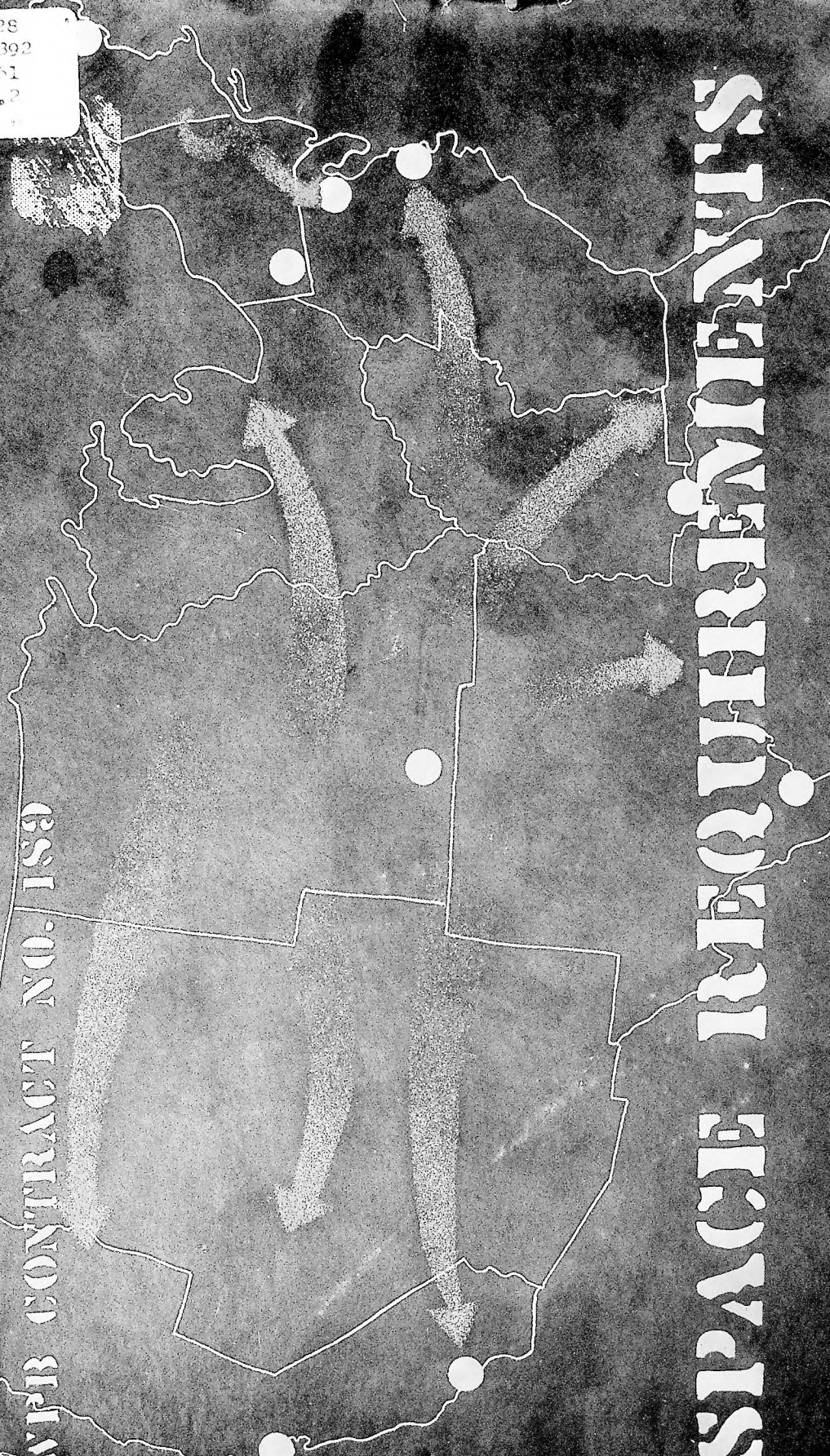


ROBERT L. DAVISON ASSOCIATES HOUSING RESEARCH  
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SPACE REQUIREMENTS  
TWAR HIGH STAGE





*Davison, Robert L. and associates.*

SPACE REQUIREMENTS OF  
WAR HOUSING,

A SURVEY OF FAMILY BEHAVIOR, ATTITUDES AND POSSESSIONS

ROBERT L. DAVISON ASSOCIATES  
HOUSING RESEARCH

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Vol. I



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FOREWARD

This war has caused the largest and most rapid mass construction of dwellings in all history. Six billion dollars in precious manpower and materials already have been invested in war housing. The Office of Production Research and Development of the War Production Board and the National Housing Agency were presented with the opportunity and the responsibility to determine how adequately the housing served its purpose, which was not only to bring needed workers and their families to war production centers but to keep them on the job. Adequacy of housing directly affects morale, productive capacity and labor turnover.

Due to our experience in studying family living, the Office of Production Research and Development, with the sponsorship of the National Housing Agency, gave us the job of surveying and measuring behavior, attitudes and possessions of typical families living in permanent and temporary houses and in trailers in 14 projects in 9 war communities all over the United States. We have gathered information on the basic space requirements of families during the emergency period. With this information, further war housing can be designed with more assurance of satisfaction and contribute to supplying manpower where needed. This study is not intended as an evaluation of war housing; it is a fact finding survey on certain family needs.

If successes in the European war theatre which have developed in the last months of this study make it unnecessary to build more war housing, information gained can be used to remodel much of the existing war housing. Some of the demountable housing

has already been taken down, moved and set up in still critical areas. Increased knowledge of family needs will make it possible to redesign these for re-erection at little extra cost.

Perhaps more of the temporary housing can be salvaged than was thought possible and converted to permanent family use. Unlike primary war weapons, the need for housing will continue. In fact, the general housing shortage has increased enormously during the period since 1942 when construction of all non-war dwellings was stopped.



## SUMMARY OF DATA USABLE FOR DESIGN

By analyzing the functions which families perform at home into their space requirements, an outline of needed facts is made. We have concentrated on the analysis of sleeping and related functions: dressing, washing and elimination. Previously, less attention had been paid to these functions than to those connected with eating or with leisure activities. These are also the more constant functions, least changed by war rationing of food and gas and other emergency changes.

"Home" can be defined as "where you sleep" or "where you keep your possessions." Both are covered in this study. For each of the four functions included in this survey, an inventory of possessions was made. Other types of facts gathered will be obvious from the headings in the summary.

In working out the analysis of functions, an effort was made to avoid all preconceptions, even those implied in familiar terminology. Room names were never used, but rather a "space for sleeping", "space for dressing", etc. To call a chair a "surface for supporting the body in a seated position", or "sitting surface with back rest", was cumbersome, but it served as an excellent corrective to methods of thinking that are so traditional that they are ingrained even in our everyday language.

Since we base our research on this outline of needed design information (the analysis of functions), facts gained by research in this field study of families living in war housing are summarized by presenting them in the form of the original

outline. Thus, information on family behavior, attitudes and possessions are sorted out and related to their design use. For instance, the need for privacy must be considered under human psychological environment; disturbances caused by noise come under human physiological environment; the number of clothes come under possessions, which in turn are measured to give space required, etc. The same fact often has design significance in several categories. The prevalence of reading in bed is a space problem; it points to the need of a place to put reading matter down; it makes it necessary to support the body in a sitting position in bed; it requires good local light for reading with necessary electric outlets; and it requires more warmth in the sleeping space than does the function of sleeping itself.

Note that some headings in the outline are not documented. For complete specifications of dwelling design based on family living, other types of research which must be performed in the laboratory--physiological, psychological, and physical, and measurements of space and motion--are needed.

Following is the summary of usable design information with page references to the source of the facts in the body of the report.

## SUMMARY OF DATA USABLE FOR DESIGN

## S L E E P I N G

## I. SPACE REQUIRED

..."Bedroom too small" most frequently mentioned "pet peeve" (average size: 96 - 139 sq. ft.) p. 223

## A. HUMAN BEING SLEEPING, READING IN BED, ETC.

## 1. ADULT

...96% of husbands and wives slept together in double bed; 4% in twin beds; 15% of wives considered twin beds ideal; 80% preferred double bed. p. 167, 215

...Over half of the women who have slept in Pullmans or very small room blame difficulty in sleeping on size of room. p. 216

...63% of women preferred large bedroom for dressing and sleeping to small sleeping and small dressing room. p. 205

...34% of families took children into bed with them; most of children were under 5. p. 221

...56% of women and 40% of men read in bed, propped up with pillows. p. 222

...91% of wives do not do exercises; only 12% would if there were space. 97% of husbands do not; only 10% want to. p. 223

## 2. CHILD

...27% of parents had child sleeping in same room. p. 215

...Most women prefer child to have own room. p. 215

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Notes: 1. Headings from "Analysis of Functions into Space Requirements" are capitalized.

2. The \* items are from "Special Report on Family Living in Trailers and Houses" (chapter IX) and is therefore information based on fewer cases.



## 1. SPACE REQUIRED

## A. HUMAN BEING SLEEPING, READING IN BED, ETC.

## 2. CHILD (CONTINUED)

...31% of the children above six read in bed.  
p. 222

## 3. INFANT

...22% of parents had crib in master bed  
room. p. 167

## B. HUMAN BEINGS PERFORMING AUXILIARY OPERATIONS

## 1. GETTING INTO AND OUT OF BED

## 2. PUTTING ON AND REMOVING CLOTHING

...85% of women prefer wearing slippers. p. 212

## 3. CLEANING AND MAINTENANCE OF POSSESSIONS, EQUIPMENT AND ENCLOSURE.

## a. "MAKING THE BED"

## (1) ONE PERSON

...Almost all women change sheets  
without help; most have help  
changing mattress cover. p. 201

## b. AIRING BED AND BEDDING

...Most women would like to air blankets  
outdoors; not quite as many want to  
air mattresses outdoors. p. 201

## c. CLEANING ENCLOSURE AND EQUIPMENT

## 4. ATTENDING OR SUPERVISING ANOTHER PERSON

## a. INFANT

## b. CHILD

## c. SICK PERSON

## 5. ACCESS TO POSSESSIONS AND EQUIPMENT CONTROLS

## 6. ACCESS TO SERVICING EQUIPMENT

## 7. MOVING BED AND OTHER EQUIPMENT INTO AND OUT OF SLEEPING SPACE

## 8. VISITORS

## I. SPACE REQUIRED

## C. THINGS

## 1. POSSESSIONS (SEE II)

...No specific space allocated for storage of soiled linens . p. 202

...Most women could not find enough space for soiled clothes and linens. p. 202

## 2. EQUIPMENT (SEE III)

D. MODIFICATIONS FOR PSYCHOLOGICAL ENVIRONMENT (SEE IV-A-2)  
(e.g. TO AVOID CLAUSTROPHOBIA)

...Dislike of small rooms. p. 217

## E. UNITS PER FAMILY, INCLUDING GUESTS

...Families averaged one less regularly used bed than number of people in family. p. 188

...Most families had at least one extra sleeping space. p. 216

...\*40% of housewives living in trailers in Virginia are dissatisfied with sleeping arrangements because of lack of privacy and sleeping with children. p. 201

## II. POSSESSIONS

## A. KEPT OUT OR IN FREQUENT USE

## 1. NEEDED IN BED

...Articles kept near bed in order of frequency; clock, cleansing tissue, magazines, handkerchiefs, water, books, newspaper, medicine, smoking equipment, radio, wastebasket, eyeglasses, flashlight, candy, food, writing equipment, alcoholic beverage. p. 175

...Half the adults and 1/3 the children read in bed. p. 222

...One-third of the adults and children listen to radio in bed. p. 222

...About half the adults who smoke, smoke in bed. p. 222

...Those who read in bed prop themselves up with pillows. p. 222

## II POSSESSIONS

## A. KEPT OUT OR IN FREQUENT USE (CONTINUED)

## 2. NEEDED GETTING INTO AND OUT OF BED

...85% of women prefer wearing slippers p. 212

...Most women keep slippers near bed at night;  
in closet during day. p. 212

## 3. DECORATIONS

...Pictures are articles most frequently displayed  
in bed room. p. 176

## 4. SPECIAL FOR INFANT

## 5. SPECIAL FOR SICK PERSON

## B. STORED

## 1. BEDDING

...Average per family (all, not just stored)  
13.6 pillow cases, 11.2 sheets, 6.6 blankets,  
3 quilts, 3.1 spreads, 1 mattress pad,  
.8 mattress covers, .5 rubber pads. p. 199

Note: Number of sheets, blankets and quilts increases with the number of beds but at a decreasing rate. This varies from 5.4 sheets per bed in the 2 bed family to 3.3 sheets per bed in the 4 bed family; blankets from 2.7 per bed in the 2 bed family to 1.8 per bed in the 4 bed family; quilts from 1.4 per bed in the 2 bed family to 1.1 per bed in the 4 bed family. 30% of sheets in use, 59% clean stored and 11% dirty stored. This would mean for the 3 bed family (the most typical one) which has 11 sheets, only 3.3 sheets are in use. Some beds may only be made up at night, children's beds may only have one sheet, and often cotton blanket-sheets are used in the colder climates.

## 2. SOILED BEDDING

...2 bed family has 1.2 soiled sheets, 1.3 soiled pillow cases, .3 soiled blankets. p. 200

...3 bed family has 1.2 soiled sheets, 1.3 soiled pillow cases, .4 soiled blankets. p. 200

...4 bed family has 1.5 soiled sheets, 1.5 soiled pillow cases, .4 soiled blankets. p. 200



## SLEEPING

## III EQUIPMENT

## A. SPECIAL EQUIPMENT FOR SLEEPING: SURFACE TO SUPPORT BODY IN HORIZONTAL POSITION

## 1. SIZE

a. ONE ADULT

b. TWO ADULTS

...80% prefer double bed. p. 215

c. CHILD

d. INFANT

## 2. SHAPE

a. PLAN

...97% of women have headboard on bed and prefer it. p. 169

...85 % of women have footboard and most prefer it. p. 169

b. ELEVATION

c. HEAD SUPPORT (PILLOW) ADJUSTABLE TO BODY WHEN LYING ON FACE, BACK, OR SIDE

...85% of women slept on a pillow. p. 221

## 3. ARRANGEMENT

a. FOR EASE OF GETTING IN AND OUT, ONE AND TWO PEOPLE.

...No apparent objection to sleeping next to or facing wall. p. 217

b. FOR EASE OF MAKING BED

c. FOR EASE OF AIRING BED AND BEDDING

d. FOR CHILD AND INFANT, PROTECTION FROM FALLING OUT OF BED; ALSO FOR ADULTS AT CERTAIN HEIGHTS

## 4. QUALITY

...59% of families had innerspring mattresses on master bed; 35% cotton; 50% had coil springs. No relation between equipment and opinions on comfort. p. 169

## III EQUIPMENT

## A. SPECIAL EQUIPMENT FOR SLEEPING

## 4. QUALITY (CONTINUED)

...Non-inflammable: 31% of husbands and 16% of wives smoke in bed. p. 222

...Women do not allow sitting or resting on bed after it is made, for neatness, protection of mattress and less work. p. 209

...85% of women slept with pillows. p. 221

## B. SUPPORT FOR BODY

## 1. STANDING BEFORE GETTING ONTO SLEEPING SURFACE

a. SIZE

b. SHAPE

c. ARRANGEMENT

d. QUALITY

...Little change of floor covering of master bedrooms takes place with seasons. p. 173

...85% of women prefer wearing slippers. p. 212

## 2. SITTING

a. READING IN BED (SLEEPING SURFACE PLUS SUPPORT FOR UPPER PART OF BODY)

...40% of husbands read in bed  
56% of wives read in bed. p. 222  
31% of children read in bed.

