24]

Disregarding, to a certain extent, the "Schenectady approach," the housing officials' statements quoted throughout this paragraph justify the conclusion that the decision for the confinement of a public housing venture to the reconstruction of blighted areas was derived primarily from purely economic considerations whereas the more community oriented infrastructural potential incorporated in

a slum reclamation project played at least in the debate a subordinated role.

It was external pressure which caused the Housing Division's shift in emphasis from slum reclamation to the development of vacant sites. Although the Housing Division of Public Works was authorized and empowered to acquire by purchase, or by exercise of eminent domain, any real or personal property in connection with the construction of a housing project, the federal program received a serious setback in 1935. A federal district court, in "United States v. Certain Lands in the city of Louisville," held that the government could not use its power of eminent domain to acquire slum property and to clear it in order to build public housing. Private property could be condemned only for public use.[25] In the opinion of the court, there were two schools of thought:

> One holding that public use is synonymous with public benefit, public advantage and general welfare, while the other holds that public use means use by the government itself in the performance of governmental functions, or a use or service open or available to all or a part of the public as of right, irrespective of whether the title to the property condemned is vested in the government or in some private agency. 25

Hence it was, according to the judge, not a proper "governmental function to construct buildings in a state for the purpose of selling or leasing them to private citizens for domestic occupancy." The case was to tried before the Supreme Court on March 5, 1936, but was withdrawn by the

attorneys for the government a few hours before oral arguments were to be made before the Court.[27] This court ruling primarily affected the Housing Division's Public Work Emergency Housing Corporation. As described previously, the PWEHC was founded with the objective to take initiative in slum clearance and low-cost housing projects in the interest of unemployment relief and recovery in cases where local agencies were legally not empowered to prepare and carry out such projects.

It is of interest to note that in parallel with the abandonment of federal slum clearance, the Housing Division's line of reasoning, hitherto determined by purely socio-economic considerations, evolved into a mere "humanitarian" approach. Addressing the American City Planning Institute Convention in January 1936, Angelo R. Clas, then Director of the PWA Housing Division, stated,

> I do not favor construction exclusively of projects on vacant land for the purpose of precipitating slum clearance by the eventual total collapse of slum areas. Yet as one who considers the provision of decent housing paramount, I am ready to accept this drastic procedure if no more reasonable means can be found to achieve the end result. ... From the precise standpoint of decent housing for slum dwellers, it makes no difference whether projects are built on cleared or vacant sites. We were set up to build a certain number of demonstration projects and if they could not be built on slum sites they were to be built on vacant land. The experiment is valid in either case. 28

Clas' conclusion represents a parallelism, worthy of note, to the previously made observation that the government's

bias towards slum clearance projects was reigned by socio-economic determinants rather than infrastructural and contextualistic considerations. By strictly viewing the problem "from the precise standpoint of decent housing" Clas related housing to an autonomous status which only then provided the ground for the asserted interchangeability of sites. As the analysis of all 5Ø PWA housing projects indicates, the architectural approach to slum reoccupation projects was absolutely congruent to developments on vacant land and hence testified the distintegration of architecture and site as well.

The court ruling "United States v. Certain Lands in the city of Louisville," however, did not affect states' right to exercise the power of eminent domain with respect to slum clearance and low-cost housing; for it was pointed out by the executive power that "most of the cases cited in support of housing as a public use were instituted under state statutes" and therefore applied to state governments but not the federal government.[29] The policy of the Federal Emergency Administration however required states to have an empowered housing legislation in order "to qualify upon a sound basis" for project funds; but in 1936 only 19 states had, under the assitance of the Housing Division's Legal Branch, passed enabling acts for public housing authorities. Both, the court rulings casting doubt on the federal government's right to condemn land for a housing use and the

slow empowering process of municipal housing authorities finally produced the result that only 27 of the 50 PWA Housing Projects occupied former slum land.

NOTES

1. Federal Emergency Administration of Public Works, The Purposes, Policies, Functioning and Organization of the Emergency Administration. The Rules Prescribed by the President, Circular No. 1, p. 1.

2. Ibid., p. 2.

3. Ibid., p. 18.

4. Ibid., p. 17.

5. Ibid., p. 18.

6. Ibid.

7. Federal Emergency Adminsitration of Public Works, Washington, Information Required with Preliminary Applications for Loans for Low-Cost Housing or Slum Clearance Projects, Circular No. 4, p. 1.

8. Robert D. Kohn, "The Government Housing Program," The Architectural Forum, LX (Feb. 1934), 89.

9. FEA of PW, Circular No. 1, op. cit., p. 9, 10.

10. Ibid., p. 9.

11. Roy Lubove, Community Planning in the 1920's. The Contribution of the Regional Planning Association of America, p. 111.

12. FEA of PW, Circular No. 4, op. cit., p. 1.

13. Robert D. Kohn, "The Survey of Needed Construction," The Architectural Forum, LVIII (June 1933), 444.

14. "Fact Finding Surveys for Housing," The Architectural Forum, LX (February 1934), 110.

15. "Housing Catalogued," The Architectural Forum, LX (June 1934), 477-79.

16. Edith Elmer Wood, "Housing -- Public and/or Private," Survey Graphic, XXIV (January 1935), 5.

17. Harold L. Ickes, "The Housing Policy of PWA," The Architectural Forum, LX (February 1934), 92.

18. Ibid.

19. Address delivered by Harold L. Ickes before the National Association of Real Estate Boards on "Realities in Housing" (October 22, 1936).

20. Frederick L. Ackerman, "Controlling Factors in Slum Clearance and Housing," The Architectural Forum, LX (February 1934), 93-96.

21. Ickes, op. cit., 92.

22. FEA of PW, Circular No. 1, op. cit., p. 17.

23. Address delivered by Angelo R. Clas, before the American City Planning Institute Convention Washington DC on "Housing and Its Relation to City Planning," (January 18, 1936).

24. Horatio B. Hackett, "Municipal Cooperation Aids PWA's Program of Slum Clearance and Low Rent Housing," Reprint from The American City Magazine, (February 1935).

25. William Ebenstein, The Law of Public Works, pp. 888-895; Lawrence M. Friedman, Government and Slum Housing. A Century of Frustration, p. 102.

26. Ebenstein, op. cit., p. 891.

27. Ibid.

28. Address delivered by Angelo R. Clas before the American City Planning Institute Convention, op. cit.

29. Ebenstein, op. cit., p. 892.

30. Federal Emergency Administration of Public Works, Urban Housing. The Story of the PWA Housing Division 1933-1936,, p. 64, 65.

2.2 Site Development

2.2.1 The Housing Project and Its Precinct

The Purposes, Policies, Functioning and Organization of the Emergency Administration, Article II.6 established that a housing project should be "conceived as a unit in a neighborhood community."[1] The ambiguity of this article allows for two opposing interpretations. The first reading indicates the intented integration of a new housing project into a preexisting neighborhood, whereas the second construct reveals a striving for separation between the project as a unit on the one hand, and the neighborhood community on the other hand. In order to infer the PWA Housing Division's true intention to one of the two concepts it is of importance to investigate the pivotal term "neighborhood unit" with regard to both, its historical origin and its contemporary meaning in the housing debate.

Clarence Arthur Perry, sociologist and the father of the neighborhood unit idea, referred to this very concept as a "scheme of arrangement for a family-life community." The underlying principle of his scheme was that an urban neighborhood should be regarded both, as a unit of a larger whole and as a distinct entity unto itself. Four elements, the elementary school, small parks and playgrounds, local shops and a residential environment, embodied the facilities and functions peculiar to a neighborhood unit.[3]

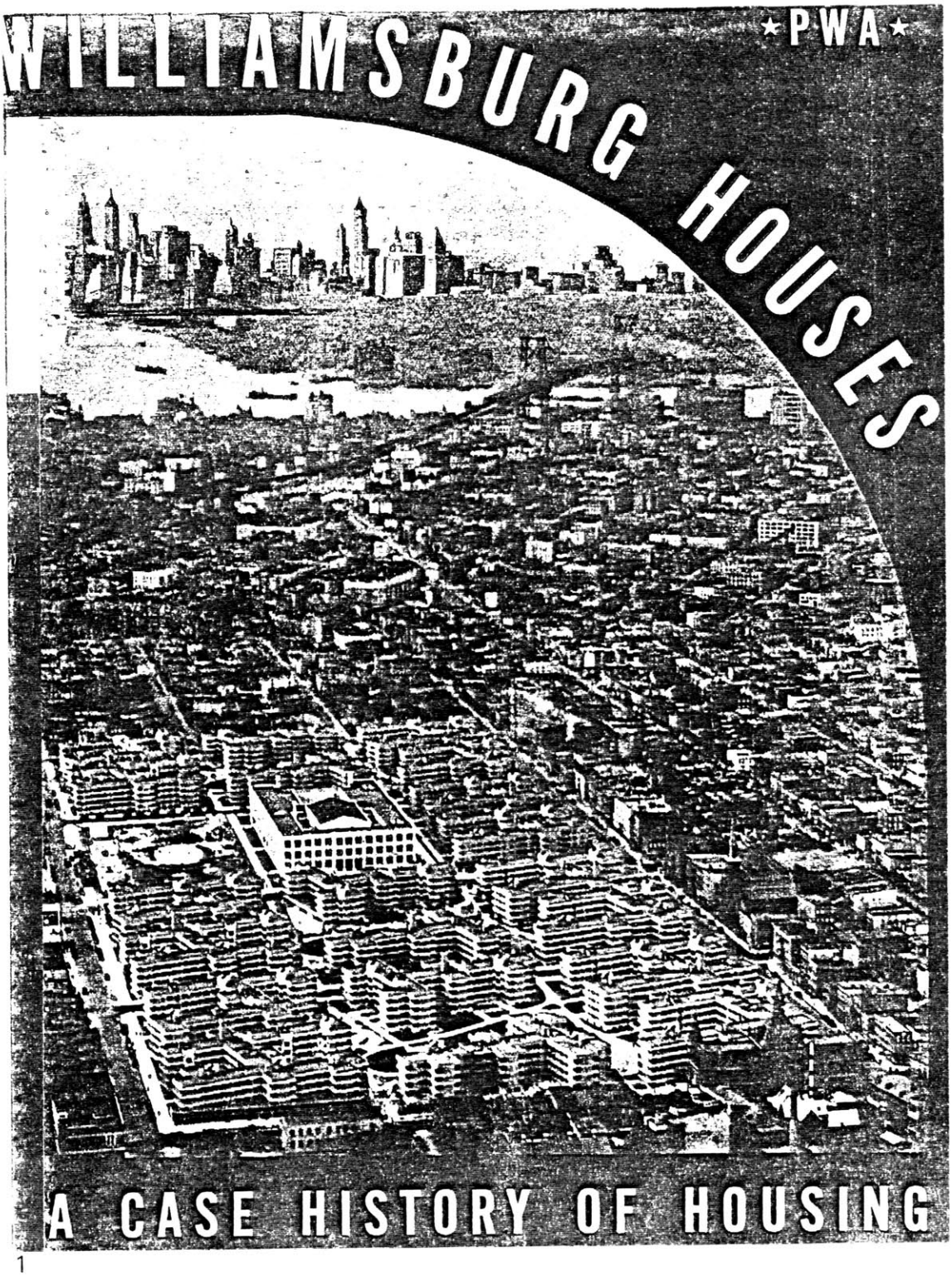
In the 'thirties, the community planning idea was propagated especially by the PWA Housing Divsion as a slum clearance tool whereas the opponents to the federal housing policy used the very same concept within their program as a planning technique to achieve decentralization as a first step towards slum reclamation.

> When a public housing project is built, its very size makes it posible to revitalize an entire neighborhood. As soon as well, the public housers, ignite in a decadent neighborhood a new spark of life, the opportunity is created for the real estate business to fan the spark. 3

stated Harold L. Ickes, addressing members of the Real Estate Board in 1936, revealing the use of a housng project as a "distinct entity in itself" with the objective of stabilizing adjacent areas threatened by decay. This particular employment created a one-way relationship between the project and the neighborhood; a situation which was contrary to Perry's basic principal calling for mutual support of similarly structured nieghborhoods forming a larger configuration. The Housing Division's selective adoption of the neighborhood idea, and with that the capsulation of the smaller unit in relation to its larger context, was already tendenciously announced in its line of reasoning confining the federal housing program to slum clearance operations. As shown in the preceding chapter, the preexisting neighborhood with all its infrastructural institutions, representing a rich contextualistic potential,

played a subordinated role in comparison to the socio-economic disadvantages thrown upon society by blight and delapidation. Consequently, none of the various components of a slum fabric were valued as worthy of reappropriation in the design of a slum reclamation development.
"Unfortunately the forces that tend to depriciate and destroy residential areas are inherent in the present-day composition of cities" observed Tracy B. Augur, Division of Land Planning and Housing, Tennessee Valley Authority, in his presentation "Some Minimum Standards in Site Planning for Low-Cost Housing" on the occasion of the Joint National Housing Conference at Washington, October 1935.[4] According to Augur, these forces, embedded in the physical structure and the social institutions that have grown out of it, were too deeply rooted to be counteracted by small measures. Hence, large-scale interventions into blighted areas, carried through in rigorous totality and thus completely abandoning a site's past were considered the only valid and successful modus operandi.

At no point in the housing debate was the idea of a "decentralized" housing program operating on a level of small-scale interventions such as the insertion of single apartment houses into the existing urban fabric, contemplated as a valid alternative; an alternative which furthermore would have maintained a homogenous social structure. The method "Totalsanierung," however, generated



1

1 Williamsburg Houses Brooklyn, N.Y.

project islands within a "antagonistic" context and hence demanded a project's physical unity implying" compactness, and logical boundaries,"[5] to increase their own resistance to possible blight from adjoining areas.

The anti-contextualism represented in the ideology of the PWA Housing division's approach to housing ought to be interpreted in regard to the twofold position housing occupied in the political structure of the New Deal. Although it primarily allowed for the implementation of a variety of economy-supportinig programs, it functioned at the same time, because of its architectural anti-contextualism, provoking visual strikingness, as an ideal medium for the New Deal Propaganda. (fig. 1) Opposed to the Housing Division's concept, a small group of reformers including such former members of the Regional Planning Association of America as Lewis Mumford, Henry Wright, Clarence S. Stein and Catherine Bauer and planners as Albert Mayer, Henry S. Churchill, Edith Elmer Wood, Carol Aronovici, Nathan Straus and Langdon Post attacked the urban reconstruction and housing problem by focusing on less central, unoccupied land. Their program, described by Henry Wright in "New Houses for a New Deal" published in The New Republic, February 21, 1934, would not

> take slum clearance as its first, but as its second, objective. It [would] look for low-cost land, vacant or only partly built on, which [could] be quickly assembled. It [would] seek, not for an isolated block or two, but for a whole area, big enough to provide for a community of

> from ten to fifty thousand inhabitants. It [would] lay out its playgrounds, its local and adjacent parks and its school sites at the same time that it lays out its housing neighborhoods.[6]

Due to the concentration on cheap vacant land those reformers provided in their program the basis for the feasibility of Perry's community planning idea, while furnishing at the same time low-rent housing.

The Housing Division, however, by adopting the same community planning theories and applying them to comparatively small "demonstrative projects," situated in an urban context, inevitably obtained insular instead of integrated projects. It apparently did not occur to the Authority that their housing projects, although treated throughout as miniatures of "neighborhood communities," by their very size, could never embody the socio-economic potential required to operate successfully in the framework of community planning theories.

2.2.2 Design Approach

Article II,6a of the Act continued by establishing that "the distribution of various types and sizes of single and multi-family dwellings should be fixed with respect to variation in income groups and in the sizes of families. The monotony resulting from excessive repetition of one size or type dwelling should be avoided."[7]

Monotony, as condemned in the act, was the most evident

characteristic of speculative developments and carried the connotation of decay and blight. Based purely on economic factors, the speculative dwelling type was a unit which was entirely dependent on repetition. (fig. 2)

The newly conceived building task of large-scale housing raised with respect to the appropriate design approach organizational issues. Most particularly, the avoidance of monotony while operating simultaneously within a distinct framework was the Housing Division's main concern.

> To design a three dimensional site plan without a vivid image of the arrangement of living units ..., is to design around an abstraction. Not until the units which make up the whole shall have been defined, can the procedures of design be brought under guidance of other than blurred, fogy concepts which float about and lead the designer this way and that ... 8

Consequently, in order to exclude arbitrariness from the design process, the officially propagated approach to housng focused on pure planning technicalities. The Housing Division, therefore, sensed the demand for the establishment of a structure, a system of measurements and sound standards, by which the objective "planning for low-rent housing" could be precisely determined. It was endeavored to gain absolute control over the entire design process in a pattern similar to operations within the structural systems characteristic of the natural sciences, in an effort to obtain a remorselessly predictable result.

Within this framework of standards, the PWA Housing Division

HISTORY
IN CAPSULE FORM

4 HOUSING STAGES IN 4 BLOCKS

Within only a moderately hefty stone's throw of one another in the blocks adjacent to Harlem River Houses stand typical representatives of the four stages which epitomize a century of New York Housing history.

1 Old-Law

Construction of this type of low-rent housing was forbidden in 1901, yet New York still treasures 67,000 such buildings with 524,000 apartments. Rooms with windows open on slot-like courts, with all that means in scarcity of light and foulness of air; but more than half the rooms have no windows at all. Old-law tenements have a much higher death rate than better houses. Fires in old-law tenements brought 33 fatalities in 1 year, with none in new-law tenements.

2 New-Law

These tenements are much better. They possess inner courts not less than 12 by 24 feet, and yards at the rear of all lots to provide better ventilation. Every room has a window, and every apartment running water and a toilet. About 53,000 tenements, containing 904,000 apartments, have been erected under the 36-year-old new law in New York. But they are generally too expensive for low-income families; and only $1^1/_4$ percent of those built in Manhattan for 5 years prior to 1933 rent for less than $12.50 per room per month.

3 Dunbar Apartments

With excellent ventilation because they are only two rooms deep, the buildings are grouped about garden courts which occupy one-half the block area. Club-rooms and other community features make this development highly desirable. A privately sponsored development, it is so far ahead of new-law tenements as to be in a different class. Unfortunately the costs are too great for average low-income families.

4 Harlem River Houses

Typical of the low-rent housing erected by the Housing Division of the Public Works Administration, this new completely fireproof community is constructed on extremely simple yet substantial lines. Here tenants will enjoy that standard of living of which America, often unjustifiably, boasts. But with all the economies of large-scale construction, and the benefits of low-cost financing which PWA enjoys, Harlem River Houses is only further proof that even modest low-rent housing for low-income families requires assistance in some form from Government.

developed sample plans of units in order to provide "elements which might concern the successful development of a low rent housing venture."[9] The research work, conducted to establish those unit types was conceived by the Housing Division as both an important step towards the determination of the objective low-rent housing and a way to gain intimate knowledge of planning possibilities by which those objectives might be accomplished.

According to the Housing Division, low-rent housing implied the "most economical type of dwelling that would assure the safety, health and reasonable comfort of its inhabitants."[10] The system, as published by the Housing Division in the Sample Book,[11] established unit plans based upon the number of occupants and was not intended to conform to any behavioral pattern other than that framed by "everyday American life."[12] It is of interest to note that the handbook with its accompanying data was initially developed for the Housing Division's own reviewing staff in order to facilitate the approval process for submitted projects by means of a rationalized system.

In passing the Sample Book to architects, the Housing Division did not officially state a mandatory adherence to the standards which it laid down. On the contrary, it was anticipated that the publication would "open new avenues of approach in the minds of those using them," leading to "even

more efficient solutions to one of the most intricate and far-reaching of all architectural problems."[13]

> If we all approach this great work with minds open to its problems and opportunities -- technical, social and economic -- ... we shall be steadily adding to this [sample] book interesting and important contributions from architects, engineers, and builders to whom it is made available, [14]

concluded Horatio B. Hackett, Director of Housing, in the foreword to the publication of the samples.

It is intriguing to note that a few paragraphs earlier Hackett observed: "the subject of low-rent housing is new to most architects,"[15] a statement which truly reflected reality. The PWA Housing Division was, like the other bodies of the Federal Emergency Program, expected to relieve the country by means of programs anticipated to be of immediate efficacy from the burdens of Depression. Considering the coincidence of a need for the immediate realization of a housing program and the lack of expertise of the architectural profession with regard to social housing, the provision of the architects with a handbook offering reproducible models may have been inevitable.

The objective of the plan studies was the "establishment of standards of planning rather than standardization of plan."[16] The quandary described above, however, definitely caused a shift in emphasis from "standards of planning" to "standardization of plan" as clearly preceptible in the appearance of almost all projects erected during this

period. One may also speculate that the Housing Division was aware of the propagandistic potential embodied in the projects' repetitive character and thus sanctioned this copying process. Furthermore, the typology lent itself perfectly to the conception of a project unity in a neighborhood community as discussed in the beginning of this chapter. The idea of an establishment of "standards of planning," however, was conceived as an allegory for an ideological, educational process leading towards a homogeneous public housing concept for the United States. Horatio B. Hackett observed in the Sample Book that "present[ed] solutions of housing problems must be looked upon as progressive steps in our education in this field."[17]

It was officially alleged that the general group layout of a project would vary with local problems since "the relationships of the assembled units were as much a study of particular community needs as of site conditions."[18] This intent, however, was not assumed to be operative at the level of developing single unit types. These unit types were effectively seen as representing "almost any conceivable situation confronting architectural consideration."[15] The sample plans included:

1. APARTMENT HOUSE TYPE:
   Architectural variations -- tee-plans, ribbon plans, cross plans, ell-plans, balcony plans, gallery plans.
   Construction variations -- center column plans, off-center plans.

2. FLAT HOUSE PLAN TYPE:
   Ribbon plans, balcony plans.

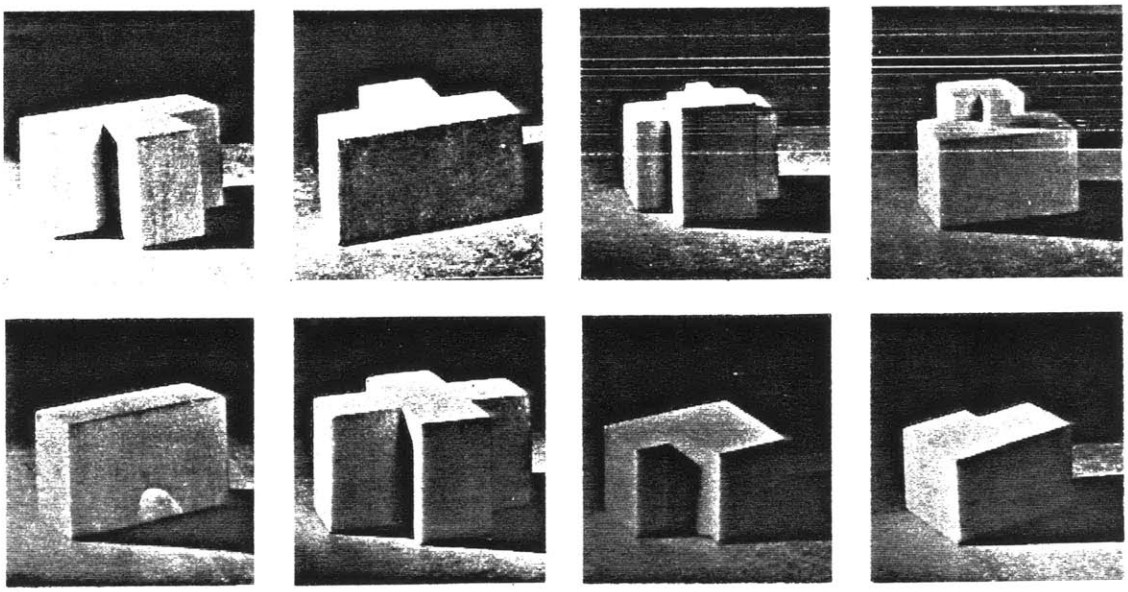
3. ROW HOUSE PLAN TYPE.

4. GALLERY PLAN TYPE.

5. COMBINATION FLAT AND ROW HOUSE TYPE:
   Three-story building combining 2. and 3..

The Sample Book was submitted to architects as a group of "suggestions with the invitation to adopt the fundamental principles to their particular local problem."[19] Although the instructions by the Authority in regard to the employment of this planning kit reveal much about the architect's role in the planning process, which will be examined in depth below, they also throw some light on the degree of the Authority's concern with the site plan.

The achievement of a successful site plan was conceived to entail several sequential procedures:
First, the prevailing unit type had to be determined: the apartment house, flat, or row house. the blending of all three types was considered highly desirable for most projects. Hence the second step was to calculate the proportional amount of each chosen type. The third step was to agree upon the number of basements and penthouses to be used, if any. And finally, only after completion of the first three steps, could placement of the units and their groupings on the property be approached.[20] Colonel Horatio B. Hackett, Director of the Housing Division recommended to architects the following method to facilitate arranging and



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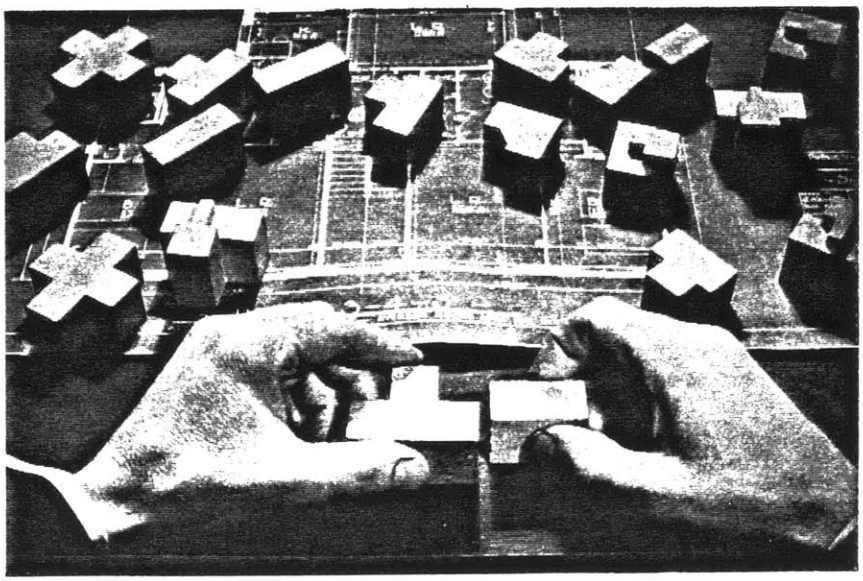
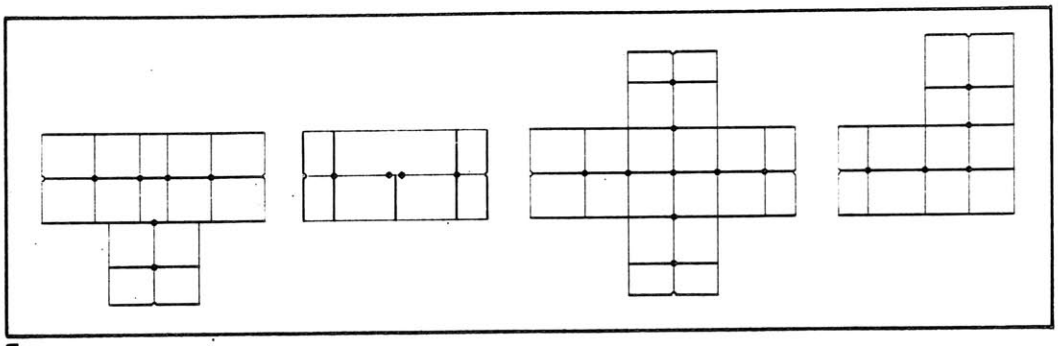


4

3 Pine Blocks of Typical Building Units
4 Housing Division's Method for Site Layout



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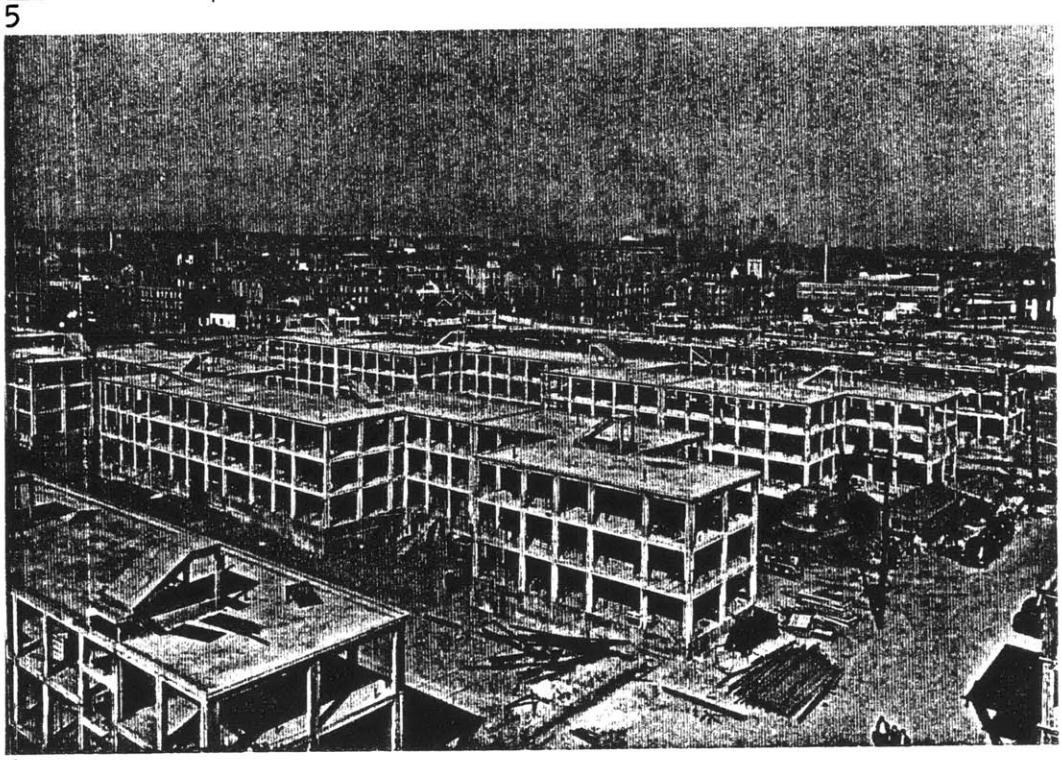


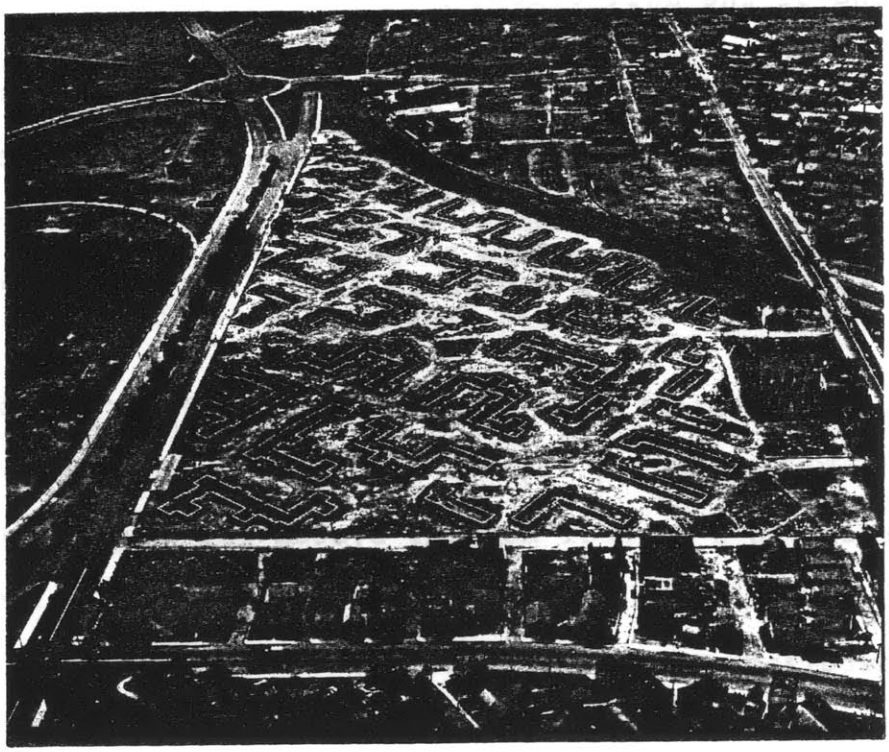
6

5 Uniform Cross Sectional Width of Different Units
6 Concrete Column-Slab Construction

massing of the unit types. (figs. 3, 4)

> It is a simple matter to prepare small pine blocks on a 32nd-inch scale, representing each building unit. By placing these on a 32nd-inch scale drawing of the site, we are able quickly, in the manner as a child plays with blocks, to arrive at a desirable arrangment of buildings. With this method it is possible to devise a satisfactory site layout in a few hours and at the same time eliminate expense in drawing plans. 21

The various unit types, selected under the perspective of applicability to any type of site plan, were designed according to a general modular system which provided a uniform cross sectional width. (fig. 5) Thus, allowing the standardization of structural forms and items of equipment, it simplified the joining of structural units. The striving for optimal interior space utilization determined the span measuring 27 feet from facade for all unit plans. The concrete column-span construction (fig. 6), not only chosen for walk-up apartments but also for flats and row hosues, further enhanced the system's combinational potential by providing the possibility for an interior layout, independent of the load bearing structure. In combination with the constant span of the apartments, the plans, particularly those with center line columns, were reversible about the longitudinal axis. The architect therefore could use "units so arranged in any location in any site plan pattern in which orientation has been acknowledged, and which satisfy ... criteria as to location of entrances with reference to street and court, and location of rooms in



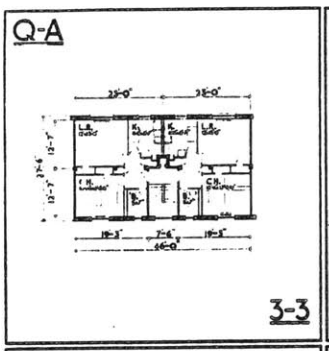
7

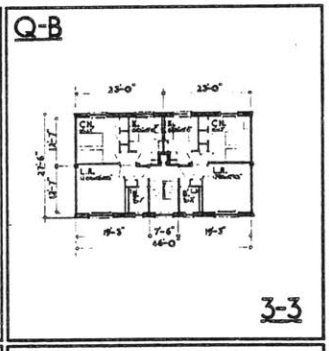
7 Tee Against Monotony

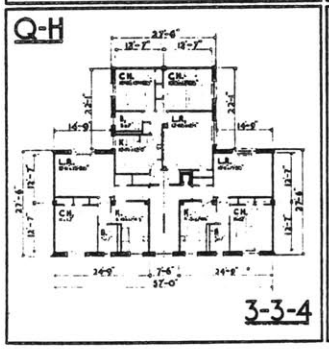
respect to orientation."[22]

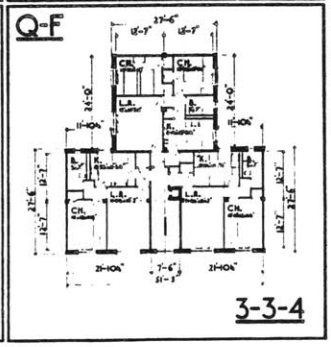
A thorough cost-use analysis, however, drastically limited the variety of plan arrangements by giving primary preference to the tee-version of the unit types. Alfred Fellheimer and Ernest A. Grunsfeld, both consultants to the Plans and Specifications Branch of the Housing Division and co-responsible for the sample plans recognized the T-shape as the "most generally efficient unit because of its excellent unifying character;"[21] a characteristic which was simply explained by its quality to serve at least three apartments with one stairwell and incinerator. The less economical strip unit was accepted as a "necessary evil" serving as connection for tees.

This strong emphasis on the tee has to be discussed as well in the context of its formalistic aesthetic potential. It was clearly stated by the Housing Division's staff of review that "any attempt to achieve a regimentation beyond the bounds of economical construction or demonstrated local expediency"[22] would be discouraged. Hence, the T-shaped unit, with its variety of "corner-connection qualities," implying definition of external space, can be interpreted as the Authority's most economical guaranteer for non-monotonous site plan patterns. The meander form with its notching and indenting segments (fig. 7), stereotypical to almost all PWA Housing Projects, confirm the industrious employment of this very type.







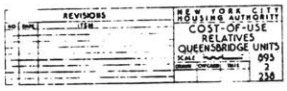


8

COST OF USE RELATIVES

QUEENSBRIDGE PROJECT UNIT PLANS

UNITS	Q-A		Q-B		Q-H		Q-F	
STORIES	3	4	3	4	3	4	3	4
NUMBER OF ROOMS	6		6		10		10	
OCCUPANCY	6		6		11		11	
AV. GROSS AREA PER ROOM	210.8 ☐		210.8 ☐		214.8 ☐		206.8 ☐	
GROSS AREA COST-OF-USE PER ROOM	$0.68	$0.63	$0.68	$0.63	$0.69	$0.64	$0.67	$0.62
AV. NET AREA PER ROOM	126.3 ☐		150.3 ☐		135.60 ☐		134.97 ☐	
EFFICIENCY EX. STORAGE	59.9 %		61.8 %		63.12 %		65.8 %	
STORAGE SPACE PER ROOM	9.3 ☐		7.9 ☐		8.97 ☐		8.51 ☐	
EFFICIENCY INCL. STORAGE	64.3 %		65.6 %		67.8 %		67.9 %	
AV. AREA OF LIVING ROOMS	162.5 ☐		159.5 ☐		174.4 ☐		174.7 ☐	
AV. AREA OF CHAMBERS	136.9 ☐		132.0 ☐		128.65 ☐		122.3 ☐	
AV. AREA OF KITCHENS	79.5 ☐		99.5 ☐		106.05 ☐		101.8 ☐	
OUTSIDE WALL LENGTH PER ROOM	17'-2"		15'-2"		16'-3"		15'-8"	
OUTSIDE WALL COST-OF-USE P. R.	$1.68	$1.64	$1.68	$1.64	$1.59	$1.55	$1.53	$1.50
PARTITIONS LENGTH PER ROOM	34'-8"		35'-3"		37'-8"		35'-10"	
PARTITIONS COST-OF-USE P. R.	$0.77	$0.77	$0.78	$0.78	$0.84	$0.84	$0.80	$0.80
SEMI-INCINERATOR PER ROOM	16.7 %		16.7 %		10.0 %		10.0 %	
SEMI-INCINERATOR COST-OF-USE P. R.	$1.03	$1.00	$1.03	$1.00	$0.62	$0.60	$0.62	$0.60
PLUMBING ARRANGEMENT	K/K-2B		K/K-2B		3 K/B		3 K/B	
PLUMBING COST-OF-USE P. R.	$0.05	$0.05	$0.05	$0.05	$0.04	$0.04	$0.04	$0.04
TOTAL COST-OF-USE RELATIVE	$4.21	$4.09	$4.22	$4.10	$3.78	$3.67	$3.66	$3.56



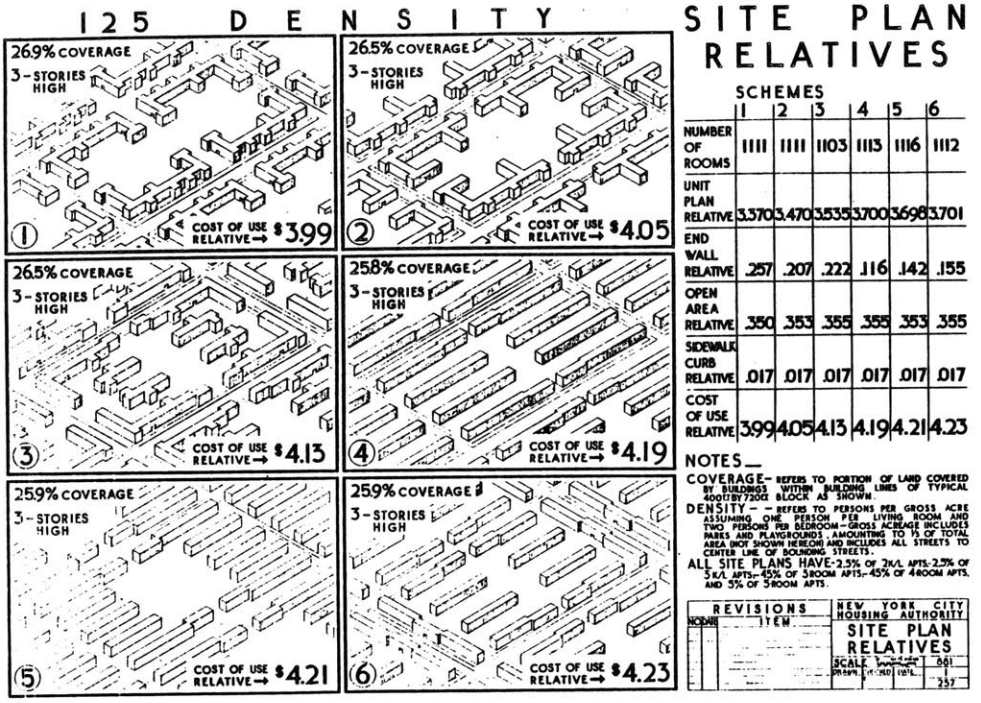
8 Cost of Use Relatives

2.2.3 Arrangement of Unit Types

> The site plan has a twofold purpose. It represents an assembly of the different types of dwelling units to be used in a project into an architectural and utilitarian grouping, and it depicts the use to be made of open areas into lawns, playgrounds and the like. 23

was observed in the Sample Book. A recommended land coverage of 25 percent to 30 percent for both slum-clearance project and vacant land developments and an economic analysis for the different unit types were consequential factors in calculations of the efficiency of various site plans. Departing from the assumption that the tee would be the most economic building unit (fig. 8), test studies, done by the New York Housing Authority and published in A Note on Site and Unit Planning revealed that a site plan arranged of an excessive number of this very element showed unrivaled economy. The pure "Zeilenbau" scheme, on the other hand, appeared to be the most inefficient solution. (figs. 9, 10) Proceeding with layout design of a site, under the limitations imposed by the predetermined and economically ranked elements, led to those rather predictable results, which the Housing Division was aiming for.

The very size of new housing projects demanded the abandonment of operations in narrow land subdivision patterns and hence, required a site planning approach transcending the perimeter block model. Striving for openness was considered by the PWA Housing Division as the



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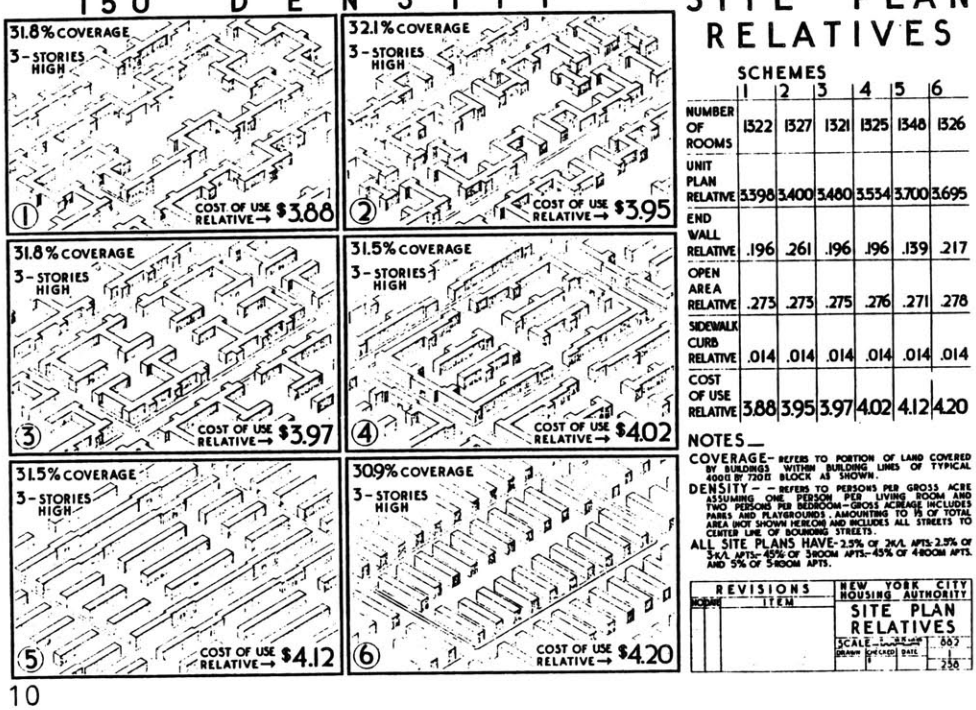

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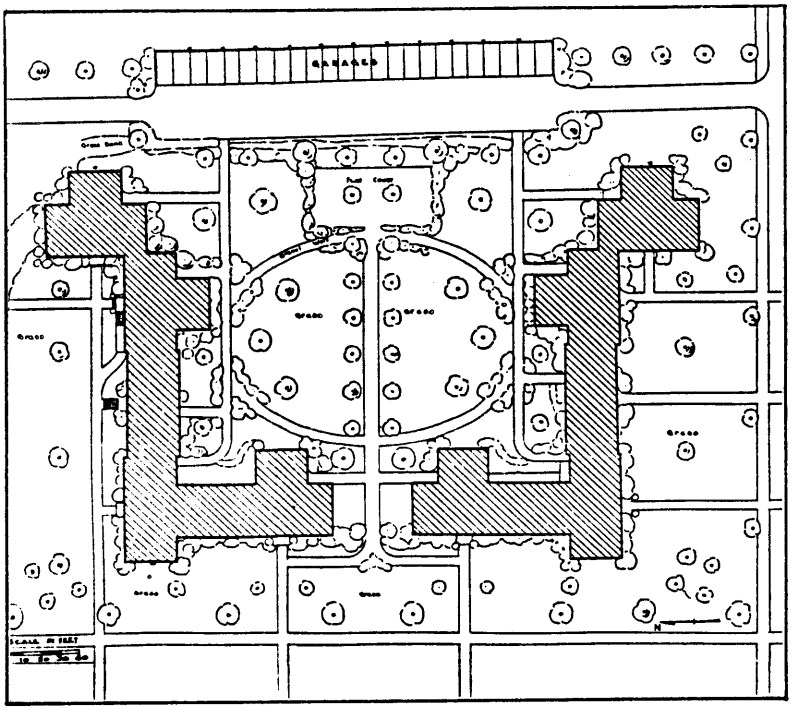
9 Site Plan Relatives 25 percent Land Coverage
10 Site Plan Relatives 30 percent Land Coverage

most crucial point in the architectural grouping of types. Consequently, the arrangement of buildings on the site in a closed square or "some similar unstudied form," eliminated the advantages to be gained through cross ventilation and vista.[24] The planner, furthermore, should avoid trying to obtain large expanses of playground and lawn or park space through crowded grouping of buildings on other portions of the site.

The Housing Division's emphasis on a balanced "interlocking" of open space and living quarters which served, in the end to create a conceptual expansion of the living unit into the exterior garden space has to be evaluated not exclusively from the perspective of the physical advantages but also with respect to the ideology behind it. In combination with the striving for "charm and domesticity" in the project's appearance (fig. 11), and the introverted orientation of the various building groups, the interlocking of apartment and open space indicates the tendency to superimpose on the community concept the American dream of the small landholder. (fig. 12) This interpetation might hold true if viewed in respect to the class of tenants to be housed. Although the New Deal housing program was partially subsidized, its business basis still demanded a steady return on the capital investment. Hence, the class to be housed was that group of slumdwellers which "if it cannot pay for decent new housing, at least pays steadily for what



11

REMARKS

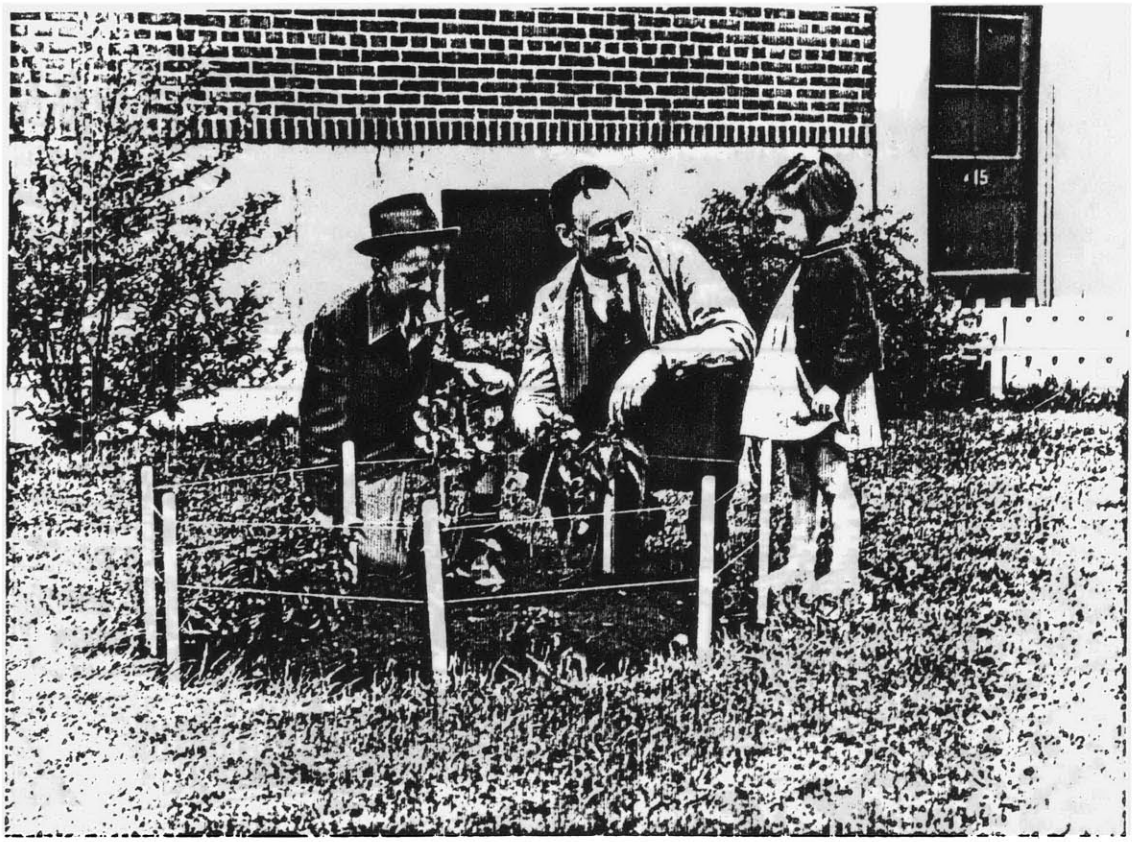
This plan included to show possibilities of landscaping.

Charm and domesticity emphasized.

Rational placement of play and park area and garages.

Placing of walks, drives, and shrubbery should be studied.

11 Sample Site Plan Striving for Domesticity



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12 Small Landholder Idyll

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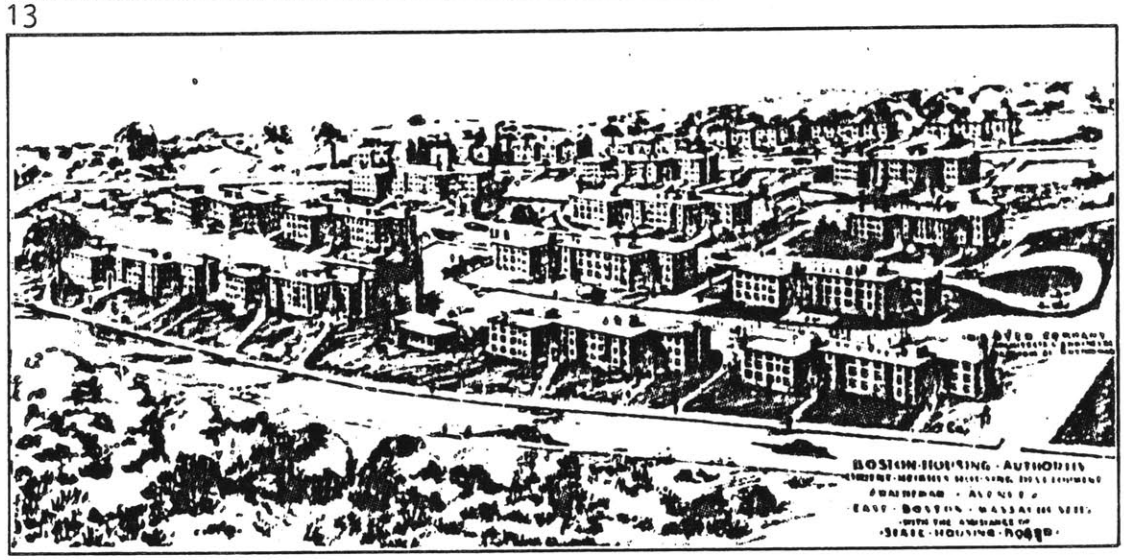

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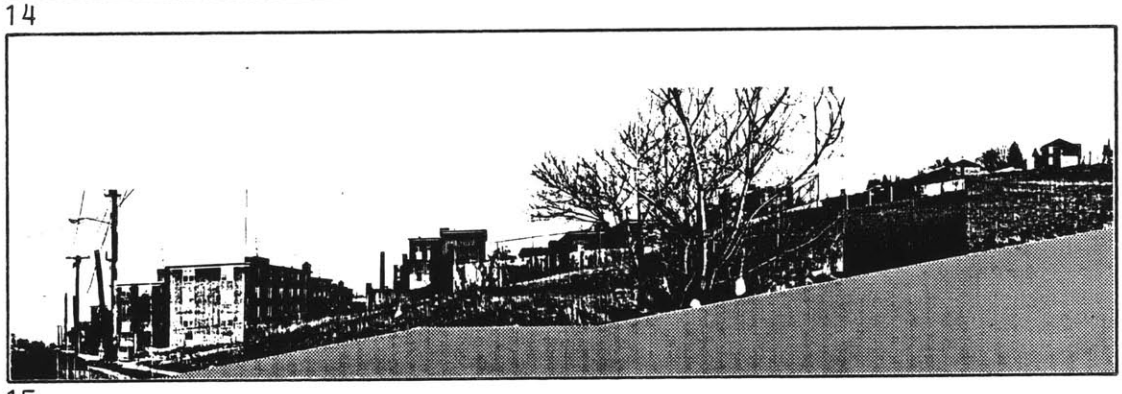


15

Orient Heights Boston, Mass.

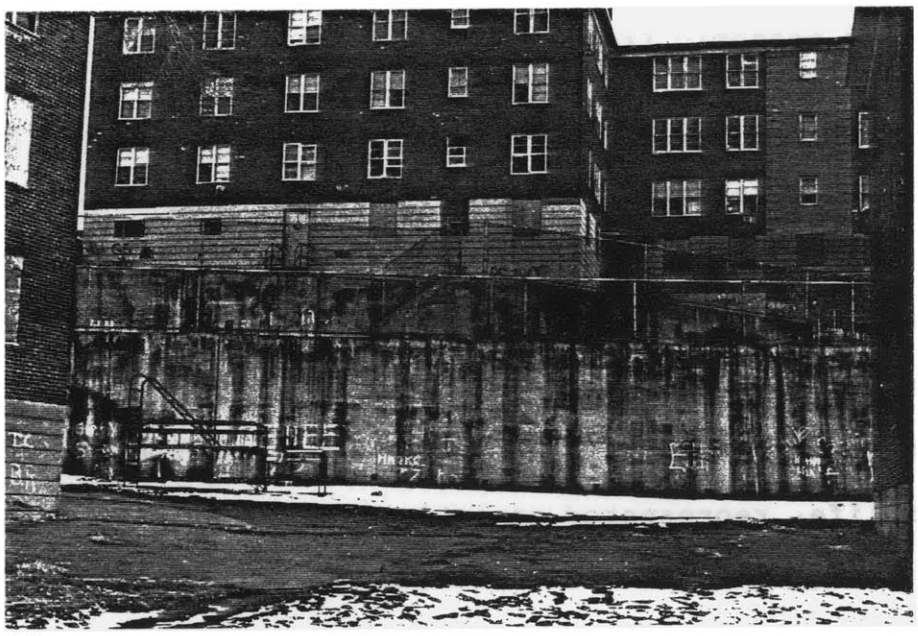
13 Site Prior to Construction
14 Architect's Site Plan
15 Section of Slope

it gets." Chronic relief cases, or "families whom the slightest economic tremor throws on relief" were not eligible for consideration.[25]

The groups of slumdwellers who "paid steadily for what they got" represented those members of the new urban poor who were culturally members of the middle class but had fallen, in the years of Depression, from economic grace.[26] This tenant group, reasonably educated and accustomed to a better way of life, represented an articulate group with a certain political power. The New Deal politicians were eager to utilize this power for their own advantage.

The "Outstanding List of Items Which Should Be Avoided in Low-Rent Housing" included also the admonition not to use "site plans characteristic of level plots on hill ground and vice versa."[27] However, following the consecutive design steps recommended by the Housing Disision, the selection of unit types was predetermined and, hence, dominated the succeeding site plan arrangement. The illustrations below (figs. 13-17) explicitly prove the drastic impingement of the Sample Book on a project layout in terms of:

1. the unquestioned adherence to the unit types;
2. the mechanical obedience to the dictates of the sequential design steps;



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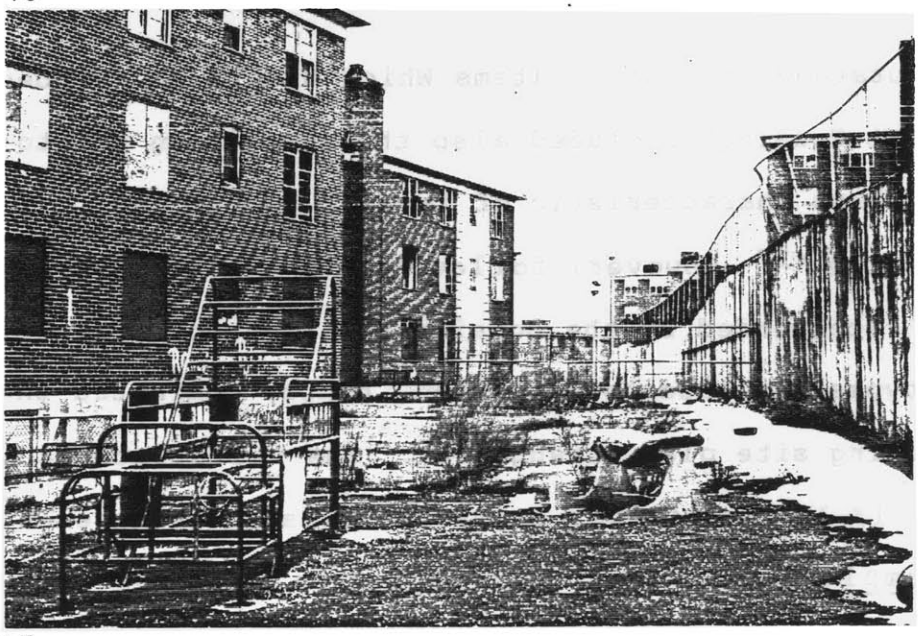


17

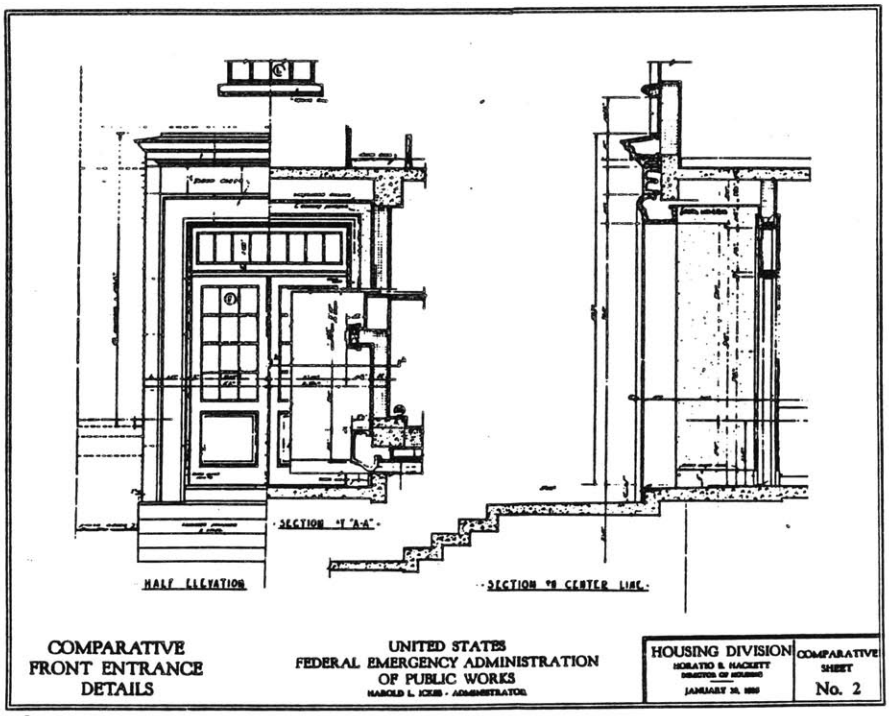
16 Retaining Walls
17 Back Alley

3. the incapacity of the typological system to serve other than level plots.

The Act regulating the policies of the Public Works Administration asserted in Article II,6 (c) that "projects should utilize existing streets and physical utilities insofar as possible and should be isolated from through traffic ..."[28] Reasons of cost and technical problems recommended the utilization of existing streets. The Authority felt obliged to discourage architects from the "widespread closing of existing streets and opening of new ones in order to acomplish an elegant site plan,"[29] despite the obvious inutility of doing so. Streets carrying through traffic within a development should, however, be closed wherever possible. Insulation of a neighborhood from the invasion of through traffice was based upon the urge in the community planners to explore, for the public housing venture, the possibilities of group housing and neighborhood unit planning to the fullest extent.[30] The public housers, however, perverted this concept by applying it to smaller scale housing projects, especially to those which were situated in an urban context, and hence used it, while operating under the disguise of the neighborhood community ideology, for their anti-contextualistic planning attitude.

2.2.4 Appearance of a Project

Pleasant appearance of a project, in addition to sound



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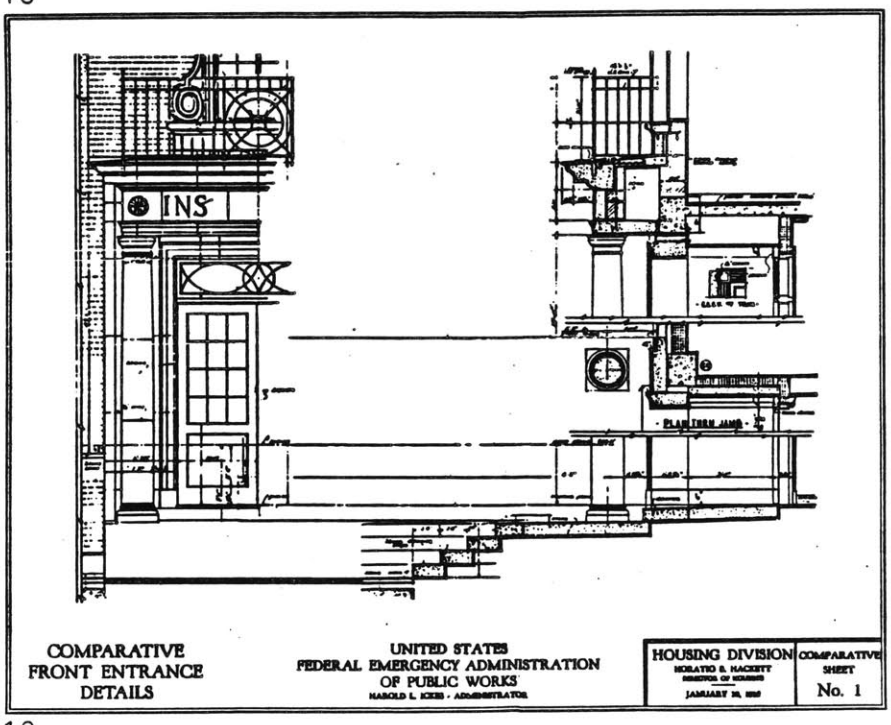

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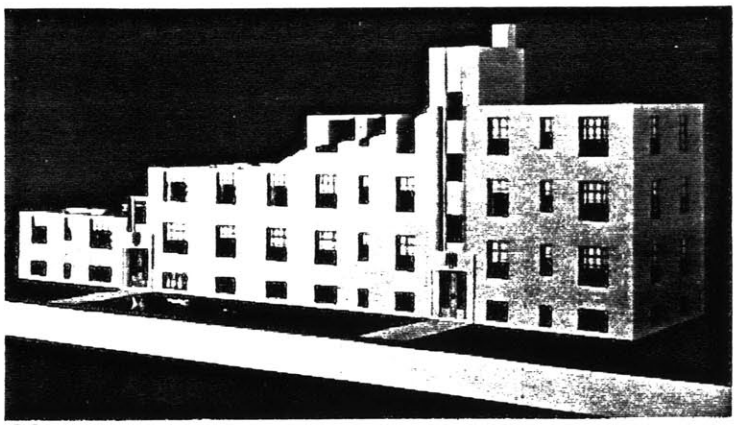
18 Distinctly Low Rent Housing
19 Architectural Masterpiece

construction, was defined as an important determinant both for a project's maximal life expectancy and optimal rentability. Only these two economic factors were expected to guarantee the efficient realization of a thirty-year amortization period on built-structures which allowed for the financing of low-cost housing. Consequently, the analysis of aesthetic standards laid down by the Housing Division reveals this exclusive concern for economy.

> Low rent housing demands mass design rather than expensive ornamentation in order to be sucessful in low rentals a well as in meritorious character of style. 31

Two so-called comparative sheets pointing out two "radically different" solutions to the same detail were published in the Sample Book with the objective of illustrating the Housing Division's conception of aesthetic typical public housing design. Sheet Nr. 2 (fig. 18) was described as "distinctly expressive of low-rent housing in that every line conveys basic economy while expressing mass beauty," whereas the sheet Nr. 1 (fig. 19) was classed as an "architectural masterpiece" not at all appropriate to express the character of public housing.[32]

"Carefully studied mass effectiveness" and "mass design" in lieu of "overemphasized architectural detail" and "expansive ornamentation"[33] clearly reflect the Authority's ideological attempt not to salvage old values inherent to the "Old Deal" in housing -- values which were superficial and propagated



20

20 Project Model

by exclusively profit oriented interest as, for instance, described by the strategies of the private-home-owner market. The New Deal in housing, however, set out to create a new value system manifested in a program leading towards a new kind of building, a new kind of aesthetic, a new kind of financing and a new kind of community. To ensure this value system the Authority established defined standards not in terms of past practices, but in terms of present functions and future uses. Hence, the standards are, at the same time, a measure of societal progress and a tool to translate this progress into an improved living pattern.

The Authority explicitly required the avoidance of "unnecessary or questionable extravagances that would tend to defeat the fundamental purposes and aims of low-rent housing" (fig. 20) such as:

- the discordant blending of materials on front elevations for decorative effects,
- the elaborating details that may prove to be a passing fad and, therefore, would detract from the permanent value of the property and
- the decorative details unrelated to structural frame.[34]

"Mass beauty" and "mass effectiveness" achieved by a "mass design" framed the aesthetic vocabulary of the Housing Division; a vocabulary which was used exclusively in the context of economic phenomena. Standardization, as predicated on the meaning of mass design, occupied a

paramount position in the economic approach to housing and found a paradigmatic expression in the sample plans. These sample plans were introduced toward the end that a desirable and basic standard in terms of decent requirements of American family life could be economically maintained.

NOTES

1. Federal Emergency Administration of Public Works, The Purposes, Policies, Functioning and Organization of the Emergency Administration. The Rules Prescribed By the President, Circular No. 1, p. 18.

2. Regional Survey of New York and Its Environs, Russel Sage Foundation, Vol. VII Neighborhood and Community Planning, pp. 34-44.

3. Address delivered by Harold L. Ickes before the National Association of Real Estate Boards on "Realities in Housing" (October 22, 1936).

4. Presentation of Tracy B. Augur at Joint National Conference on Housing on "Some Minimum Standards in Site Planning for Low Cost Housing" (October 1935).

5. Ibid.

6. Henry Wright," New Homes for a New Deal. Abolishing Slums Forever," The New Republic, LXXVIII (February 21, 1934), 41-44.

7. FEA of PW, Circular No. 1, op. cit., p. 18.

8. New York City Housing Authority, A Note on Site and Unit Planning, p. 9.

9. Alfred Fellheimer, "Planning American Standards for Low Rent Housing," American Architect, (February 1935), 4.

10. Ibid.

11. Federal Emergency Administration of Public Works, Housing Division, Sample Book. This publication included a collection of sample plans representing apartment units, architectural and structural details, site plans as well as specifications and instructions with regard to low-cost housing.

12. Fellheimer, op. cit., 4.

13. FEA of PW, Sample Book, Foreword.

14. Ibid.

15. Ibid.

16. Ibid.

17. Ibid.

18. Horatio B. Hackett, "How the PWA Housing Division Functions," The Architectural Record, LXXVII (March 1935), 155.

19. FEA of PW, Sample Book, Foreword.

20. Ibid., Notes Explanatory of Site Plans.

21. Hackett, op. cit., 152.

22. New York City Housing Authority, op. cit., p. 24.

23. FEA of PW, Sample Book, op. cit., Notes Explanatory of Site Plan.

24. Ibid., Outstanding List of Items Which Should Be Avoided in Low-Rent Housing.

25. Address delivered by Angelo R. Clas before the American City Planning Institute Convention on "Housing and Its Relation to City Planning" (January 18, 1936).

26. Lawrence M. Friedman, Government and Slum Housing. A Century of Frustration, p. 15.

27. FEA of PW, Sample Book, op. cit., Oustanding list of items which should be avoided in low-rent housing.

28. FEA of PW, Circular No. 1, op. cit., p. 7.

29. FEA of PW, Sample Book, op. cit., Notes Explanatory of Site Plans.

30. Albert Meyer, Henry Wright, Lewis Mumford, "New Homes for a New deal IV: A Concrete Program," The New Republic, LXXVIII (March 7, 1934).