(1) SIZE

(2) SHAPE

...People who read in bed prop themselves up with pillows. p. 222

b. FOR VISITORS (ESPECIALLY FOR SICK PEOPLE)

c. FOR RESTING, NOT IN BED

## C. SUPPORT FOR POSSESSIONS

## 1. KEPT OUT OR IN FREQUENT USE

a. NEEDED IN BED

## SLEEPING

## III EQUIPMENT

## C. SUPPORT FOR POSSESSIONS

## 1. KEPT OUT OR IN FREQUENT USE

## a. NEEDED IN BED (CONTINUED)

(1) SIZE AND SHAPE

(2) ARRANGEMENT

(a) SITTING UP

(b) LYING DOWN

(3) QUALITIES

b. NEEDED GETTING IN AND OUT OF BED

c. NEEDED SOMEWHERE WITH ENCLOSURE, FOR  
DECORATION

d. SPECIAL INFANT'S EQUIPMENT

e. SPECIAL EQUIPMENT FOR SICK PERSON

f. FOR AIRING BEDDING

## 2. STORED

## a. BEDDING

(1) SIZE AND SHAPE

(2) ARRANGEMENT

## b. SOILED BEDDING

(1) SIZE AND SHAPE

...Since no special place is provided  
for soiled linen; it is kept in  
most any room, most commonly in  
hall or bedroom. p. 202

...Most women could not find enough  
space for soiled clothes and  
linens. p. 202

...Soiled clothes and linens are generally  
kept together. p. 203

## SLEEPING

## III EQUIPMENT

## C. SUPPORT FOR POSSESSIONS

## 2. STORED

## b. SOILED BEDDING (CONTINUED)

...Half keep baby's soiled linens with other soiled linens. p. 203

...81% of women keep baby's soiled linens and clothes together. p. 203

## c. EXTRA POSSESSIONS

...Bookcases found most often in secondary bedroom. p. 171

## D. MIRRORS: NOT REQUIRED

## E. UTILITY CONNECTIONS

## 1. NUMBER

...7% use fans on hot nights. p. 174

...46% had lamps, 10% had radio. p. 176

...About half the adults and 1/3 the children read in bed. p. 222

...About 1/3 of all age groups listen to radio in bed. p. 222

## 2. LOCATION

## F. CONTROL OF ENVIRONMENT

## IV ENVIRONMENT

## A. HUMAN

## 1. PHYSIOLOGICAL

## a. HEAT

## (1) ADULT

## (a) SLEEPING

...Little change of floor covering of master bedrooms takes place with seasons. p. 173

...\*Summer heat disturbed sleep for most families in trailer and houses; it disturbs almost half at night. p. 292

## SLEEPING

## IV ENVIRONMENT

## A. HUMAN

## 1. PHYSIOLOGICAL

## a. HEAT

## (1)

## ADULT

## (a) SLEEPING (CONTINUED)

...Among the reasons why 85% of the women prefer wearing slippers to going barefoot is warmth. p. 212

...Warmth is another reason for position of bed in room. p. 218

...89% of husbands wear nightclothes-- mostly pajamas. p. 210

...93% of wives wear nightclothes-- mostly nightgowns. p. 212

## (b) SITTING UP IN BED

...About a third of the husbands and wives read in bed. p. 222

...Only 10% want to do exercises. p. 223

## (2) INFANTS AND YOUNG CHILDREN

## (3) AGED AND SICK

## b. VENTILATION

## (1) AIR MOVEMENT

## (a) NORMAL PEOPLE

...Most women keep bedroom doors open day and night, more in south than in north. p. 219

...Other bedroom complaints; too few windows, drafty. p. 218

...13% report bedroom drafty; blame it on ventilation. p. 218

...Other reasons for position of bed in room: air. p. 218

...\*More families in trailers reported insufficient air for sleeping than house dwellers

(31-41%). p. 232



## SLEEPING

## IV ENVIRONMENT

## A. HUMAN

## 1. PHYSIOLOGICAL

## b. VENTILATION

## (1) AIR MOVEMENT

## (a) NORMAL PEOPLE (CONTINUED)

...7% use fan on hot nights; 2%  
in northernmost community;  
46% in south; usually placed  
on dresser and directed toward  
bed. p. 174

## (2) AIR CHANGED

...31% of the husbands and 16% of wives  
smoke in bed. p. 222

## c. MOISTURE

## d. ODORS

(1) BARRING ENTRANCE OF DISTURBING ODORS  
ORIGINATING ELSEWHERE(2) REMOVAL OF DISTURBING ODORS ORIGINATING  
WITHIN SLEEPING QUARTERS

...31% of the husbands and 16% of the  
wives smoke in bed. p. 222

## e. LIGHT

## (1) GENERAL ILLUMINATION IN SLEEPING SPACE

...Another bedroom complaint: poor  
lighting. p. 225

## (2) LOCAL ILLUMINATION FOR READING

...56% of women and 40% of men and  
31% of children above six read  
in bed. p. 222

## (3) GUIDANCE ILLUMINATION

...84% of women get up at night. p. 220

## (4) LOCAL ILLUMINATION IN STORAGE SPACE

## (5) TOTAL DARKNESS FOR SLEEPING

## (a) SUN AND MOON

## (b) STREET LIGHT

...11% report street lighting disturbs  
sleep. p. 219

## SLEEPING

## IV ENVIRONMENT

## A. HUMAN

## 1. PHYSIOLOGICAL

## e. LIGHT

(5) TOTAL DARKNESS FOR SLEEPING

(b) STREET LIGHT (CONTINUED)

...\*Light disturbances to day  
and night sleep were negligible  
p. 292

(c) LIGHT FROM NEIGHBORING DWELLINGS

(d) LIGHT FROM OTHER PARTS OF DWELLING

(e) LIGHT FROM WITHIN SLEEPING QUARTERS

## f. SOUND AND VIBRATION

(1) FROM OUTSIDE DWELLING

(a) THROUGH OPENINGS

...Noises waked 27% during night,  
usually street noises. p. 219

...\*Noises disturbed the day and  
night sleep of about 1/4 of  
the families in trailers and  
houses. p. 292

(2) FROM WITHIN DWELLING

...About 1/3 of men, women and children  
listen to radio in bed. p. 222

## g. SANITATION

## h. SAFETY

(1) FROM PIPE

...31% of husbands and 16% of wives  
smoke in bed. p. 222

(2) FROM FALLING

(3) FROM SHARP PROJECTIONS

(4) FROM SUFFOCATION

## 2. PSYCHOLOGICAL

## a. PRIVACY

(1) FROM NEIGHBORS

## SLEEPING

## IV ENVIRONMENT

## A. HUMAN

## 2. PSYCHOLOGICAL

## a. PRIVACY

## (1) FROM NEIGHBORS

- ...Half the women say people can see into bedroom, and most of them mind it. p. 172
- ...76% keep shades in bedrooms drawn at night in winter; 37% in summer. p. 219
- ...9 out of 10 women use bedroom curtains winter and summer; 17% for privacy. p. 171-172
- ...Privacy another reason for position of bed in room. p. 213

## (2) FROM OTHER MEMBERS OF FAMILY

## b. APPEARANCE AND IMPRESSION

## (1) ESTHETIC

- ...Bed in present position mostly for esthetic reasons. p. 213
- ...9 out of 10 women use bedroom curtains winter and summer; 77% for decorative value. p. 171
- ...Pictures are items most frequently displayed in bedroom. p. 173

## (2) SOCIAL STANDARD

- ...Women do not allow sitting or resting on bed after it is made, for neatness, protection of mattress and less work. p. 209
- ...15% of women consider twin beds ideal. p. 215

## (3) EFFECT ON BEHAVIOR

## (4) EFFECT ON MENTAL STATE

- ...Over half of women who have slept in Pullmans or very small rooms blame difficulty in sleeping on size of room. p. 216

## IV ENVIRONMENT

## B. FOR POSSESSIONS

## 1. FOR STORAGE OF BEDDING

## a. HEAT

- (1) LOW TEMPERATURES DESIRABLE FOR MOTH PREVENTION IN WOOLEN BLANKETS
- (2) HIGH TEMPERATURE UNDESIRABLE FOR RUBBER BEDDING

## b. VENTILATION

## c. MOISTURE

## d. ODORS

## e. LIGHT

- (1) DESIRABLE TO PREVENT MOTHS IN WOOLENS
- (c) UNDESIRABLE FOR RUBBER BEDDING

## f. SANITATION

## 2. FOR AIRING BEDDING

## V. TIME

## A. DURATION OF TIME IN BED

Husband	Day shift	8 hours	31 minutes	p. 257
	Afternoon shift	9 hours	41 minutes	p. 257
	Midnight shift	9 hours	8 minutes	p. 257
Wife		8 hours	30 minutes	p. 257
Child	to 14 months	12 hours	6 minutes	p. 261
	to 3 years	12 hours	15 minutes	p. 261
	to 6 years	12 hours	51 minutes	p. 261
	to 11 years	10 hours	58 minutes	p. 261
	to 19 years	8 hours	32 minutes	p. 261

...Only 16% of women sleep straight through the night. p. 220

## SLEEPING

## V. TIME

## B. WHEN GO TO BED

Husband	Day shift	9:53 pm	to 6:15 am	p. 256
	Afternoon shift	12:50 am	10:31 am	p. 256
	Midnight shift	10:20 am	7:28 pm	p. 256
Wife		10:31 pm	7:05 am	p. 256
Child	to 14 months	7:39 pm	7:45 am	p. 261
	to 3 years	7:53 pm	8:08 am	p. 261
	to 8 years	7:56 pm	8:47 am	p. 261
	to 14 years	8:50 pm	7:48 am	p. 261
	to 19 years	10:20 pm	6:52 am	p. 261

...Little or no daytime use of bedroom. p. 222

## B. FREQUENCY

...65% of women did not nap during day; most of those who did used own bedroom, for about an hour. p. 230

## VI RELATION TO OTHER FUNCTIONS

## A. CLOSE RELATIONSHIP

	1. BEFORE SLEEPING						
	husbands	wives	infants	babies	pre school	school	to 19
	p 258	p 258	p 262	p 262	p 262	p 262	p 262
Elimination	32%	30%	11%	38%	42%	38%	30%
Washing	16	25	0	22	26	25	30
Undressing	12	11	23	11	9	10	0
Bathing	7	6	35	8	5	11	12
Child Care	1	12					
Other	32	16	31	21	18	16	23
smoke, read, eat, set alarm, etc.							
	2. DURING SLEEPING						

...Only 16% of women sleep straight through the night; tend to child, go to bathroom, both; also eating, drinking and house adjustment p. 230

...\*Only 4% in Alabama trailers and 12% in Virginia trailers did not ever go to toilet at night, in spite of inconvenient toilet facilities (outside public toilets or chambers) p. 294

## VI RELATION TO OTHER FUNCTIONS

## A. CLOSE RELATIONSHIP

## 3. AFTER

	husbands p 259	wives p 259	babies p 262	pre school p 262	school p 262	adolescents p 262
Elimination	42%	41%	55%	60%	57%	48%
Dressing	30	28	18	21	22	9
Washing	16	15	6	6	17	43
Bathing	3	0	0	1	1	0
Child Care	0	9				
Other	9	7	21	12	3	0



Definition: Includes dressing, undressing and changing clothes.

Note: Grooming operations are considered under WASHING--care of the hair, cosmetics, dry shaving, hair cutting, mustache trimming, manicure, pedicure, plucking eyebrows, etc.

## I. SPACE REQUIRED

### A. HUMAN BEINGS DRESSING

..."Bedroom too small" most frequently mentioned "pet peeve" (96 to 138 sq. ft.) p. 223

#### 1. ADULT

##### a. ONE

##### b. TWO TOGETHER

...70% of women state the size of their dressing space is adequate. p. 205

...63% of women preferred large bedroom for dressing and sleeping to small sleeping and small dressing room. p. 205

...80% of women lay out their clothes at night; 40% would do so if they had a place. p. 208

...72% of women lay out their clothes before dressing, usually on bed; 71% state it is more convenient. p. 208

...54% of husbands lay out clothes before dressing. p. 208

...48% of husbands lay out clothes night before. p. 208

...77% of women do not do much walking while dressing and very few mind it. p. 205

...13% of women dress in bathroom (a very small room) in summer. 22% in winter. p. 205, 206

...Husband and wife do most of their dressing in warm weather in master bedroom. p. 206

#### 2. CHILD

#### 3. INFANT

## DRESSING

## I. SPACE REQUIRED

## B. HUMAN BEINGS PERFORMING AUXILIARY MOTIONS

1. ENTERING AND LEAVING DRESSING SPACE
2. PUTTING ON AND REMOVING CLOTHES
3. CLEANING AND MAINTENANCE OF POSSESSIONS, EQUIPMENT AND ENCLOSURE INCLUDING CLOTHES STORAGE SPACE; ALSO AIRING CLOTHES
4. ATTENDING OR SUPERVISING ANOTHER PERSON
  - a. CHILD
 

...65% of children dress themselves between 3 and 4 years. p. 214
  - b. INFANT
 

...Infants are dressed most often in the child's room. p. 206
5. ACCESS TO CLOTHES, ACCESSORIES AND EQUIPMENT CONTROLS
  - a. FROM SEATED POSITION
  - b. FROM STANDING POSITION
6. ACCESS TO EQUIPMENT FOR SERVICING
7. VISITOR

## C. THINGS

## 1. POSSESSIONS

Women	hanging space clothes	3'10" minimum	p 180
	hanging space outerwear	1'3"	
	flat storage	3 (16x34x6) drawers minimum	
Men	hanging space clothes	2'1"	p 181
	hanging space outerwear	1'	
	flat storage	2 (16x34x6) drawers	
Infants	hanging space clothes	8"	p 183
	flat storage	2 (16x34x6) drawers	
Babies 15 mos. to 2 yrs.	hanging space clothes	2'6"	p 183
	hanging space outerwear	6"	
	flat storage	2 (16x34x6) drawers	

# DRESSING

S-20

## I SPACE REQUIRED

### C. THINGS

#### 1. POSSESSIONS (CONTINUED)

Pre-school children 3 to 6 yrs.	hanging space clothes hanging space outerwear- flat storage	2'6" 6" 2 (16x34x6) drawers	p. 184
Girls 6 to 14 yrs.	hanging space clothes hanging space outerwear flat storage	2'7" 9" 2 (16x34x6) drawers	p. 185
Boys 6 to 14 yrs.	hanging space clothes hanging space outerwear flat storage	2'3" 7" 2 (16x34x6) drawers	p. 185
Girls 15 to 19 yrs.	hanging space clothes hanging space outerwear flat storage	4'1" 1'3" 2 (16x34x6) drawers	p. 188
Boys 15 to 19 yrs.	hanging space clothes hanging space outerwear flat storage	1'10" 1'3" 2 (16x34x6) drawers	p. 189

...90% keep other items besides clothes in closets; valises, toys, books, vacuum cleaners, coats, bridge tables, canned goods, folding beds, etc. also soiled clothes and linens. p. 198

...Wife has greater shortage of drawer space than closet space. p. 192

...Bedroom complaint: inadequate closet space. p. 180

...Makeshift storage items (movable closets, trunks, boxes, valises) found in many bedrooms) p. 16

...Most women could not find enough space for soiled clothes and linens. p. 202

#### D. MODIFICATIONS FOR PSYCHOLOGICAL ENVIRONMENT (SEE IV-A-2)

#### E. UNITS PER FAMILY

"Bedroom too small" most frequently mentioned "pet peeve" (96 to 138 sq. ft.) p. 223

## DRESSING

## II POSSESSIONS

## A. KEPT OUT OR IN USE

## 1. ADULT

...Articles kept near bed which might be used while dressing, in order of frequency: clock, cleansing tissue, medicine, smoking equipment, radio, wastebasket, eyeglasses. p. 175

...47% of husbands, 25% of wives smoked while dressing. p. 260

...31% of husbands, 24% of wives read while dressing. p. 260

...Only 1/10 of bedrooms had radio in them but 1/3 of people listen to radio in bed. Half of master bedrooms had lamps--usually table lamps. p. 167, 222

...Most families had shoe cleaning equipment, clothes brush, mending equipment; half had spot cleaning equipment. p. 179

## 2. CHILD

## 3. INFANT

...Only 33 families have baby scales. p. 252

...Accessories: safety pins, powder, oil, cotton swabs, cleansing tissue. p. 182

## 4. DECORATIONS

...Pictures, brush and comb, powder box, perfume bottles are articles most frequently found on bedroom furniture. p. 176

## B. STORED

## 1. CLEAN CLOTHES AND ACCESSORIES

## a. WOMEN'S CLOTHING

## (1) FLAT

...14 handkerchiefs, 8 boxes costume jewelry, 6.4 panties, 5 slips, 4.3 aprons, 4.2 hose, 3.6 blouses, 3.5 brassieres, 3.2 nightgowns, 3 pocketbooks, 2.4 sweaters, 1.6 neckware, 1.4 girdles, 1.2 pajamas, 1.4 shoe cleaning equipment, 1.3

clothes brushes, 1.1 mending equipment

## DRESSING

### II POSSESSIONS

#### B. STORED

##### 1. CLEAN CLOTHES AND ACCESSORIES

###### a. WOMEN'S CLOTHING

###### (1) FLAT (CONTINUED)

.7 playsuits, .6 bathing suits, .5  
spot cleaning equipment. p. 179  
Need 3 (18x34x6) drawers  
...Playsuits most often kept in  
drawers. p. 175

...33% keep blouses in drawers. p. 195

###### (2) ON HANGERS

....4 evening dresses, 1.7 housecoats,  
10.8 dresses, 2.4 skirts, 1.4  
slacks, 1.2 suits, .5 wrappers.  
Need 3'10" hanging space. p. 180

...47% keep blouses on hangers. p. 195

###### (3) ON HOOKS

...81% of nightgown wearers and 56%  
of pajama wearers hang them on  
hooks after wearing. p. 212

###### (4) SHOES AND SLIPPERS

...4.2 shoes, 1.4 slippers. p. 179

###### (5) OUTERWEAR

... 2.8 hats, 2.7 coats, 2 other  
headwear, 2 gloves, .4 rubbers,  
.4 overshoes. p. 179, 180  
Need 1'3" hanging space.

###### b. MEN'S CLOTHING

###### (1) FLAT

...16.3 handkerchiefs, 11.8 socks,  
6.8 underwear, 6.5 shirts, 4.6 work  
shirts, 2.1 polo shirts, 1.9 pajamas,  
1.7 sweaters, .9 shorts or bathing  
trunks, .1 night shirts  
Need 2 (18x34x6) drawers. p. 181

###### (2) ON HANGERS

...3.9 workpants, 2.4 suits, 1.1 slacks,  
1 overall, .7 robe  
Need 2'1" hanging space. p. 181

###### (3) ON HOOKS

## II POSSESSIONS

## B. STORED

## 1. CLEAN CLOTHES AND ACCESSORIES

## b. MEN'S CLOTHING (CONTINUED)

## (3) ON HOOKS

...8.3 ties. p. 131, 211

...51% of husbands hang pajamas on hooks after wearing. p. 210

## (4) SHOES AND SLIPPERS

...3 shoes, 1.1 slippers, 1.3 boots. p. 131

## (5) OUTERWEAR

...2.2 coats, 2 hats, 1.4 gloves, .5 rubbers, .4 overshoes

Need 1' hanging space. p. 131

## c. GIRL'S CLOTHING

## (1) FLAT

Babies 15 months - 2 years

9.7 underwear, 8.2 socks, 5.4 outgrown clothes, 3 playsuits, 2.7 sweaters, 2.4 overalls, 1.9 blouses

Need 2 (16x34x6) drawers. p. 133

Pre-school 3 - 5 years

8 socks, 7.2 underwear, 2.3 playsuits, 2.6 blouses, 2.4 sweaters, 1.5 overalls, 1.2 outgrown clothes

Need 2 (16x44x6) drawers. p. 134

School 6 - 14 years

8.6 socks, 6.3 underwear, 3.2 sweaters, 2.4 playsuits, 1.8 outgrown clothes, .3 overalls.

Need 2 (16x34x6) drawers. p. 135

Adolescents 15 - 19 years

6.3 panties, 5.8 handkerchiefs, 5 blouses, 4.3 sweaters, 4.1 slips, 4 brassieres, 3.8 hose, 1.8 pocketbooks, 1.8 pajamas, 1.3 playsuits, 1.3 neckware, 1 bathing suit, 1 box costume jewelry, 1 giraffe, .8 nightgowns, .8 aprons, .3 shoe cleaning equipment, .5 medicine equipment, .3 clothes brushes, .2 spot cleaning equipment

Need 2 (16x34x6) drawers. p. 138



## II POSSESSIONS

## B. STORED

## 1. CLEAN CLOTHES AND ACCESSORIES

## c. GIRL'S CLOTHING

## (2) ON HANGERS

Babies 15 months - 2 years

10.8 dresses, 1.7 skirts, .7 suits

Need 2' hanging space. p. 183

Preschool 3 - 5 years

12 dresses, 2 skirts, .4 suits

Need 2'6" hanging space. p. 184

School 6 - 14 years

10.2 dresses, 2.6 blouses, 3 skirts

.5 suits

Need 2'7" hanging space. p. 185

Adolescents 15 - 19 years

6.3 dresses, 4.6 skirts, 1.7 slacks,

1.2 housecoats, 1 suit, .4 wrappers,

.3 evening dresses

Need 4'1" hanging space. p. 188

## (3) ON HOOKS

## (4) SHOES AND SLIPPERS

Babies 15 months - 2 years

1.8 pr. shoes. p. 183

Pre-school 3 - 5 years

2 pr. shoes. p. 184

School 6 - 14 years

2.3 shoes. p. 185

Adolescent 15 - 19 years

3.3 shoes, .3 slippers. p. 188

## (5) OUTERWEAR

Babies 15 months - 2 years

2.4 hats, 1.6 full length coats, .7

short coats, 1.2 snowsuits, 1.2 gloves

.3 overshoes, .1 rubbers

Need 6" hanging space. p. 183

Pre-school 3 - 5 years

2.2 hats, 1.8 full length coats, .6 short

coats, 1 gloves, .5 snowsuits

Need 6" hanging space. p. 184

## DRESSING

## II POSSESSIONS

## B. STORED

## 1. CLEAN CLOTHES AND ACCESSORIES

## c. GIRL'S CLOTHING

## (5) OUTERWEAR (CONTINUED)

School 6 - 14 years

2 full length coats, .9 short coats,  
1.5 hats, .5 snowsuits, 1 glove,  
.6 overshoes, .3 rubbers  
Need 9" hanging space. p. 185

Adolescents 15 - 19 years

2.6 coats, 2 hats, 1.8 other headgear,  
1.5 gloves, .4 overshoes, .3 rubbers  
Need 1'3" hanging space. p. 188

## d. BOY'S CLOTHING

## (1) FLAT:

Babies 15 months - 2 years

7.6 underwear, 7.5 socks, 4.8 shirts,  
4 playsuits, 4 outgrown clothes, 3.7  
overalls, 3.4 sweaters  
Need 2 (16x34x6) drawers. p. 183

Pre-school 3 - 5 years

6.8 socks, 5.8 underwear, 4.6 shirts,  
3.3 overalls, 3.1 playsuits, 3  
sweaters, 1.7 outgrown clothes  
Need 2 (16x34x6) drawers. p. 184

School 6 - 14 years

6.7 socks, 4.7 underwear, 2.6 sweaters,  
2 overalls, 1 outgrown clothes, .8  
playsuits  
Need 2 (16x34x6) drawers. p. 185

Adolescent 15-19 years

8.2 socks, 8 handkerchiefs, 7.2 shirts,  
5.1 underwear, 3.1 polo shirts, 2.3  
sweaters, 1.5 pajamas, 1.2 work shirts,  
1 shorts or bathing trunks  
Need 2 (16x34x6) drawers. p. 189

## DRESSING

## II. POSSESSIONS

## B. STORED

1. CLEAN CLOTHES AND ACCESSORIES  
a. BOY'S CLOTHING (CONTINUED)

## (2) ON HANGERS

Babies 15 months - 2 years

4.3 suits, 1.6 trousers

Need 2'3" hanging space. p. 183

Pre-school 3 - 5 years

4.5 suits, 2.8 trousers

Need 2'6" hanging space. p. 184

School 6 - 14 years

5.6 shirts, 4.1 trousers, 1.5 suits

Need 2'3" hanging space. p. 185

Adolescent 15 - 19 years

3.3 workpants, 1.5 slacks, 1.4 suits,

1 overalls, .3 robes

Need 1'10" hanging space. p. 189

## (3) ON HOOKS

Adolescents 15 - 19 years

3.6 ties. p. 189

## (4) SHOES AND SLIPPERS

Babies 15 months - 2 years

1.6 shoes. p. 183

Pre-school 3 - 5 years

2.1 shoes. p. 184

School 6 - 14 years

2.1 shoes. p. 185

Adolescent 15 - 19 years

2.3 shoes, .5 slippers. p. 189

## (5) OUTERWEAR

Babies 15 months - 2 years

2.4 hats, 1.1 snowsuits, 1.1 full length coats, 1 short coat, .9 gloves, .1 rubbers

Need 6" hanging space. p. 183

Pre-school 3 - 5 years

2.4 hats, 1.2 short coats, 1 full length coat, .6 snowsuit, 1.1 gloves,

.6 overshoes, .3 rubbers

Need 6" hanging space. p. 184

## DRESSING

## II. POSSESSIONS

## B. STORED

## 1. CLEAN CLOTHES AND ACCESSORIES

## d. BOY'S CLOTHING

## (5) OUTERWEAR (CONTINUED)

School 6 - 14 years

1.7 hats, 1.4 shortcoats, .7 full length coats, 1 gloves, .2 snowsuits, .4 over shoes, .4 rubbers  
Need 7" hanging space. p. 185

Adolescent 15 - 19 years

2.7 coats, 1 hat, 1.1 gloves, .3 overshoes, .3 boots, .1 rubbers  
Need 1' hanging space. p. 189

## e. INFANTS

## (1) FLAT

40.2 diapers, 5.8 stockings, 3.6 sweaters, 3.5 outgrown clothes, 3.4 shoes or booties, 2.3 hats, 2.4 rompers, 1.7 sunsuits, 1.2 out-of-season clothes  
Need 2 (18x34x6) drawers. p. 183

## (2) ON HANGERS

8.6 dresses.  
Need 3" hanging space. p. 183

## (3) ON HOOKS

## (4) ACCESSORIES

1.7 boxes safety pins, 1.4 cans powder, 1.4 jars of oil, 1 box cotton, .6 boxes swabs, .6 box cleansing tissue. p. 183

## 2. OUT-OF-SEASON CLOTHES

...41% keep clothes that are out of style or do not fit. p. 194

...84% preferred separate closet for out-of-season storage. p. 194

## 3. SOILED CLOTHES

## a. TO GO TO CLEANERS

## b. TO BE WASHED AT HOME

...64% of women do all own washing. p. 203

## DRESSING

## II POSSESSIONS

## B. STORED

## 3 SOILED CLOTHES

## c. TO GO TO LAUNDRY

...Bedlinens, towels and workclothes are mostoften sent to laundry. p. 203

## III EQUIPMENT

...Most master bedrooms had double bed, one or more pieces of storage furniture, vanity or dressing table, night table, chair or bench and often makeshift storage items, such as trunks, and suitcases. p. 167

## A. SPECIAL EQUIPMENT FOR DRESSING - NONE

## B. SUPPORT FOR BODY

## 1. STANDING (FLOOR)

## a. SIZE AND SHAPE

## b. QUALITIES

...54% of master bedrooms, 44% of secondary bedrooms had some form of floor covering. p. 167

...Little change of floor covering of master bedrooms takes place with seasons. p. 173

## 2. SITTING

## a. FOR PERSON PUTTING ON AND TAKING OFF SHOES AND STOCKINGS, DRESSING CHILD, DRESSING INFANT

## (1) SIZE AND SHAPE

## (a) ADULT

...70% of husbands sit while putting on shoes and socks. p. 211  
58% of wives sit while putting on shoes and socks. p. 214

...Bed was found to be more frequently used for seat for dressing. p. 209

...65% of master bedrooms had chair or bench: fewer in other bedrooms. p. 165

...Most women didn't want arms or a back on chair for dressing. p. 210

## (b) CHILD

## DRESSING

## III EQUIPMENT

## B. SUPPORT FOR BODY

## 2. SITTING

## b. FOR VISITOR

## c. FOR RESTING

...17% had easy chair in master bedroom;  
10% in secondary bedrooms. p. 167

...Women did not allow bed to be used as  
seat during day. p. 209

## 3. LYING

## a. INFANT WHILE BEING DRESSED

## b. PUTTING ON CORSETS (SURGICAL)

## C. SUPPORT FOR POSSESSIONS

## 1. KEPT OUT OR IN USE ( SEE II-A FOR LIST )

## a. FOR HANGING CLOTHES BEING PUT ON OR TAKEN OFF

## (1) SIZE AND SHAPE

...20% of women lay out their clothes at  
night; 40% would do so if they had a  
place. p. 208

...72% of women lay out their clothes  
before dressing, usually on bed.  
71% state it is more convenient. p. 208

...48% of husbands lay out clothes  
night before. p. 208

...Husbands underwear, sweaters, shirts,  
frequently on chair before putting on.  
Women take things more often from  
drawers than husbands. p. 211, 213

## (2) LOCATION

## (3) QUALITIES

## b. CLOTHING AND ACCESSORIES

## (1) SIZE AND SHAPE

...Master bedroom had greatest amount of  
storage furniture; all had one or more  
chests or drawers; fewer in secondary  
rooms; high storage pieces more popular

than low ones. p. 167



## III EQUIPMENT

## C. SUPPORT FOR POSSESSIONS.

## 1. KEPT OUT OR IN USE (SEE II-A FOR LIST)

c. INFANTS' POSSESSIONS

d. FOR AIRING CLOTHING

## 2. STORED (SEE II-B FOR LIST)

a. CLEAN CLOTHES

## (1) FLAT (SHELVES, DRAWERS)

## (a) SIZE AND SHAPE

...49% of husbands had sufficient  
drawer space. p. 192

...Wife has greater shortage of  
drawer space than closet space. p. 192

## (b) ARRANGEMENT

...79% of women say clothes are  
conveniently reached in drawers. p. 191

...83% of husbands can reach clothes  
in drawers conveniently. p. 192

## (c) QUALITIES

## (2) ROD FOR HANGERS

## (a) SHAPE AND SIZES

55% of women considered clothes  
closet space large enough. p. 191

...87% of women share clothes  
closets. Usually with husbands.  
Half stated sharing clothes  
closet is all right. p. 192

...68% of husbands had sufficient  
closet space. p. 192

## (b) ARRANGEMENT

...89% of women said clothes in  
closet conveniently reached;  
2/3 of these said it was large  
enough; 1/3 said not. p. 191