31. FEA of PW, Sample Book, op. cit., Details.

32. Ibid., Details.

33. Ibid., Outstanding List of Items Which Should Be Avoided in Low-Rent Housing.

34. Ibid.

2.3 Building Units

The Housing Division advocated four types of dwelling units; apartment houses, row houses, flats and gallery houses. The latter, however, was in none of the projects executed. The principal characteristics of various house types, as developed by the Housing Division and published in the Sample Book (fig. 1) were supposed to assist the local architect in determining the preferred type of unit relative to the specific conditions of his project.

This chapter will primarily deal with the apartment house, which according to the Authority leans towards "use on more expensive ground and in localities where occupants expect this kind of living along with complete services."[1] To lay emphasis on this particular type is justified by the analysis of all 51 PWA Housing Projects showing a clear predominance of the walk-up apartment house. Architecturally, this building was distinguished by the tee-, ribbon-, cross-, and ell-shaped plans.

2.3.1 Construction and Materials

> The Housing Division has no wish to impose construction specificiations upon architects or owners except insofar as the safety, health and comfort of tenants will be concerned and the Federal Government's investment given reasonable protection. 2

This statement by Alfred Fellheimer, announcing the

OUTSTANDING CHARACTERISTICS AND FACTORS IN VARIOUS HOUSE TYPES

Descriptive item	Apartment house type	Row house type	Flat house type	Combination flat and row house type	Gallery type
Land cost	Generally expensive	Typical of inexpensive land.	Typical of inexpensive land.	Characteristic of average price land.	From low to average.
Number of rooms per acre.	High	Extremely low	Low	Fairly high	Fairly high.
Number of stories	3 or 4	1 or 2	2	3	2.
Basements	Usually required	Optional	Optional	Optional but generally required.	Average.
Construction cost	Lower per room than other types.	More expensive than apartment house or flat house type.	Compares with apartment house type but less than others.	More expensive than apartment houses and flats but less than row houses.	Average.
Maintenance charges	Higher than types where items such as janitor service, etc., are not required.	Low	Low	Low and efficient	When treated as apartment house type runs high, and low when developed as flat house type.
Dwelling unit sizes	2, 3, and 4 rooms	4, 5, and 6 rooms	3, 4, or 5 rooms	3, 4, or 5 rooms	3, 4, or 5 rooms.
Other remarks	Additional community facilities possible. Responsibility of tenant ceases at door of apartment. Lack of individual garden and lawn areas.	Individual garden lawn facilities. Reduced landscape maintenance because of private yards. High degree of privacy. Sleeping quarters on second floor an advantage.	Desirable in communities where tenants enjoy individual garden and lawn facilities. Stairway from second floor to basement is difficult to solve.	Question arises as to practicability of having row house tenant go up one flight. Problem of getting from second-floor unit to basement.	Helps toward a variation of units in a project. Considered characteristic of warm climate only. Living room and bedroom must be on opposite side of gallery.

1

1 Outstanding Characteristics and Factors in Various House Types

architect's almost unlimited freedom with regard to the selection of construction methods, reveals itself as a farce if examined in the light of "The Instructions to Govern Architects in the Preparation of Preliminary Specifications"[3] published by the Plans and Specifications branch of the PWA Housing Division in May 1935. Therein the Authority admonished the architects to follow a "typical Preliminary Outline Specificaiton"[4] which dictated to a great extent the construction method and materials to be used. The expectation of the architect's absolute compliance with this particular form was expressed in the masked imperative not to "elaborate or add items, except as necessary, but include all pertinent data" and to "follow each item with suggested alternates, if any."[5]

The specifications published in this outline were based upon the General Conditions, written by the legal section of the PWS Housing Division, following, primarily, the A.I.A. Standard General Conditions. However, an additional paragraph, concerned with labor issues, required that the "maximum of human labor [should] be used in lieu of machinery wherever practicable and consistent with sound economy and public advantage."[6] Federal construction contracts, furthermore, required the use of materials produced within the Nation and under codes of fair competition approved under title I of the National Industrial Recovery Act. To the extent that it was feasible

VOL. 94—NO. 150 The Wirephoto Paper News- 6/24 MONDAY, J

Huge Machine Goes to Work as Uncle Sam Breaks Ground for Cleveland's New Housing Project

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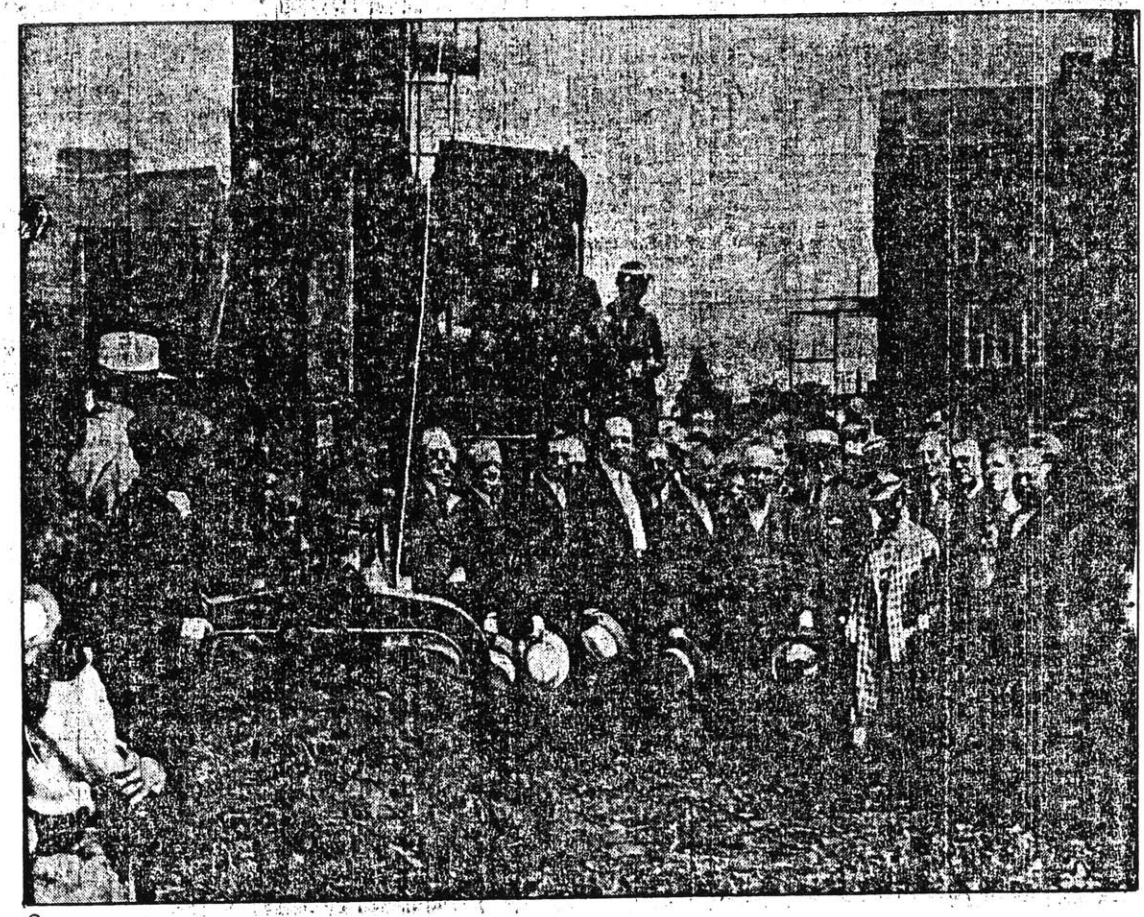


2

2 Ground Breaking Ceremony for Cleveland Housing Project

and practicable and did not involve higher costs, inferior quality, or insufficient quantity, the policy of the Administrator was that local materials should be used.[7] According to the estimation of the Public Works Administration, the federal housing program employed, between 1933 and 36, 50,000 carpenters, masons, bricklayers, plasterers, and other on-site workers, as well as an additional 50,000 people engaged in the fabrication and transportation of materials to be used on projects.[8]

The highly controversial main purpose of the Housing Division, defined by both the revitalization of the broadest possible spectrum of building trades and the re-employment of men, triggered a heated debate over the issue of efficiency in building.

"A machine, not man, went to work in Cleveland today when the first shovelful of dirt was turned in the Cedar Central housing project."[9] With these words Vladimir Posvar introduced his article published in the Monday, June 24, 1935 issue of The Wirephoto Paper reporting on the ground breaking ceremony for Cleveland's new housing project (fig. 2). Kenneth Kingsley Stowell, editor of The Architectural Forum, who was opposed to Posvar's critique of machine employment in lieu of human labor questioned in the Forum section of the magazine's February 1934 issue: "Shall the steam shovel give way to men with pick and shovel?"; and he concluded "Present circumstances may justify such a

procedure but as a permanent philosophy it would mean a return to medieval standards of living, and it keeps costs high."[10]

Especially the utilization of prefabrication and the adoption of modern building materials were anticipated by building reformers to bridge the gap between high construction costs and low-rent housing. Already in 1932 Robert D. Kohn, then President of the American Institute of Architects, discussed, in an address delivered to members of the Housing Section of the Welfare Council and the Housing Association of the City of New York, the position that public housing should occupy in regard to these reform attempts.

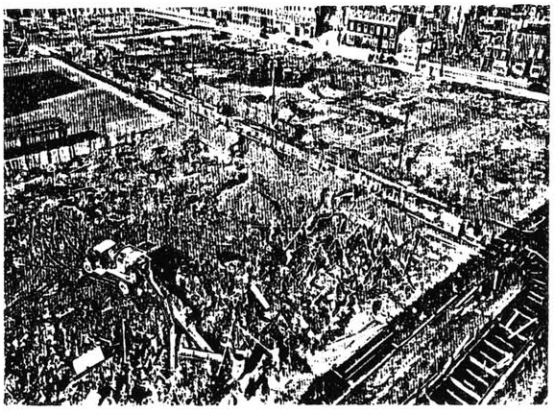
> We must be on the watch for any process and every adaptation of simple materials which will serve to decrease time and labor, and consequently the cost of construction. But at the same time we must not waste time on the tiresome kindergarten gabble of the amateur construction reformer. He always starts by saying, "We are using the same constrction methods as they did in Babylon thousands of years ago." 11

The quintessence of Kohn's address was a devastating criticism of modern construction which for him was metaphorically expressed in the "piling up [of] a series of concrete and glass filing cabinets"; a method, which could never serve as a solution for urban housing, even if that was meant to be "the so-called international style."[12]

The Housing Division's negative attitude with regard to modern construction methods and materials furthermore was supported by Lewis Mumford. Mumford acknowledged the fact that European experiments had demonstrated that "standardized parts and mechanical processes of production [were] necessary elements, for example, in modern housing,"[13] as those elements had, "reached the plane of positive aesthetic expression in the new functionalist architecture."[14] However, he also observed that the "economics in the use of land and utilities offered by large scale group housing [would] counterbalance such economies of mass-production ..."[15] Whereas Angelo R. Clas, Director of Housing, in an address delivered at the American City Planning Institute Convention in 1936, took the view that there are

> numbers of new materials and methods of construction on the market which, in mass production, might well slash construction costs over the traditional procedures. In private practice we should undoubtedly be tempted to test at least some of these new ideas. Yet the responsibility inherent in a public position imposes a caution which we must always respect. 15

Clas' argumentation leads back to Fellheimer's statement, quoted right in the beginning of this paragraph, that the purpose of construction specifications were to guarantee the safety, health and comfort of tenants and to protect the Federal investment. As already mentioned in the previous chapter on Site Development, the essential assurance for the rentability of a housing project during a thirty-year



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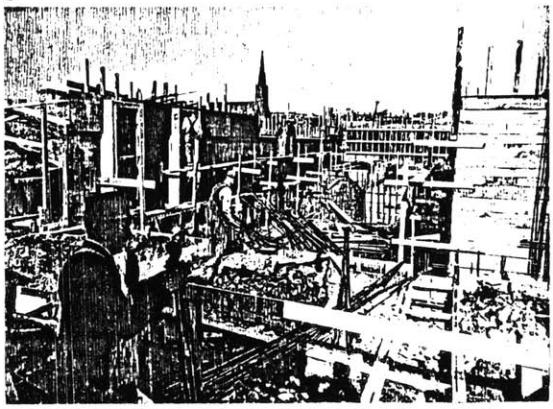

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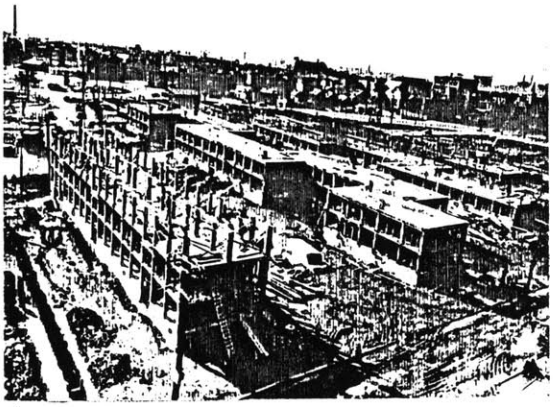

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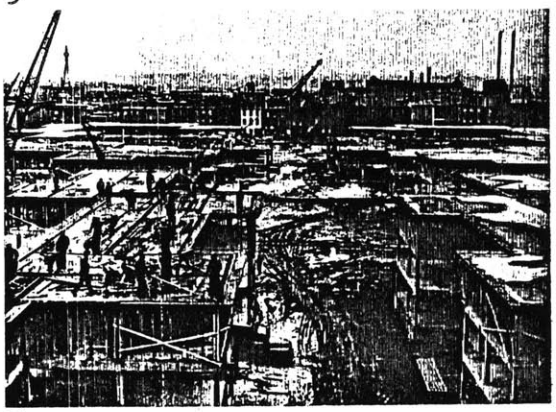

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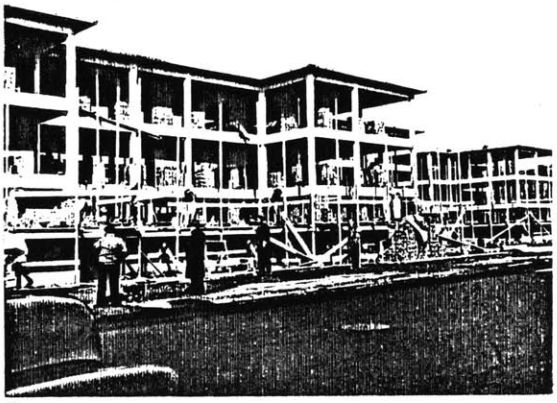


8

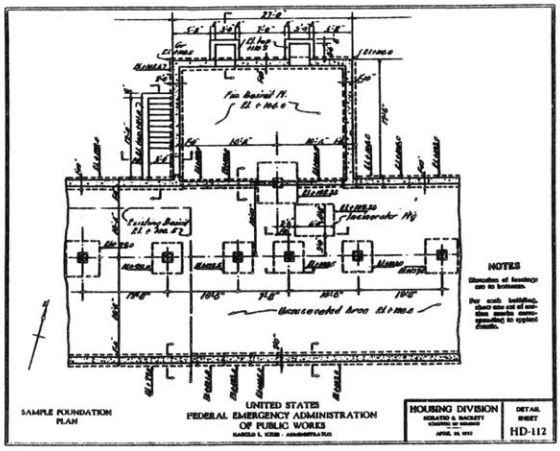
3-8 Construction Phases

amortization period linked the government's interest to those concerning the public housing tenant. Hence Clas observed that

> We [the public housers] should be subjected, and rightly, to scathing criticism if our buildings disintegrated during their intended life because materials, which had been insufficiently tested, failed to stand up. After all the new materials and methods had been given as fair a test as possible, we realized that the only safe course was to follow established precedent. 17

By adapting conventional building methods, the Housing Division provided not only ground for the use of local materials and local labor but also facilitated accurate estimates of a housing project's overall financial framework. The exclusion of any experimental risk which could have endangered the economic integrity of the Authority expressed itself allegorically in the endeavor for sound and durable construction, promoting the image of "low-rent housing" rather than "low-cost housing."

Under the perspective of the previous inquiry, the establishment of building units based on a reinforced concrete column, beam and slab construction system receives another more pragmatic meaning. By the employment of a construction method adopted from commercial structures, the Housing Division could assume a certain familiarity of the local building industry with those particular construction processes and hence decrease the technical and organizational risks involved in the realization of large-scale housing projects. The illustrations below (figs. 3-8)



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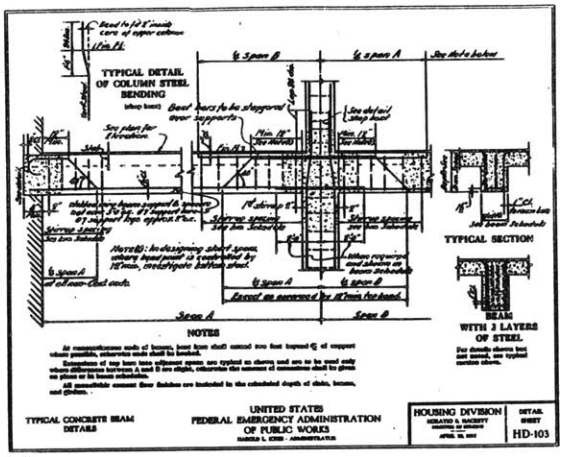

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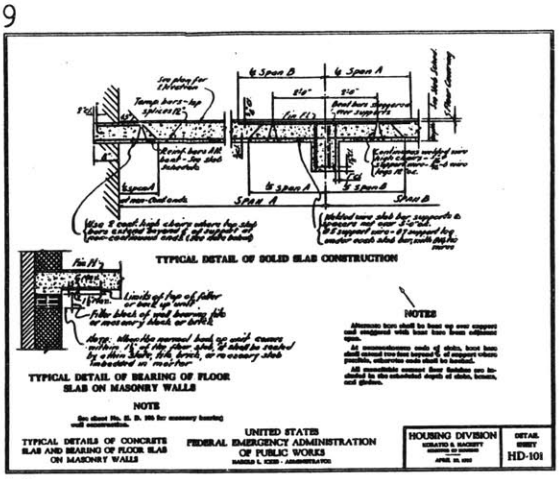

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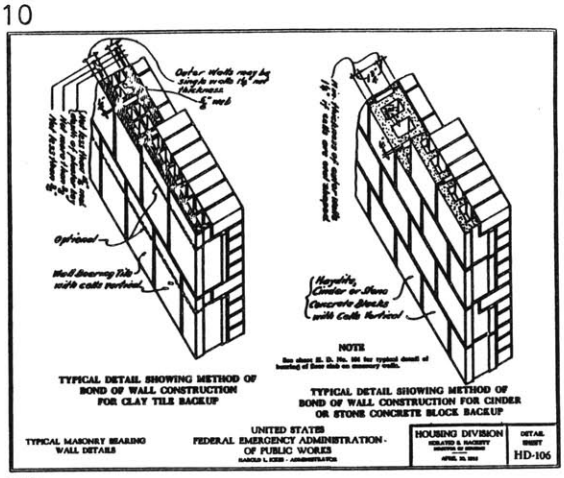

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9 Sample Foundation Plan HD-112
10 Typical Concrete Beam Detail HD-103
11 Typical Details of Concrete Slab HD-101
12 Typical Masonry Bearing Wall Details HD-106

depict the successive construction phases starting with the pouring of the foundations followed by the different sequential operations concerned with the erection of the monolithic concrete frame, to the laying of bricks on the structures.

The Housing Division's Sample Book provided the local architects and building engineers with a wide range of paradigmatic details covering all construction members, joints and dimensions. Although the Detail Sheets HD-1Ø1, 1Ø3, 1Ø6 and HD-112 reproduced below (figs. 9-12) represent only a small selection, they expressively convey the degree to which the Authority intended to impinge on construction and detailing issues.

An inquiry into the interrelations between the structural system and the organization of the apartment betrays the ideological as well as physical dominance of the interior layout over the supporting frame. The apartment house planning requirements set up by the PWA Housing Division noted under point 1Ø(b) Miscellaneous that it was "Essential to eliminate whole beams in ceilings of all important rooms."[18]

> To allow the greatest possible latitude in construction technique two types of column spacing were included in determining various plan layouts. Both types permit almost total concealment of columns and allow beams to be placed directly over partitions, a desirable feature of any structural system. 19

13

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13 Masons on Construction Site of Williamsburg Housing Project, New York, N.Y.

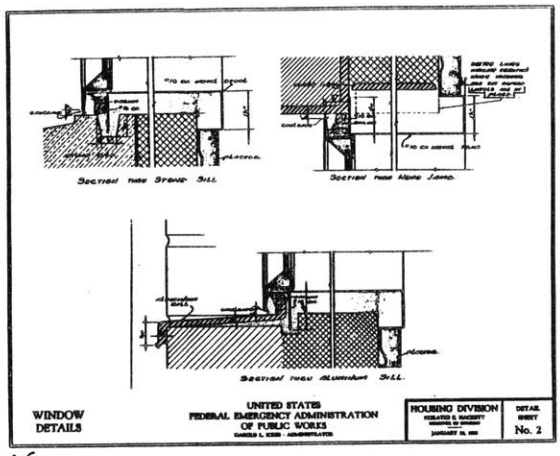
14 Ad for Leakproof Brickware

15 Ad for Plaster Partitions with Channel Studs and Metal Lath

Fellheimer's observation was in accordance to the Division's endeavor to hide the skeleton in order to achieve the propagated "comeliness" of the apartment.

The physical subordination of the structural frame to the interior layout of the building was significantly expressed by the dissimilar spans upon which the design of almost all apartment variations were based. Furthermore, the author's attempt to relate these different spans to a common module system failed. Additional evidence for the Housing Division's split attitude towards the column-slab construction system was presented in the Authority's admonition to "avoid the absence of relation between exterior treatment and interior requirements."[20] The only consistent utilization of the potentiality embodied in such a system can be realized, as already described, in the reversability of some apartment units for the sake of a more advantageous orientation.

The exterior appearance of the buildings convey total accordance with the Authority's effort to promote the image of a conventional building structure by masking the supportive column-slab system with a wall construction of "selected common brick" backed up with clay tile or with cinder concrete masonry units as shown on Detail Sheet HD 106 (fig. 12). In accordance with the Housing Division's requirement to base the selection of a specific material on a careful analysis "comparing the items of greater initial



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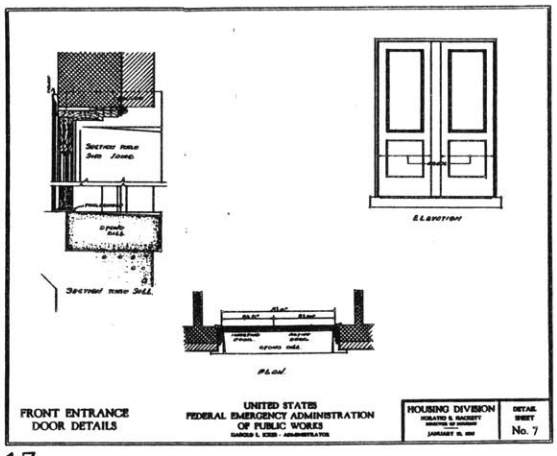

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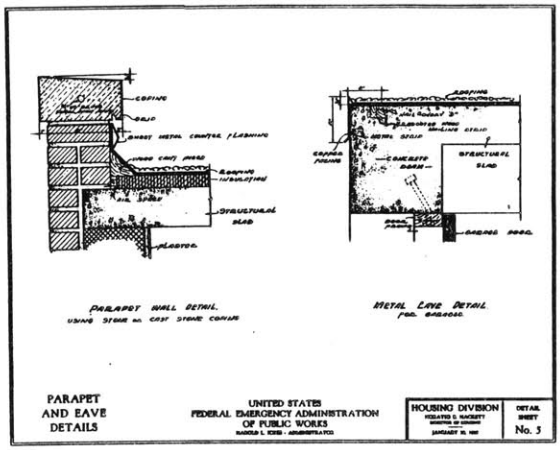

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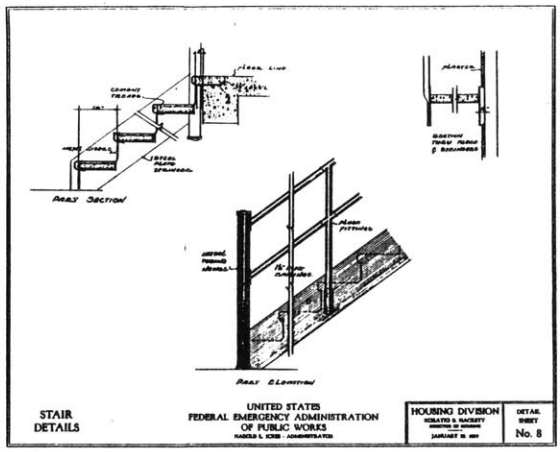


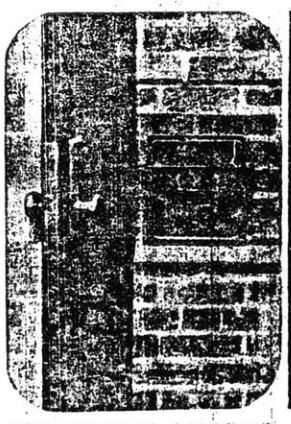
19

16 Window Details
17 Front Entrance Door Details
18 Parapet and Eave Details
19 Stair Details

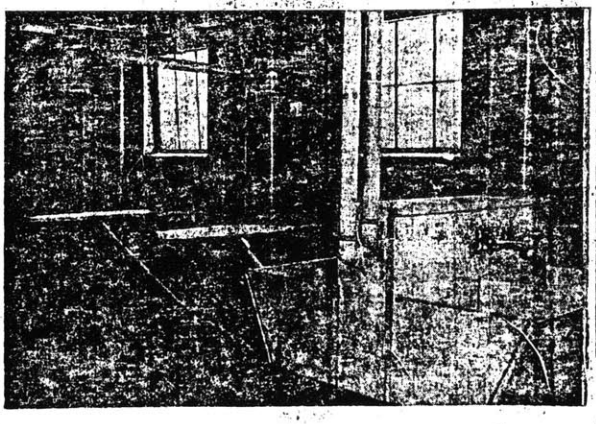
cost, but with few maintenance charges, to items costing less to install, but with greater upkeep expense"[21] brick, which played a major role within the National Recovery Act regulations, proved optimal efficiency. Moreover, the use of unstuccoed brick as weathering material for exterior walls responded ideally to the Authority's aesthetic concept preferring "natural construction and simplicity in architecture ... to ornamentation"[22] (figs. 13, 14) In order to keep maintenance costs low, preference was given to housing type casement windows with metal jambs, stool and trim. However, wooden double-hung windows represented a possible alternative. Optionally, aluminum or cut stone were recommended for window sills. (fig. 16) Again, cut stone was to be used for exterior door trims and copings. (figs. 17, 18) Wood was considered the appropriate material for exterior doors, while apartment doors had to be manufactured with a a hollow metal construction. It should be noted that all door widths and window sizes were standardized according to their particular function (figs. 20, 21). The interior stair could be executed as either an all concrete construction, or as an assemblange of metal risers and cement treads supported by a steel-plate stringer. (fig. 19) Cast or extruded aluminum was recommended for stair newels and rails as well as for rails around areas and balcony rails. The walls of public halls and stair wells were to be wainscotted with scratch-proof and washable glazed tiles while the floors in public spaces

AGE 44 — TH.. ..VELAND PRESS

Inadequate Laundry Needs, Narrow Doors to Harass Cedar-Central Residents



They lock the incinerator intakes from the inside as well as outside with double-action, pick-proof locks and steel doors in the low-cost housing development. The inside knob has only three inches clearance.



Twenty-seven families must use this laundry in the Cedar-Central project. At two a day, there still would be 13 families without laundry facilities, including Sunday use.

A man weighing 175 pounds wedges in this 18-inch door as he tries to go onto the porch from the living room—and that is the only way to get on the porch unless he climbs up from the ground on a ladder.

WORRIES START ON EAST SIDE HOUSING SETUP

It Seems That Laundry, Door Needs May Irk Cedar Residents

By IRA WELBORN

It has cost $3,086,605 to "provide low-cost housing for 650 families," but this housing offers:

APARTMENT entrance doors only two feet eight inches wide, through which heavy upholstered furniture or desk can not be moved.

LAUNDRY facilities for two families a day—in units where 27 families will be housed.

A LIVING room door opening onto a porch—but the door is only 18 inches wide, and fat Uncle Louie couldn't get through with a shoe horn.

A GARBAGE incinerator intake—but this is guarded by a steel door, equipped with a pick-proof double-action lock—and it has an ornate bronze knob on the inside of the door.

CLOTHES-DRYING facilities for two families a day—less than half enough for those who will inhabit the unit.

Rooms Cost $1342

These are some of the aspects of the Cedar-Central housing project which today stood completed as to structural work and interior finishing. The 650 family apartments which cost an average of $1342 a room are ready for occupancy, according to Frank E. Warren, representing George A. Fuller Co., builders.

Discovery of the "bugs" in the construction (which was largely experimental with the Government and its architects) came after Mr. Warren had made a final checkup of the project, with a view to demanding final acceptance next week from the Public Works Administration.

The narrow doors occur in several units of the entire project of 19 separate apartment buildings. Where the main entrance doors and the doors to some apartments are three feet wide, those in many other apartments are four inches narrower.

Laundry a Problem

This will prevent moving in of heavy upholstered furniture, davenports and such. In a test today, a medium-sized upholstered chair of the type known as a "davenette set" chair was moved through one of the doors with difficulty.

Window entrance of furniture is prevented by a center steel mullion in each window, with the narrow hinged sections on either side.

Building R is a three-story apartment house of 27 family units. There are two laundry trays, two drying rooms, two ironing boards and two water heaters in the laundry section that must serve that entire building. If two families used the laundry every day of the week, including Sunday, 13 families still would have to wash their clothes in the bathtubs.

Doors 18 Inches Wide

Many of the living rooms have individual round-cornered porches, opening only into the living room. The doors are 18 inches wide. For a moderately heavy person to go through is like edging through a hole in a board fence.

Considered most amusing of the project's discrepancies, however, is the door shielding incinerator intakes. These intakes are the usual hinged-door type set in a stair landing wall at the first floor. Where they generally are left exposed in apartment buildings, an elaborate steel door—full size—covers them.

And this door is equipped with a double-action, pick-proof lock of an expensive type and with resplendent fittings.

Although there is only three inches clearance inside the shallow niche when the door is closed, there is also a shiny bronze knob on the inside. The builders have been trying to figure just why that sort of lock and knob arrangement was particularly specified in the Government's plans.

20

20 Narrow Doors to Harrass Ceder-Central Residents

March 9, 1937.

HOUSING-AS-TW
re ab

The Editor,
The Cleveland Press,
Cleveland, Ohio.

Dear Sir:

Subject: Story on Cedar Central Apartments

A story from the Cleveland Press by Ira Welborn, on our Cedar Central Apartments, has recently been called to my attention. While some of the facts stated are accurate, some are not, and the conclusions drawn therefrom are hardly justified. I am sure that you and Mr. Welborn will be interested to learn the real reasons for the conditions criticised. Points of criticism, quoted from your article, are listed as follows:

1.) "Apartment entrance doors only 2 feet, 8 inches wide through which heavy upholstered furniture or desk can not be moved."

The width of the doors is accurately stated. However, this size of door was not approved until it was determined that the probable type of furniture, including desks, owned by the class of tenant to be housed, could be taken through. In our Washington office, every interior door is 2 feet, 8 inches wide and desks measuring 5 feet by 2 feet, 10 inches, by 2 feet, 6 inches have been installed without difficulty. This building was formerly a high class apartment building and the existing doors were not changed. An examination of similar apartment buildings in Cleveland will undoubtedly disclose a large percentage of doors 2 feet 8 inches wide.

2.) "Laundry facilities for two families a day - in units where 27 families will be housed."

The statement is accurate; the implications are inaccurate. The necessary amount of laundry space was not specified until exhaustive studies had been made of low rent housing projects all over the country. From the recommendations of housing managers and laundry associations, and from extensive personal investigation of existing conditions, we determined that about 50 per cent of families would probably wish to do all their own wash and the remainder would probably utilize the wet wash facilities of commercial laundries. In addition to the basement laundry space, a combination kitchen sink and laundry tray is standard equipment in every kitchen. The total laundry space available is thus more than adequate to take care of all normal need.

3.) "A living room door opening onto a porch - but the door is only 18 inches wide, and fat Uncle Louie couldn't get through with a shoe horn."

The doors as specified are, according to our project manager, 22½ inches wide, not 18 inches. For secondary access to a balcony, this width is sufficient for all normal use.

4.) "A garbage incinerator intake - but this is guarded by a steel door, equipped with a pick-proof double-action lock - and it has an ornate bronze knob on the inside of the door."

Incinerators are in the front halls. Unless a door which could be locked were supplied, children would probably stuff anything and everything into the incinerators. Also, children might be burned when the incinerators were fired since the hopper doors are red hot at that time. The locks are identical in type with those of the apartment doors and provided with a master key so that housewives might unlock the door with their house key. The knob on the inside is, of course, unnecessary but because of economy in buying large quantities of one single type no change was made for the incinerator doors. The bronze knobs are not ornate but are the cheapest on the market.

5.) "Clothes-drying facilities for two families a day - less than half enough for those who will inhabit the unit."

The answer given under No. 2 applies here.

No one could claim perfection in such a new field as this type of housing. However, I believe it would be fairer to all concerned if your reporters would check both facts and reasoning behind these facts with our project manager before attempting to write an article on such a technical subject as the design of a housing project.

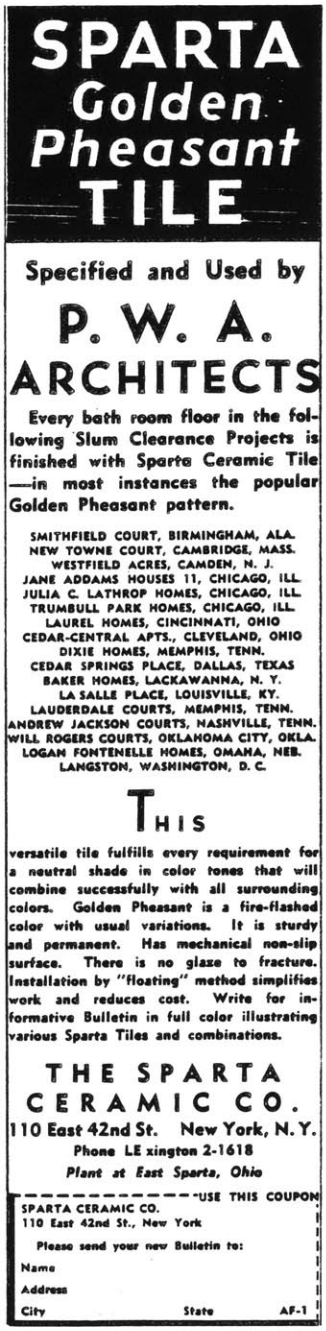
Very truly yours,

H. A. GRAY,
Director of Housing.

For the Administrator.