## III EQUIPMENT

## C. SUPPORT FOR POSSESSIONS

## 2. STORED

## a. CLEAN CLOTHES ( CONTINUED)

## (2) ROD FOR HANGERS

## (b) ARRANGEMENT

...93% of husbands can reach clothes in closet conveniently  
p. 198

...Reasons for inconvenience in reaching clothes in closets; shelves too high, door on one side, too small, too crowded.  
p. 192

## (3) HOOKS

...Except for pajamas and nightgowns, most people prefer to hang clothes on hangers. p. 196

## (a) SIZE AND SHAPE

## (b) LOCATION

## (c) NUMBER

...Items women prefer to keep on hooks rather than hangers, in order of preference, nightgowns, aprons or house dresses, work clothes, pajamas, robes. p. 196

## (d) QUALITIES

## b. OUT-OF-SEASONS CLOTHES AND ACCESSORIES

## (1) FLAT

## (2) ON HANGERS

...84% of women prefer separate closet for out-of-season or rarely worn clothes; reasons: out of way, protection, separate, convenient, easier to find, keeps cleaner, less work. p. 194

## III EQUIPMENT

## C. SUPPORT FOR POSSESSIONS

## 2 STORED

## c. SOILED CLOTHES

...Most women do their own washing. p. 203

## (1) SIZE AND SHAPE

...No place was provided in dwelling for soiled clothes and most women could not find enough space. p. 202

## (2) LOCATION

...Soiled clothes and linens are generally kept together. p. 203

...81% of women keep baby's soiled linens and clothes together. p. 203

...Soiled diapers most often kept in a pail. p. 203

## D. MIRRORS

## 1. SIZE AND SHAPE

...69% of women use mirror in bedroom for dressing. p. 209

...74% of husbands use bathroom mirror. p. 209

...47% of husbands use mirror for putting on tie.  
14% for putting on shirt. p. 211

...36% of women had full length mirror. p. 209

## 2. ARRANGEMENT

...83% would like triple mirror. p. 209

## 3. NUMBER

## E. UTILITY CONNECTIONS

## 1. NUMBER

...Less than 14% of the men use electric razors. p. 209

## 2. LOCATION

## F. CONTROL OF ENVIRONMENT

## 1. HEATING DEVICE

## DRESSING

## III EQUIPMENT

## F. CONTROL OF ENVIRONMENT (CONTINUED)

2. VENTILATING DEVICE
3. LIGHTING DEVICE
4. OTHERS

## IV ENVIRONMENT

## A. HUMAN

## 1. PHYSIOLOGICAL

## a. HEAT

...Husband and wife do most of their dressing in warm weather in master bedroom, p. 206

...Wife shows greater sensitivity to cold. p. 207

...Cold weather; husband dressed more often in bathroom. p. 206

...In north in cold weather, women change from master bedroom to bathroom for dressing. In south in cold weather women change from master bedroom to living room for dressing. p. 207, 208

... Children under 5, in the north, in cold weather move to living room or bathroom to dress. p. 20

...In northern projects the changes in dressing place for husband and wife is more marked than in the south. p. 207

...Little change of floor covering of master bedrooms takes place with seasons. p. 173

...85% of women prefer wearing slippers to going barefoot for warmth, cleanliness, protection and comfort. p. 212

## b. VENTILATION

...Most women keep bedroom doors open day and night; more in south than in north. p. 219

...47% of husbands and 25% of wives smoke while dressing. p. 260

## IV ENVIRONMENT

## A. HUMAN

## 1. PHYSIOLOGICAL

## c. MOISTURE

## d. ODORS

## (1) FROM WITHIN

...47% of husbands and 25% of wives  
smoke while dressing. p. 260

## e. LIGHT

## (1) GENERAL ILLUMINATION

...Other bedroom complaints; poor  
lighting too few windows. p. 225

## (2) SPECIAL ILLUMINATION

## (3) ILLUMINATION OF STORAGE SPACE

## f. SOUND

## g. SANITATION

## h. SAFETY

...47% of husbands, 25% of wives smoke  
while dressing. p. 260

## 2. PSYCHOLOGICAL

## a. PRIVACY

## (1) FROM NEIGHBORS AND PASSERS-BY

...Half the women say people can see  
into bedroom, and most of them  
mind it. p. 172

...76% keep shades in bedroom drawn at  
night in winter; 37% in summer. p. 219

...9 out of 10 women use bedroom  
curtains winter and summer. 17%  
for privacy. p. 171

## (2) FROM MEMBERS OF THE FAMILY

## b. APPEARANCE AND IMPRESSIONS

## (1) ESTHETIC

## DRESSING

## IV ENVIRONMENT

## A. HUMAN

## 2. PSYCHOLOGICAL

## b. APPEARANCE AND IMPRESSIONS

## (1) ESTHETIC

...9 out of 10 women use bedroom  
curtains winter and summer. 77%  
for decorative value. p. 171

## (2) SOCIAL STANDARDS

## (3) EFFECT ON BEHAVIOR

## (4) EFFECT ON MENTAL STATE

..."Bedroom too small" most frequently  
mentioned "pet peeve". p.223

## B. FOR POSSESSIONS

## 1. FOR STORAGE OF CLOTHES

## a. HEAT

## b. VENTILATION

...Texas liked not having doors on closets  
for preventing mildew. p. 224

## c. MOISTURE

## d. ODOR

## e. LIGHT

## f. SANITATION

..."Not door on closet" second most frequent  
bedroom complaint. p. 224

## 2. FOR AIRING CLOTHES

## V. TIME

## A. DURATION

## B. WHEN

## 1. BEFORE AND AFTER SLEEPING

## 2. CHANGING AFTER WORK

## 3. EMERGENCY CHANGING

## c. FREQUENCY



## VI. RELATIONSHIP TO OTHER FUNCTIONS ( CIRCULATION )

## A. CLOSE

	1. BEFORE DRESSING						
	men	women	infants	babies	pre-school	school	adolescent
	p 259	p 259		p 262	p 262	p 262	p 262
Sleeping	30%	28%		18%	21%	22%	9%

## 2. DURING DRESSING

	Husbands	Wives
Food preparation	6%	70%
Child care	4	62
Cleaning	0	30
Laundry	0	11

p. 260

## 3. AFTER UNDRESSING

	men	women	infants	babies	pre-school	school	adolescents
	p 258	p 258	p 262	p 262	p 262	p 262	p 262
Sleeping	12%	11%	23%	11%	9%	10%	0

...42% of women wash out stockings and such after undressing. p. 204

...68% of men shave before dressing. p. 209

## B. CONFLICTING

...18% of women postponed dressing, 24% postponed washing, 15% rushed dressing and 14% rushed washing in order not to interfere with like activities of other members of family, children more than husbands. p. 214

Definition: Includes washing hands, face, neck, feet, hair, body, brushing teeth, wet shaving, light laundry, and grooming operations not involving water, but producing dirt or litter (dry shaving, hair combing and cutting, manicure, pedicure, trimming mustache, plucking eyebrows, cosmetics, etc.).

## I. SPACE REQUIRED

...Four major bathroom annoyances included the fact that most bathrooms were too small (aver 5' x 7') p. 253

...\*Maryland pre-war houses suggest as bathroom improvement larger rooms. p. 295

### A. HUMAN BEINGS WASHING

#### 1. ADULT

##### a. WASHING HAND, FACE, NECK, TEETH, HAIR, SHAVING, LIGHT LAUNDRY AND HANGING TO DRY

...Greatest annoyance with basin "too small" (average size 18x20 inches) p. 228

...Most women wash hair in bathroom basin. p. 229

...Practically all men shave standing in bathroom. p. 209

...47% hang wet items that have just been washed in bathroom, personal items and some children's things. p. 273

...Majority use kitchen tub to wash clothes. p. 239

##### b. WASHING BODY IN STILL WATER AND DRYING

...82% of women prefer tub to shower. p. 251

...Size of tub considered satisfactory (5'); some think it is too low (16") p. 228

...Majority dry themselves after bathing, part in tub and part out. p. 251

##### c. WASHING BODY IN RUNNING WATER AND DRYING

...58% of men prefer showers. p. 251

...\*Virginia Houses and Maryland War Houses suggests as bathroom improvement: showers p. 295

## I SPACE REQUIRED

## A. HUMAN BEINGS WASHING

## 1. ADULT

## d. GROOMING OPERATIONS

...Half of master bedroom's and 1/5 of other bedrooms had vanity or dressing table. p. 170

...Preference is for grooming, except hair combing, in bathr om. p. 240

## 2. CHILD

## 3. INFANT

## B. HUMAN BEINGS PERFORMING OPERATIONS AUXILIARY TO WASHING

## 1. ENTERING AND LEAVING WASHING SPACE

## 2. PUTTING ON AND REMOVING CLOTHING

## 3. CLEANING AND MAINTENANCE OF POSSESSIONS, EQUIPMENT, q AND ENCLOSURE

## 4. ATTENDING OR SUPERVISING ANOTHER PERSON

## a. WASHING CHILD'S FACE, HANDS, ETC

...84% of mothers with children below 3 wash their hands. About half of these have child stand on stool. p. 252

## b. BATHING CHILD

...In bathing child, 54% of women kneel, 23% stand, 15% bend and 8% sit. p. 252

## c. BATHING INFANT

...Very few women use bathinettes. p. 252

## d. GROOMING CHILD

...Child's nails are trimmed most often in the bathroom. p. 252

## 5. ACCESS TO POSSESSIONS AND EQUIPMENT CONTROLS

## a. REACHING SOAP, TOWELS, ETC.

## b. REACHING WATER FAUCETS, LIGHT SWITCH, ETC.

## 6. ACCESS TO EQUIPMENT FOR SERVICING

## 7. MOVING POSSESSIONS AND EQUIPMENT INTO AND OUT OF SPACE

## 8. VISITOR

I. SPACE REQUIRED

C. THINGS

1. POSSESSIONS (SEE II)

...Bathinette when used kept in kitchen. p. 252

2. EQUIPMENT (SEE III)

...Most medicine chests (.53 cubic feet capacity) were crowded or overflowing. 40% had an equal quantity of items stored elsewhere in closets, kitchen, bedroom, furniture, etc. p. 244-245

D. MODIFICATIONS FOR PSYCHOLOGICAL ENVIRONMENT

E. UNITS PER FAMILY

1. WASHING HANDS, ETC.

...42% of women wash hands and face in kitchen as well as bathroom. p. 251

2. BATHING

3. SHOWERING

...\*Maryland war houses suggest adding showers would be an improvement in bathrooms. p. 295

4. BATHING BABY

II POSSESSIONS

A. KEPT OUT OR IN FREQUENT USE

1. NEEDED FOR WASHING

...6.8 towels kept out in average bathroom: mostly Turkish towels; 3.7 washcloths; 1.7 cakes of soap; 1.5 dentifrices. p. 237

a. WASHING HANDS, ETC.

...Washing hands and face: 96% use soap; 84% , washcloths ; 59% , bath towels; 37% , face towels. p. 251

...Shaving. 2 razors blades, shaving soap and after shave lotion. p. 241

b. BATHING

...71% use bath mat after bathing. p. 232

...A quarter of the families had an extra bath mat stored. p. 238

## WASHING

## II POSSESSIONS

## A. KEPT OUT OR IN FREQUENT USE

## 1. NEEDED FOR WASHING

## b. BATHING (CONTINUED)

...93% had talcum or bath powder. p. 243

...27% had bath salts; 12% had bath oil. p. 243

## c. SHOWERING

...1/4 had one or more bathing caps. p. 243

...93% had talcum or bath powder. p. 243

## d. GROOMING

...Hair grooming: 3.7 combs, 2.3 packages hairpins, hair brush, shampoo, 2 bandeaus, hairtonic, 12 curlers--average for over half the families. p. 242

...Face make-up: powder, lipstick, rouge powder base, cold cream and tweezers found in more than half the homes, about 2 each of powder and lipstick and one each of the rest. p. 241

...Miscellaneous grooming accessories: talcum or bath powder, deodorant, mouth wash, cleansing tissue, toilet water, perfume, are found in over half the homes. p. 243

...Manicuring equipment: 2.4 files, 1.4 scissors, 2.4 polish, 1.2 polish remover. p. 242

...12% had cosmetic stockings. p. 243

...86% use safety razor the rest either an electric or straight razor. p. 208

## e. BATHING INFANT

## 2 NEEDED FOR AUXILIARY OPERATIONS

...27% remove jewelry in the bathroom while washing their hands and face and bathing. p. 251

...63% had hot water bottle, 10% electric heater. p. 240

...68% had fountain syringe. p. 240

...24% had wastebaskets in bathroom. p. 238

...Cleaning powder, cleaning rag, toilet brush, cleaning items most often kept in bathroom. p. 238

## II POSSESSIONS

### A. KEPT OUT OR IN FREQUENT USE

#### 3. FOR DECORATIVE PURPOSES

...80% of bathroom windows had curtains. p. 234

### B. STORED

...Storage space in bathroom was not adequate. p. 243

...Four major bathroom annoyances included inadequate storage space. p. 243

#### 1. EXTRAS

...Average family stores, 8.9 handtowels, 12.5 bathtowels, 10.2 washcloths, 5.2 cakes of soap, 2.1 toothbrushes, 1.3 dentifrices. p. 237

...Over 1/4 had 1.4 extra bathmats stored. p. 238

...Prescriptions and other medicines total 16 bottles or boxes. p. 240

...81% would like to store clean towels in the bathroom. p. 244

#### 2. EXTRA MISCELLANEOUS POSSESSIONS

...1/4 of bathrooms had ashtrays. p. 239

#### 3. POSSESSIONS NOT IN FREQUENT USE

#### 4. SOILED TOWELS, ETC.

...64% of women do all own washing. p. 203

...Bedlinens, towels and workclothes most often sent out to laundry. p. 203

...Most women could not find enough space for soiled clothes and linens, none was supplied in the dwelling. p. 202

...Soiled clothes and linens are generally kept together. p. 203

...81% of women keep baby's soiled linen and clothes together. p. 203

...Half keep baby's soiled linens with other soiled linens, p. 203



## WASHING

### III EQUIPMENT

#### A. SPECIAL EQUIPMENT FOR WASHING

##### 1. FOR WASHING HANDS, FACE, NECK, HAIR, ETC.

###### a. RECEPTACLE FOR WATER

###### (1) SIZE

...Most women wash hair in bathroom basin. p. 229

...46% say greatest annoyance with basin is that it is "too small" (18 x 20 inches) p. 228

...89% judge basin to be right height. p. 227 (31")

###### (2) SHAPE

###### (3) LOCATION IN RELATION TO BODY

...Greatest annoyances with basin include location of basin. p. 253

###### (4) QUALITIES

###### b. CONTROLS

###### (1) FORM

...89% preferred drawing water by turning faucets rather than pressing them. p. 227

...Greatest annoyances with basin include poor plumbing, poor equipment. p. 253

##### 2. FOR WASHING HANDS, ETC. UNDER RUNNING WATER

...91% of women wash hands under running water. p. 251

###### a. RECEPTACLE

###### b. CONTROLS

##### 3. FOR BRUSHING TEETH (SAME AS 2)

##### 4. FOR WASHING BODY IN STILL WATER

###### a. RECEPTACLE FOR BODY AND WATER

###### (1) SIZE

## WASHING

## III EQUIPMENT

## A. SPECIAL EQUIPMENT FOR WASHING

## 4. FOR WASHING BODY IN STILL WATER

## a. RECEPTACLE FOR BODY AND WATER

## (1) SIZE

...Size of tub was generally satisfactory (30" x 5') p.228

...56% had not bone to pick with tub. p. 254

...Women prefer baths to shower. p.251

...Complaints about bathtub: too low (16") p. 228

## (2) SHAPE

...None of tubs had hand grasp; 86% would like one. p. 228

## (3) LOCATION IN RELATION TO BODY

## (a) FOR EASE OF GETTING IN

## (b) FOR EASE OF CLEANING

...38% state tub was difficult to clean. p. 228

...Greatest annoyance with tub include hard to clean. p. 228

...15% put wet umbrellas in bathtub. p. 229

## (c) FOR EASE OF BATHING CHILD

## (4) QUALITIES

## b. CONTROLS FOR ADJUSTING

## (1) FORM

...Complaints about bathtub include poor plumbing. p. 253

...Poor plumbing second most common bathroom annoyance. p. 253

## (2) LOCATION

...92% of the women can reach the faucet while sitting in the tub. p. 229

...All tubs had water entrance and drainage at same end. Half preferred this, half preferred opposite. p. 228

## WASHING

## III EQUIPMENT

## A. SPECIAL EQUIPMENT FOR WASHING

## 5. FOR WASHING BODY IN RUNNING WATER

## a. ENCLOSURE FOR BODY AND RUNNING WATER

## (1) SIZE

...Men prefer showers. p. 251

...\*Maryland war houses suggests  
adding showers would improve  
bathroom. p. 295

## (2) SHAPE

## (3) ARRANGEMENT IN RELATION TO BODY

## (4) QUALITIES

## b. CONTROLS

...Poor plumbing second most common  
bathroom annoyance. p. 253

## 6. FOR BATHING INFANT

## a. RECEPTACLE FOR WATER AND INFANT

## (1) SIZE

...Few women use baby bathinettes and  
those who do, keep them in kitchen.  
p. 252

## (2) SHAPE

## (3) LOCATION IN RELATION TO BODY OF ADULT

...In bathing child 54% of women kneel,  
23% stand, 15% bend and 8% sit. p. 252

## b. CONTROLS

## B. SUPPORT FOR BODY

## 1. STANDING

## a. FOR ALL OPERATIONS MENTIONED ABOVE EXCEPT BATHING

## (1) LOCATION IN RELATION TO EQUIPMENT

## (a) ADULT

## (b) CHILD

### III EQUIPMENT

#### B. SUPPORT FOR BODY

##### 1. STANDING

##### a. FOR ALL OPERATIONS MENTIONED ABOVE EXCEPT BATHING

##### (1) LOCATION IN RELATION TO EQUIPMENT

- (a) ADULT
- (b) CHILD

...84% of mothers with children below 3 wash their hands. About half of these have child stand on stool. p. 252

##### (2) QUALITIES

...Practically all bathroom floors covered with linoleum. p. 232

...Half had a bath mat or rug on bathroom floor. p. 232

...Half had 2x3 mats or rugs on floor in bathroom; more than half where there is no linoleum. p. 232

##### b. FOR BATHING

...71% used bath mat after bathing. p. 232

##### 2. SITTING

##### a. SIZE AND SHAPE

##### b. LOCATION IN RELATION TO EQUIPMENT AND BODY

##### (1) WASHING HANDS, ETC.

##### (2) BATHE BABY

##### (3) SUPERVISING, WASHING

...55% of women need seat in bathroom for attending the child. p. 253

...In bathing child 54% of women kneel, 23% stand, 15% bend and 8% sit. p. 252

##### (4) GROOMING

##### (5) DRYING

##### c. QUALITIES

##### 3. LYING

### III EQUIPMENT

#### C. SUPPORT FOR POSSESSIONS

##### 1. KEPT OUTOR IN FREQUENT USE

###### a. ARRANGEMENT

- ...Four major bathroom annoyances include insufficient towel racks. p. 253
- ...Most children do not have individual towel rack. p. 252
- ...No soap indentation is one annoyance with basin. p. 253
- ...\*Maryland permanent houses suggest as bathroom improvement--more towel racks. p. 295
- ...Towel rack is satisfactory in height. p. 234 (48")

###### b. QUALITIES

##### 2. STORED

###### a. EXTRAS (SEE II-B)

###### b. SOILED TOWELS, ETC.

###### (1) SIZE

- ...Most women did their own laundry. Towels among articles most frequently sent out. p. 203
- ...Most women could not find enough space for soiled clothes and linens since none was supplied. p. 202
- ...Soiled clothes and linens are generally kept together. p. 203
- ...81% of women keep baby's soiled linen and clothes together. p. 203
- ...Half keep baby's soiled linens with other soiled linens. p. 203

###### (2) SHAPE

###### (3) ARRANGEMENT

#### D. MIRRORS

##### 1. WASHING FACE, SHAVING, ETC.

### III EQUIPMENT

#### D. MIRRORS

##### 2. COMBING HAIR

- a. SIZE
- b. LOCATION
- c. ARRANGEMENT

...42% of women use two mirrors when combing hair. p. 209

#### E. UTILITY CONNECTIONS

- 1. HOT AND COLD WATER SUPPLIES
- 2. ELECTRICAL CONNECTIONS

#### F. CONTROL OF ENVIRONMENT

### IV ENVIRONMENT

#### A. HUMAN

##### 1. PHYSIOLOGICAL

- a. HEAT
- b. VENTILATION

...Most find bathroom window satisfactory for ventilation. p. 232

...28% of women say bathroom window does not open easily--mostly due to location. p. 233

...Four major bathroom annoyances include window over tub. p. 253

- c. MOISTURE
- d. ODORS
- e. LIGHT

##### (1) GENERAL ILLUMINATION

...Most find bathroom window satisfactory for light. p. 232

##### (2) LOCAL ILLUMINATION ON FACE

##### (3) FOR STORAGE SPACE



IV ENVIRONMENT

A. HUMAN

1. PHYSIOLOGICAL (CONTINUED)

f. SOUND

(1) NO EXCESSIVE REVERBERATION

(2) CONFINE SOUNDS ORIGINATING WITHIN WASHING SPACE

g. SANITATION

...\*Great dissatisfaction with community trailer toilet and washing facilities due to unsanitary conditions. p. 293

h. SAFETY

...No hand grasps on tubs, 86% of women wanted them. p. 228

2. PSYCHOLOGICAL

a. PRIVACY

(1) FROM NEIGHBORS

...Most find bathroom window satisfactory for privacy. p. 232

...Most bathroom windows are curtained. p. 234

...Most women draw shade when bathing. p. 234

...\*Major improvement suggested for Alabama trailer community toilets and washing facilities: "doors to fixtures" p. 295

...\*Great dissatisfaction with community trailer toilet and washing facilities due to lack of privacy for children p. 294

(2) FROM OTHER MEMBERS OF FAMILY

b. APPEARANCE AND IMPRESSION

(1) ESTHETIC

...Most bathroom windows are curtained p. 234

(2) SOCIAL STANDARDS

## WASHING

## IV ENVIRONMENT

## A.. HUMAN

## 2. PSYCHOLOGICAL

## b. APPEARANCE AND IMPRESSION

## (3) EFFECT ON BEHAVIOR

(a) CONDUCIVE TO CLEANLINESS TO  
SELF AND ROOM

(b) EFFICIENCY OF OPERATION

...One of major bathroom  
annoyances: window over tub. p 253

## (4) EFFECT ON MENTAL STATE

...Women bathe for relaxation. p. 251

## B. FOR POSSESSIONS

1. KEPT OUT

2. STORED TOWELS

3. SOILED TOWELS

V. TIME Note: Usually it is necessary to find out when a function takes place so that the space can be used at other times for other functions. In this particular function, this is probably of little importance. The important factor here is the multiple use of the same fixture by all individuals of the family during brief periods--giving peak-load hours. Specifications call for freedom for each member of the family to use each piece of equipment at any time he feels the need. Solutions will be closely related to requirements for privacy, to space and to economy. Time information will aid in determining number needed per family.

## A. DURATION AT PEAK LOAD HOURS

1. WASHING HANDS, ETC.

...Shaving takes men ten minutes. p. 209

2. WASHING BODY IN TUB

...Most women take baths in the evening; spend 40 minutes in the bathroom; 22 minutes in the tub. p. 251

3. WASHING BODY IN SHOWER

4. GROOMING OPERATIONS

## WASHING

## V. TIME

## B. PEAK LOAD HOURS

...Peak periods for bathroom use occur at mealtimes; the period of most concentrated use comes between 5 and 6 pm. p. 248

...Wife: early morning, late morning, noon, dinner and bed preparation. p. 248

...Husband: early morning, coming home from work and bed preparation. p. 248

...Older children: early morning, lunch hour, coming home from school and bed preparation. p. 248

...Younger children: 3 meal times. p. 248

...43% of women wash hands and face in kitchen as well as bathroom. p. 251

## C. FREQUENCY OF USE AT PEAK LOAD HOURS

...Bathroom is used about 40 times a day; half for toilet usage. p. 248

...During peak load hours, 50% is toilet usage, 40% is basin, 6% grooming and 4% bathing. Fig. 23

## VI. RELATIONSHIP TO OTHER FUNCTIONS

## A. CLOSE

## 1. BEFORE WASHING

Sleeping				pre		
men	women	infants	babies	school	school	adolescents
p 259	p 259		p 262	p 262	p 262	p 262
16%	15%		6%	6%	17%	43%

...42% of women wash out stockings and such after undressing. p. 204

...In general, basin activity follows toilet usage. p. 250

## 2. DURING WASHING

## 3. AFTER WASHING

Sleeping				pre		
men	women	infants	babies	school	school	adolescents
p 258	p 258	p 262	p 262	p 262	p 262	p 262
23%	31%	5%	30%	31%	36%	42%

...68% of men shave before dressing. p. 209

VI RELATIONSHIP TO OTHER FUNCTIONS

B. CONFLICTING

...42% wash hands and face in kitchen as well as bathroom. p. 251

...18% of women postponed dressing, 24% postponed washing, 15% rushed dressing and 14% rushed washing, in order not to interfere with like activities of other members of family, children more than husbands. p. 214

# ELIMINATION

## I. SPACE REQUIRED

### A. HUMAN BEINGS PERFORMING FUNCTION

1. ADULT
2. CHILD

### B. HUMAN BEINGS PERFORMING AUXILIARY OPERATIONS

1. ENTERING AND LEAVING SPACE FOR ELIMINATION
2. REMOVING AND PUTTING ON CLOTHING
3. CLEANING AND MAINTENANCE OF POSSESSIONS, EQUIPMENT AND ENCLOSURE
4. ATTENDING OR SUPERVISING ANOTHER PERSON

#### a. CHILD

...Mother usually stands when taking child to toilet. If she sits, she sits on tub. p. 231

5. ACCESS TO POSSESSIONS AND EQUIPMENT CONTROL S
6. ACCESS TO EQUIPMENT FOR SERVICING (ESPECIALLY PLUMBING)
7. MOVING POSSESSIONS INTO AND OUT OF SPACE

### C. THINGS

1. POSSESSIONS ( SEE II)
2. EQUIPMENT (SEE III)

### D. MODIFICATIONS FOR PSYCHOLOGICAL ENVIRONMENT ( SEE IV-A-2)

### E. UNITS PER FAMILY

...43% of women would like extra toilet for convenience;  
32% for use of children and 25% because of overcrowding  
p. 230.

## II POSSESSIONS

### A. KEPT OUT

#### 1. USED IN PERFORMANCE OF FUNCTION

...18% use special toilet seat for child between 1 and 3 years and keep it in bathroom. p. 231

...31% use potty for child and most keep it in bathroom. p. 231



## ELIMINATION

## II POSSESSIONS

## A. KEPT OUT

## 2. USED IN AUXILIARY OPERATIONS

...Not many keep reading matter or smoking equipment in bathroom but 1/4 had ashtrays. p. 239

## B. STORED

## 1. EXTRAS

...Average family had 3.3 rolls of toilet paper stored. p. 238

...Half had sanitary napkins and 30% had 1.5 boxes stored. p. 243

## 2. NOT IN FREQUENT USE

...9% have bed pan. p. 238

...10% had portable basin. p. 238

...68% had fountain syringe. p. 240

## III EQUIPMENT

## A. SPECIAL EQUIPMENT FOR PERFORMING FUNCTION

## 1. FOR SITTING OPERATIONS

## a. RECEPTACLE FOR EXCREMENT AND WATER

(1) SIZE

(2) SHAPE

(3) LOCATION

(4) QUALITIES

## b. SUPPORT FOR BODY IN SITTING POSITION OVER RECEPTACLE

(1) SIZE

(a) ADULT

...Most women prefer lids on toilet seat for use as seat, sanitation, appearance and protection of children. p. 230

...18% kept a baby toilet seat in bathroom; used between ages of 1 and 3. p. 231

...31% used potty; most keep it in bathroom. p. 231



## ELIMINATION

## III. EQUIPMENT

## A. SPECIAL EQUIPMENT FOR PERFORMING FUNCTION

## 1. FOR SITTING OPERATIONS

## b. SUPPORT FOR BODY IN SITTING POSITION OVER RECEPTACLE

## (2) SHAPE

## (3) LOCATION

...Most considered position of toilet satisfactory. p. 229

## (4) QUALITIES

...More than half had toilet seat cover. p. 231

## c. CONTROLS FOR FLUSHING AND REFILLING RECEPTACLE

## (1) FORM

...Most could hear toilet flush elsewhere in house and almost half minded this. p. 230

...Poor plumbing second most common toilet annoyance. p. 230

...Noisy flushing most common toilet annoyance. p. 229

## (2) LOCATION

## (3) QUALITIES

## 2. STANDING

## a. RECEPTACLE FOR URINE AND WATER

## b. CONTROLS FOR FLUSHING RECEPTACLE

## 3. FOR CLEANING BODY AFTER ELIMINATION

## a. RECEPTACLE FOR WATER

## b. SUPPORT FOR BODY IN SITTING POSITION

## c. CONTROLS FOR ADJUSTING QUANTITY AND TEMPERATURE OF WATER

## B. SUPPORT FOR BODY

## 1. STANDING

## a. LOCATION IN RELATION TO EQUIPMENT

## (1) ADULT

...Mother usually stands when taking child to toilet, up to 3 years. p. 231

## (2) CHILD: STEP

## b. QUALITIES

...Practically all bathroom floors covered with linoleum. p. 232

...About 1/4 had rug on bathroom floor. p. 232, 238

...Half had 2x3 mats or rugs on floor in bathroom; more than half where there is no linoleum. p. 232

## 2. SITTING

## a. FOR PERFORMING FUNCTION ( SAME AS A-1)

## b. FOR CLEAVING BODY AFTER ELIMINATION ( SAME AS A-3 )

## c. FOR SUPERVISING OR ATTENDING ANOTHER PERSON

## (1) SIZE

## (2) SHAPE

## (3) LOCATION

...Mother usually stands when taking child up to 3 years to toilet; if she sits, she sits on tub. p. 231

## (4) QUALITIES

...Cover on toilet lids for comfort when used as seat. p. 231

## C. SUPPORT FOR POSSESSIONS

## 1. KEPT OUT OR IN FREQUENT USE

## 2. STORED

## D. MIRRORS - NOT REQUIRED

## ELIMINATION

## E. UTILITY CONNECTIONS

1. COLD WATER SUPPLY TO RECEPTACLES FOR ELIMINATION
2. ELECTRICAL CONNECTIONS

## F. CONTROL FOR ENVIRONMENT

1. HEATING DEVICE
2. VENTILATING DEVICE
3. LIGHTING DEVICE
4. OTHERS

## IV. ENVIRONMENT (AIR AND ENCLOSURE)

## A. HUMAN

## 1. PHYSIOLOGICAL

## a. HEAT

...Slightly more than half used cloth toilet seat covers for comfort. p. 231

## b. VENTILATION

...Most find bathroom window satisfactory for ventilation, but inconvenient in location. p. 232

## c. MOISTURE

## d. ODORS

## e. LIGHT

## (1) GENERAL ILLUMINATION

...Most find bathroom window satisfactory for light. p. 232

## (2) LOCAL ILLUMINATION FOR READING

## (3) FOR STORAGE SPACE

## f. SOUND - CONFINE SOUNDS ORIGINATING WITHIN SPACE

...Most could hear toilet flush elsewhere in house and almost half minded this. p. 230

...Noisy flushing most common toilet annoyance p. 229

IV ENVIRONMENT

A. HUMAN

1. PHYSIOLOGICAL

g. SANITATION

(1) ENCLOSURE SMOOTH, ETC.