21

21 Housing Division's Answer to Story on Cedar Central Apartments, Cleveland, O.



22

22 Ad for Bathroom Tiles

were to be of either cement or asphalt tile applied directly to the concrete slab. Masonry partitions were required between the apartments, while two-inch solid plaster with channel studs and metal lath (fig. 15) partitioned the apartment's interior. No plaster ceiling should be applied in the presence of floor and roof slabs. For economic reasons, a white hard Portland cement plaster was substituted for the tiling of kitchen and bathroom walls. Tiles were only considered for bathroom floors (fig. 22) while linoleum was to be used for kitchen floors and wood laid in mastic for all other areas. Throughout the apartments baseboards were requried to be alternatively executed in metal or cement in order to integrate walls and floors as nearly as possible.[23]

Architectural samples, such as stone, terra cotta, face brick, bronze, floor or wainscotting tile, terrazzo and all other samples affecting design,"[24] were to be submitted by the contracter to the architect who was charged with rejecting unsatisfactory samples and calling for samples meeting specification requirements. However, architects were admonished to bear in mind the fact that their approval of samples was not final. All action by private architects was subject to approval by the Housing Division, including action on samples.[25] "Steel, concrete, brick and mortar banished forever the possibility of collapse, the constant dread of tenement dwellers" the PWA observed in its

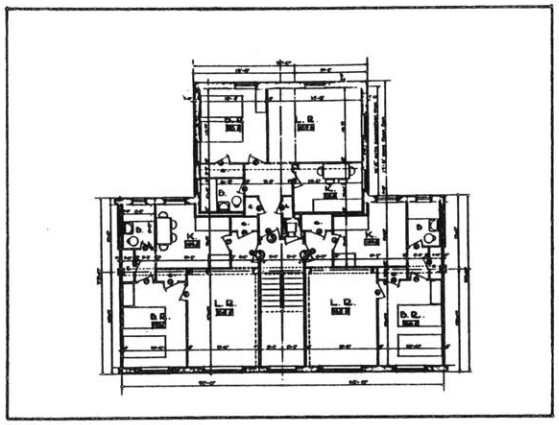
brochure titled Williamsburg Houses, A Case History of Housing,[26] linking sound and fireproof construction to the safety and health of tenants, the ends which were to be attained by the New Deal approach to housing.

2.3.2 Layout of the Living Units

The Glossary of Terms, published in the Sample Books, defined the dwelling unit as follows:

> Any room or group of rooms, designed as the living quarters of one family or household, and equipped with cooking and toilet facilities, and having an independent entrance to a public hall, or one directly to the outside. Sometimes referred to as suite or apartment. 27

The drawings (figs. 23-52) represent the wide range of apartment units, as established by the Housing Division of Public Work and published in the Sample Book. Besides the predetermined factors, number of rooms and affiliation to the tee-, ribbon-, cross- or ell-type, the layout of the living unit was distinguished by the placing of the line of columns between the two exterior walls, and constituted a "subject of argument among architects."[28] However, according to the official opinion, "no appreciable difference" existed in construction cost between the on-center or off-center column, although "the greater plan possibilities of the latter one should be noted."[29] Actually a statement which to a certain extent contradicted the Housing Division's previously mentioned argument in



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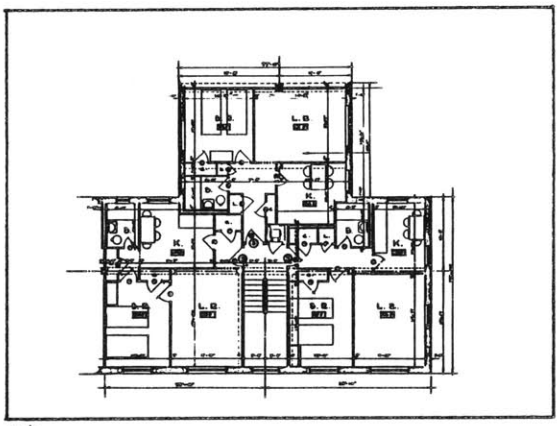

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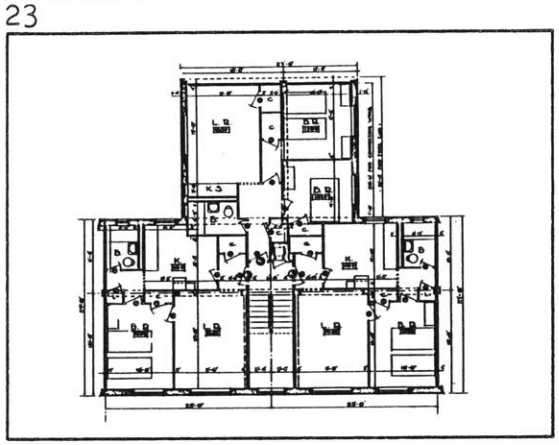

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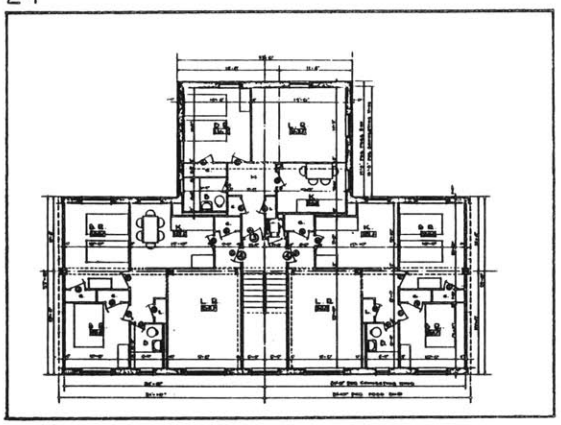

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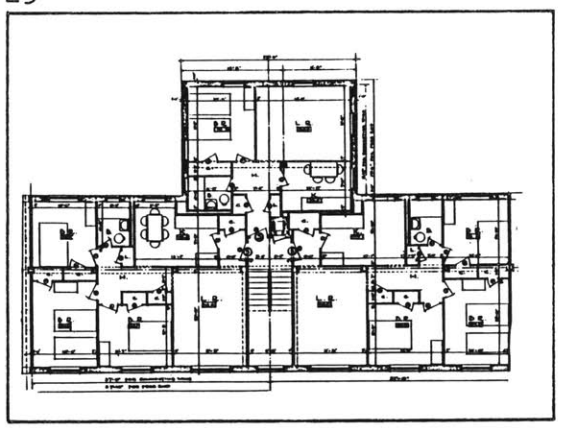

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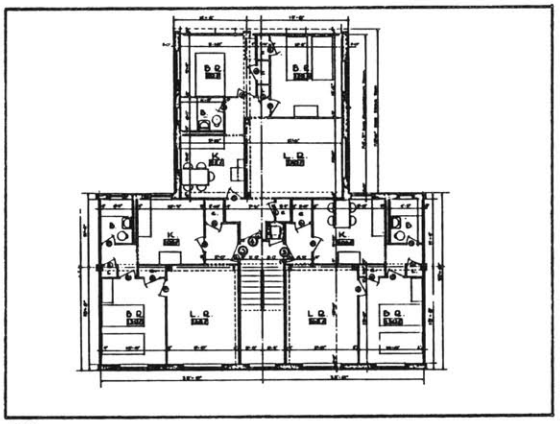
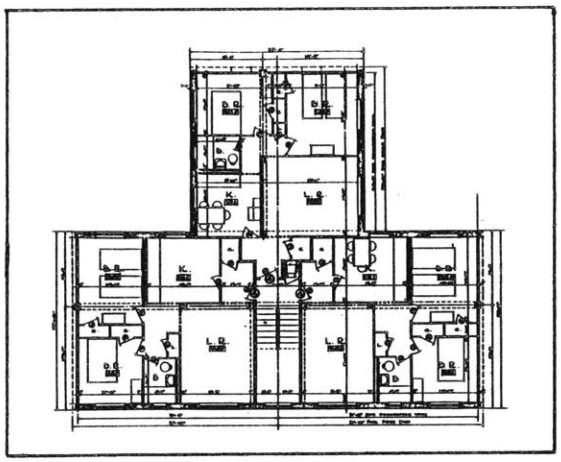


28

Off-Center Column Types

23	3-3-3	Tee
24	3-3-3	Tee
25	3-3s-3	Tee
26	4-3-4	Tee
27	5-3-5	Tee
28	3-4-3	Tee



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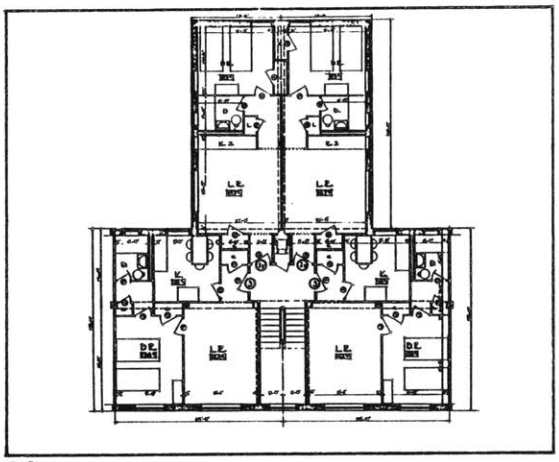

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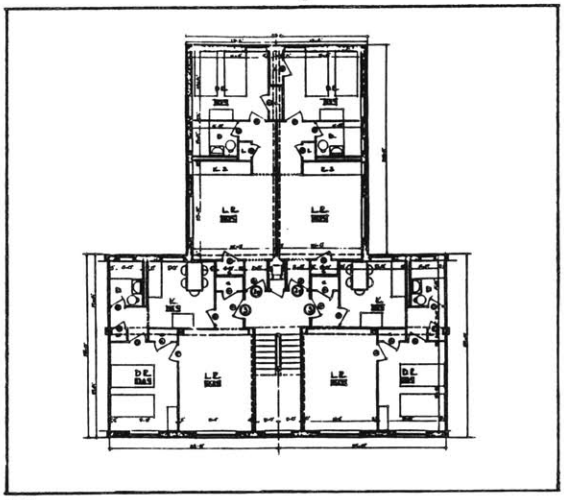

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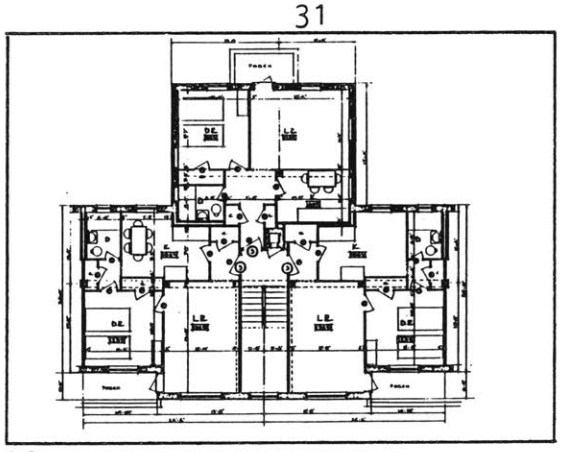

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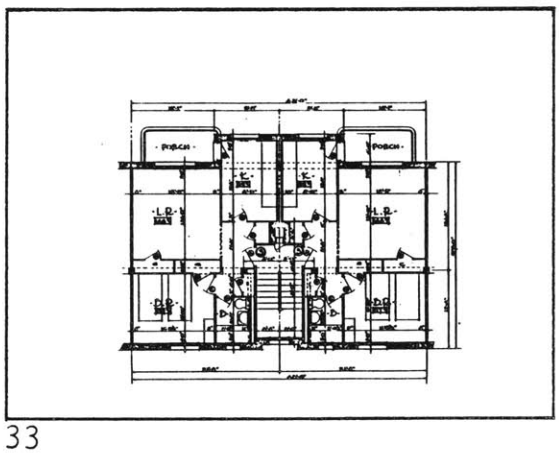

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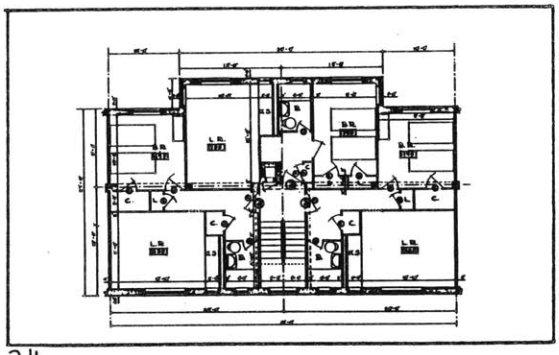
29	4-4-4	Tee
30	5-4-5	Tee
31	3-2s-2s-3	Tee
32	3-3-3	Tee (balcony)
33	3-2s-3	Tee



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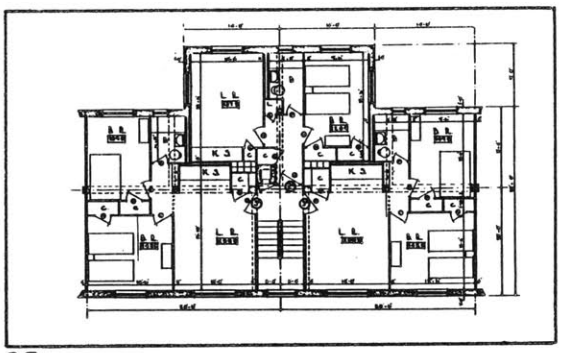

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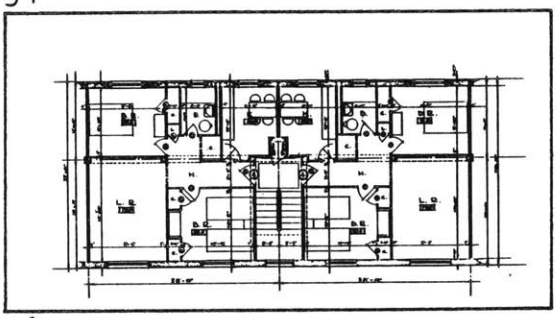

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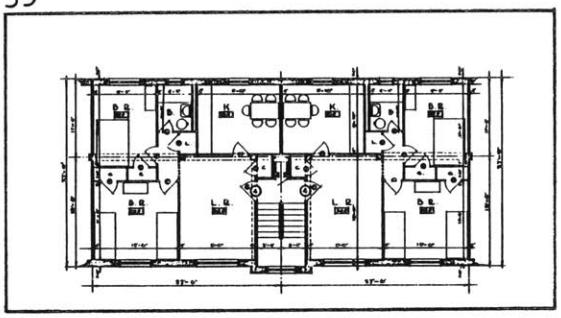

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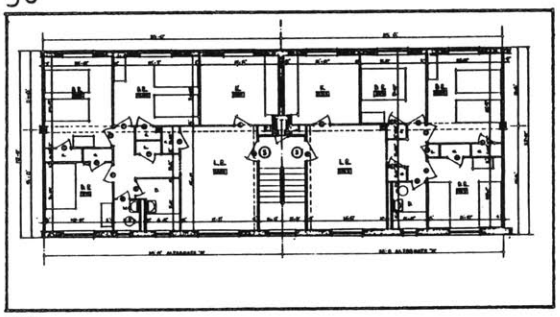

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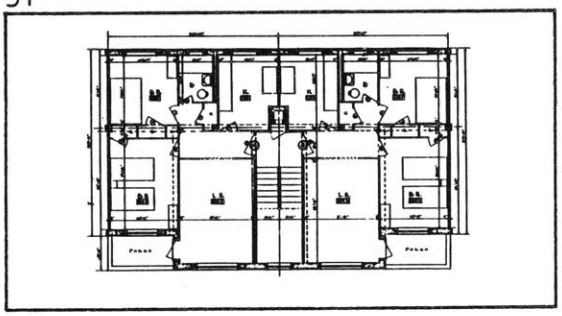

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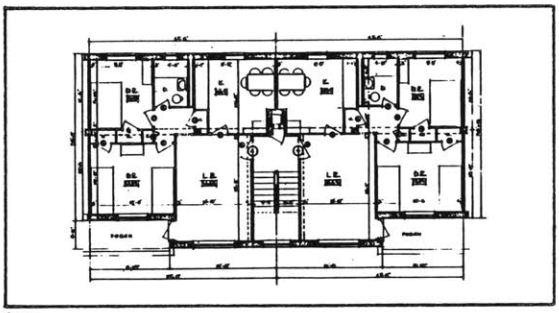

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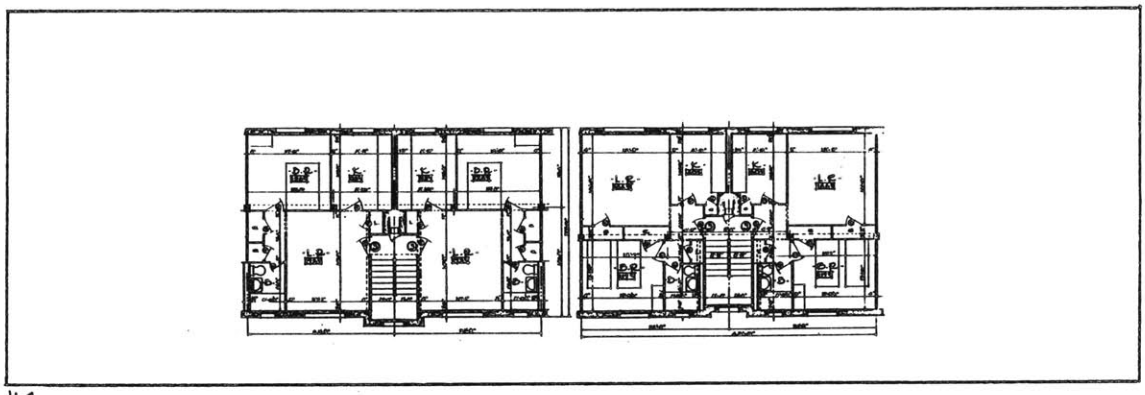
34	2s-2s-2s	Ribbon
35	3s-2s-3s	Ribbon
36	4-4	Ribbon
37	4-4	Ribbon
38	5-5	Ribbon
39	4-4	Ribbon (balcony)
40	4-4	Ribbon (balcony)



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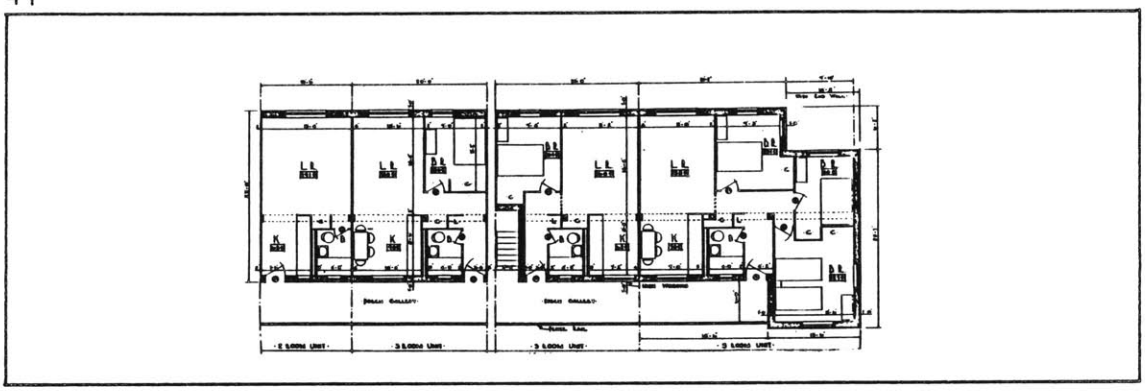

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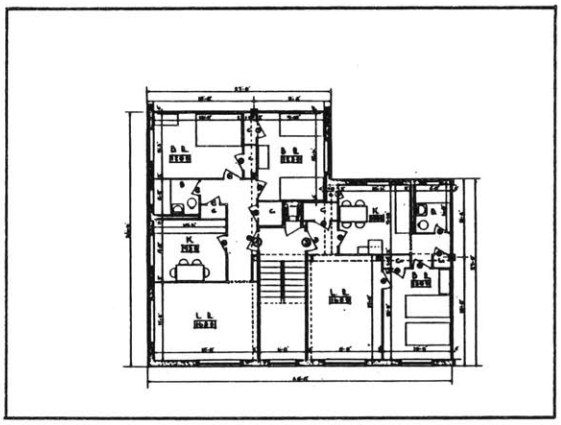

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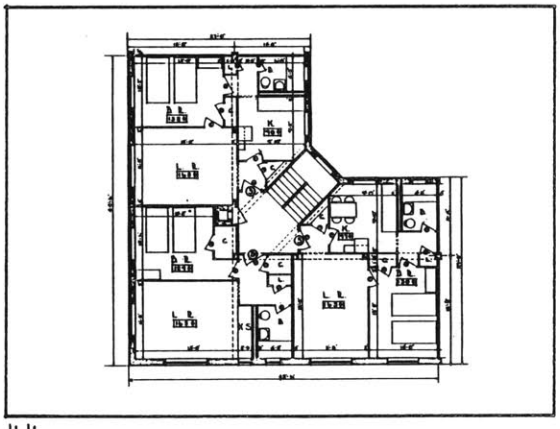

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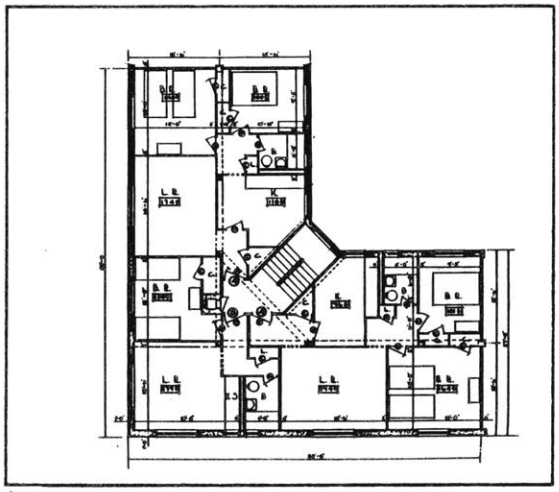
41	3-3	Ribbon
42	2, 3 and 5	Ribbon (gallery)
43	4-3	Ell
44	3-2s-3	Ell



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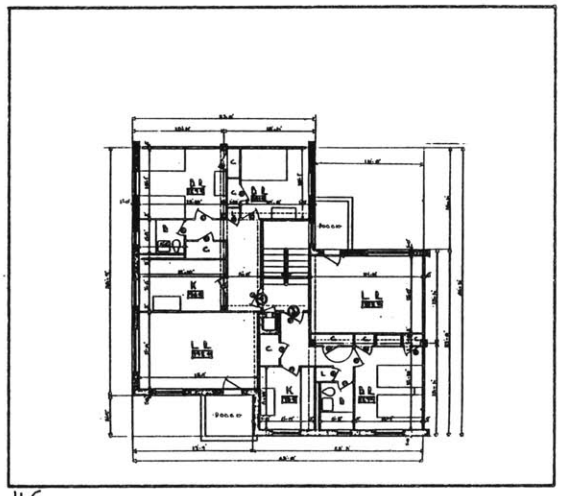

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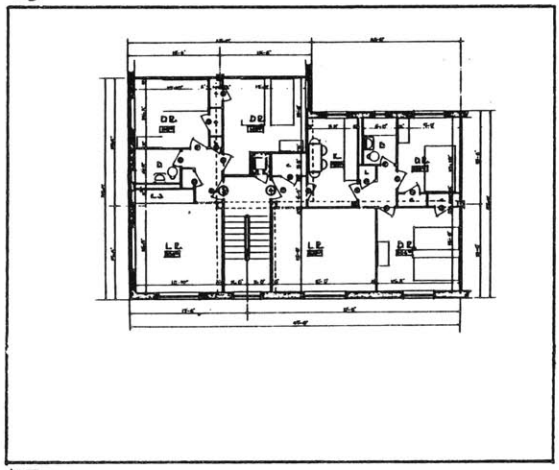

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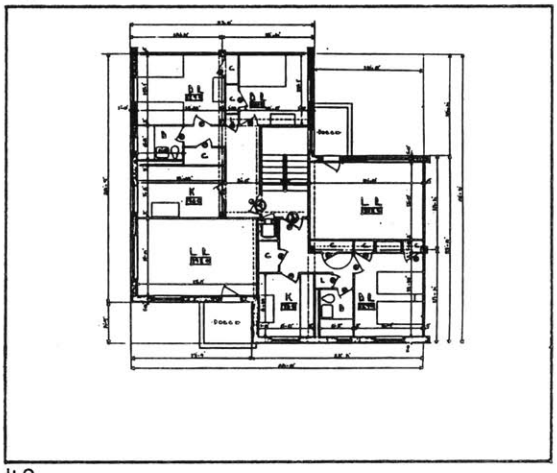

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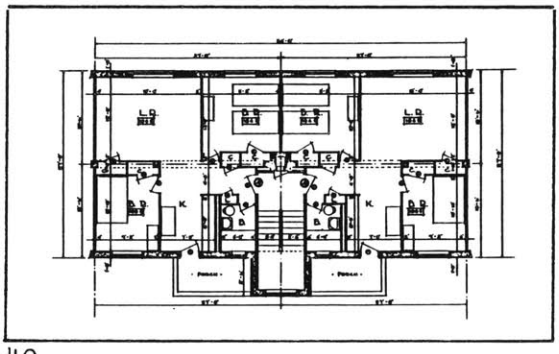

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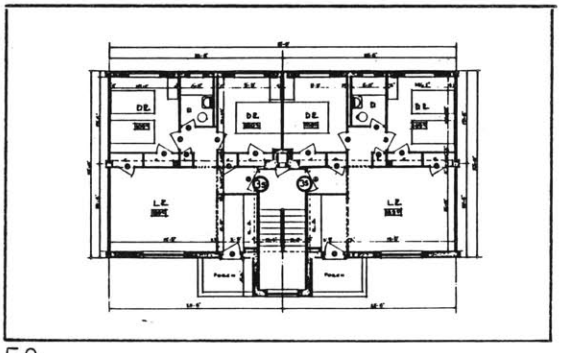

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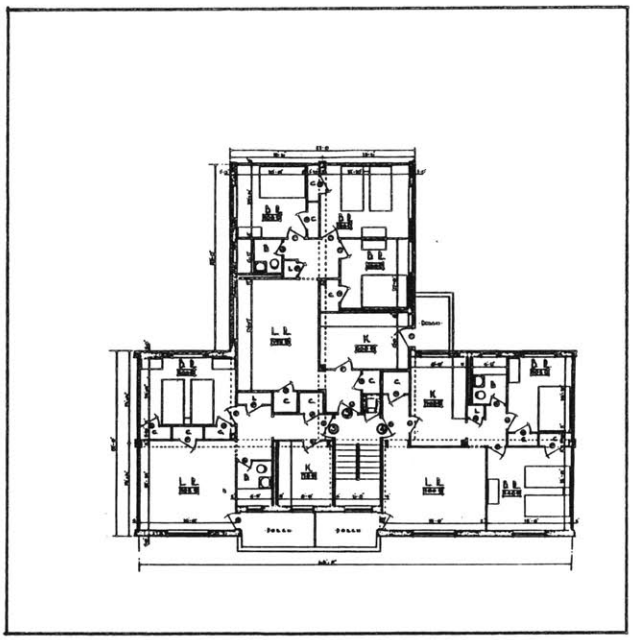
On-Center Column Types

45	3s-4	Ell	48	3-3-3	Ell (balcony
46	4-2s-4	Ell	49	3s-3s	Ribbon (balcony)
47	3-4	Ell (balcony)	50	4-4	Ribbon (balcony)



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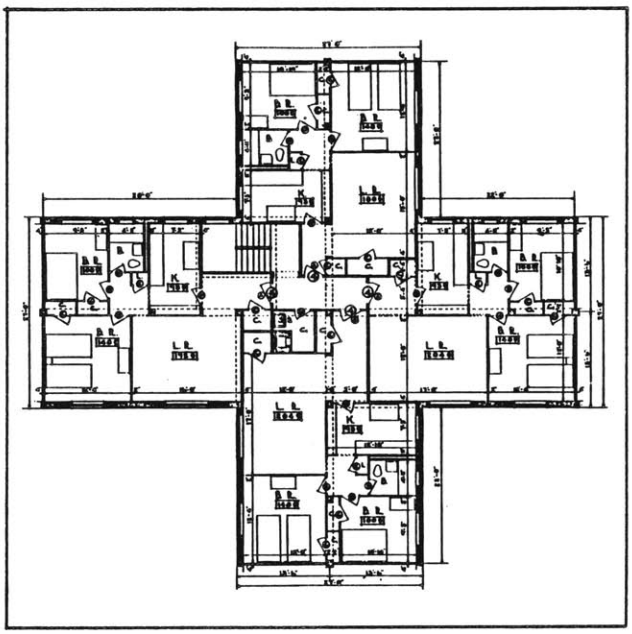


52

51	3-5-4	Tee (balcony)
52	4-4-4-4	Cross

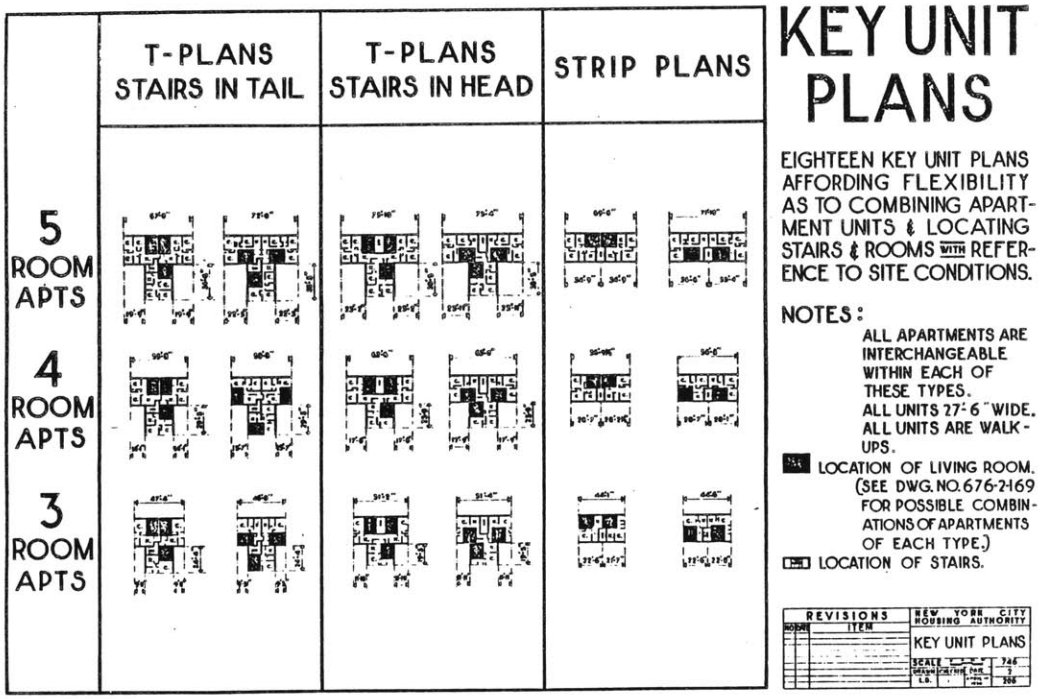
favor of on-center structures allowing plans to be flipped.

The Housing Division's design approach which endeavored to disentangle the operations involved in a large-scale housing project, depended upon first establishing a defined site massing and only then as a second step could the layout of individual living units be established. This approach required the internal flexibility of the individual unit for its execution. The plate below (fig. 53) represents, based upon the T- and strip-shaped plans, the establishment of 18 key unit designs affording flexibility as to combining apartment units and locating stairs and rooms in response to site conditions. It was the Housing Division's objective to provide:

> a minimum number of unit plan arrangements which could be used in any type of site plan pattern and at the same time [would] satisfy the established criteria as to distribution of apartments by rooms, daylight, sunlight, vistas, prevailing breezes, access, etc. ... 30

It was shown that from the 18 keyplans 460 different apartment arrangements within the tee and strip types could be derived (fig. 54).

The minimum room sizes, as established by the PWA Housing Division, are specified in the table below. They were accompanied by the instruction that "no plans [could] possibly be decreased without seriously affecting rentability. On the contrary, great improvements [might] be obtained by increasing either or both dimensions by 1 or 2



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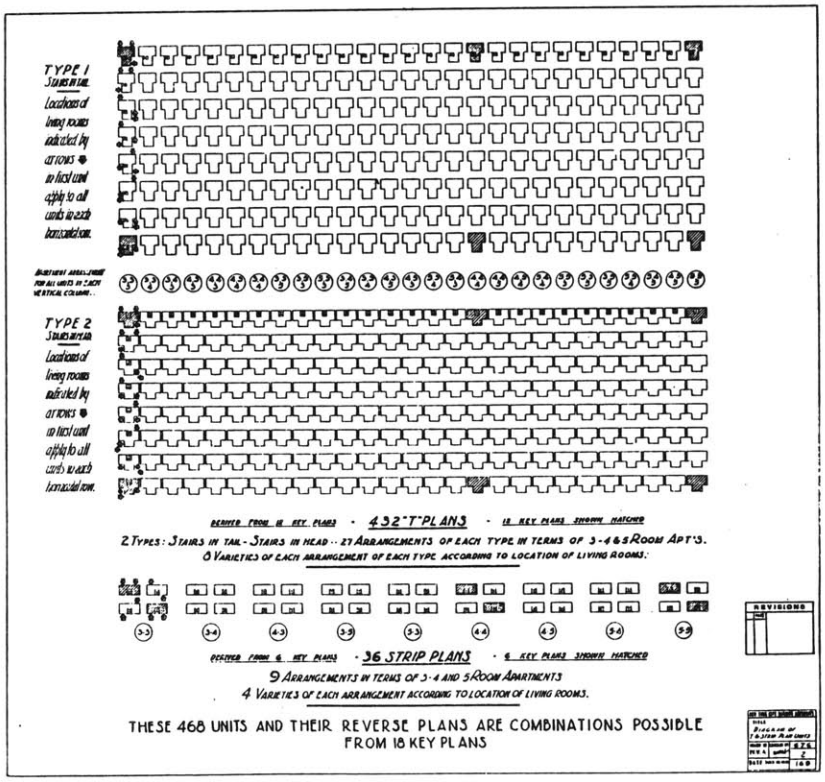


54

53 18 Key Unit Plans
54 468 Possible Combinations

feet."[31] The Authority expected that a space enlargement by about 10 percent would result in fewer vacancies and minimum turnover rates. Improved rentability was generally considered to have, in comparison with the resultant increase in initial construction and maintenance costs, higher economic impact.