...Most women prefer lids on toilet seat for sanitary reasons. p. 230

...\*Great dissatisfaction with community trailer toilet and washing facilities due to unsanitary conditions and lack of privacy for children. p. 293

h. SAFETY

...Most women prefer lids on toilet seat for protection of children. p. 230

2. PSYCHOLOGICAL

a. PRIVACY

(1) FROM NEIGHBORS

...Most find bathroom window satisfactory for privacy. p. 232

...Most bathroom windows are curtained. p. 234

...31% draw shade when using toilet. p. 234

...\*Major improvement suggested for Alabama trailercommunity toilets and washing facilities: "doors to fixtures". p. 295

...\*Great dissatisfaction with community trailer toilet and washing facilities due to lack of privacy for children. p. 293

(2) FROM OTHER MEMBERS OF FAMILY

b. APPEARANCE AND IMPRESSION

(1) ESTHETIC

...Slightly more than half used cloth toilet seat covers, for appearance and comfort. p. 231

...80% of bathroom windows had curtains. p. 234

## ELIMINATION

IV ENVIRONMENT  
A HUMAN

## 2. PSYCHOLOGICAL

## b APPEARANCE AND IMPRESSION

## (2) SOCIAL STANDARDS

...19% of women wanted toilet lid because "it looks nicer". p. 230

## (3) EFFECT ON BEHAVIOR

## (4) EFFECT ON MENTAL STATE

## B. FOR POSSESSIONS (WHERE DIFFERENT FROM HUMAN)

V. TIME Note: Usually it is necessary to find out when a function takes place so that the space can be used at other times for other functions. In this particular function, this is probably of little importance. The important factor here is the multiple use of the same fixture by all individuals of the family during brief periods--giving peak-load hours. Specifications call for freedom for each member of the family to use each piece of equipment at any time he feels the need. Solutions will be closely related to requirements for privacy, to space, and to economy. Time information will aid in determining number needed per family.

## A. DURATION OF USE BY EACH PERSON

## B. PEAK LOAD PERIODS

...Peak load hours for bathroom occur at mealtime; 7 a.m., 12 noon and 8 p.m. The period of most concentrated use comes between 5 and 8 p.m./ p. 248

...Wife: early morning, late morning, noon, dinner and bed preparation. p. 248

...Husband: early morning, coming home from work and bed preparation. p. 248

...Older Children: early morning, lunch hour, coming home from school and bed preparation. p. 249

...Younger Children: 3 meal times. p. 248

## C. FREQUENCY

...Wives and young children being home during day use toilet most. p. 250

...During the peak load hours 50% is toilet usage, 40% is basin, 6% grooming and 4% bathing. p. 250



## ELIMINATION

## VI. RELATIONSHIP TO OTHER FUNCTIONS

## A. CLOSE

## 1. BEFORE ELIMINATION

	men p 259	women p 259	infants	babies p 262	pre school p 262	school p 262	adolescent p 262
Sleeping	42%	41%		55%	60%	57%	48%

...\*Only 4-12% of trailer adults did not ever go to toilet at night. p. 294

...Going to bathroom one of reasons for women getting up at night. p. 220

...\*Only 4% in Alabama trailers and 12% in Virginia trailers did not ever go to toilet at night, in spite of inconvenient toilet facilities (outside public toilet or chambers) p. 294

## 2. DURING

## 3. AFTER ELIMINATION

	men p 258	women p 258	infants p 262	babies p 262	pre school p 262	school p 262	adolescent p 262
Sleeping	32%	30%	11%	38%	42%	39%	30%

...In general, basin activity follows toilet usage. p. 250



## INTRODUCTION

The problem of housing did not come gradually to the communities affected by war production; it descended suddenly and with force. That approximately one and a quarter million war housing units have been provided for more than three million persons since 1940 indicates the extent of the job. Many of these accommodations were obtained by remodelling existing structures; most of them, however, were newly built. All required speed and had to be made ready despite material and labor shortages.

The influx of war workers increased tremendously the population of many cities since the 1940 census: Mobile increased from 115,000 to over 200,000; Wichita from 127,000 to over 245,000; Norfolk from 130,000 to 280,000 (in addition, there are some 200,000 service men in the area). Smaller cities like Vallejo, California, jumped from 20,000 to over 120,000. Still others, like Vanport, Oregon grew almost overnight from a small rural settlement to a city of more than 40,000 (the second city of Oregon).

This wartime migration and resultant housing have brought about problems that will persist even beyond the war itself—problems not only of houses, but of people.

### Localities Affected

The localities most affected were those having plant facilities that could be expanded for war production or were

well situated by reason of transportation, climate, sources of materials, or, as in the case of shipbuilding, natural location for building new or additional plants. Some were otherwise selected for security and safety reasons.

While expanding production brought new people and increased business to these centers, it was no unmixed blessing. Workers were needed quickly and in such large numbers that the communities were frequently not ready to handle them. Pictures and descriptions in newspapers, magazines and on the screen have given vivid details of the early conditions which arose: the tent camps, shacks and lean-to's; people living in their automobiles, even bedding down in hallways. But these conditions were not conducive to efficient production, a stable labor situation or community well being. The overcrowding and lack of adequate sanitary facilities added a health hazard to the loss of production and made necessary the large volume of war housing.

#### Emphasis on Temporary Housing

It was felt that with the end of specific war production many workers would leave the expanded areas and return to their former homes, and a great deal of emphasis was placed on temporary or demountable buildings, especially in publically financed projects. In addition to the intention to avoid ghost towns, the critical shortage of labor and materials strengthened this attitude. Some projects were of a more permanent nature, but these were largely private or public ones planned earlier

when materials were still available.

### Types of Housing

Various types of housing were provided: trailers, dormitories, row houses, war apartments, single family dwellings. Generally, trailers and dormitories were among the first to be set up when shortages occurred. It was in these and in war apartments that the Federal Government concentrated a great deal of effort because they were temporary in nature and their use would conserve materials and labor. Private builders put most of their endeavor into the more standard family dwellings that could have a post-war use, and which account for about half of the units built for the war housing program--principally through FHA.

Private builders found it increasingly difficult to operate as materials became harder to obtain. This, coupled with the uncertain future of the expanding communities, led them to start withdrawing from the field. At the same time, the need for large family dwellings continued and increased. As younger workers in plants were siphoned off by Selective Service, it became more and more important to provide accommodations for the established family man, whose home obligations were too pressing to be avoided, and who could not utilize small units such as dormitories and war apartments. Working mothers also needed room and care for their children. In many areas it was found that while workers were still being recruited and family units were overcrowded, vacancies existed in

dormitories. The Federal Government had to take the initiative and raise its percentage of family units. Because of critical material shortages the units were kept as small as possible in size and furnished with duration equipment.

#### Construction Methods

All types of construction methods are represented in the production of war housing, from conventional masonry and wood through the different systems of prefabrication, including experimental systems not previously employed. Trailers, of course, were entirely factory-produced. Other mobile units, like the sectional trailer houses, were completely fabricated in the factory and shipped to the site in finished sections. Because of the requirements of speed and large quantity production, broad use was made of the various panel systems of prefabrication, in which panels for floor, wall, roof, etc., were preassembled. In some instances, panels for a complete house were made up at the factory, shipped to the site and assembled. In others, the panels were made up at a field shop on the site itself. Other methods utilized a special pre-cut structural framework in conjunction with large factory-produced insulating wall units.

Since the houses were to be produced in large quantities and generally followed a standard plan, the use of "prefab systems" aided materially in speeding erection by eliminating many of the weather hazards. Large groups of houses in one place further fostered speed in the preparation of site and

foundations on a mass scale, and in installation of utilities.

Shortages imposed frequent changes in construction materials and equipment during the building stage. A project planned with one material in mind would have to be completed in another, showers were substituted for bath tubs and coal stoves for oil and gas heaters.

While conventional and "prefab" war housing differed in erection procedure, they were similar in appearance when the house types were the same. This is also true of demountable "prefab" houses; the main difference between them and the regular "prefab" houses is that the demountable type was assembled so that it could be taken apart more easily--for possible salvage and use elsewhere.

#### Community Services

It was found that it wasn't enough simply to provide additional dwellings for the increased population in the war expanded localities. Other services also had to be increased: transportation, shopping, recreation, schools, health. These are needed in a community to maintain its producing strength in much the same manner as the Army requires various services to maintain its fighting strength. The provision of these facilities intensified the already existing problem, since the additional workers needed to man them, also required housing.

#### General Observations

In view of the many problems that had to be overcome, and despite shortcomings, the general results of war housing are good in terms of meeting basic needs under critical war conditions. The methods employed in building this large number



of houses further demonstrate that low-cost houses produced in quantity are definitely in the realm of possibility.

Although much of the war housing was not intended for permanent use, it compares very favorably with previous housing in the affected localities and could continue to provide suitable shelter. This is particularly true of many single family dwellings which could be altered and further improved by the addition of standard equipment.

Projects are now in areas where the manufacturing plants operate efficiently and have the most up-to-date methods and equipment. Where these plants can be converted to efficient production of civilian goods, there may be continued need for both the present war workers and the war houses.

In view of the possible continued use of war houses and the further possibilities of quantity-produced low cost housing, there are important lessons to be learned about meeting human requirements as a result of this large housing program produced under pressure.

#### War Housing

The following sections contain information on war housing projects included in this study of space requirements. The comments representing tenant reactions may seem weighted on the critical side; they were recorded for purposes of analysis and possible improvement of housing in relation to family needs--not for criticism of the program. Some of the comments would apply also to non-war housing, but the fact that they were made under conditions which the tenants themselves recognized as emergency, emphasizes their importance.



### Trailers

Trailers differ so much from the standard family dwelling, with its separation of sleeping, living room and kitchen activities, that they cannot be considered on the same basis. Trailers have all activities centered in what amounts to one room, with little privacy, no bathroom, and no running water. While they might be used temporarily in a satisfactory manner by a couple, they do not seem to be suitable for families with young children. The complications of family living in trailer projects are discussed in a separate section of the study.

### The Problem

Two major interests were present in conducting the field investigation: (1) to obtain design information by studying minutely the behavior, attitudes and possessions of families in relation to four specific family living functions--sleeping, dressing, washing and bathroom activity; (2) to obtain information, which the National Housing Agency considered urgent, on such in-out house functions as clothesdrying, garbage disposal, behavior and attitudes toward various heating systems, the use of doors, etc., as well as such relationships of the house to the community as orientation and items of a general nature that would lead to tenant satisfaction or dissatisfaction.

It is immediately recognizable that these functions would center in two rooms--the bedroom and bathroom. Although preliminary consideration might lead one to infer that these two rooms are an unimportant part of the dwelling, further thought indicates that more time is spent by the average

individual in these two rooms than in the other two--the living room and kitchen, where leisure activities and eating take place.

Our chief interest was in studying the four functions named rather than the two rooms. Because of their inter-relation and effect upon the integrated picture of family living, these functions actually involve the whole household. It is equally true that leisure and eating activities, although they involve primarily the living room and kitchen, also affect the entire dwelling. However, for the sake of arbitrariness, if a hypothetical individual starts his day with dressing, it is generally true that this takes place in the bedroom. Either during, before, or after dressing, the bathroom is used for washing and other bathroom activities. After he eats, works and indulges in leisure time, he is found again in the bedroom, where he gets ready for sleep.

Emphasis is placed on reporting the activities, attitudes and possessions as we found them, rather than on attempting to change behavior in any way by making it "more efficient". It is probable that within the framework of the present dwelling the individual is functioning with approximately the same degree of efficiency that a so-called "master scheme" could recommend. However, once these behavior mannerisms and attitudes in relation to possessions and equipment are known, new design may be possible. Many findings indicate that slight

changes would induce satisfaction where dissatisfaction prevails. Others lead one to recommend that it might be more advisable "to start from scratch". The statistical evidence offers proof of the desirability of certain improvements.

Due to the enormous amount of data gathered different presentations were possible. Although the prime focus of our attention was on four family living functions, the report results are organized by rooms, because the dwellings studied were so designed.

After an account of the equipment and possessions in the bedroom and bathroom is made, the functions of dressing and sleeping, and washing and bathroom activities respectively, are considered. It is believed possible in this manner to show the relation of these functions to the total dwelling.

## PROCEDURE

A nation-wide study of specific functions of family living in selected war housing communities was conducted under a contract with the Office of Production Research and Development to obtain both quantitative and qualitative information that would be useful as a basis for dwelling design. The cooperation of the National Housing Agency in achieving the purpose was very helpful.

### Construction of Forms

Based upon the experience gained in previous studies, a new set of forms was developed. Three of these forms were aids in conducting guided interviews:

I. Basic information concerning the families studied, such as type of dwelling lived in, number of people in the family, ages, previous dwelling history, etc. (See Appendix A - Form 1)

II. 200 specific questions related to such basic functions of family living as sleeping, dressing, washing, and elimination, with the sole purpose of securing data pertinent to dwelling design. (See Appendix A - Form 2)

III. Specific information of special interest to the National Housing Agency related to house and community problems: clotheslines, garbage collection, outside storage space, automobile parking, location of the house in relation to view and climatic conditions, and general reactions of families to their

residence in the community. (See Appendix A - Form 3)

In addition, two forms for obtaining inventories of possessions were constructed:

- (1) Bedroom furniture, clothes storage space (both closets and drawers), items used in relation to washing and grooming, and medical accessories. (See Appendix A - Form 4)
- (2) The entire family's clothing and linens. (See Appendix A - Form 5)

The final form, which was to be completed by members of the families on a voluntary basis, was a log, or chronological record, of the individual's activities related to sleeping, dressing and bathroom use. (See Appendix A - Form 6)

Detailed discussions were held during the development of these forms with the Federal housing authorities, and all items which were considered objectionable or conducive to embarrassment were deleted. Preliminary try-outs were conducted with a number of people to determine the clarity of questions and possible further objectionable items that had been over-looked, and to ensure that the length of the interviews would permit conforming to the plan of not spending more than three hours with each housewife.

Although it was desirable to maintain uniformity in the forms, we recognized that during the field work certain modifications might become necessary in the different communities, and a general principle permitting such was established.



Questions were omitted if, for instance, one which might otherwise be innocuous, led to sensitivity in a local area, or it became obvious that reliable or truthful answers were not being given to specific questions. It will be noted in Appendix A that certain items were omitted consistently. Actually more was gained than lost through this policy.

In the construction of the forms, the questions were so phrased as to be broad enough to include such types of dwellings as temporary, demountable or permanent structures. Trailers were also studied, but presented such a vastly different picture that a different questionnaire was used. This material will be reported in a later section due to the nature of the serious problems produced by trailer communities.