	Minimum Dimension	Minimum Area Square Feet
Apartment Living Room	11'0"	150
Main Bedroom	10'0"	110
Second Bedroom	9'3"	100
Kitchen	7'4"	65

Bathroom - Standard Dimension 4'11" x 6'8" to take a full 5-foot tub

The establishment of minimum room size was primarily a consequence triggered by the Housing Division's idealistic concept of maintaining , even for urban housing projects, a land coverage of less than thirty percent while sustaining, at the same time, the objective of low rent housing. In a memorandum, published in July 1934, suggesting axioms and criteria to be used in the examination of low-cost housing projects by the New York Municipal Housing Authority when submitting project plans to the Housing Division of the PWA for approval, the striking interaction between larger planning issues and the single living unit concerns was clearly recognized and consequentially used to argue against the PWA's joint venture of slum clearnce and public housing by questioning:

> Is it not the direct result of attempting to make low cost housing possible on land relatively high in cost and still maintain a reasonable population density and land coverage? In an effort to secure low rentals on such land, is it not this chiseling of cubage and area to the last degree the only remaining alternative under which the higher cost land in slum areas are economically possible? 32

Other critics recognized in this domination of site planning matters a jeopardizing of the conception "living unit" defined as "the living quarters of one family or household. If the family is the social unit, should not all our planning revolve around family life and welfare? If so, then should we not avoid making a fetish of open spaces?"[33] questioned Bernard J. Newman, Managing Director of the Philadelphia Housing Association on the occasion of a discussion during the Joint National Conference on Housing held in Washington, D.C. in 1935. The essence of his contribution was to "provide houses that will become homes, where child life may be present and where the family as a social unit may be developed in a wholesome way."[34]

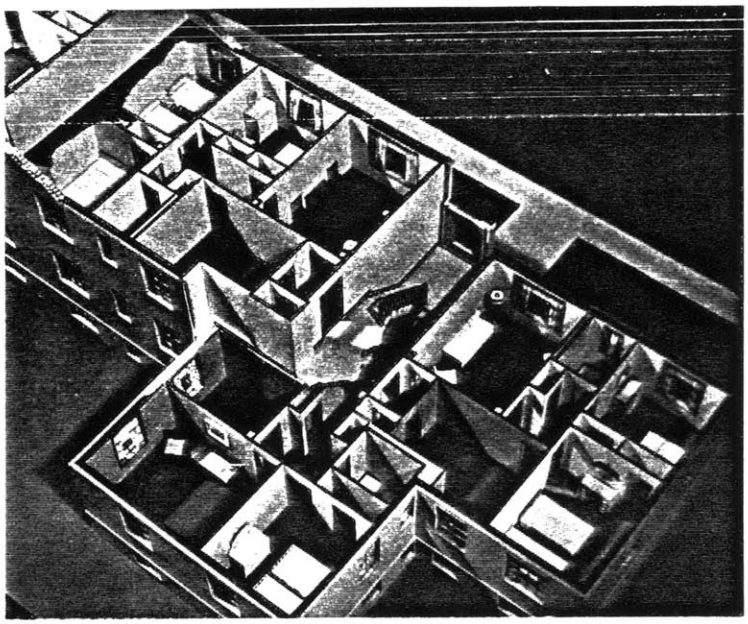
One more Housing Division measure for the establishment of appropriate room size in public housing developments should be quoted, not in the least for its amusing character. "Since the low cost housing now proposed is primarily intended for workers in the low income brackets and who are usually of physically robust types, real elbow room should exist in their living quarters, as well as light and air."[35]

observed the New York City Housing Authority.

In the design of each room emphasis had been placed on clean-cut layouts. All rooms showed an unbroken perimeter with no closets cutting into them, and with the exception of some kitchens, they were regular in shape, permitting the most effective and useful arrangements of furniture, as shown in the sample plans and even in the model built for the Housing Division Exhibit at the Department of the Interior in Washington, 1935. (fig. 55) The PWA pamphlet on the Harlem River Houses included a series of photographs (figs. 56-59) illustrating the furnishings of a typical project apartment. The simplicity in style and arrangment of furniture demonstrated the application of the same aesthetic principal as was recommended by the Authority for the exterior appearance of a housing project. Doors to all rooms were placed so as to cause the least interference with the use of the room and furniture which it contained.[36] In the Sample Book it was perspicaciously observed that

> a well-designed room [was] more useful than a large room in which little or no thought [had] been given to room layout. Applied to living rooms and bedrooms, besides excess original construction cost, too much furniture would be needed by the tenant in projects where those rooms [were] made excessively large. 37

Hence, it was anticipated that the efficiency of a unit would be better satisfied through a proper sequence and arrangement of rooms rather than by simply increasing the room dimension. To this end the Housing Division conceived



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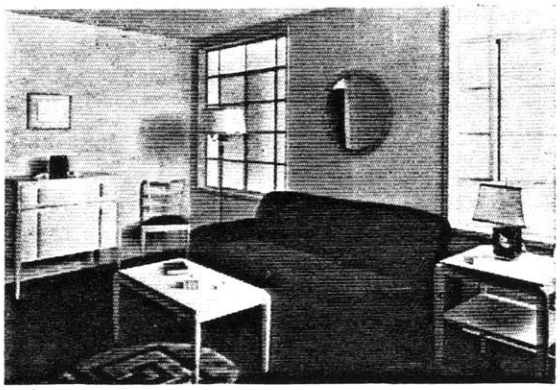

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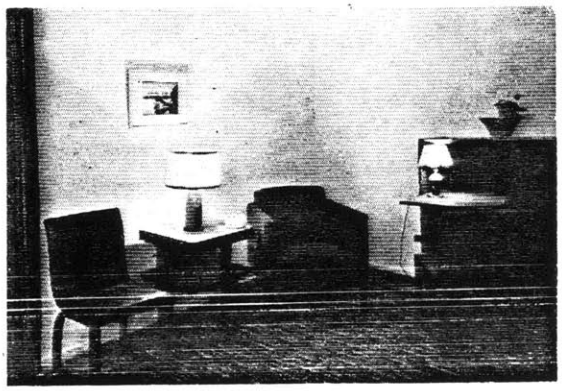

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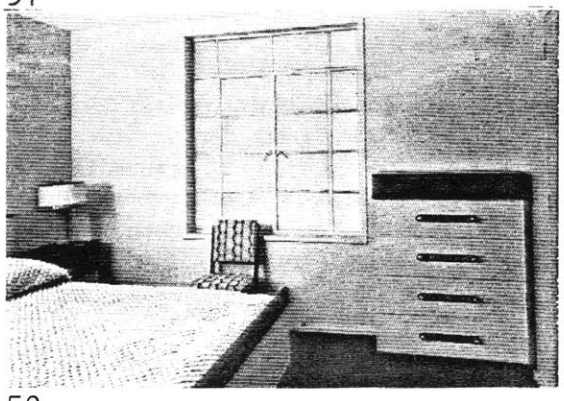
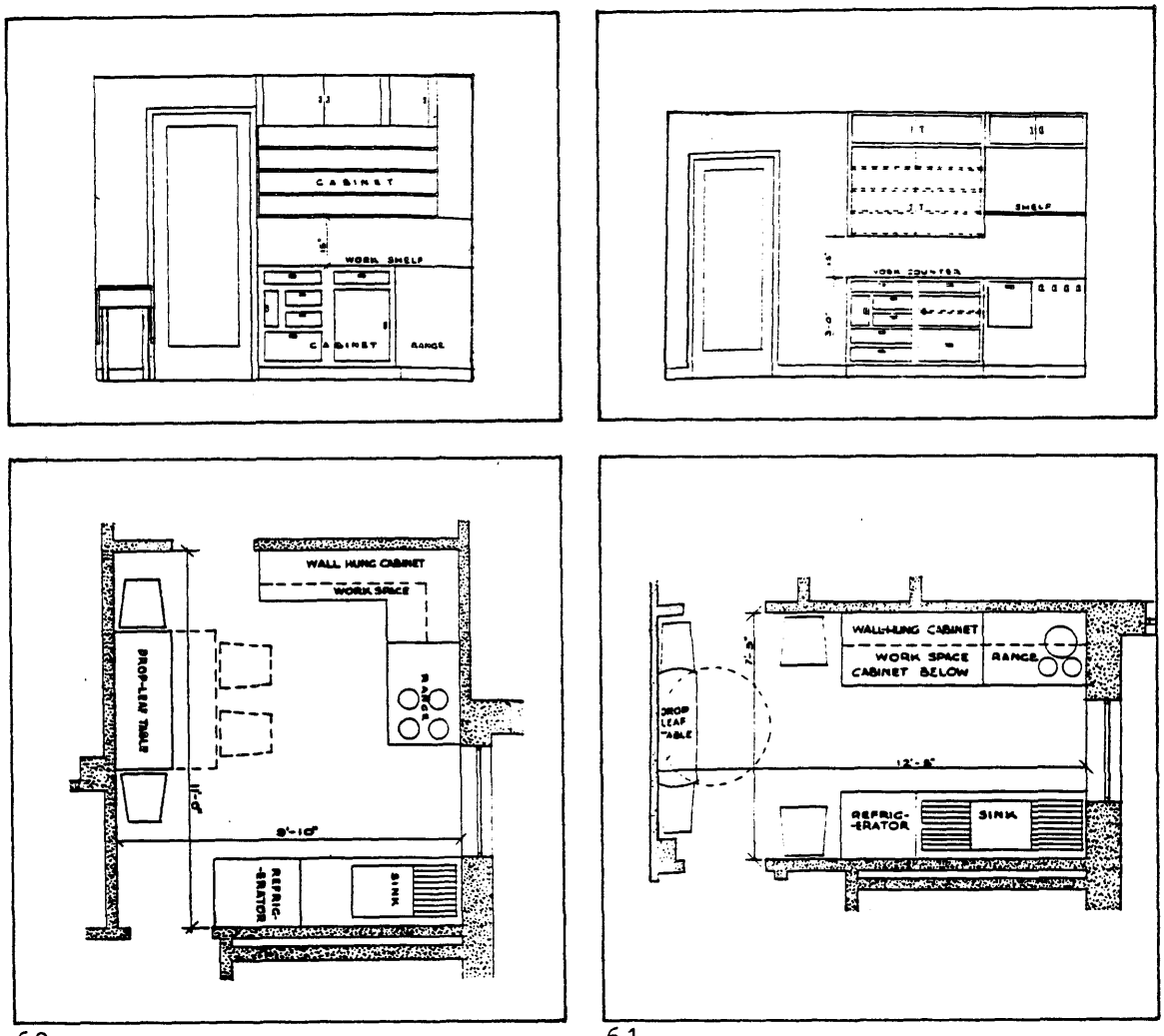


59

55 Model of PWA Housing Project
56-59 Apartment Interiors of Harlem River Houses, New York, N.Y.

the regulation that: "No compulsory passing through living rooms except in special cases"[38] was most crucial to the layout of an apartment. Allowing for the independent accessibility of rooms related to various functions, the Authority asserted that this would raise the low-rent apartment into the same planning category as the single-family house, where living rooms are normally segregated in some fashion from service and bedroom areas.[39] In A Housing Program for the United States prepared by the National Association of Housing Officials, the separation of sleeping from living rooms was regarded as an element of increased importance "in decent and cleanly living, when many of those to be housed have not already acquired, or perhaps have lost through long living in slum conditions, the habits of such clean living."[40]

The Housing Division of Public Works interpreted the increase in privacy gained from the spatial separation of functions, not from an appreciation of living standards but rather from a purely utilitarian point of view. "Because of this privacy," Fellheimer argued, "the living room can be used as an auxiliary bedroom thus increasing the capacity and utility of the apartment."[41] To encourage the use of living rooms for sleeping purposes was in accordance with "A study of Housing Essentials" compiled from interviews with New York housewives prepared by the Committee on Housing, Women's City Club of New York.[42] Proceeding on the



60 61

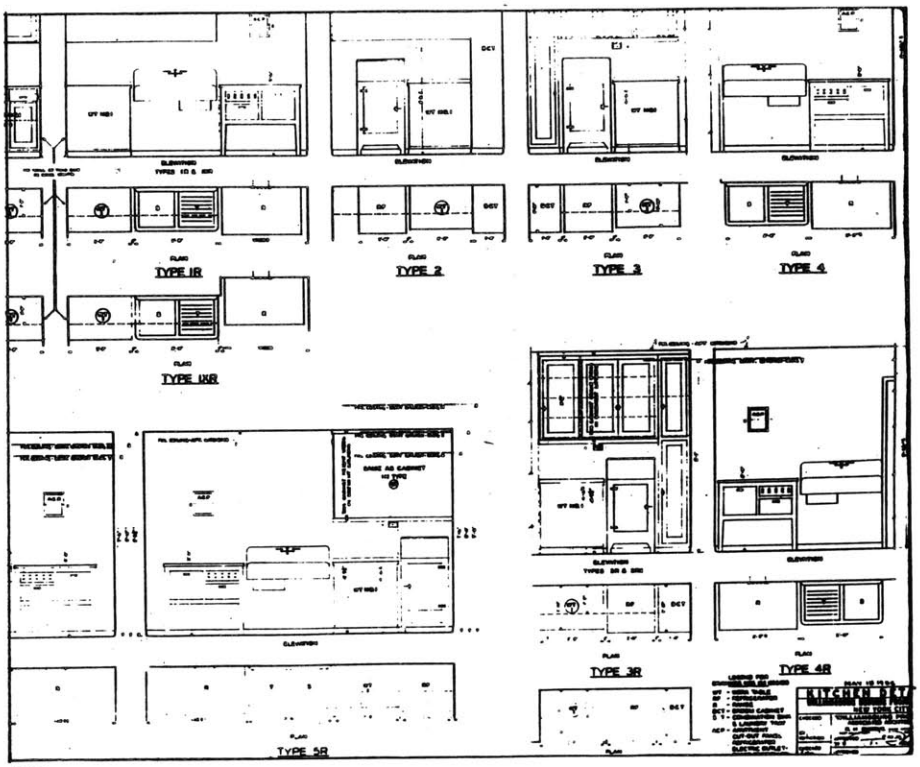
60, 61 Kitchen Sample Plans

assumption that "[such] a thing as a living room in which no one sleeps is a luxury to which very fiew of those [interviewed] women aspire," the study concluded that the livng room had to have "complete privacy" only achievable by the accessibility of all rooms from halls.[43]

2.3.3 Technical Equipment

The previously quoted opinion that a well-designed room was more useful than a large room in which little thought had been given to layout especially applied to the organization of a kitchen within low-rent housing. The Housing Standards of the PWA Housing Division required that the kitchen should preferably be located near the apartment entrance. Moreover, eating in kitchens had to be considered, and hence space allowed for this activity in planning. "To avoid lost motion, unnecessary stretching or stepping and to allow for easy opening and tight closing of doors, windows, and drawers"[44] architects were urged to carefully study kitchen arrangement. The paradigmatic kitchen designs (figs. 60-64), published in the Sample Book, were developed under the direction of Dr. Louis Stanley, Director of Home Economics, U.S. Department of Agriculture and were accompanied by an efficiency study on the sequence of operations in relation to the arrangement of equipment.

> The kitchen -- the domestic workshop -- will be so designed as to make possible the preparation and serving of food, with its ancillary labors, with the least possible waste of time and effort, and



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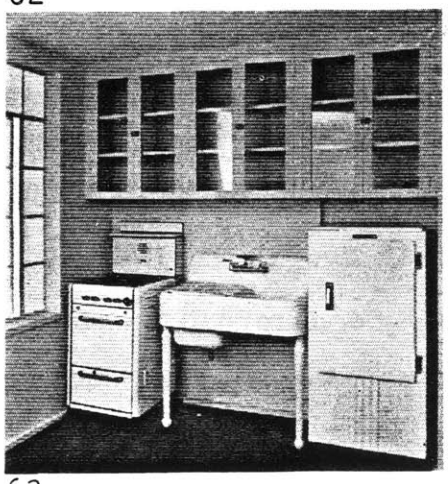

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64

62 Kitchen Working Drawing for Harlem River Houses, New York, N.Y.
63 Kitchen Equipment, Harlem River Houses, New York, N.Y.
64 Eating in the Kitchen, Harlem River Houses, New York, N.Y.

65

66

67

65 Brooklyn Borough Gas Company Demonstration Kitchen
66 Refrigerator Ad Campaign
67 General Electric's Coast-to-Coast Movie Train

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for the Bliss family

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FIRST PRIZE for Best Medium Size Home in Class not receiving Grand Prize . .		1500.
SECOND PRIZE, in each of the four classifications	$1250.	5000.
THIRD PRIZE, in each of the four classifications	1000.	4000.
HONORABLE MENTION, ten in each of the four classifications	100.	4000.
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68 Announcement of General Electric Competition

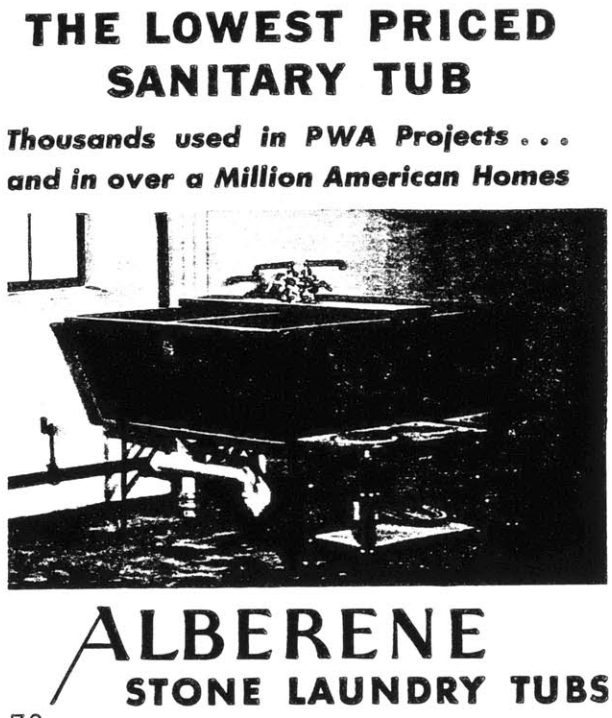
with a minimum of fatigue. [45]

To this end, the Bureau of Home Economics defined the equipment required in every "domestic workshop" as, "a stove, sink with water supply, work tables or work surfaces at satisfactory heights, refrigerator [and] adequate space for articles to be stored ..."[46]

The appliance manufacturers and the companies involved in the generation and marketing of electricity or gas, opened up a new market in the domestic kitchen, by designing demonstration kitchens based upon motion studies as, for instance, was done by Brooklyn Borough Gas Company (fig. 65). Appointed dealers developed ad campaigns which offered to lend electrical appliances to individuals on a trial basis (fig. 66) besides a special coast-to-coast movie train focusing nation-wide attention on General Electric kitchens (fig. 67). General Electric's bid for a market share was also based upon a company sponsored national architectural competition (fig. 68) whose objective was "to enable the public to get a new vision of what an inexpensive home can be like in this new era of our national development. All the new advances in the art of living should be made available to everybody ..."[47]

To provide the "utmost in modern convenience and livability"[48] was identical with the Housing Division's frequently announced intention to respond in their program to the American standard of living. Hence the 50 PWA

69



70

69 Ad for Westinghouse Refrigerator
70 Ad for Alberene Stone Laundry Tubs

Housing Projects provided a broad field of activity for the manufacturers of ranges, refrigerators and sanitary products. According to the analysis of the PWA Housing Project's construction outline, electric refrigerators and electric ranges installed in the apartments almost exclusively were supplied by either Westinghouse Electric Manufacturing Company (fig. 69) or Edison General Electric Appliance Company; gas ranges were supplied by the Crown Stove Works; kitchen sinks, bathtubs, basins, water closets, laundry tubs and fixtures were predominantly manufactured by the Sanitary Manufacturing Corporation, the Albedene Company and the Crane Company, while the kitchen and bathroom metal cabinets were supplied by the Philip Carey Company (figs. 70-73).

The dominance of a few supra-regional companies did not contravene the policies of the Federal Emergency Administration. On the contrary, the Act specified that building should not be confined to local contractors but should be open to all qualified competitors.[49] In the PWA brochure on the Williamsburg Housing Project, it was remarked that "The installation and maintenance of the ranges and refrigerators were made possible by mass purchase of equipment and energy at greatly reduced prices."[50]

According to Roosevelt's interest in public power supply as a "yardstick" for national progress,[51] the federal

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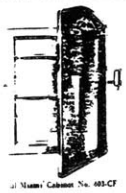
UNITED STATES HOUSING AUTHORITY



al Miami Cabinet No. 403-CF

MIAMI CABINETS
Glorify the American Bathroom

The selection of Miami Cabinets by the architects and engineers of the United States Housing Authority for a large majority of its slum clearance and multiple housing projects, is indicative of the sound construction and modern features that should make these cabinets your choice for low cost and limited dividend housing. For complete details and specifications, see the complete MIAMI Catalog in SWEET'S.

SPECIAL MIAMI CABINET NO. 403-CF . . . For Limited Dividend Housing

A new complete cabinet unit with built-in lights, light switch and connection plugs. Designed especially for low rent and limited dividend housing projects. Saves 2 to 3 electric outlets per bathroom. Cabinet furnished complete with two glass shelves, razor blade drop, and holders for six tooth brushes. Mirror set in chromium frame eliminates chance of mirror damage.

SPECIFICATIONS: Mirror—16" x 22". Wall opening—13½" x 19" x 3½". Overall—16" x 22"

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Smithfield Court, Birmingham, Ala.	Dixie Place, Louisville, Ky.
Old Harbor Village, Boston, Mass.	Fowler Homes, Memphis, Tenn.
Kenfield, Buffalo, N. Y.	Greenlaw Courts, Memphis, Tenn.
New Towne Court, Cambridge, Mass.	Square, Miami, Fla.
Westfield Acres, Camden, N. J.	Milwaukee, Wis.
Trumbull Park Homes, Chicago, Ill.	Williamsburg Houses, New York, N. Y.
Laurel Homes, Cincinnati, Ohio	Harlem River Houses, New York, N. Y.
Cedar-Central Apts., Cleveland, Ohio	Jane Emmerselle Homes, Omaha, Neb.
Outhwaite Homes, Cleveland, Ohio	Tasker Homes, Philadelphia, Pa.
Lakeview Terrace, Cleveland, Ohio	Fairfield Courts, Stamford, Conn.
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Bathroom Cabinet Specialists FOR OVER 16 YEARS

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Certain established pieces of home equipment, designed and engineered with an eye to the future, will survive the most acute appraisal. Crane fixtures for the bath, kitchen, laundry and heating plant will be among these. For high quality, convenience, beauty and economy are inherent in them.

To the man who built yesterday, and the man who is going to build tomorrow, Crane fixtures represent what he most desires in equipment for his home. We present herewith five Crane products for bath, laundry, and kitchen. They will make the small home of 1936 a better place in which to live. They can be selected with full confidence that the owner could ask no more in beauty and convenience, no less in cost.

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Crane CORWITH Bath—Trim, graceful. Porcelain enamel on durable cast iron. A variety of fixtures, including built-in shower.

Crane CORONADA Lavinet—A cabinet lavatory. Generous space for towels, toiletries. Bolster fixture gives greater sink space.

Crane MAURICLONIA Closet—A close-coupled closet. No connections visible. Reverse trap with jet. Efficient, moderate in cost.

Crane EVERSRITE Laundry Tub—Glistening solid porcelain (all clay), rounded corners, easy to keep clean, impervious to stains, low in cost.

Crane SUNNYSIDE Kitchen Sink. Enameled durable cast iron. Steel cabinet with drawers and storage space ingeniously arranged.

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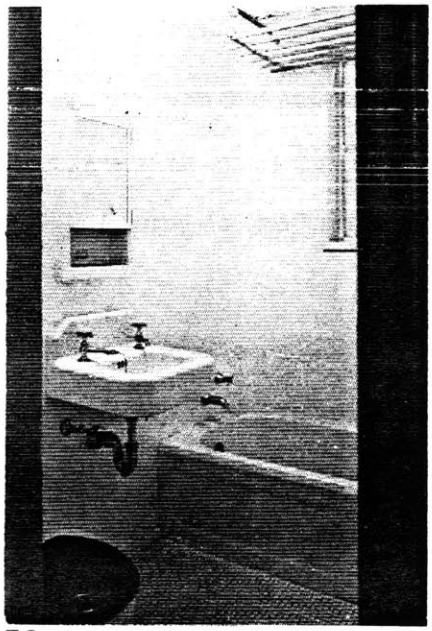


73

71 Ad for Carey Products
72 Ad for Crane Products
73 Typical Housing Project Bathroom

government began during his first term, 1933 to 1937, such grandiose projects as Grand Coulee Dam on the Columbia River and the water and power development projects of the Tennessee Valley Authority, projects which were as well part of the National Industrial Recovery Program. The Policies of the Emergency Administration of Public Works tested the eligibility of public projects for grant monies according to the project's regenerative impulse, e.g., their tendency to stimulate further projects such as "the transmission of electrical energy into territories not now served."[52] Housing projects hence ideally served as a flywheel for energy-related industries by subsidizing both the demand for and the supply of mechanical energy.

Discussing Bruno Taut's Ideal Siedlung in Britz Berlin, Henry Wright observed that the retention of individually supplied heat in some of the nicest recent buidings devoted to otherwise efficient small apartments would seem to be questionable. Each four-room apartment thus requires three stoves [Wright actually described these "Berliner Kacheloefen" as very attractive and inconspicuous, such as one would like to ship home for the farmhouse] and each double four-room unit four chimneys."[53] According to Wright's calculations, the economic advantages gained by the elimination of basements, requried for tenants' coal bins, individual chimneys and stoves, as well as the increase in living space and convenience would undoubtedly justify the

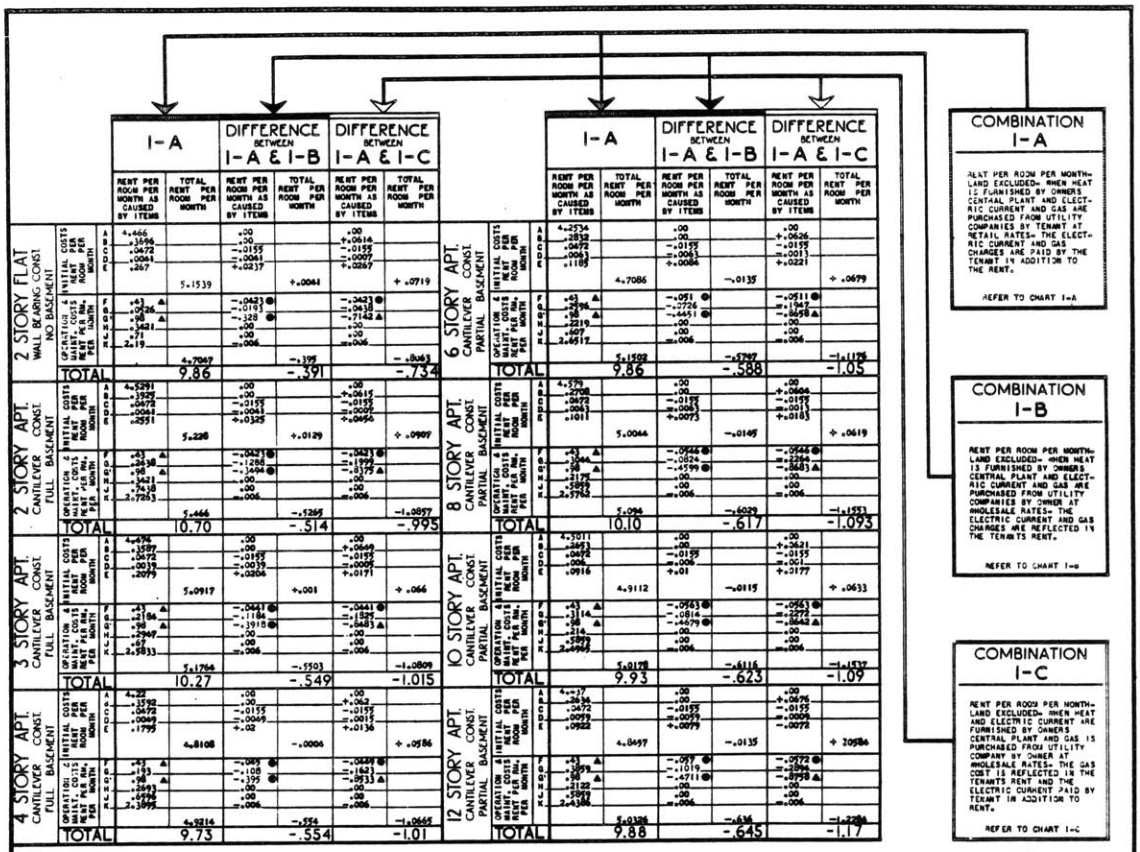
SUMMARIZED COMPARISONS OF RENT PER ROOM PER MONTH - LAND EXCLUDED

FOR THREE METHODS OF COMBINING THE USE OF CENTRAL PLANT HEAT - ELECTRICITY GENERATED BY OWNER OR PURCHASED FROM UTILITY COMPANIES AT RETAIL OR WHOLESALE RATES - GAS PURCHASED FROM UTILITY COMPANIES AT RETAIL OR WHOLESALE RATES.

CHART Nº 11

ANALYTIC STUDY OF COST DIFFERENTIALS.
FOR THE 2 STORY FLAT AND 2-3-4-6-8-10-12 STORY APARTMENTS

HOUSING STUDY GUILD
101 PARK AVENUE - N.Y.C.



74

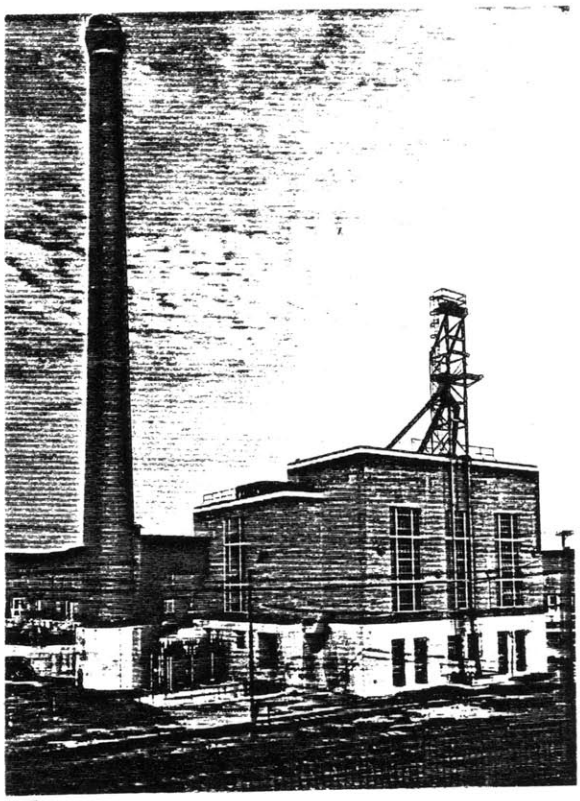
provision of heat by a central system. (fig. 74)

The heating plants with their industrial high-rise chimneys, stereotypical and distinctive marks for all large-scale PWA Housing Projects (figs. 75-78) express the Housing Division's adoption of the central plant concept, a concept which moreover corresponded with the Authority's requirement based upon economic considerations to omit basements wherever local building codes would allow for it.[54] However, to erect a heating plan within a "Class D Residential" area, appropriate for "Multiple Attached Dwellings," the Bureau of Zoning required the property owner to petition for the plant site to be classified as "A-Commercial."

The mechanical equipment of low-rent housing projects, despite its role as the immediate level indicator for the "American Living Standard," did in the Housing Division's general concept not occupy a prevailing position in relation to the building construction.

> Even if, in 50 years, our projects are obsolescent when judged by so-called American Standard, which as a matter of fact exists almost uniquely in the advertising pages of women's magazines, they will still be so far ahead of adjacent tenements and shacks as to justify amply a continued existence. For the standard of site and unit planning is absolute and it will be no less valid a hundred years from now than it is today. 55

This quote, as stated by Angelo R. Clas expressed that low-cost housing, by emphasizing a building structure wherein mechanical equipment and conveniences could, as condition



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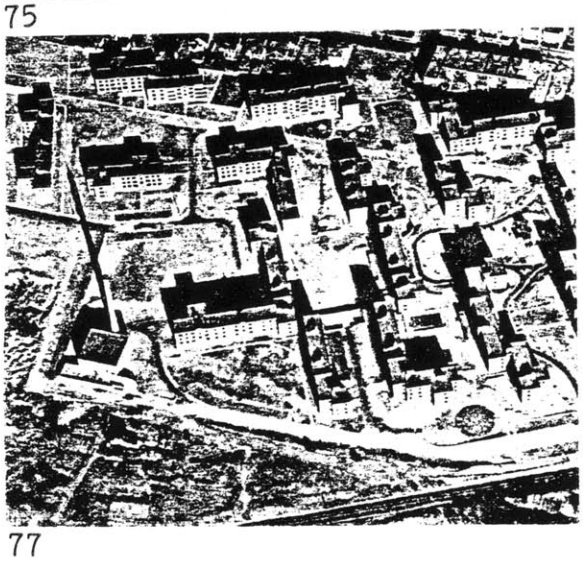

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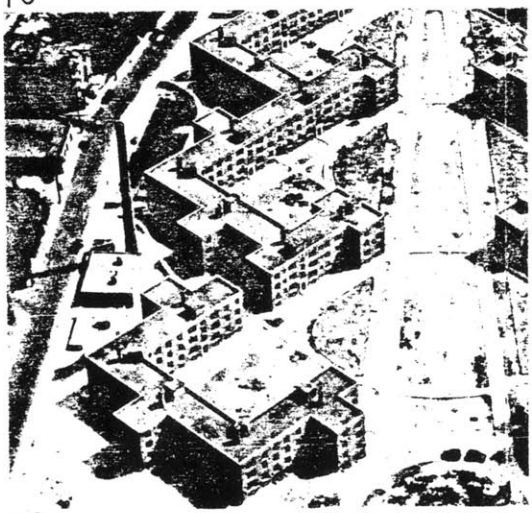


78

75 Heating Plant Boston Harbor Village, Boston, Mass.
76 Ad for Ric-wil Underground Steam Lines
77 Heating Plant Westfield Acres, Camden, N.J.
78 Heating Plant New Towne Court, Cambridge, Mass.

changed, be modified or replaced, would guarantee both, present utility and future worth. Critics, however, valued the official PWA concept to equip their housing projects according to a high technical standard as an attempt to divert attention from the cramped apartment layout.

> As attractions in such houses, we are supplying electric ranges, electric fuel, electric refrigeration, and a raft of gadgets, when our rooms are so small and so few that the man and wife of the childless family, who will rent them, both work and patronize the delicatessen store. 56

NOTES

1. "Standards for Low Rent Housing Planning Requirements Set Up By PWA Housing Division," The Architectural Record, LXII (March 1935), 184.

2. Alfred Fellheimer, "Planning American Standards for Low-Rent Housing," American Architect, (February 1935), p. 6.

3. Public Works Administration, Housing Division, Plans and Specifications Branch, Instructions to Private Architects for Low Rent Housing Projects.

4. Ibid., p. 16.

5. Ibid., p. 16.

6. Harold R. Sleeper, "Specifications for Housing," The Architectural Forum, LX, (February 1934), 111; Federal Emergency Administration of Public Works, The Purposes, Policies, Functioning and Organization of the Federal Emergency Administration. The Rules Prescribed by the President, Circular No. 1, p. 7.