#### Selection of Communities

The following factors were considered in the selection of the war housing communities to be studied:

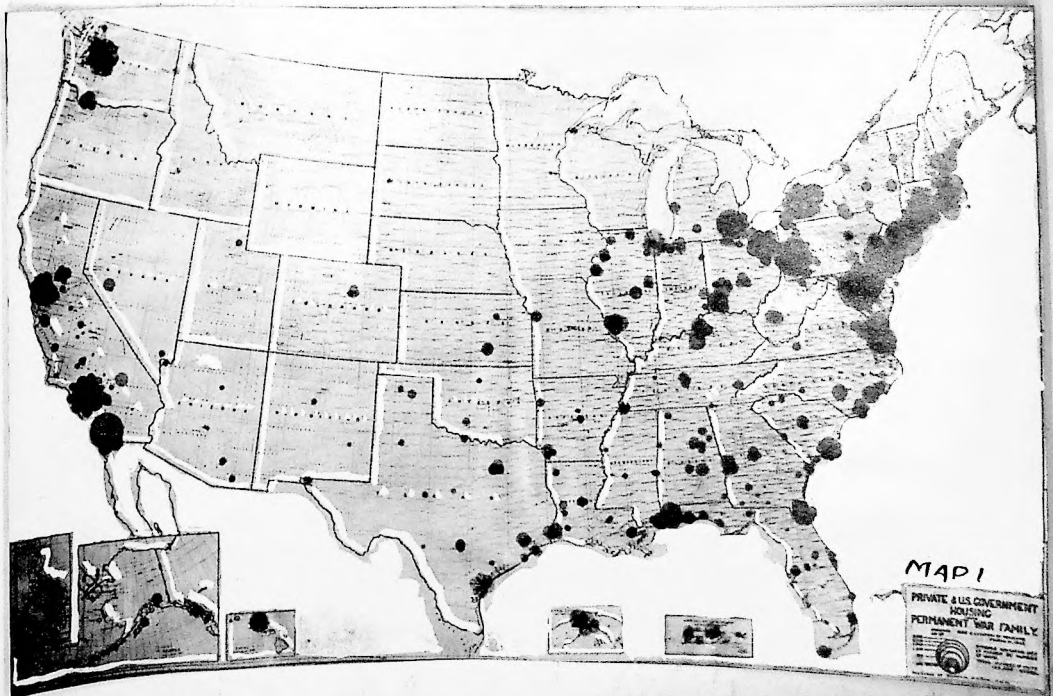
1. Geographical and regional representation for national sampling.
2. Location in intense war housing areas.
3. Qualifications for typical sampling of various kinds of war housing, to include trailers, demountable homes, temporary dwellings, slum clearance projects and permanent dwellings of the single family row houses and multiple dwelling variety.
4. Interest and variety in architectural features, to include not only "middle of the road" dwellings but also those with modern variation.

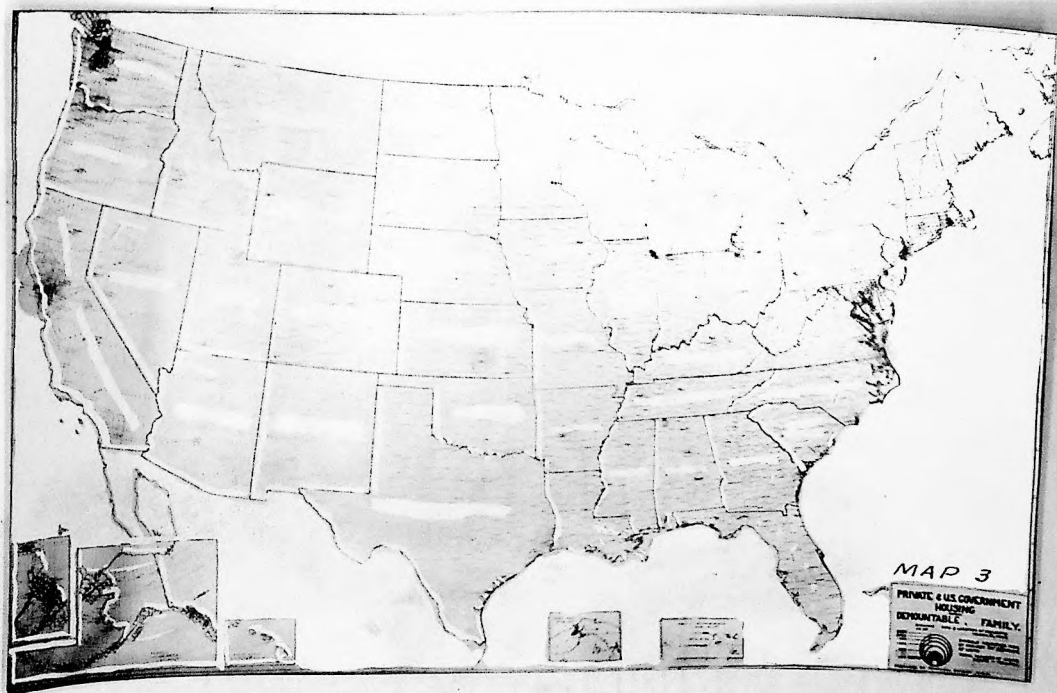
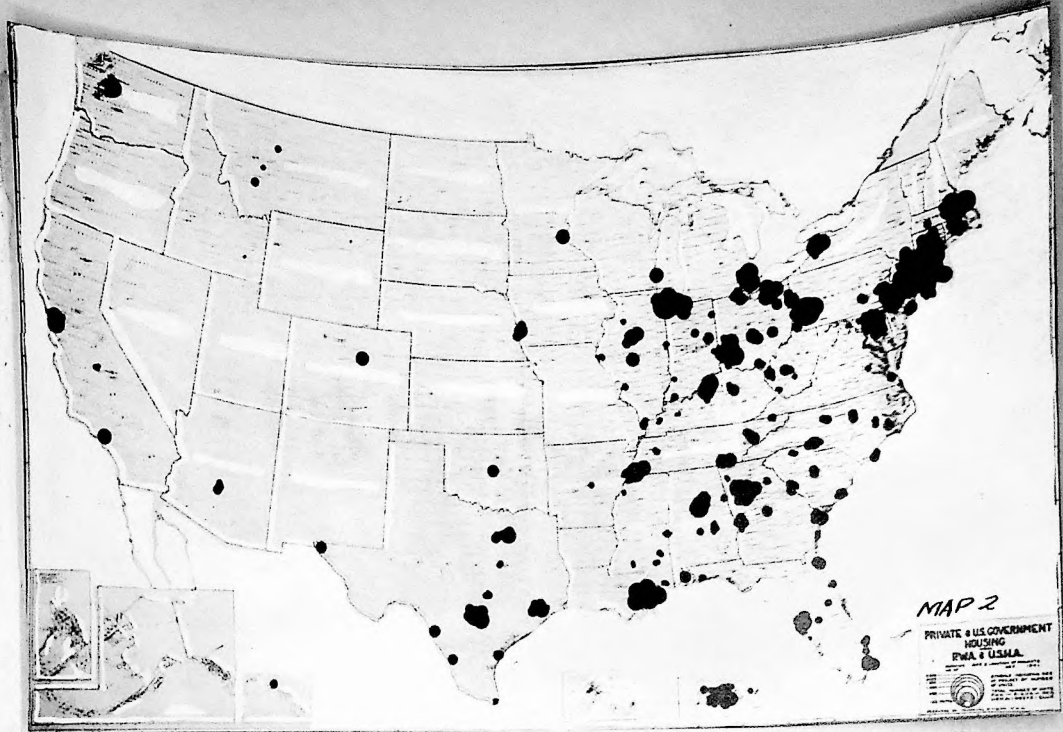


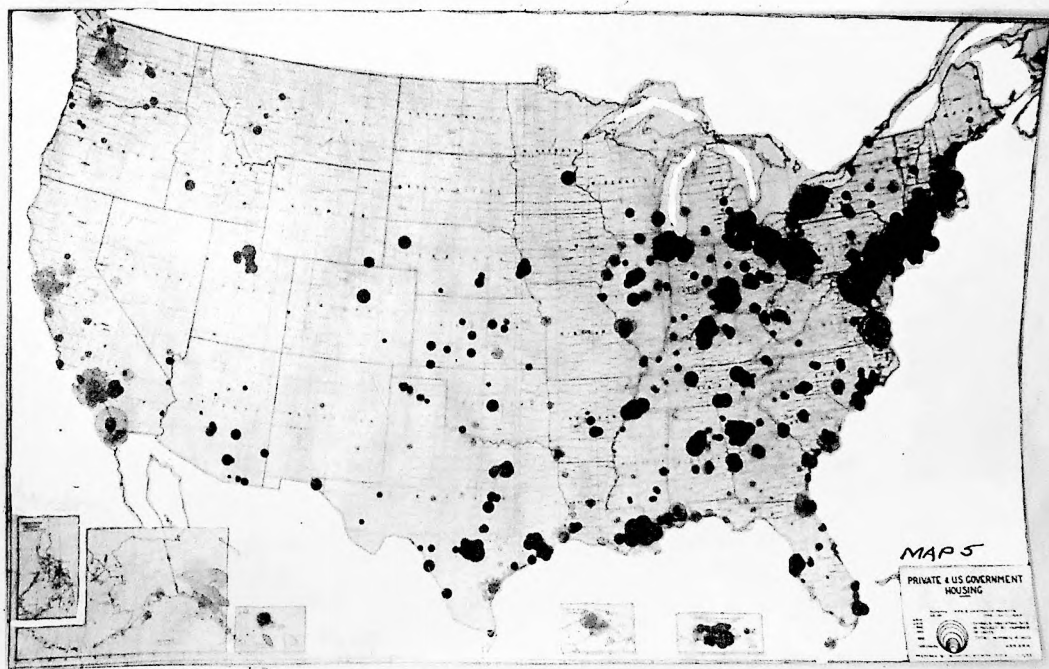
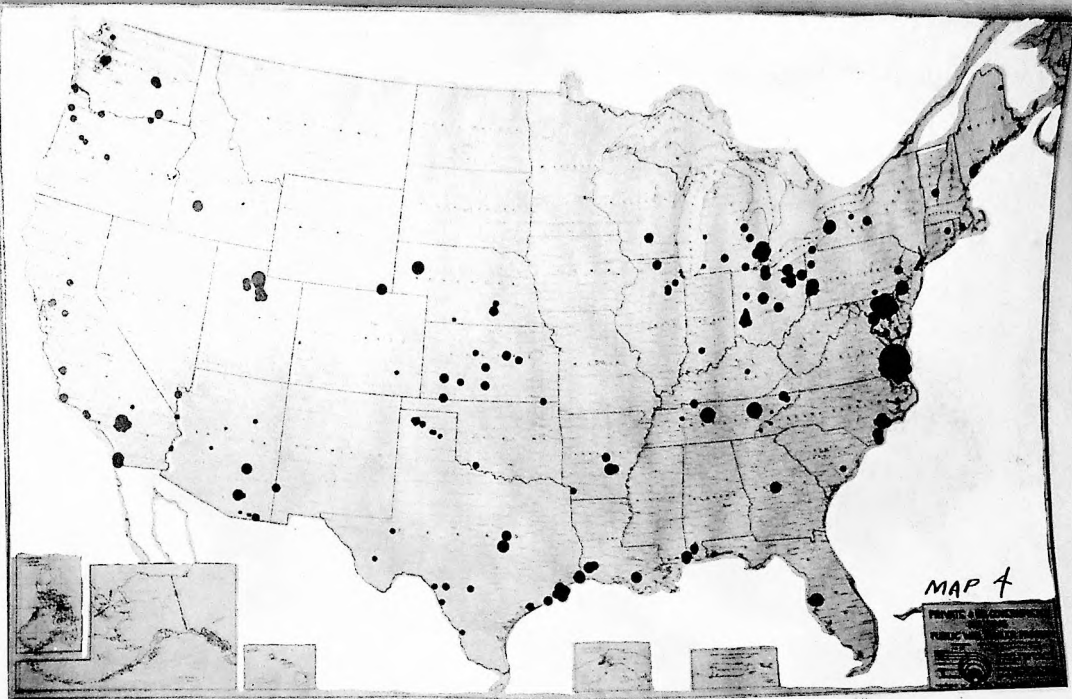
That the communities be readily accessible by railroad and furnish living accommodations for the field staff were incidental administrative factors requiring consideration.

Considerable assistance in community selection was gained through examination of the following maps (with particular emphasis on Map 5) prepared by the National Housing Agency Technical Division:

- Map 1. Intensity of private and government housing for permanent war families
- Map 2. Private and government housing of the PWA and USHA variety
- Map 3. Demountable private and U.S. government housing
- Map 4. Private and U.S. government housing - trailer type
- Map 5. Composite

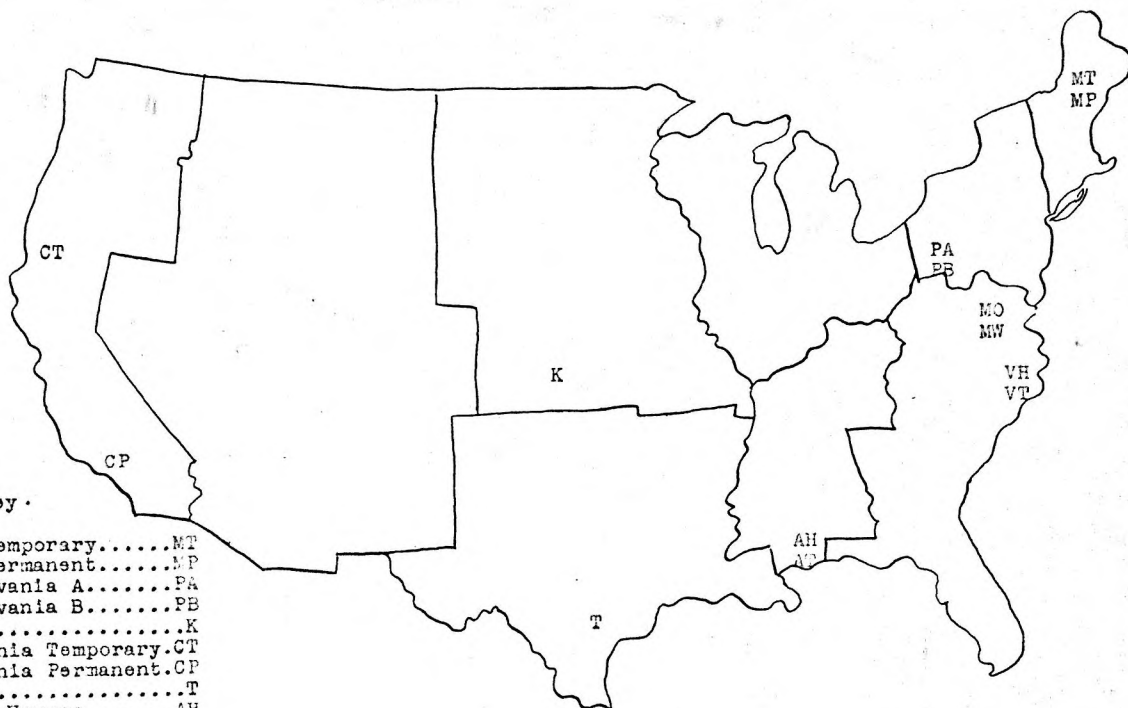






These maps revealed that the Northeastern U.S., Pennsylvania, Great Lakes, Middle Atlantic Seaboard, Central Gulf and West Coast regions demanded attention because of the intensity of building but the large Middle West area, where extensive building had been done (although its intensity was scattered) also had to be considered. Certain communities were suggested from the purely architectural point of view due to the significant variations in dwelling types represented.