7. Federal Emergency Administration of Public Works, Sample Book, Explanatory Notes on Structural Design Details; FEA of PW, Circular No. 1, op. cit., p. 6, 7.

8. Federal Emergency Administration of Public Works, Urban Housing. The Story of the PWA Housing Division, 1933-1936, p. 45.

9. Vladimir Posvar, "Huge Machine Goes to Work as Uncle Sam Breaks Ground for Cleveland's New Housing Project," The Wire Photo Paper, XCIV (June 24, 1935).

10. Kenneth K. Stowell, "High Cost Housing," The Architectural Forum, LX (February 1934), 39.

11. Robert D. Kohn, "The Architect Suggests a New Technique," Pencil Point, XII (May 1932), 325.

12. Ibid.

13. Lewis Mumford, "The Planned Community," The Architectural Forum, LVIII (April 1933), 254.

14. Ibid.

15. Ibid.

16. Address delivered by Angelo R. Clas at the American City Planning Institute Convention on "Housing and Its Relation to City Planning," January 18, 1936.

17. Ibid.

18. "Standards for Low Rent Housing...," op. cit., 184.

19. Fellheimer, op. cit., 6.

20. FEA of PW, Sample Book, Outstanding List of Items to be Avoided in Low-Rent Housing.

21. Ibid., Basic Features of Low-Rent Housing.

22. "Apartment House Planning Requirements," The Architectural Record, LXXVII (March 1935), 1971.

23. "Standards for Low-Rent Housing ...," op. cit., 182, 183; W. J. Sayward, "The University Housing Project, Atlanta, Ga," Bulletin Georgia School of Technology XXXII (July 1935), 122, 123; PWA Housing Division, Instructions to Private Architects ..., op. cit., p. 172.

24. PWA Housing Division, Instructions to Private Architects ..., op cit., p. 26.

25. Ibid.

26. Public Works Administration, Williamsburg Houses, A Case History of Housing, p. 25.

27. FEA of PW, Sample Book, Glossary of Terms.

28. "Types of Plans for Low-Rent Housing Projects," The Architectural Record, LXXVII (March 1935), 156.

29. Ibid.

30. New York City Housing Authority, A Note on Site and Unit Planning, p. 29.

31. FEA of PW, Sample Book, Housing Standards.

32. New York City Housing Authority, "Suggested Axioms and Criteria to be Used in the Examination of Low Cost Housing Projects of the New York Municipal Housing Authority When Submitted to the Housing Division of the PWA for Approval," p. 3.

33. National Association of Housing Officials, Proceedings Joint National Conference on Housing, p. 60, 61.

34. Ibid.

35. New York City Housing Authority, "Suggested Axioms and Criteria ...," op. cit., p. 3.

36. Fellheimer, op. cit., p. 8.

37. FEA of PW, Sample Book, Housing Standards.

38. Ibid.

39. Fellheimer, op. cit., p. 8.

40. National Association of Housing Officials, A Housing Program for the United States. In August 1934 the NAHO brought three European Housing experts (Sir Raymond Unwin, Ernst Kahn, manager of public housing projects Frankfurt a. M., Alice M. Samuel, manager of the housing estates of the Bebington Urban Distric Council) to the U.S. to meet with Federal, State and local housing officials from nearly forty cities and to survey problems and conditions in fourteen cities. (On their tour of the U.S. they were accompanied by Henry Wright) The publication cited above was based on statements given at the Baltimore Conference in October 1934, summing up the tour.

41. Fellheimer, op. cit., p. 8.

42 Women's City Club of New York, Housing for the Family, The New York City Housing Authority's approval of the project made it possible to secure the staff of relief workers who have done the detail work.

43. Ibid., p. 9.

44. FEA of PW, Sample Book, Housing Standards.

45. The President's Conference on Home Building and House Ownership, Housing Objectives and Programs, p. 156, quote published in The Architectural Record, LXII (March 1935), 174.

46. Bureau of Home Economics, U.S. Department of Agriculture, Louise Stanley, Planning the Kitchen, published in extracts in The Architectural Record, LXXVII (March 1935), 174.

47. Gerard Swope in an address to the press announcing the General Electric Competition, Pencil Point, XVI (January 1935), 9.

48. Ibid.

49. FEA of PW, Circular No. 1 ..., op. cit., p. 7.

50. PWA, Williamsburg Houses ..., op. cit., p. 25.

51. Ellis L. Armstrong, ed., History of Public Works in the United States 1776-1976, p. 356.

52. FEA of PW, Circular No. 1 ..., op. cit., p. 8.

53. Henry Wright, "Serving Apartments for Lower Rentals," The Architectural Record, LXXIII, (March 1933), 223-28.

54. The elimination of basements was besides economic factors substantiated by both the reduction of fire hazards (Report of the National Board of Fire Underwriters, released in 1926, showed that 70 percent of all dwelling fires started in cellars.) and the improvement of dwelling sanitation.

55. Clas, "Housing and its Relation to City Planning," op. cit., p. 10.

56. NAHO, Proceedings Joing National Conference on Housing, op. cit., p. 61.

3.Ø The Architectural Profession and Public Housing

3.1 Relationship between Architect and Client

3.1.1 Selection of Architects

At the peak of the PWA Housing Division's activity some 2,2ØØ architects, engineers, draftsmen, and landscape architects in 35 cities were employed in the preparation of drawings.[1] Their selection during the initiation phase of a housing project was done by representatives of the PWA Housing Division, "Sent into the field to investigate the merits of architects, engineers, realtors in scores of likely cities, because Colonel Hackett had insisted on the participation of local men in the program."[2] According to the Housing Division's policy, requiring local repsentatives and enthusiastic sponsorship in each city where a project was under consideration, local persons and bodies had a direct, though ultimately PWA controlled, influence on the recommendation and initiation process of a particular project. Hence, the appointment of architects rested with those groups in which sponsorship originated such as city governments, official housing committees, chambers of commerce, groups of civic-minded citizens or the Advisory Committees, selected by the PWA Initiation Branch and whose personnel was carefully chosen from those qualified by experience, eliminating any who might benefit financially from the development of the project."[3]

Since the New York Housing Authority had already initiated, by the beginning of 1934, quite a sophisticated model regarding the selection process of architects, their policy served, to a certain degree, as a paradigm for the federal approach to the same problem.[4] Several New York City architectural societies, represented in a so-called Correlating Committee,[5] headed by Frederick Mathesius, were requested by the Authority to aid in setting up a policy to:

1. Ensure and make available to the Authority the full utilization of the knowledge, skill and competency of the architectural profession.
2. Ensure competency on the part of the architects employed.
3. Spread the work over as wide a group of architects as conditions permit.[6]

To this end the Correlating Committee proposed to base the selection of architects for the work to be undertaken by the New York City Housing Authority upon a questionnaire similar to that developed by the Treasury Department - Office of the Supervising Architect. The PWA Housing Division's "Architect Prequalification Questionnaire" was identicial to the Treasury Department's form, with regard to the requested information.

The questionnaire required, besides the architect's personal data, information on his educational background, professional practice, registration, association, and

present office organization. The interviewee had to specify his measure of responsibility for the type or purpose, the location, and construction and cost data of at least five buildings for which he had been engaged. The architect was furthermore asked if he had ever furnished architectural services to the Federal government and, if so, to describe the building. He also had to specifically name the engineering firms to be engaged for structural, mechanical, and electrical equipment designs.[7]

Subsequent to the prequalification phase the Correlation Committee suggested that the Technical Dirctor of the New York Housing Authority would appoint, under consideration of the questionnaire and after consultation with the Committee, "a number of architects of recognized ability" as Project Directors.[8] Together, those Project Directors formed the Executive Committee retained by the New York City Housing Authority at its discretion "to coordinate the work and to develop uniform practices and procedures."[9] However, the architects for the individual projects were to be selected by competition "from among those developed by the questionnaire as being competent."[10] The Program of Competition for Qualification of Architects defined the object of the competition as:

> to qualify Registered Archtiects residing, or having their principal office in New York City, to act as Architects in respect to portions of the work executed through the use of funds loaned by the Public Works Administration to the New York City Housing Authority. This competition applies

> only to the initial allocation by the P.W.A., and since the selection of the Architects is subject to the approval of the P.W.A. no commitment is hereby made as to the employment of those qualifying or to the terms of compensation. 11

The winners of the competition, the so-called project architects, in spite of forming "a pool of technical competence," were, on the request of Horatio B. Hackett, divided into three groups:

A. Those who have executed work of importance and distinction through competently organized offices;

B. Those whose experience and office organization [were] not in Class "A";

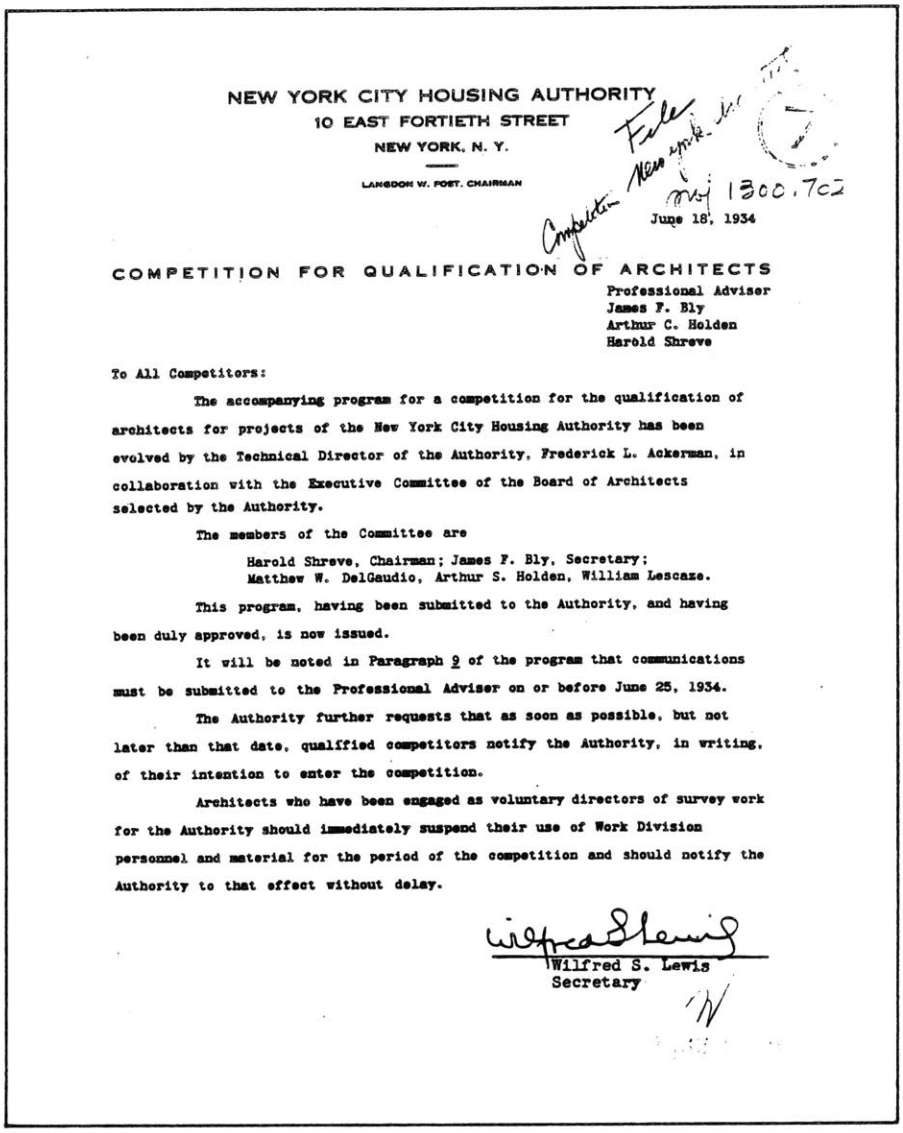
C. Those architects from Class "A" and Class "B" who had expressed their desire to be employed on the work at salaries

The division into "A" and "B" architects based upon the qualifications as set forth in the questionnaires was solely for the purpose of obtaining properly balanced working organizations whereas in the allocation of net profits, architects of all classes were to be treated similarly. A project chairman was to be appointed from among the architects. According to the Correlation Committee the advantages embodied in this plan were, among others, that it would permit the complete freedom of individual architects in design and invention, allow for the study of architectural issues under the normal relations of architect to client, and that it finally would foster cooperation between architects in the exchange of ideas and generally

improve the quality of work. It furthermore would aid, they argued, in educating a large part of the profession for the future use of the Housing Authority.[13] This latter point, concerning the education of architects, will be treated in some depth below.

The concept of creating the atmosphere of a normal relationship between architect and client quoted above, was distinctively contradicted by the hierarchical structure, according to which the Housing Division organized the selected architects. Project directors supervised project chairmen who then controlled the "A"- and "B"-class architects while again the "B" architects' position was subordinated to the position of the "A" architects. The parametric connection between the architects' position in this hierarchy and the degree to which they were subject to directions guaranteed this design controlling effect Washington was striving for.

The award of contracts to a group of architects rather than to a single individual was stimulated by the Housing Division's determination to render aid to as many architects as possible for "no professional class was harder hit by the depression that that of professional architects."[14] Besides this human standpoint the employment fo architectural teams, organized in the above-described manner, excluded individual impact on the design process. This anti-individualistic



NEW YORK CITY HOUSING AUTHORITY
10 EAST FORTIETH STREET
NEW YORK, N. Y.

LANGDON W. POST, CHAIRMAN

File
Competition New York, N.Y.
MS 1300.702

June 18, 1934

COMPETITION FOR QUALIFICATION OF ARCHITECTS

Professional Adviser
James F. Bly
Arthur C. Holden
Harold Shreve

To All Competitors:

The accompanying program for a competition for the qualification of architects for projects of the New York City Housing Authority has been evolved by the Technical Director of the Authority, Frederick L. Ackerman, in collaboration with the Executive Committee of the Board of Architects selected by the Authority.

The members of the Committee are

Harold Shreve, Chairman; James F. Bly, Secretary;
Matthew W. DelGaudio, Arthur S. Holden, William Lescaze.

This program, having been submitted to the Authority, and having been duly approved, is now issued.

It will be noted in Paragraph 9 of the program that communications must be submitted to the Professional Adviser on or before June 25, 1934.

The Authority further requests that as soon as possible, but not later than that date, qualified competitors notify the Authority, in writing, of their intention to enter the competition.

Architects who have been engaged as voluntary directors of survey work for the Authority should immediately suspend their use of Work Division personnel and material for the period of the competition and should notify the Authority to that effect without delay.

Wilfred S. Lewis
Secretary

1

1 New York City Housing Authority, Competition for Qualification of Architects

ARCHITECTS PICKED FOR PWA HOUSING

Jury Finds 22 Designs Qualify Among 278 Entered in City-Wide Competition.

2 RELIEF WORKERS ON LIST

Post Says Next Step Will Be to Submit $12,000,000 Brooklyn Project to Ickes.

The New York City Housing Authority announced yesterday that twenty-two architects or firms of architects had qualified in a public competition as the best available to design the low-price housing that the Authority will undertake with the $25,000,000 allocated recently by the Federal Public Works Administration for slum clearance in this city.

The names were made public yesterday by Langdon W. Post, chairman of the Housing Authority, together with an explanation of the process of "forming a pool of competence from which the Authority believes the architects for the work should be drawn."

Mr. Post said he invited the presidents of the architectural societies in this city in March to recommend a policy for the qualification of architects. Each of six societies sent two delegates to meetings early in April, which resulted in the immediate appointment by the authority of an executive board of five architects recommended by the societies as competent to direct the work in general; and the decision to select architects for the various projects among a number to be qualified by competition.

278 in Competition.

A preliminary questionnaire as to qualifications was sent to every architect living in New York City or having his chief office address here and registered under the laws of this State. Out of 1,000 such questionnaires, 780 were answered by architects interested. The terms of the competition were sent to these.

They were required to submit a design for a site covering sixteen blocks of slum area. The competitors numbered 278. The jury that passed on their designs was composed of two architects of the previously appointed executive board, two members of the Housing Authority, and the technical director of the authority, Frederick L. Ackerman.

Mr. Ackerman said yesterday that the number of designs acceptable as evidence of adequate imagination and real knowledge of housing turned out to be twenty-two. "Below that number," he said, "they slumped off."

The names of the competitors whose designs qualified them were not known until sealed envelopes accompanying their designs were opened yesterday by Mr. Post. They were not ranked in order of precedence. "These men all evidently know housing," said Mr. Ackerman, "and they have all made contributions which we shall have to weigh carefully and combine in our eventual projects."

List of Qualified.

The list of the qualified follows:

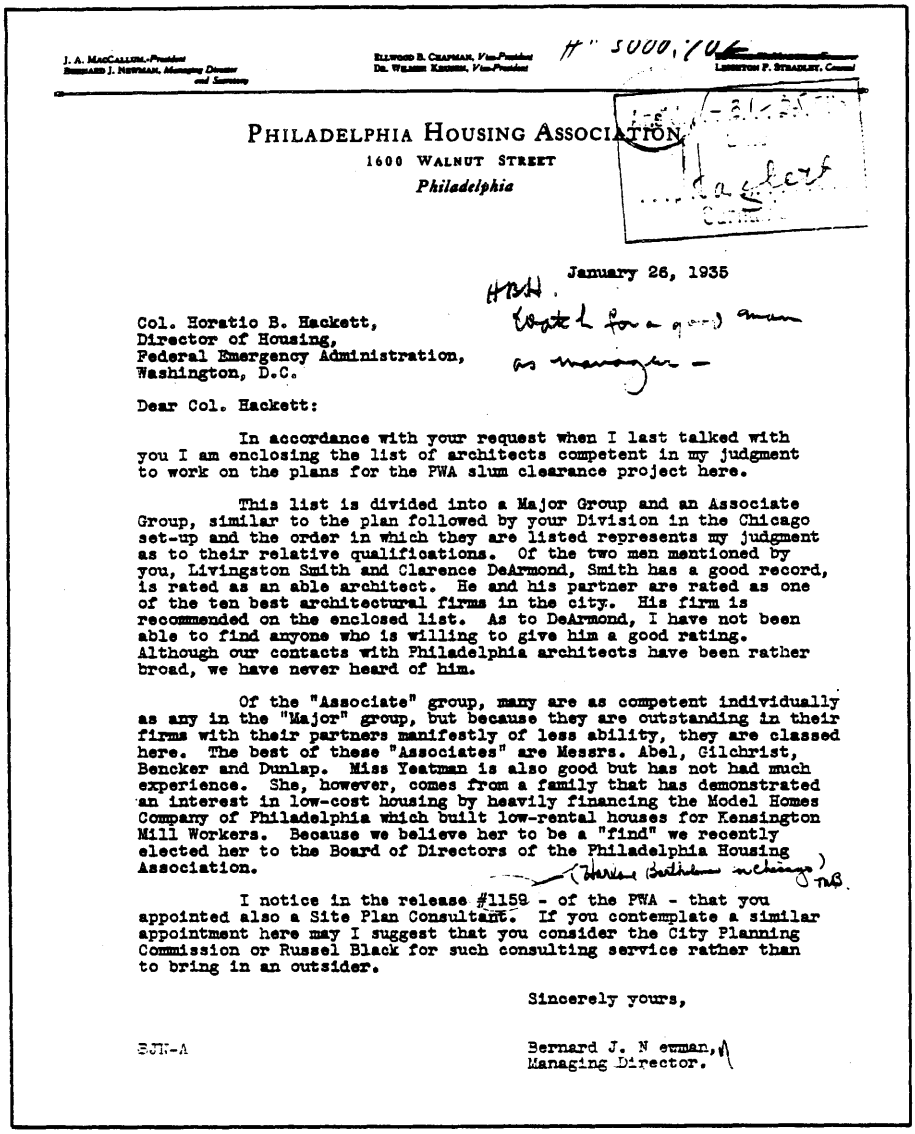
HOLMGREN & VOLZ, 271 Fulton Street, Brooklyn, and SAMUEL GARDSTEIN, 50 Court Street, Brooklyn.
HORACE GINSBERN, 205 East Forty-second Street.
PAUL TRAPANI, 762 South Oak Drive, the Bronx.
EDMUND T. SEE and W. T. McCARTHY, 21 West Forty-fifth Street.
FRANK J. FORSTER and ROBERT H. JONES, 500 Fifth Avenue.
BURNETT C. TURNER, 40 East Forty-ninth Street.
ETHAN A. DENOMBUR, 40 East Forty-ninth Street.
CHARLES F. FULLER, 486 Madison Avenue.
G. HARMON GURNEY, 480 Madison Avenue.
HARRY LESLIE WALKER, 144 East Thirtieth Street.
D. LAKART ROTH AND ASSOCIATES, 34 West Seventy-fifth Street.
WILLIAM J. HUNAUDER, 1,841 Broadway.
WILL RICH AMON, 607 Fifth Avenue.
CLARENCE S. STEIN, 56 West Forty-ninth Street.
EDWIN J. ROBIN and SAMUEL BRAVERMAN, 415 Lexington Avenue.
DEYOUNG & MOSCOWITZ, 200 East Forty-second Street.
PEABODY, WILSON & BROWN, 140 East Thirty-sixth Street.
JOHN W. INGLE, 501 Fifth Avenue.
WILLIAM F. DOLCEMSCH, 500 Fifth Avenue.
MORRIS & O'CONNOR, 101 Park Avenue.
ALFRED E. POOR, 101 Park Avenue.
ELECTUS D. LITCHFIELD, 578 Madison Avenue.

Two architects associated in submitting one of the designs which won a qualification rating for them were recognized when the envelopes were opened as two temporary emergency relief workers engaged in the land survey work of the PWA. They were Edwin J. Robin and Samuel Braverman, at present getting along on salaries of about $25 a week. Mr. Post said that these men now had as much chance as anybody on the list to be appointed to design a major part of the $25,000,000 projects.

Mr. Post said the next step would be to put together the best features of the qualified designs and to submit a $12,000,000 project to Secretary Ickes at Washington for slum clearance in the Williamsburg district of Brooklyn. He said this would be undertaken next week and that if everything went well the demolition work on this project could be started in three months. The buildings would be ready to accommodate 11,000 persons a year thereafter at $7 a room.

2

2 New York Times, Architects Picked for PWA Housing



J. A. MacCallum, President
Bernard J. Newman, Managing Director and Secretary

Ellwood B. Chapman, Vice-President
Dr. Wilmer Krusen, Vice-President

#" 5000,706

Lewis P. Steadley, Counsel

PHILADELPHIA HOUSING ASSOCIATION
1600 WALNUT STREET
Philadelphia

January 26, 1935

HBH.
Voted for a good man as manager -

Col. Horatio B. Hackett,
Director of Housing,
Federal Emergency Administration,
Washington, D.C.

Dear Col. Hackett:

In accordance with your request when I last talked with you I am enclosing the list of architects competent in my judgment to work on the plans for the PWA slum clearance project here.

This list is divided into a Major Group and an Associate Group, similar to the plan followed by your Division in the Chicago set-up and the order in which they are listed represents my judgment as to their relative qualifications. Of the two men mentioned by you, Livingston Smith and Clarence DeArmond, Smith has a good record, is rated as an able architect. He and his partner are rated as one of the ten best architectural firms in the city. His firm is recommended on the enclosed list. As to DeArmond, I have not been able to find anyone who is willing to give him a good rating. Although our contacts with Philadelphia architects have been rather broad, we have never heard of him.

Of the "Associate" group, many are as competent individually as any in the "Major" group, but because they are outstanding in their firms with their partners manifestly of less ability, they are classed here. The best of these "Associates" are Messrs. Abel, Gilchrist, Bencker and Dunlap. Miss Yeatman is also good but has not had much experience. She, however, comes from a family that has demonstrated an interest in low-cost housing by heavily financing the Model Homes Company of Philadelphia which built low-rental houses for Kensington Mill Workers. Because we believe her to be a "find" we recently elected her to the Board of Directors of the Philadelphia Housing Association.

(Horace Bathelow in Chicago) HB.

I notice in the release #1159 - of the PWA - that you appointed also a Site Plan Consultant. If you contemplate a similar appointment here may I suggest that you consider the City Planning Commission or Russel Black for such consulting service rather than to bring in an outsider.

Sincerely yours,

BJN-A

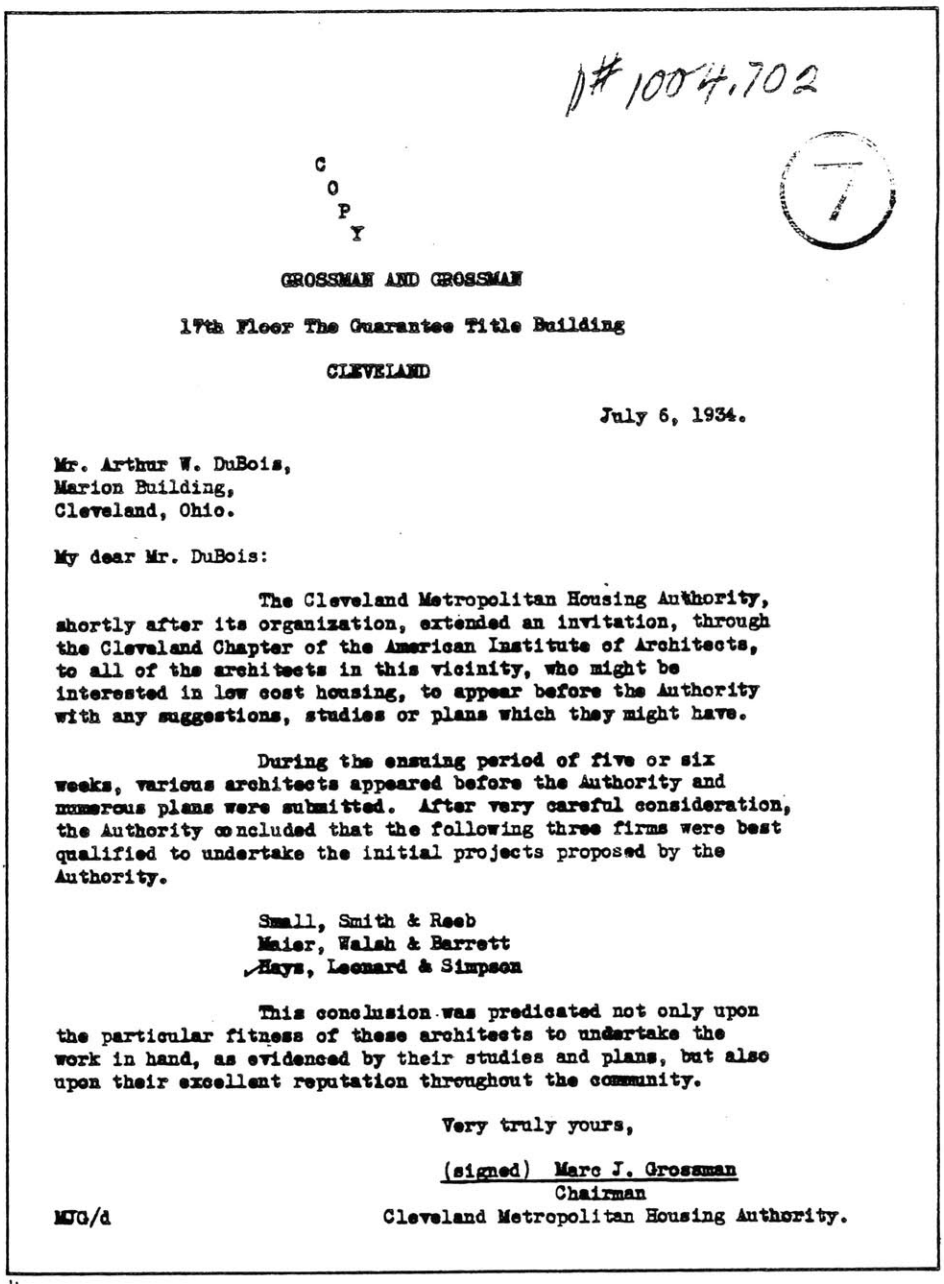
Bernard J. Newman,
Managing Director.

3

3 Philadelphia Housing Association, Proposal for Project Architects

attitude, veiled by the idea of "fostering cooperation" was already embodied in the project directors' scope of responsibility, defined as project coordination through procedural uniformity, which presented incompatibility with the notion of creative collaboration within the design team. It is astonishing, however, to observe the consistent reoccurance of the housing officials' dubious assumption that the provision of a rather rigid and confined network of directives could trigger individual initiative thereby "opening up new avenues of approach."

As already mentioned, the New York City Housing Authority's refined method of selecting architects seved as a reference point for other municipalities, however, especially with regard to the competition phase was not literally adopted. An inquiry into the wielding of the particular procedure by various cities, revealed that, based upon the PWA Prequalification Questionnaire mailed to every registered architect in the vicinity, a list of architects was proposed by an official local body and forwarded to the Housing Division in Washington for approval. (figs. 1-4) Only assumptions can be made regarding the degree to which the appointment of architects was based on impartial decisions free of corruption. Certain conclusions, however, can be drawn from different letters and memoranda in reference to the New York Qualification competition addressed to the Interior Department. Although further research would be



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C
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P
Y

GROSSMAN AND GROSSMAN

17th Floor The Guarantee Title Building

CLEVELAND

July 6, 1934.

Mr. Arthur W. DuBois,
Marion Building,
Cleveland, Ohio.

My dear Mr. DuBois:

The Cleveland Metropolitan Housing Authority, shortly after its organization, extended an invitation, through the Cleveland Chapter of the American Institute of Architects, to all of the architects in this vicinity, who might be interested in low cost housing, to appear before the Authority with any suggestions, studies or plans which they might have.

During the ensuing period of five or six weeks, various architects appeared before the Authority and numerous plans were submitted. After very careful consideration, the Authority concluded that the following three firms were best qualified to undertake the initial projects proposed by the Authority.

Small, Smith & Reeb
Maier, Walsh & Barrett
Hays, Leonard & Simpson

This conclusion was predicated not only upon the particular fitness of these architects to undertake the work in hand, as evidenced by their studies and plans, but also upon their excellent reputation throughout the community.

Very truly yours,

(signed) Marc J. Grossman
Chairman
Cleveland Metropolitan Housing Authority.

MJG/d

4

4 Cleveland Metropolitan Housing Authority. Proposal for Project Architects

required to confirm the assertions made in these correspondences, they may shed some light on the seamy side of the selection procedure. Besides all kinds of procedural irregularities, it was asserted that examination of the list of qualified architects, published in the New York Times of July 25th 1934 indicated that:

- Three architects were not licensed by the state registry to practice architecture;
- Two were recorded as temporary emergency relief workers (the competition was restricted to architects not on government salary);
- One of the architects was associated with Pleasants Pennington, Secretary of the New York City Housing Authority;
- One was the director of the East Side Chamber of Commerce which had continually opposed the methods and policy of the chairman of the New York City Housing Authority Langdon Post;
- One was the architect for the Hillside Housing Project, financed by the Federal Government (obviously Clarence S. Stein);
- One was the brother of the Chief Engineer of the New York City Housing Authority;
- One was an intimate personal friend of the Technical Director of the New York City Housing Authority;
- Only two or three of the twenty-two were recognized .PA

designers with experience on low-cost and low-rental housing.[15]

3.1.2 Architects' Legal Position

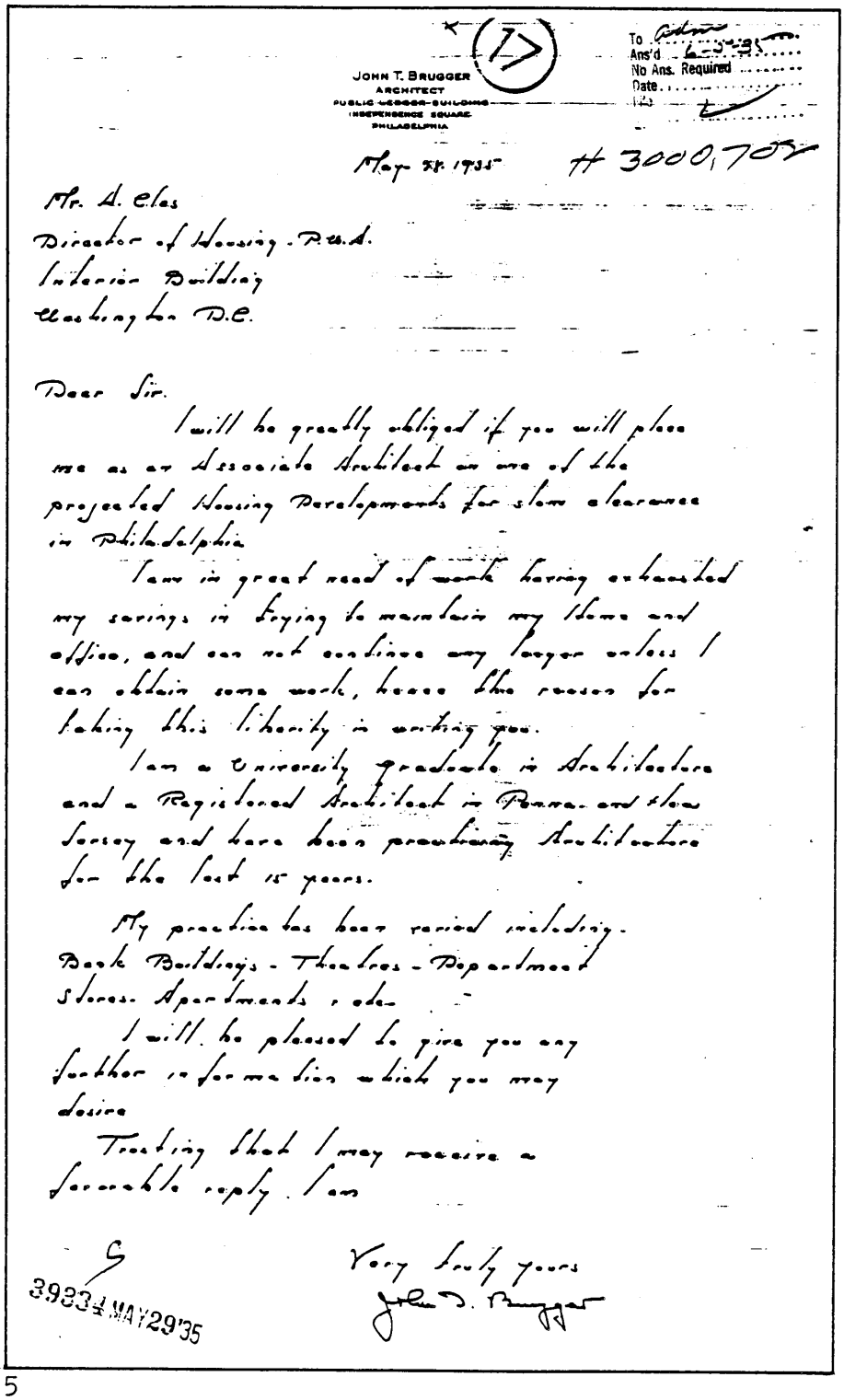
Again New York City occupied a protagonistic position in the development of the legal framework concerning the relationship between the architect and the government as client. The first contracts prepared by the Legal Branch for the employment of the New York project architects designated an executive role for the New York City Housing Authority regarding both, the conclusion of agreements and the payment for architectural services,[16] provided, however, "that the architect [should] act only upon instructions of the Authority when approved by the government."[17] Referring to this arrangement Horatio B. Hackett observed in a letter to Dwight L. Hoopingarner, Associate Director of the New York Housing Authority, "you recognize of course that an agreement whereby the Authority is to pay for the services but is to have little control or supervision over the architects or the drawings is a rather unique arrangement ..."[18] and he concluded, "As a matter of legal form and simplicity, it would of course be preferable to have the contract between the architects and the Federal Government."[19] As a result, all subsequent architects' contracts were prepared and executed by the Legal Division, Branch III, of the PWA Housing Division, expressing the

Federal Housing Authority's striving for centralization and control over design and construction execution.

Where "the architect" was mentioned in the Standard A.I.A. General Conditions, the PWA Conditions, by the legal section of the Housing Division, inserted: "the architect, the superviser and the Board representative."[20] A superficial interpretation of this modification could indicate the government's willingness to share the architect's responsibility. However, a further examination clearly reveals the intention to control not only the architect's normal scope of operations but his professional freedom as well. The extent to which the architects' services were subject to the approval and under the direction of the Plans and Specification Branch of the PWA Housing Authority will be discussed below.

3.1.3 The Housing Division's Control upon Architects

Horatio B. Hackett explained in his article "How the PWA Housing Division functions" that "in the reorganization of the Housing Divsion to handle the Federal program, it was essential that projects [were] handled expeditiously."[24] Hence, based upon the assumption that the development of a housing project was primarily an architectural problem, the new Division was set up on the same principles as those adopted by large architectural offices.[22] In this regard, the Branch of Plans and Specifications occupied a pivotal



JOHN T. BRUGGER
ARCHITECT
PUBLIC LEDGER BUILDING
INDEPENDENCE SQUARE
PHILADELPHIA

To Ackerman
Ans'd Ackerman
No Ans. Required
Date

May 28. 1935 # 3000,705

Mr. A. Eles
Director of Housing. P.W.A.
Interior Building
Washington D.C.

Dear Sir.

I will be greatly obliged if you will place me as an Associate Architect on one of the projected Housing Developments for slum clearance in Philadelphia

I am in great need of work having exhausted my savings in trying to maintain my Home and office, and can not continue any longer unless I can obtain some work, hence the reason for taking this liberty in writing you.

I am a University graduate in Architecture and a Registered Architect in Penna. and also Jersey and have been practicing Architecture for the last 15 years.

My practice has been varied including. Bank Buildings - Theatres - Department Stores. Apartments, etc.

I will be pleased to give you any further information which you may desire

Trusting that I may receive a favorable reply. I am

Very truly yours
John T. Brugger

3933 MAY 29 '35

5

5 Petition for Employment

position supporting, according to Horatio B. Hackett, the "free rein given to architects in the preparation of their plans and specificiations."[23]

> Representatives from this unit, trained in the work of site planning and unit layout, costs, landscaping and design, are sent from Washington to the various cities in which plans are being prepared for the purpose of checking the work as it progresses so that satisfactory drawings may be presented in the shortest possible time. 24

Horatio B. Hackett's description of the Housing Division's function exposes the government's double role, acting as both architect and client. This constellation banished the architect from his former realm of private practice and forced him to occupy the position of a government employee. This veiled degradation of the architect to a pure executive status was only feasible because the rigors of the Depression obviated professional opposition. A study of architects' positions, forwarded to the Department of the Interior, regarding their consideration for a commision illustrates their quandary (fig. 5). The Instructions to Private Architects for Low Rent Housing Projects[25] by the PWA Housing Division, Plans and Specifications Branch, thoroughly regulated every interaction between the Authority and the architect.

> Architects will be notified by lettter when they are to come to Washington and a sample copy of architect's contract, suggested form of architect's partnership agreement, copy of the "Instructions" and other pertinent information will be sent to them. After receipt of "Instructions to Architects," the Division's booklet on Unit Plans and Site Plans [Sample Book]

> and a letter of authorization from the Director of Housing, the architect may proceed with preliminary studies in preparation for the submission of preliminary drawings. The preliminary work may precede formal execution of the contract. After signing of the contract by all parties, the architect's work as defined therein should proceed at once with all possible speed. It is of vital importance for plans and specifications to be completed within the established schedule. 26

With the equipment, consisting of a number of 32nd inch scale pine blocks based upon the PWA sample -- T-, ribbon-, cross- and L-shaped plans an architect or his group could, "in a few days lay out a site or plot plan that [would] meet with the approval of the Housing Division. ... and save month of research before submitting his preliminary plans."[27] Consequently, the Instructions to Private Architects clearly stated "that adaptation and combinations" of these unit plans would be the basis of planning new projects. Alfred Fellheimer, consultant to Branch II, enthusiastically observed that given the preliminary advantages of detailed planning standards, the architect's job was one of synthesis.[28] However, the PWA Housing Division's strong control was not confined to the level of the unit arrangement but extended even into the design of the site plan. If time permitted, a site plan was prepared by the Housing Division with respect to the survey and preliminary report on a project, indicating proper coverage, streets to be closed, new streets, play areas and general layout. The architects were informed that

> If possible the site plan will be ready for

> discussion at the time of architect's first conference with the Housing Division, and copies given him at that time or before. 29

By preparing a site plan, which reflected the project as recommended in the preliminary report, the Housing Division did "not intend to curb individual ingenuity but to save time in preliminary work and to give new architects the benefit of much previous experience with the problem."[30] To mitigate the impact of these instructions the architects were "requested to improve upon the layout of this plan if it [were] possible for them to do so,"[31] or in special cases to prepare the first site plan in their own offices.

During their first preliminary conferences with the Housing Division in Washington, architects were urged to obtain information and decisions on materials and arrangment of specific features affecting the preparation and development of working drawings. Following these conferences, the architects were given a "written confirmation of preliminary agreements on all matters under discussion"[32] in the form of a working program. After being dismissed from Washington the project architects were required to submit semi-monthly progress reports on drawings and specifications, forecasting the completion of site plans, preliminary submittals, pencil working drawings, final plans and specifications in duplicate to the Director of Housing.

The design process was divided into three categories:

P. W. 34299

SEC. I, General

FIRST PRELIMINARY SUBMITTAL

1. Site plan of entire property at scale of not less than 1 inch equals 40 ft. indicating existing contours, proposed grades, location of buildings, location of existing specimen trees worth saving in place, location of walks, drives, catch basins and yard drains, elevation of first floor line, schedules of rooms and apartments with locations of all types clearly shown, compass directions, graphic scale, prevailing winds summer and winter, proposed outside utility lines with approximate depth below grade. The architect and landscape architect shall collaborate in the preparation of all plot plans. The landscape architect shall contribute to these studies the development of all open areas.

2. Unit plans at scale of 1/4 inch equals 1' - 0" of the various apartments, laundries, stores, basement store rooms, etc. The plans should show room arrangement, necessary dimensions and possible furniture arrangement drawn to scale, placing and size of kitchen and bathroom equipment, placing and size of doors and windows, radiators, stove, flues, etc.

3. Typical unit elevations at scale 1/4 inch equals 1 ft. with present grades in dotted lines and proposed grades in solid lines, for all building types contemplated, indicating general architectural character, materials, grades, floor and window heights.

4. Typical section at scale 3/4 inch equals 1 ft. sufficient to indicate type of construction materials, interior trim, proposed ceiling and window heights.

5. Typical building layouts, of Lighting, Heating, Plumbing, Plumbing Stack Details, Machine Rooms and Incinerator Rooms as well as analyses of initial cost and operating cost of the proposed heating plant.

6. Outline specifications in sufficient detail to indicate type of construction materials, finish, electrical and mechanical equipment proposed; to be prepared according to outline furnished by the Housing Division.

7. Detailed break down of cost estimates prepared in collaboration with a reliable contractor, showing quantities and unit prices assumed; to be prepared according to outline furnished by the Housing Division.

8. It is imperative that all drawings and data requested in "Outline Preliminary Landscape Submittal" should be submitted with the "First Preliminary Submittal" of architectural work.

Preliminary sketches and working drawings are to be forwarded to the Housing Division, Washington, D. C. Travel authorizations will be sent to architects when they are required for conference with the Housing Division. Written approval of first preliminary drawings and specification, unless otherwise directed, should be obtained before starting penciled working drawings. Drawings, specifications, etc. submitted for approval of the Housing, P. W. A., Interior Building, Washington, D. C.

Preliminary sketches should be presented on sheets not less than 18" x 28" in size. It is suggested that all drawings submitted should, if possible, be the same in size as the sheet determined upon for working drawings.

Any changes made to the plans and specifications after preliminary set-up has been approved should be submitted to the Housing Division for approval. The changes should include added cost, if any, number of rooms added or lost and reason for making change.

As an aid to the Housing Division file, architects should mark each sheet submitted to indicate clearly that it is a First Preliminary or a Penciled Working Drawing.

6

P.W. 34299

SEC. I, General

PENCILED WORKING DRAWINGS, ARCHITECTURAL:

1. Site plan of the entire property at scale not less than 1 inch equals 40 ft., or 1/32 inch equals 1' - 0", which would be the same drawing submitted with the first preliminary plans.

2. Additional plot plans of each block at scale of 1/16 inch to the foot should accompany 1/32 inch to the foot or 1 inch equals 40' - 0" scale plan. These plans should include the following information:

(a) Existing contours and established or proposed grades with new 2 ft. contours and 1 ft. contours where required to show detailed grading.

Points of compass, graphic scale.

(b) Location of buildings on the property with reference to established property lines.

(c) Location of all sidewalks, drives, terraces, retaining walls, fences, light standards, fire hydrants, garden hose outlets, recreational areas and other improvements pertinent to the cost of the project. All details should be dimensioned.

(d) Elevations of the first floor.

(e) Location of all outside utility lines, catch basins, water lines, etc., with approximate depth of each below proposed grade.

(f) The architect and landscape architect shall collaborate in preparing site and plot plans. The landscape architect shall contribute to these studies the development of all open areas.

3. 1/8 inch scale floor plans of each building. When the apartment units for two or three floors are typical, only one plan need be made; for all variations another plan should be provided. All interior partitions should be indicated and plan fully developed where variations occur from 1/4 inch scale unit plans. No interior partition measurements are required, and exterior dimensions should include overall dimensions of each unit plan, dimensions to all breaks in the wall and overall dimensions of each building.

4. All elevations of each building at scale 1/8" equals 1' - 0" indidating present grades in dotted lines and new established grades in solid lines. All materials should be indicated as well as floor to floor heights and window heights.

5. If one or more buildings are identical and topography of land is practically same only one set of elevations need be made for that particular building.

6. Plans at scale of 1/4 inch equals 1 ft. for each type apartment unit, basement space, boiler room, garages, laundries, all other buildings. These plans should contain the following information:

(a) All dimensions, notes, etc., required to complete a working drawing. Location and sizes of mechanical equipment, size and placing of kitchen and bathroom equipment and possible arrangement of furniture in apartment units.

7. Scale details at 3/4 inch equals 1 ft. of special exterior and interior features. The following should be included:

(a) Elevations and section of typical exterior wall.

(b) Elevation and section of typical entrance motif.

(c) Sections through stairs and halls.

(d) Elevations of tile wainscot (if any) in kitchen and bathrooms.

(e) Elevations of typical doors.

(f) Elevations and sections kitchen cabinets.

8. Full size details of exterior window and door frames, interior door frames, picture molds, base, stair rails and other architectural work that may be necessary.

9. If changes of materials have been made from the First Preliminary Submittal a second outline specification should be submitted with the Second Preliminary Submittal of the drawings. If changes have been made affecting item #6 and #7 of First Preliminary Submittal, proper revisions should be made and forwarded with Penciled Working Drawings.

10. Working drawings as outlined above should be completed in pencil on paper and presented to the Housing Division for approval before final drawings in ink on cloth are started. Seven prints each of all drawings should be made, bound in sets and sent to the Housing Division in Washington unless otherwise instructed. It is in some cases possible to approve penciled work in the Architect's office in units without formal submission to Washington. Notice of approval of these drawings and preliminary specifications by the Housing Division, in writing, shall constitute official notice to commence working drawings in ink.

7

6 PWA Requirements for First Preliminary Submittal
7 PWA Requirements for Penciled Architectural Working Drawings

P.W. 34299

SEC. I, General

FINAL WORKING DRAWINGS, ARCHITECTURAL:

1. Site plan. Scale 1/32 inch equals 1' - 0" or 1 inch equals 40' - 0". This plan should be an actual survey of the property showing street and sidewalk grades, street grades, and bench marks and property line monuments. Existing contours or established contours need not be shown. All new buildings should be indicated to scale and a complete schedule of apartments, row houses, garages and stores.

2. Plot plans.
Plot plans of each block at scale of 1/16 inch equals 1 ft. These plans should include all information as contained in item 2. of the Penciled Working Drawings. They may also be used as roof plans, and in conjunction with plumbing work for downspouts, yard drainage and sewer lines.

3. 1/8 inch scale floor plans of each building. When the apartment units for two or three floors are typical, only one plan need be made; for all variations another plan should be provided. All interior partitions should be indicated and plan fully developed where variations occur from 1/4 inch scale unit plans. No interior partition measurements are required, and exterior dimensions should include overall dimensions of each unit plan, dimensions to all breaks in the wall and overall dimensions of each building.

4. 1/4 inch scale plans of each typical building unit and all other units on the property such as garages, boiler rooms, laundries, stores and other buildings. These unit plans should include all floors from the basement to the roof plan and contain all information outlined under item 6 of Penciled Working Drawings.

5. 1/8 inch scale elevations of each building. The elevations should include all information contained in item 6 of Penciled Working Drawings.

6. 3/4 inch details special exterior and interior features. These drawings should include all information contained under item 7 of the Penciled Working Drawings.

7. Full size details should contain all information indicated in item 8 under Penciled Working Drawings.

In the preparation of working drawings it is essential that groups or blocks of buildings be so numbered that a complete set of drawings for each block will be in consecutive order with the exception of detail drawings.

Working Drawings in ink on cloth are to be made with the greatest possible speed, and upon completion five sets of prints are to be forwarded to the office of the Housing Division, Washington, D. C. for review and approval. If modifications are necessary a complete set of prints approved as corrected will be returned to the architects within a reasonable time and upon completion of the modifications requested the architects will forward all tracings to the Housing Division. Drawings and Specifications are to be duplicated by that office and proposals obtained by that office.

Drawings and Specifications should be forwarded either by parcel post or by express and not delivered personally by the architect in the expectation that they can be reviewed immediately. If corrections are necessary after the review of the drawings, the architect will be notified by wire when his presence is required for conference in connection therewith.

Approval by the Housing Division of a set of working drawings and the Specifications is in a general sense only and does not mean that the drawings and Specifications have been checked in detail, and does not relieve the architect from any responsibility whatever for completeness or accuracy.

The architect should submit a statement with his final working drawings to the effect that all drawings have been carefully checked for accuracy of dimensions, structural strength, space requirements, materials, and that all mechanical requirements have been complied with.

All working drawings must be on good tracing cloth in waterproof ink; colored inks are not to be used. Final working drawings in pencil on tracing cloth or on tracing paper will not be accepted.

The standard width of drawings shall be 30 inches and in no case should exceed 42 inches between cutting lines, each side. The length of working drawings should be kept within reasonable limits. A sheet 30 x 42 outside is recommended. On the left hand side there should be a binding margin of 1-1/2 inches and on the other sides a 3/4 inch margin in accordance with the standard form attached.

The scale for plans should not be less than 1/8 inch except for plot plans and surveys which should be as agreed upon with the Housing Division.

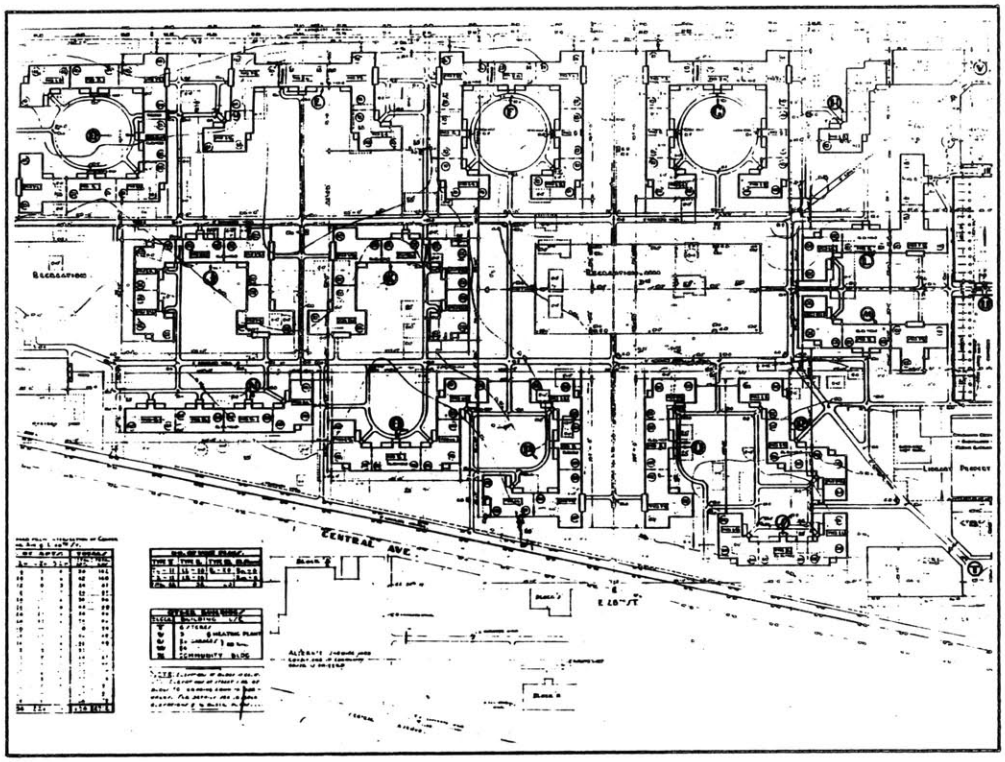
The scale for drawings of every class should be 1/32, 1/16, 1/8, 1/4, 3/8, 3/4, 1-1/2 and 3 inches, or full size; decimal scale is acceptable if by agreement on topographical and general utility layouts.

Corner titles should be made in accordance with the standard form provided by the Housing Division.

Signatures of architects must be autographic in waterproof ink on tracings.

8

8 PWA Requirements for Final Architectural Working Drawings



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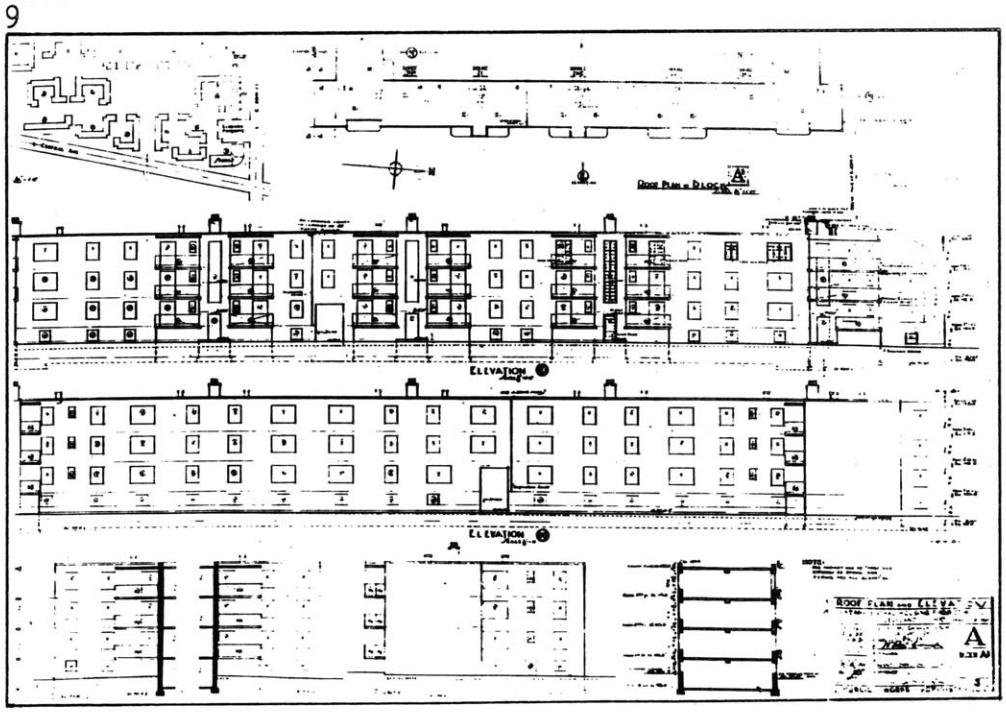

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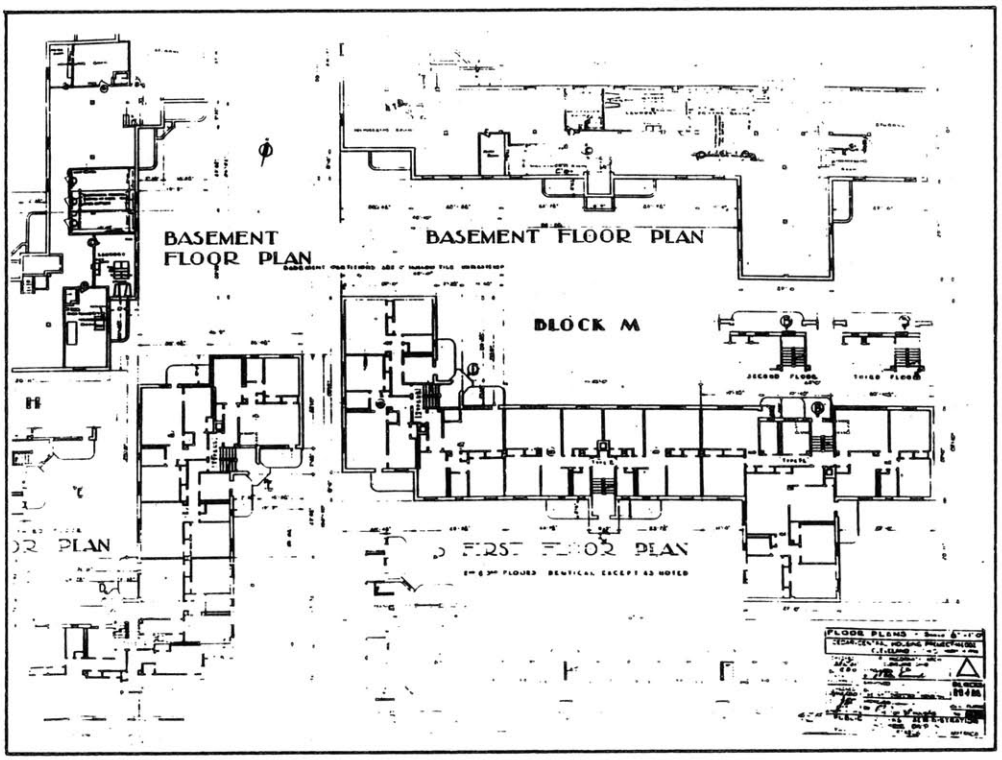
Final Working Drawings for Cedar Central Apartments

9 Site Plan
10 Elevations and Sections



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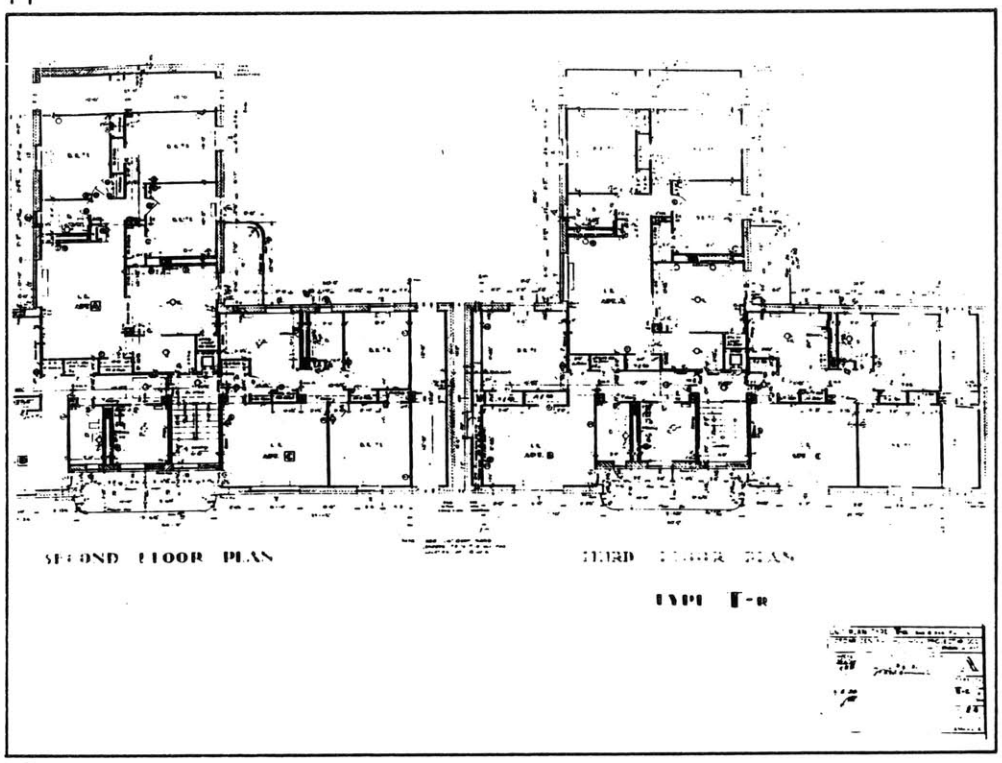

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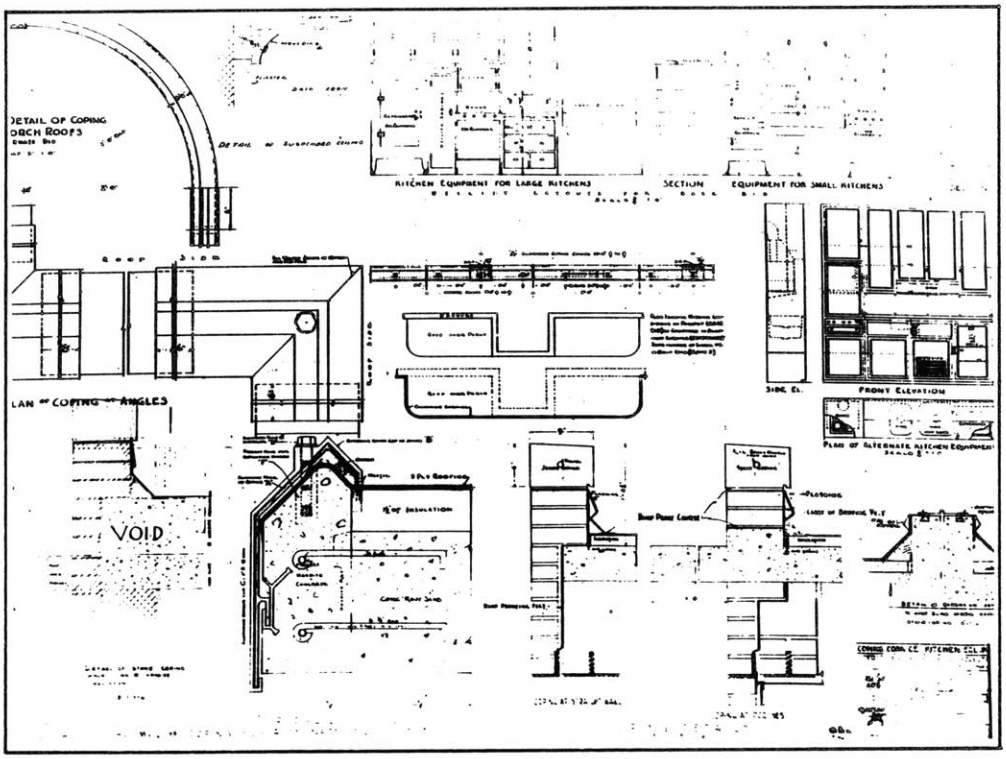
11 Floor Plan 1/8 inch Scale
12 Typical Building Unit 1/4 inch Scale



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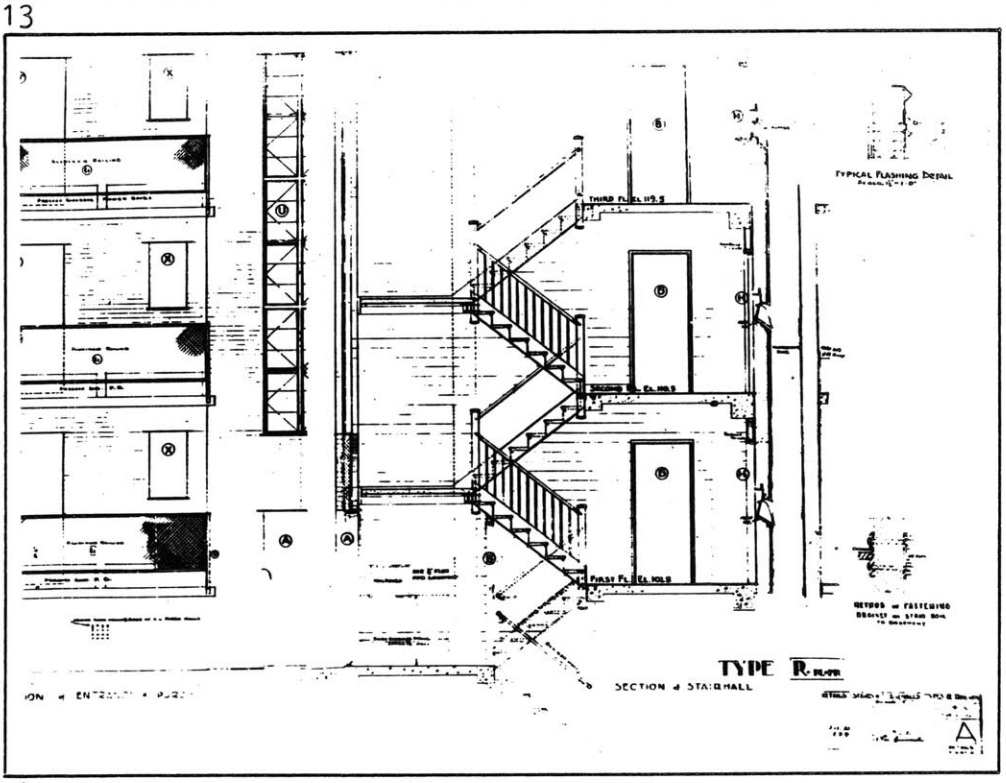

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13 Details
14 Details

preliminary submittal, penciled architectural working drawings, and final architectural working drawings. The Housing Division's written approval of each phase determined the initiation of the succeeding one. Any changes made to the plans and specifications after the approval of the preliminary set-up had to be resubmitted to Washington for acceptance. The table below (figs. 6-8) lists all the requirements to be met by the architects during the different design phases as published in The Instructions to Private Architects, while the accompanying plans for the PWA Ceder Central Park Project in Cleveland, Ohio (figs. 9-13) partially convey the preparation of final architectural working drawings following the instructions and standards set up by the Plans and Specifications Branch. The working drawings in waterproof ink on good tracing cloth were to be made with the greatest possible speed, and upon completion, five sets of prints accompanied by the Specifications were to be forwarded to the PWA Housing Division.

> either by parcel post or by express and not delivered personally by the architect in the expectation that they can be reviewed immediately. If corrections are necessary after the review of the drawings, the architect will be notified by wire when his presence is required for conference in connection therewith. 33

The previous paragraphs clearly indicate the subordinated position which architects occupied in the whole execution process of PWA Housing projects. Their professional capablities were utilized in a fashion which unilaterally

restricted them to purely mechanical and sub-managerial operations. The elimination of any creative work for the purpose of total coordination in all housing projects was furthermore indicated by the exclusion of supervisory duties from the architect's contract. The instruction booklet conceded that the architect might "visit the building if he so desires and he will be shown every courtesy by the Project Manager, but he is without authority to give directions. He may make suggestions to the Project Manager and may make recommendations in writing to the Housing Division."[34]

NOTES

1. Federal Emergency Administration of Public Works, Urban Housing, The Story of the P.W.A. Housing Division, 1933-1936, p. 41.

2. Ibid., p. 32.

3. Ibid., p. 16

4. Correspondence between F.L. Ackerman, Technical Director of the New York City Housing Authority and Robert D. Kohn, Director of the Housing Division PWA, April 16, 1934. The National Archives, Washington, D.C., Rec. 196, Project Files, New York City 1300.702 Personnel (architects).

5. The architectural societies represented in the Correlating Committee were: New York Chapter, American Institute of Architects, New York Society of Architects, The Architects Club of Brooklyn, Staten Island Society of Architects and Bronx Society of Architects.

6. Correspondence between Frederick Mathesius, chairman of the Correlating Committee and Langdon Post, chairman of the New York City Housing Authority, April 5, 1934. The National Archives, Washington, Record Group No. 196, Project Files, New York City 1300.702 Personnel (architects).

7. PWA Housing Division Architect Prequalification Questionnaire, PWA Form P.W. 25125. The National Archives, Record Group No. 196, Project Files, New York City 1300.702 Personnel (architects).

8. Correspondence, Mathesius - Post, op. cit.

9. New York City Housing Authority, "Suggested Set-Up of Architectural services," December 18, 1934, The National Archives, Record Group No. 196, Project Files, New York City 1300.702 Personnel (architects).

10. Ibid.

11. New York City Housing Authority, "Program of Competition for Qualification of Architects," June 18, 1934, The National Archives, Record Group No. 196, Project Files, New York City 1300.702 Personnel (architects).

12. New York City Housing Authority, "Suggested Set-Up of Architectural Services," op. cit.

13. Correspondence, Mathesius - Post, op. cit.

14. Public Works Administration, Williamsburg Houses. A Case Study of Housing, p. 19.

15. James R. Robinson, 101 Park Ave., N.Y.C. in a memoranda with reference to Recent Competition for Qualifications of Architects issued by the New York City Housing Authority, July 26, 1934, forwarded to the Secretary of the Interior. The National Archives, Record Group No. 196, Project Files, New York City 1300.702 Personnel (architects).

16. The fee for architectural services was in acordance with a definite schedule and varied from six percent on construction amounting to $100,000 to two percent on $10,000,000. It is worthy to note that the fee was based on an expected repetition of units, with no unusual ground condition; Horatio B. Hackett, "How the PWA Housing Division Functions," The Architectural Record, LXII (March 1935), 151.

17. Correspondence between Horatio B. Hackett, Director of the PWA Housing Division and Dwight L. Hoopingarner, Associate Director of the New York City Housing Authority, September 15, 1934. The National Archives, Record Group No. 196, Project Files, New York City 1300.702 Personnel (architects).

18. Ibid.

19. Ibid.

20. Harold R. Sleeper, "Specifications for Housing," The Architectural Forum, LX, (February 1934), 111.

21. Hackett, op. cit., 149.

22. Ibid., 151.

23. Ibid.

24. Ibid.

25. Public Works Administration Housing Division, Plans and Specifications Branch, Instructions to Private Architects for Low Rent Housing Projects.

26. Ibid., 1.

27. Hackett, op. cit., 152.

28. Fellheimer.

29. PWA Housing Division., Instructions to Private Architects ..., op. cit., p. 2.

30. Ibid., 2.

31. Ibid.

32. Ibid., 4.

33. Ibid., 9.

34. Ibid.

3.2 Educational Influence of the PWA Housing Division on the Architectural Profession

3.2.1 Architects' Professional Qualification

According to an investigation conducted in 1925 by Benjamin R. Andrews, Associate Professor of Household Economics, Teachers College, the topics of housing and city planning appeared as one or the other or both in courses of instruction at about one in four of one hundred American college and university catalogs.[1] These issues, however, were primarily infiltrating as topics of importance in courses in sociology, social problems, social work economics and home economics, while architectural education was then dominated by the Ecole des Beaux-Arts tradition. "In addition to Ecole-trained Americans, there was an influx of Frenchmen into the schools," observes Caroline Shillaber in 1861-1961: A Hundred Year Chronicle of the M.I.T. School of Architecture and Planning, and she continues, "All were excellent designers in the classical manner. But they gave no consideration to building for the country's emerging needs ... Individual dwelling houses were for the most part still on the opulent scale and in the eclectic style of those of the Nineties."[2] The latter induced Robert D. Kohn, Director of Housing, to the statement:

> For a long time, the isolated house designed for an individual owner solely was considered by the architects as his field. But today it is not he house but housing which is the opportunity of the architect. 3

Rosemarie Haag Bletter consequently observes in her article "Modernism Rears its Head -- The Twenties and Thirties" published in The Making of an Architect 1881-1981 that it was not so much the Museum of Modern Art's exhibition and the publication of The International Style in 1932 by Henry Russell-Hitchcock and Philip Johnson that turned the tide away from the abstract programs of the Beaux-Arts system but rather the unavoidable realities of the Depression.[4] She continues by quoting from a report given by Professor William Sanders of Columbia University to a meeting of the Association of Collegiate Schools of Architecture in May 1936.

> The architect must now be a counselor to financial houses as to the rehabilitation and maintenance of their properties, and interpreter of building laws to real estate, an advisor of welfare under relief projects ... 5

Hence the educational mission perceived by the PWA Housing Division ought to be discussed in light of the contemporary endeavor of the American schools of architecture to create a new image of architectural education. However, the extent to which this mission can be considered a valid contribution to the educational transformation has to be questioned as well.

Horatio B. Hackett's observation made in the foreward to the Sample Plans that housing, defined in the PWA Glossary of Terms as any large-scale enterprise providing accommodations

of relatively low costs, was new to most architects requires here, explicitly in the presence of Ecole des Beaux-Arts-oriented curricula, no further investigation. Based upon the analysis of 270 submissions for the New York City Housing Competition Frederick L. Ackerman stated that "the number of designs acceptable as evidence of adequate imagination and real knowledge of housing turned out to be twenty-two. Below that number they slumped off."[6]

Precisely this lacking qualification of the architectural profession constituted the Housing Division's leading argument justifying their educational role in the design process of public housing projects.

3.2.2 The Housing Division's Educational Approach

Two interacting systems characterized the Authority's education program. As described before, one was manifested in the hierarchical organization providing for the utmost control over the architects, the other was established by the provision of project architects with pictorial and descriptive design materials such as the Sample Book and the Instructions to Private Architects. Equipped with these design tools the chief architects on all approved projects were ordered in the summer of 1935 to Washington to attend an intensive course on housing problems conducted by the PWA Housing Division staff members. The objective was "to insure a minimum of delay and a soundness of design."[7]

Reviewing this course the PWA Bulletin No. 2 observed that

> The result of this period of training was apparent in the character of drawings subsequently submitted. In all cases fine cooperation between the architects and the purpose and aims of the Housing Division has been apparent. 8

However, after dismissal from Washington, the architects were not at all abandoned by the Housing Division. The Plans and Specifications Branch provided a "complete counsultant service functioning in cooperation with local architects."[9] The character of this service was described by the PWA as follows.

> Washington staff men assist the local architects in their own offices in the preparation of preliminary drawings, sketches, and plans, and later conferences in Washington and at the architects' offices develop the plans and specifications up to the point of their final acceptance. 1Ø

Especially the Sample Book and the accompanying data were, as mentioned previously, primarily developed for the use of the Housing Division staff with the objective of establishing a measure against which the low-rent housing venture could be evaluated. Hence, those Washington staff men reflected in their design education and perception of public housing objectives an absolute ideological conformity with the Housing Division's concept. Furthermore, the bureaucratic order inherent in the administrative/ organizational system of the PWA permits the assumption that decision-making processes, on all levels, were handled in a rather rigid and technocratic manner; a fact which was

expressed in the Housing Division's reiterated admonitions concerning the architects' adherence to the provided design material. Hence the educational program of the Authority in Washington was clearly oriented towards the adoption, or more specifically, the copying of solutions established by the Plans and Specifications Branch. This approach, totally excluding the architects' creativity and personal involvement, contradicted the Division's anticipation that the Sample Book, as a point of departure, would trigger the development of new, more appropriate and refined design methods for the housing ventures. Although on a different level, the copying process supported by the Authority as the primary objective in the project architects' education represented a rather striking parallelism to the abstract Beaux-Arts-oriented education programs.

> Why does the architect go to Oxford to "copy"? Because he is a half-man not a full man. Because he is devoid of spiritual eyesight and hence of architectural conscience. Because architecture for him is an illusion, not a reality, a business, not an art. 11

Louis Sullivan explained in the essay "On Criticism" published in 1901 in his kindergarten chats to his lad.

The curtailment of the architectural profession's characteristic field of operation, most explicitly represented in the attempt to substitute the architectural design process by a technocratic rule system and thus generating this shift from a designer-oriented to a purely

synthesis-oriented profession, might have hindered the transformation of the PWA housing concept which, initially grounded in purely rational and economic considerations, to a more social perception of building. By eliminating from the housing venture almost any creative design processes, and hence disregarding a pivotal characteristic of the architectural profession the Housing Division revoked the basis supporting the architect's mediating role between Washington's purely use-rational approach to housing and the users way of living. This neglect takes special effect when viewed under the Housing Division's original objective of achieving, by means of "mass design" and "mass beauty," a certain reorientation of social behavior patterns.

Especially the evalutation standards established for the prequalification questionnaire symbolized the Housing Division's biased judgement regarding the profession's capability. Accordingly,

> An architect [was] competent who [had] shown ability to plan economically without affecting the quality of design, and who [had] had sufficient experience to organize an office to thoroughly execute a building project in all its details, and to supervise the completion of the work either through long years of experience or through having executed work of more than moderate size. 12

W. Pope Barney, co-designer of the Carl Mackley Houses in Philadelphia emphasized, on the occasion of a low-rent housing conference, "that there [was] upon the part of the architects an intense desire to cooperate with

Washington."[13] But criticizing the Authority's attitude towards architects reflected in the demand for copying the sample plans Barney continued that the architects "naturally [felt] a little resentful when they [were] held up to ridicule which they [didn't] think they deserve[d] when they [were] trying hard to manage their part of the job."[14]

In light of transformations then taking place in the pedagogical field of American Schools of Architecture, especially the Housing Division's new aesthetic represented by mass beauty and mass effectiveness, deserves a reinterpretation. George Herbert Gray, the Director of the New England Division of the A.I.A., observed in "The Schools and the New Architecture," published in The Octagon in 1933 that "Many efforts are being made to produce buildings which will be expressive of our age of new developments in building and of new independence in thought, but of these efforts only a few are successful, and the many are, by common consent, failures and often prodigious failures."[15] By attributing this fact to the schools which fail to equip "the architect-to-be, with the necessary facts and the necessary habits of thought to cope rationally with any radically new problem," Gray called for a general reoorganization of architectural education. "The weakness of the drafting room method of teaching design unaided by the intensive study of buildings completed and in progress"[16] caused in Gray's eyes the architect's

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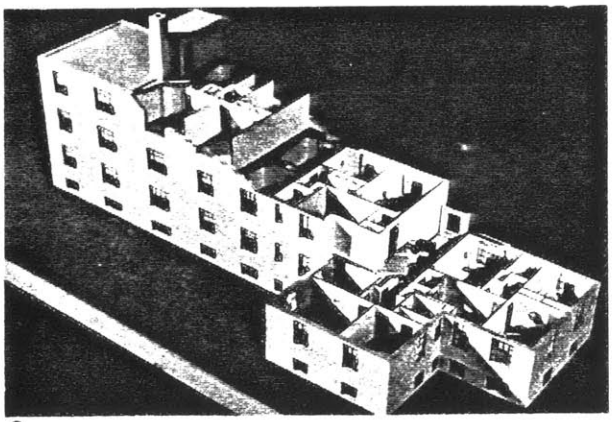

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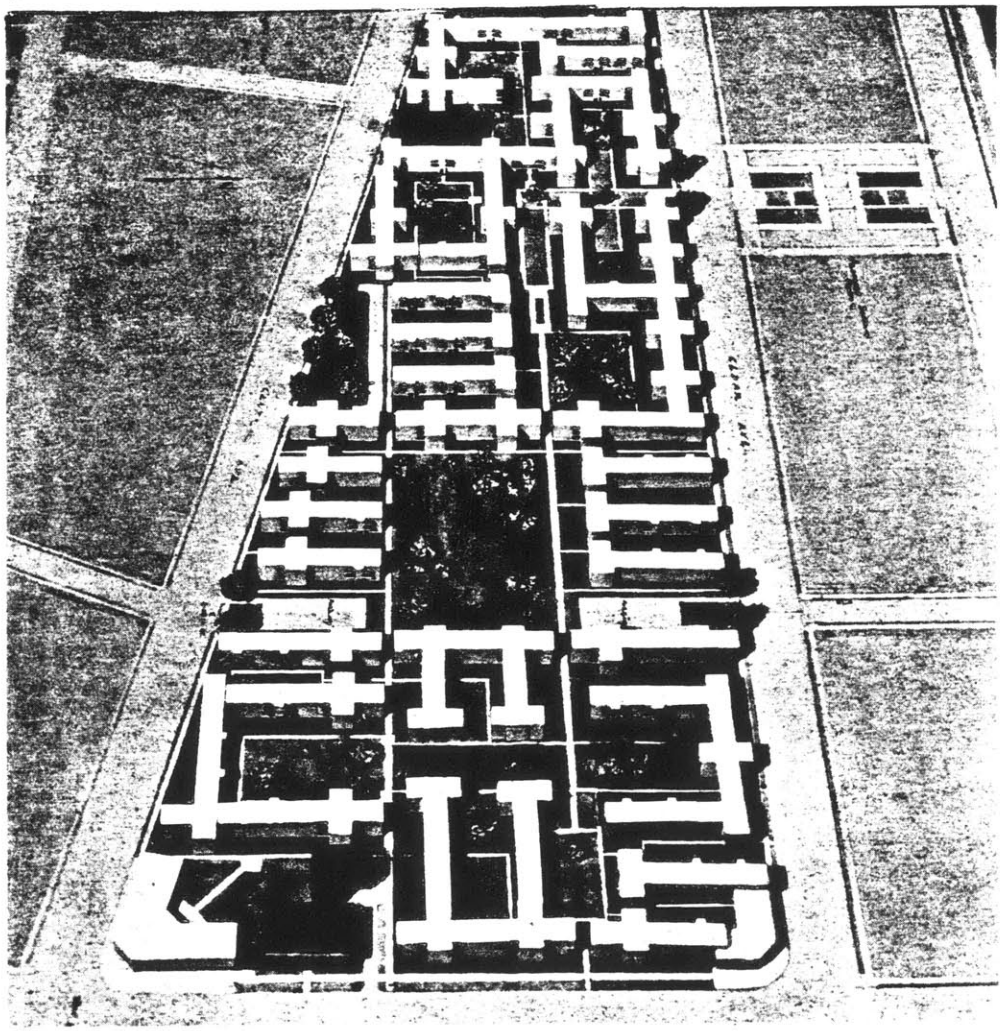


3

1 Ellen Wilkinson, Harold L. Ickes Examining Housing Model
2 Housing Model
3 Typical Site Model, Ceder Central Apartments, Cleveland

apprehension in the habit of thinking in two dimensions, an apprehension which could be cured by "the use of the models."[17] E. Raymond Bassange, Dean, College of Fine Arts and Director, Department of Architecture, New York University, reinforced in his article "Changes in Architectural Education" Gray's latter point by mentioning,

> An increased use of models in many courses encourages greater appreciation of solid form, and designing in clay and plaster so as to develop a sense of the third dimension should be required for many problems. Models also should be freely used to test the masses when the design has been developed. We trust that the Beaux-Arts Institute of Design next year will not only permit but encourage the presentation of photographs of models to illustrate the designs. 18

The PWA Housing Division's layout approach proposing, as already described previously, the preparation of "small pine blocks on a 32nd-inch scale, representing each building unit" and "placing these on a 32nd-inch-scale drawing of the site" revealed a definite similarity to the above-quoted educational idea to use models to the end of generating a three-dimensional design process. It was one major task of the Plans and Specifications Branch to build "models of typical residential units and of complete projects ... for the purpose of architectural and landscape study."[19] Topographical models to scale were also prepared for each site. The photos below (figs. 1,2) shows Secretary Ickes and the Hon. Ellen Wilkinson, former Labor Member of Parliament and former parliamentary private secretary to the

department in charge of English housing, examining the model of a low-cost housing project on exhibit at the National Housing Conference in Washington. Figure 3 represents a typical site model as built by the Plans and Specificaitons Branch, illustrating the use of block models for grouping of unit types.

Although the quote below, from the narrative "The Project in Operation -- As Seen by the Jones Family," by Col. Roger D. Black, Chief of the Housing Division's Management Branch, does not relate to the pedagogical purpose of models but rather to their apparently important role in the management of projects, it vividly illustrates their "refinement":

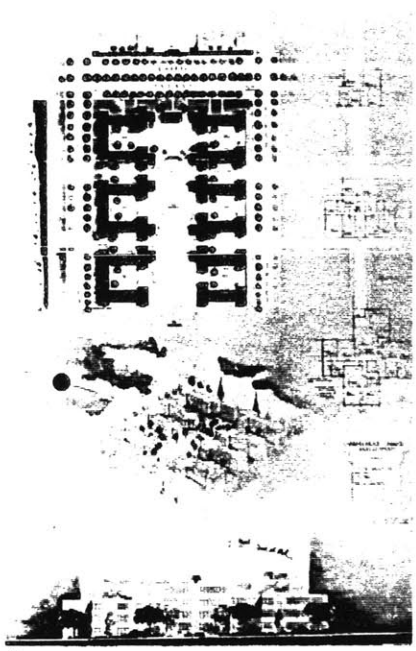
> Mrs. Jones has heard of the project and calls at the renting office. There she sees a small scale model of the entire development, complete as to the buildings, streets, walks, lawns, play areas -- even trees and shrubs. The buildings are numbered. Around the border of the model are arrows showing direction and distance to neighboring lines of transportation, stores, churches, schools, recreation centers, moving pictures and other points of interest in the neighborhood.
>
> On another table she finds a model of each of the several types of apartments in the property. (Prototypes of these models were shown in the Housing Division Exhibit, Interior Department Building in Washington.) The model is complete in detail. Each room has appropriate furniture, and in order that the scale may not be deceiving, there are small figures of people. Looking at this model, Mrs. Jones decides which type will best meet her needs. 20

3.2.3 Housing as Trigger for Educational Change

By embodying the subject of housing in the National Industrial Recovery Act, the Government confronted the architectural profession with a building task which could not any longer be handled with the traditional design methods. Public housing hence constituted a concrete starting point around which institutional initiative concerned with reality could develop.

The contemporary change of opinion, especially on the design sector, was most significantly indicated by the 1934 architectural competition sponsored by the Beaux-Arts Institute of Design. This institution was founded in 1916 in New York by the Society of Beaux-Arts Architects with the objective of encouraging the sort of architectural competitions that were an integral part of French Beaux-Arts training. Quite on the contrary to the highly abstract design problems assigned in the past such as "A Building to Enshrine the Chalice of Antioch, An Amusement Park, A Pyrotechnic Display" or "The Decoration of a Gymnasium for a Celebration," the 1934 program, although still giving an ideal site, was formulated in a realistic way, including almost all design criteria established by the Housing Division for the Federal housing venture.

> In developing this project it is desired to secure the highest possible standard of living within the means of those whose weekly income is between $3Ø and $4Ø. It is essential that the apartments be designed and arranged on the site so as to secure



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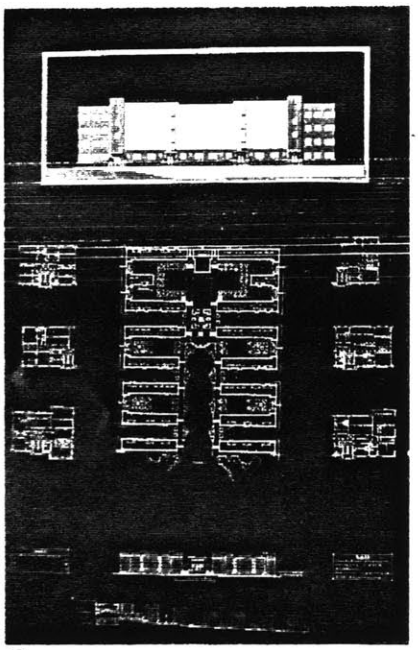

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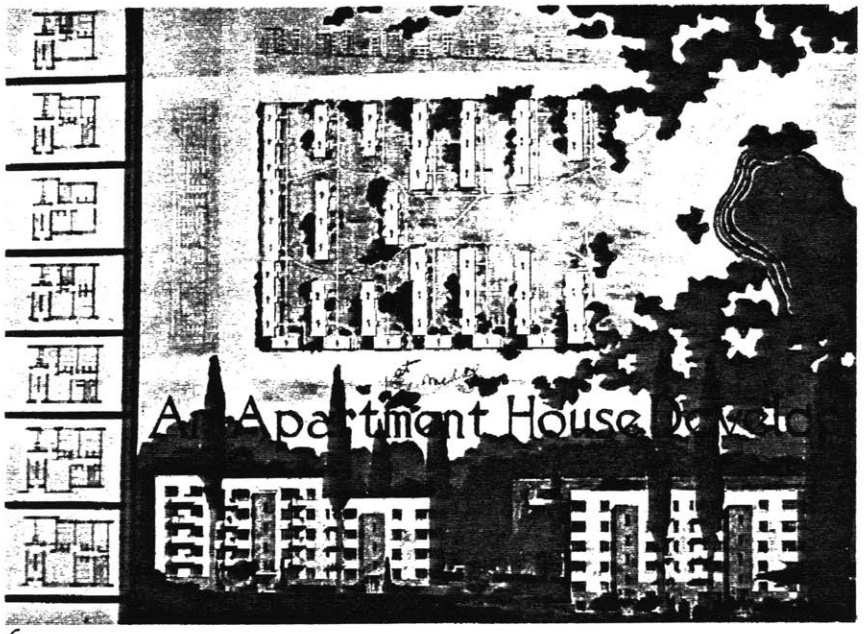

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4 Second Medal, M.L. McNair, Georgia School of Technology
5 Second Medal, P.L. Cherici, New York University
6 First Medal, F. Scott J. Yale University

> every possible economy without loss of sunlight, cross ventilation, privacy. Economy should be secured by simplification and standardization of construction and of stairways, mechanical equipment, etc., as well as by the maximum use of all space, including basements and by the elimination of unnecessary passage ways. 21

The submissions (figs. 4-6) premiated by the jury (constituted, among others, by W. Pope Barney, Electus D. Lichtfield and Clarence S. Stein), were perceived to create "an environment which might serve as a permanent setting for a high standard of simple living and ... were planned so that this could be secured economically."[22]

Under the administration of Robert D. Kohn, Director of Housing from June 1933 to June 1934, a more vivid interchange between Authority and outside sources regarding housing existed, not in the least due to Frederick L. Ackerman, Edith Elmer Wood and Henry Wright, then among others consultants for the Housing Division at Washington, D.C. Under their direction, a Summer Housing Seminar in 1934 was organized with the main heading "Technical and Operational Problems of Housing," as brought out by the experience of the Housing Division. The program was subdivided into three areas of study.

(1) Study of the fundamental characteristics of low-cost dwelling design. The curriculum included the issues: efficienty; beauty; land coverage; services; stores, schools, halls, etc.; practicality and foolproofness; gradual change in living standards.

(2) Community organization in respect to producing good living conditions and extending into the economic aspects of city rehabilitation. ...; significance and use of social surveys.

(3) Time effects of good housing; long term aspects of management.[23]

The seminar leaders included Lewis Mumford, Edith Elmer Wood, Clarence S. Stein, Albert Mayer, George Gove, Secretary State Board of Housing, Ernest J. Bohm, President of NAOH, Charles S. Ascher, Executive Director of NAOH, Carol Aronovici, Director of the Housing Research Bureau of New York City, Eugene H. Klaber, Chief of Technical Staff PWA Housing Division. In the fall of 1934, New York University had organized an Institute of Modern Housing as part of its School of Architecture. Henry Wright, Lewis Mumford, Clarence S. Stein, Frederick Ackerman, George Gove and Carol Aronovici participated in the course and represented almost the same circle of housing experts as were contributing to the Summer Housing Seminar. Carol Aronovici, Director of the Housing Research Bureau of New York City furthermore invited Horatio B. Hackett to come to New York for one or two seminars so that he could acquaint the students with procedures and plans of the PWA Housing Division.[24]

The Rockefeller Foundation expressed deep interest in the possibility of developing in connection with these seminars

a course in management. The fundamental idea of this course was to train housing managers in all matters from the selection of tenants, rentals, repairs, installations and use of equipment to the hiring of help, advertising, decorating, and light, as well as the arrangement of apartment interiors and buildings.[25]

Between 1932 and 1946 ten American colleges and universities established professional training in city and regional planning.[25] The Town Planning Studio founded by Joseph Hudnut at Columbia University in the spring of 1935 certainly represented, with respect to the housing authorities participating in the studio, one of the outstanding programs, including courses and the reorganization and extension of city plans, the planning of building sites, the design of housing developments and of civic facilities for recreation. Henry Wright who was brought by Hudnut to Columbia University remarked in his "Notes Relating the Teaching of Town Planning in a Unviersity" that the benefit of such a course would be "the introduction into the field of architecture of a limited number of men sensitive to form and mass in relation to topography, sunlight, the interplay of man's relationships and an understanding of the basic principles of site engineering."[27] Besides Henry Wright, Walter Hegemann, Sir Raymond Unwin, Carl Feiss and Carol Aronovici were offered chairs at the School.

The organization of conferences on low cost housing by various universities moreover indicated their recognition that "an institution of higher learning had not entirely fulfilled its duties in guiding the mental attitude of its pupils on the campus, but that its function was to go further and participate in general research and disseminate general information on current topics."[28]

Although in an indirect way, the Housing Division in Washington provided ground for the appropriate education of an architectural profession facing a building task which in its character and complexity was indeed almost unknown to them. Hence it justified one of the items Henry Wright, Lewis Mumford and Albert Mayer manifested in their concrete program concerning "New Homes for a New Deal." Therein those reformers demanded the government's

> generous immediate provision for competent technical directors. Lacking architects, city planners and engineers trained in the new techniques, the government must set up a school for the intensive training of those otherwise competent. There is a sufficient group of American technicians to serve as the nucleus of such an educational program; and they might be temporarily reinforced with some of the distinguished and experienced leaders in architectural and community planning that are now the victims of the Nazi terror in Central Europe.[29]

However, technical expertise provided through educational institutions could exclusively suffice the process of developing public housing. Social housing is perhaps like no other building task immediately dependent on a society's

attitude towards this public interest. The dynamic created by the positive societal acceptance of housing has to be evaluated as the driving force leading to new, creative solutions in housing. Architectural expertise, developing out of and operating within a climate of societal indifference or even rejection, as it generally was the case in the United States during these years, however, is from the start handicapped to accomplish progress promoting housing.

NOTES

1. Benjamin R. Andrews, "Housing and Education," Teachers College Record, XXVI (June 1925), 881.

2. Caroline Shillaber, Massachusets Institute of Technology School of Architecture and Planning, 1861-1961: A Hundred Year Chronicle, p. 87.

3. Robert D. Kohn, "Planning for Changed Needs," The Architectural Record, LXXIII (April 1933), 294.

4. Richard Oliver, ed. The Making of an Architect, 1881-1981, p. 114.

5. Ibid., 114.

6. "Architects Picked for PWA Housing," New York Times, July 25, 1934.

7. Federal Emergency Administration of Public Works, Urban Housing, The Story of the PWA Housing Division, 1933-1936, p. 41.

8. Ibid., 41.

9. Ibid., 17.

10. Ibid.

11. Louis H. Sullivan, Kindergarten Chats on Architecture, Education and Democracy, ed. Claude F. Bragdon, p. 200.

12. Correspondence, Muthesius - Post, op. cit.

13. W. Pope Barney in a discussion on the occasion of a conference of Low Cost Housing conducted by the Department of Architecture of the Georgia School of Technology, July 1935, Bulletin Georgia School of Technology, XXXII (July 1935), 113.

14. Ibid.

15. George Herbert Gray, "The Schools and the New Architecture," The Octagon, V (February 1933), 10.

16. Ibid., 13.

17. Ibid.

18. E. Raymond Bassange, "Changes in Architectural Education," Pencil Points, XIV (July 1933), 310.

19. FEA of PW, Urban Housing ..., op. cit., p. 18.

20. Roger D. Black, "The Operation of Public Housing Properties," Bulletin Georgia School of Technology, XXXII (July 1935), 105, 106.

21. "Apartment House Development, Class A Project 1," The Bulletin of the Beaux-Arts Institute of Design (December 1934), p. 7.

22. Ibid.

23. Correspondence between Henry Wright and Robert D. Kohn April 1934, The National Archives, Washington, D.C., Record Group 196, General Records (Entry 3) 502-Seminar File.

24. Correspondence between Carol Aronovici, Director, Housing Research Bureau of New York City and Horatio B. Hackett, Director of the PWA Housing Division, October 23, 1934, The National Archives, Washington, D.C., Rec. Group 196, General Rec. (Entry 3) 502-Seminar File; Housing Study Bulletin V (February 1935).

25. Ibid.

26. Shillaber, op. cit., p. 95.

27. Oliver, op. cit., p. 119-126.

28. Marion Smith in an opening address on the occasion of the Conference on Low Cost Housing conducted by the Department of Architecture of the Georgia School of Technology, July 1935, Bulletin Georgia School of Technology, XXXII (July 1935), 73.

29. Albert Mayer, Henry Wright, Lewis Mumford, "New Homes for a New Deal IV: A Concrete Program," The New Republic, LXXVIII (March 7, 1934), 93.

Conclusion

The fact that the United States housing venture evolved from a depression-fighting economic program, as was provided by the National Industrial Recovery Act, significantly determined the social and physical appearance of public housing in this country. The main purpose of the program, defined by the endeavor to rid the country not only temporarily from the burdens of depression but to hinder as well a future reoccurence of a similar disaster framed the government's policy according to which relief projects were selected and financially supported.

Housing united in an ideal way the government's selection criteria such as social desirability, financial soundness, quick unemployment relief, and the potential to exercise a flywheel effect within related sectors of the economy, and hence occupied a leading role within the national recovery program. The Housing Division of the Public Works Administration was established with the objective of realizing this national housing venture. During the first four months of its existence, operated through a limited dividend policy inherited from the preceding Hoover administration. However, Limited Dividend Housing Corporations, being supported by only 85 percent federal loans, were, according to the Housing Division, incapable of acting as an effective New Deal agent. Instead of

reconsidering the financial support policy, the Housing Division entirely dismissed the limited dividend approach and instead shifted its emphasis to a public housing program under its own authority. The dismissal of those local corporations which were interested in providing low-rent housing and which furthermore offered executive agencies for the realization of local municipal housing programs indicated the Housing Division's first step in its conscious striving for centralized control.

The new policy established in the beginning of 1934 was laid out in a way which clearly aimed toward this centralization. While frequently protesting that local need and initiative provided the basis for the Division's housing policy, the Authority in Washington advocated a program for which most states were completely unprepared, requiring operation through local housing authorities legally empowered by state housing legislation. The lack of appropriate local legislation, of which the Housing Division was cognizant, created an illusion of local control, while effectively putting the Public Works Emergency Housing Corporation into the paramount position of power in the development of local housing projects.

In this context it is relevant to refer to the German "Gross-Siedlungen" of the 'twenties. These German examples were historically conditioned by a set of experiences such as the Garden city movement and the "Werkwohnungsbau" and as

such represent an alternative to the PWA approach to social housing. A comparison between German and American experiences might highlight the contradictions underlaying the American housing venture from its inception. The German "Gross-Siedlungen" were developed in a socio-political climate which fostered experimentation. Housing was initiated by municipal governments and, in the particular case of the avant-garde housing projects, was supported by progressive municipal policies. The decentralized organization of housing in Germany created a dynamic situation which facilitated basic research and diverse architectural solutions which opened new avenues in public housing. In Germany, while realizing positive results in many areas, it is significant that despite the existence of a rather rigid set of requirements established by the "Existenzminimum" concept one finds a large variety of apartment arrangements in German social housing. In contrast to the German experiences the PWA Housing Division thought to innovate and to insure excellence through its rigd and centralized control system.

Julius Posener states, discussing the German "Siedlungspolitik" of the 'twenties, that "The burghers of the Weimar Republic appreciated the social progress; a progress which appeased them with respect to morale and political aspects." This societal attitude in Germany was not prone to critical misinterpretation like those of the

American housing program as "communist" or -- sufficiently threatening in the United States -- "socialistic." A society's striving for social progress, both allows for and is supported by experimentation and as such must be considered as a key factor in the development of housing. It allows for the provision of appropriate architectural solutions that are integral within wider social structures.

American public housing opponents condemned the government's encroachment upon the private housing market and the Housing Division never resolutely rejected this ideological attack. On the contrary, the Housing Division implicitly accepted this criticism by confining its scope of operation to slum clearance and reclamation, an area in which private enterprise showed little interest. Conflicts of private and governmental fields of operation were thus kept to a minimum.

Two arguments supported the Housing Division's slum intervention program: the immense social costs which slum areas imposed upon society as a whole and the anticipation that slum clearance represented the broadest field to fight unemployment in the most effective way. Housing was thus more a by-product of an economic relief program than the result of a primary humanitarian concern.

The clearance and reoccupation of slum areas by new housing required adequate planning tools which the Housing Division

apparently thought could be found in Clarence Arthur Perry's neighborhood community idea. The Housing Division, however, by adopting only part of Perry's concept, that a neighborhood should be regarded as a distinct unity unto itself and in rejecting the second aspect that a neighborhood should as well be regarded as a unit of a larger, similarly structured whole, destroyed the context which framed Perry's original intent. The analysis of all 5Ø PWA housing projects reveals that even the first requirement, the distinct unity of a neighborhood predominantly was commonly not fulfilled. The project's limited size did not bear the potential to accomplish the basic infrastructural facilities, necessary for the successful operation of a neighborhood community.

The loss of context which, among other factors as for instance the establishment of a design system, resulted from a misinterpretation of the neighborhood community idea created insular communities which were inserted into an alien environment. The disruption of a preexisting urban fabric was not inadvertent because of the propaganda value for the New Deal policy derived from the visibility produced by such disruption of the established order. Although the anti-contextualism for which the Housing Division could be reproached was primarily apparent on the physical level, it also impinged upon the social fabric of existing neighborhoods. As the introverted physical layout of

projects indicates, the social structure within a project could have few points of contact with the surrounding environment. The disruption in tenants' social relations caused by their relocation was optimistically thought to be reestablished within the boundaries and organization of the new project. The large-scale slum clearance and reclamation approach was never questioned or compared with smaller low-key interventions which would have maintained an area's social tissue. Substantial evidence exists that the PWA program was motivated primarily by economic concerns, and that social concerns played only a minor role. In addition, one could argue that the architectural distinctiveness of the PWA projects, which came to stigmatized residents of public housing projects, responded to deep-seated ideological imperatives within American society. Federal housing initiatives soon came to reflect ideological context which was resistant to any notion of state subsidy and support.

Court rulings in 1935 questioned the public purpose of federal housing projects and therefore forbade the use of eminent domain in making the necessary land acquisitions. This resulted, within the Housing Division, in a shift of emphasis from slum clearance projects to the execution of housing developments on vacant, less centrally located, land. The architectural approach, however, to these contrasting planning situations, remained the same. This,

too, justifies the accusation of disinterest on the part of the Housing Division in the contextual needs of community structure.

The fact that the Housing Division, as a Federal agency, developed an all-embracing architectural design approach which enlarged its administrative function, indicates the interest in centralized control at all levels of planning and design of public housing. The development of manuals is, to a certain extent, a characteristic of a rigid bureaucratic modus operandi. The establishment of sample plans, typical details, materials specifications and even aesthetic rules ought to be viewed as an inevitable consequence of centralization. The provision of a systematized design approach together with the Housing Division's requirement of adherence to the system by the local agencies created a "rubber-stamp" image for all projects.

The hierarchical pattern of the central organization found repetition in the local executive level, especially among local architects. The selection of architects was srictly controlled by Washington and furthermore selected project architects were, with regard to their qualifications, grouped in a hierarchical system consciously designed to exclude individual impact on the design process. The Housing Division's control of the selection process and

channels of communication gave the lie to their claim that individual initiative was recognized as a capable force to develop new models and methods for the design of low-cost housing. The Housing Division's true attitude towards new ideas in housing was significantly expressed in the attempt to substitute a technocratic rule system, as provided by the manual, for the architectural design process. The systematized design approach, as developed by the Division, curtailed the architects' scope of responsibility to a purely organizational task, thereby largely eliminating any true creativity from the process of planning and design. The subjugation of the architects' position to that of executing preconceived constructs displaced them from their normal role as mediator between society and the built environment.

The New Deal policy stimulated interest in public housing issues among architectural educators which injected a certain consciousness of social realities which had hitherto found no place in the more abstract "Beaux-Arts" approach. The training in housing design which was introduced in American schools of architecture as early as the 1930's did not have any significant impact on the housing projects of the 1940's and 1950's. During this period one finds no real evolution in either the social framework for public housing or the programs and housing designs of the centralized authority.

The spark of social consciousness begun by New Deal philosophy was, then, largely extinguished. Heavy-handed and top-heavy direction was imposed by the PWA Housing Division, whose short-sighted approach focused exclusively on immediate technical issues leaving little room for the evaluation of viable architectural solutions to the problems inherent in public housing projects. The negative impact of this bureaucratic ossification on the success of public welfare in the housing sector should not be underestimated.

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Federal Program Project Files.
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General Records.
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