Of the 20 communities initially selected, the 12 that were dropped because of various eliminating factors were: Middle River, Portland, Sebring, Knoxville, Dallas, Beaumont, Detroit, Portsmouth, Windsor Locks, Seattle, LaPorte and Fontana. The eight areas chosen were situated in the following states: Maine, Pennsylvania, Kansas, California, Texas, Alabama, Virginia and Maryland. Map 6 presents the location of the projects included in the survey. The abbreviations used on the map are explained in the key and these symbols will be used in all tables, maps and graphs.



## Key.

Maine Temporary.....MT  
 Maine Permanent.....MP  
 Pennsylvania A.....PA  
 Pennsylvania B.....PB  
 Kansas.....K  
 California Temporary.....CT  
 California Permanent.....CP  
 Texas.....T  
 Alabama Houses.....AH  
 Alabama Trailers.....AT  
 Virginia Houses.....VH  
 Virginia Trailers.....VT  
 Maryland Pre-War.....MO  
 Maryland War Houses.....MW

## PROJECT AREAS STUDIED

ap 6

Initial contact in the field was made by two letters directed to local managers, one from a National Housing Agency official explaining the general plan and asking for any assistance possible, the other from the director of the Field Study outlining the procedure and (if cooperation was secured) requesting the completion of a brief questionnaire which served



as the basis for furnishing a list of tenants in two-bedroom dwellings units or larger. An introductory letter (See Appendix A - Form 7) was sent to each tenant approximately two weeks in advance of the arrival of the interviewers, who called on as many as necessary to obtain their case loads. Families were selected on the basis of the following six items:

1. Dwellings were to be two-bedroom size or larger, with the exception of trailers.
2. Only one more person than the number of rooms could live in the dwelling. For example, if more than five people lived in a four-room dwelling the family was not eligible.
3. All people living in the dwelling must be related except that one roomer per family was allowed.
4. Only part-time domestic help could be employed by the housewife. (With the shortage of help within these areas, this qualification became an academic one.)
5. Night workers and rotating shift workers as well as day workers, were included.
6. The presence of chronic invalids or physically handicapped people in the dwelling made the family ineligible because it was believed that these individuals required special space considerations not ordinarily found in the average home.



Perhaps the most important administrative aspect of the study was obtaining the families' cooperation and making it clearly understood that this was not another "inquisition", but rather an attempt to gather information--which only they could give--that would be useful in planning more adequate space for family living. As previously indicated, no pressure was exerted on the housewife at any time. That the information she gave was entirely voluntary was demonstrated to her repeatedly by the interviewers' attitude and willingness to omit specific questions she preferred not to answer. Although management was aware of our essential purpose and gave us support, the fact that the study was conducted independently strengthened our position in the community; management could not be held responsible for possible reverberations, and the tenant felt assured that her comments would be unidentifiable by management. The proof of the satisfactory acceptance of this study is indicated by the less than 2% drop-out rate.

An important part of the procedure involved the giving of \$2.50 in War Stamps to each family who cooperated on the study, and perhaps helped to foster good will.

#### Staff

In addition to the Director, a Field Supervisor, Chief Statistician, Secretary, eleven field interviewers (one of whom served as Assistant to the Field Supervisor) and nine statistical clerks (one of whom was Assistant to the Chief Statistician) were required to conduct the study.

The principal qualifications for the interviewers centered on personality, intelligence and appearance. Previous travel experience was considered an asset. We aimed at choosing women whom housewives would enjoy receiving into their homes. Previous experience had led us to feel that the market research interviewer or social worker would not receive consideration; the former was found to be too superficial for our needs, and the latter's point of view led her more often to recommend changes than record behavior as such.

Analysis of the interviewers' records indicates that all were either college trained or had a degree. Their previous job experience varied. More than half had taught, and all at one time had held positions requiring ability beyond the typical routine job. All had travelled extensively. The age range represented was: two each in the twenties and thirties, six in the forties and one over 50 years. Their backgrounds were representative of the United States. (Two were born in New York, two in Ohio and one each in Texas, Wisconsin, Illinois, Iowa, Missouri and Pennsylvania; one was born out of the U.S.) Their outstanding characteristic was their interest in people and in the type of work they were undertaking.

Three criteria are available for judging the interviewers' efficiency:

1. Percentage of qualified families, refusals and drop-outs.
2. Supervisor's ratings.

3. Statistician's evaluation of the adequacy of completed folders.

Results obtained from ranking performances on the first criterion (an objective one) agree in general with the other two subjective ratings. Before these data were available, the Director chose four interviewers to remain on the staff; three of these ranked 3, 4 and 5. The top ranking two were considered good, but one was not available and the other was a minor personality problem to the Supervisor. Both were the most talkative persons in the group and gave the impression of being somewhat superficial, although accurate in detail. The next three were thorough and considered more subdued. The second half of the group was subjectively rated as such, although there was little difference between the top interviewer and the lowest ranking one. All interviewers were distinctly satisfactory and would be rehired if available for future studies. The original staff completed the three month's field trip.

Training of Field Staff

In view of the originality of the work and the necessity to hire a staff without specific experience, a one-week training meeting was held. The first day was devoted to general orientation and presentation of background material. Two government housing agency speakers indicated their point of view on the value of the study and a housing authority director presented his estimate on its worth to housing groups.

The remainder of the week was spent in instructing the staff on the use of the specific forms, the reasons for including certain items, methods of recording and conducting interviews, and attitudes toward the housewife. Each interviewer's experience and difficulties were discussed following an assignment of completing various forms with actual subjects. Information was given on such personal items as clothes, hotel arrangements, addresses for receiving mail in the field, salaries and food allowances.

Railroad accommodations for both day and night travel were arranged well in advance, allowing considerable leeway for late train schedules or changes. A \$3.00 per day food allowance was paid to each interviewer in addition to a weekly salary. Such petty cash items as travel expenses to and from projects, telephone calls and gratuities, considered a necessary part of the job, were honored.

Although questions and procedure changes were to be discussed, and supplementary material distributed if necessary, at weekly staff meetings in the field, a 14-page manual incorporating such essential topics as description of the survey and forms used, conditions of work, conducting interviews and recording information (including codes and abbreviations acceptable) was given to each interviewer for reference on policy in the field.

#### Field Trip

The Director visited each community in advance of the

staff for the purpose of establishing personal contact with the housing authority and project manager and of preparing a project report to be sent to the Field Supervisor familiarizing her with such details as number and description of the people and dwelling units, their occupations, their relationship to the community, community facilities (stores, schools, hospitals, churches) and transportation schedules. She was also informed on the personalities to be encountered in order to help the group avoid possible personal difficulties. Approximately two and one-half working days were spent in each community. More leeway in the schedule and allowance for stopovers would have been advantageous. These preliminary visits proved to be profitable. A number of projects originally chosen were changed after the Director's survey, and permission to conduct the study was not obtained in one community until this personal contact was made.

Arrangements were made in each project for office or desk space to be used as headquarters during the survey. Satisfactory hotels accessible to the projects were selected. Adequate arrangements were made in all communities except one, where the staff stayed at a dormitory of the housing authority. Reservations for four single and four double rooms were made. Since almost all the interviewers preferred to room alone at some time, a rotating room schedule provided each with equal opportunity to do so.

The field staff adhered to a rigid schedule, spending approximately seven days in each community. Five days were required to conduct field work, the sixth day being included to ensure extra time for unforeseen contingencies, and the seventh day was the "day off". It is recognized that an additional day in each community should have been allowed for editing the material, the necessity for which made inroads on the interviewers' personal time.

Each interviewer was supplied with a list of 30-40 families, on ten of which she was to complete interviews. The field staff approximated this case load, although it was impossible to insist that each interviewer meet this quota due to the necessity of leaving communities on scheduled time. Although each interviewer was free to make appointments at her convenience, the following procedure was recommended:

<u>1st day</u>	3 families	First interview:	Basic material (Form 3) Supplementary Form (Form 6) Furniture Inventory (Form 6) Leave Clothes Inventory (Form 7) for house- wife to complete
<u>2nd day</u>	3 families	Second interview:	Collect Clothes Inventory Conduct lengthy question- naire (Form 4) Give War Stamps Logs (Form 5) were left if the family wished to fill them out, to be collected the next day.
	2 families	First interview	
<u>3rd day</u>	2 families	First interview	
	2 families	Second interview	



<u>4th day</u>	2 families	Second interview
	3 families	First interview
<u>5th and</u>	3 families	Second interview
<u>6th days</u>		In case of drop-outs or failure to keep appointments, interviews were completed with as many families as possible to meet the case load

#### Statistical Staff Procedure

Forty pages of forms were gathered on each family. Each item required an accurate tally and many items would be meaningful only when inter-related. The criteria used in selecting the best tabulating system were: permanence of records, ready reference, time-saving method. Investigation of four tabulating systems indicated that for the amount of complex material to be handled the hand sort tally used previously would be the most economical. Masks, or codes of answers, for each item were constructed by the Chief Statistician to fit over the tally sheets (approximately 355 for each project). Each tally sheet was recorded on a summary sheet, on which the necessary statistical computations were made. Total tally sheets for each item on all projects were assembled and comprise the statistical basis for this report.

## COMMUNITIES

Fourteen housing projects were studied in nine different communities. Map 6 indicates their general location. In order to keep the specific projects anonymous each is identified only by the name of the state in which it is located.

Most families lived in row house dwellings, each apartment of which had its own entrance, although there was a party wall between adjoining apartments. In only two projects were the majority of tenants housed in the two-family house. Most of the houses included in the study were one and two story dwellings (some of which were duplexes); there were also a number of three story structures. A brief factual description of each project follows. In addition, the interviewers' opinions are also included.

Although this survey is primarily a quantitative analysis of data on the war housing it was felt that the interviewers' individual impressions of the communities would be valuable for their spontaneity and human aspects. At the end of each week spent in a community each interviewer was asked to submit a written report of her immediate personal reactions to the people and the outstanding features of the project. These reports have been summarized and added to community descriptions.

In synthesizing the material an attempt has been made to compress the predominant impressions of the majority

of the interviewers. However, when there was no clear-cut agreement among them, all views are recorded.

It is readily recognized - and should be emphasized - that this material has limitations because of its subjective nature. The reports showed a variety of opinions, each related to the individual interviewer's adjustment in the community as well as the response each secured from the families in the particular section assigned to her.

The data have been categorized by project into the following five general sections in order to make comparisons between projects possible:

- I. Description of the people who live in war housing. Comments on their geographical origins, cultural and social characteristics, as well as their attitudes toward the study.
- II. Attitudes of tenants toward war housing communities. Interviewers' impressions of the community atmosphere, the tenants' sense of permanency and intention to remain in the community after the war.
- III. Tenant participation in community life. Tenants' social relationship to each other and the community as a whole, the community interests and organization, use of community buildings and the role of management.

IV. Report on features inside the house.

Tenant and interviewer reactions and suggestions on such details as the construction, floor plan, closet and storage space.

V. The house in relation to the community.

Physical aspects and impressions: site, landscaping, clotheslines, garbage collection, fuel storage, transportation.

Each category does not have equal weight in the report since in the opinion of the interviewers' some factors take precedence over others in individual projects.

It is believed that the general ideas expressed by the group may be evaluated more effectively if specific projects are not identified. Therefore, reference to each project will be made only by locating the state in which it is situated.

MAINE TEMPORARY

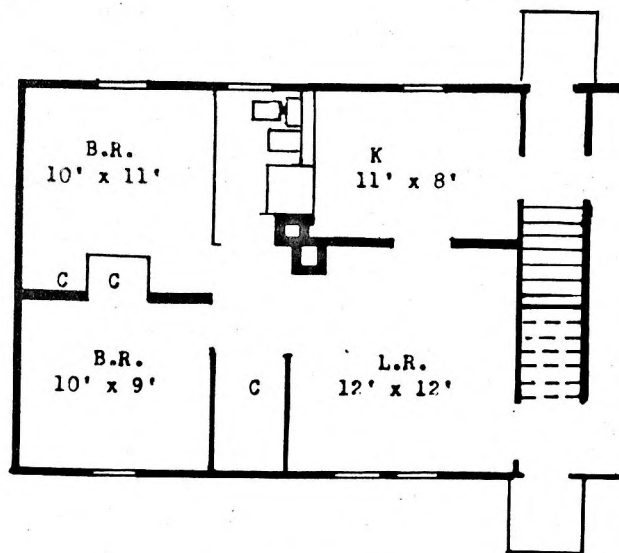


This project is located about three miles from a city and is one mile from the bus stop at the end of the line.

It comprises 500 units (204 one-bedroom, 204 two-bedroom, 92 three-bedroom) in 74 two-story temporary wood frame row houses, with six to eight families in each building. Coal is used for cooking, hot water and house heating.

Fifty-four families cooperated on the study.

A typical two-bedroom unit floor plan is illustrated in Figure A.



MAINE TEMPORARY

Figure A

There is a community building within the project and outdoor recreation areas for children and adults. The grade school is located about a mile away in the Maine Permanent project. There are no stores nearby and churches are from one to two miles away.

### Interviewers' Comments

#### I. Description of the people

The people - a highly individualistic group - originally came from upstate, or "backwoods" Maine, and had been in the project and their jobs, since "preparedness". Interviewers observed the expression of this individuality in home furnishings, despite their avowed intention not to remain in these houses longer than their jobs demanded. Many had brought pieces of family furniture and knick-knacks which evidently were strongly associated with their "down Maine" traditions.

#### II. Attitude of tenants toward war housing communities

The general impression given by the people was discontent, coupled with a dogged resolve to "put up with their lot" until the end of the war permitted them to return to their home communities.

#### III. Tenant participation in community life

A large community building was provided but the tenants' comments indicated that it was not used and therefore did not encourage interest or participation in community life.

#### IV. Report on features inside the house

The interviewers felt that the houses had not



been well thought out -- merely hurriedly "thrown together" without consideration for the activities of the families who were to live in them.

Flimsy construction, narrow staircases, and large, overheated coal stoves contributed to the major factor in the families' dissatisfaction with their houses -- fear of fire. This was pronounced among tenants in upstairs apartments, which had a narrow stairway and single exit shared by two families.

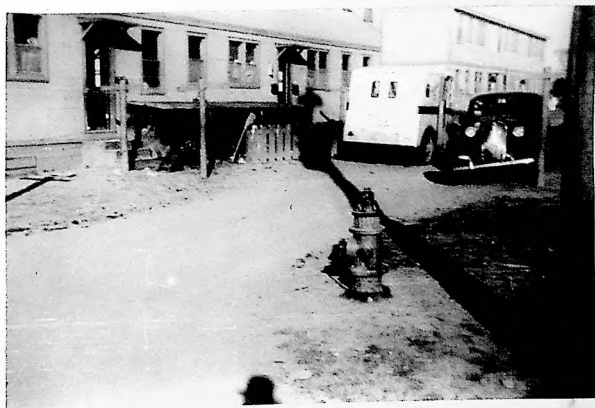
All of the bedrooms (10 x 9) were small. When there was a double bed in the room it had to be pushed directly against the wall, and then there was room only for a small chest. Most living rooms had day beds for the use of a child or guest.

#### V. The house in relation to the community

Although the site had been well chosen the first impression was one of dreariness. The bleak outline of the houses of nondescript architectural design, the drab color and lack of landscaping contributed to this composite picture.



Dreariness



Traffic street

The original plan to have the houses face safety streets (with service entrances facing traffic streets) seemed to the interviewers to be good, but in actual performance it failed. Frequently the safety street side (front) was not used -- family, guests and delivery men mainly entering via the traffic street side (rear). The children played in the rear, mostly in the streets. The tenants seemed bewildered as to why their houses had been "built backwards". One interviewer stated that many families thought they were not permitted by management to use the front door because it would prevent grass from growing. The front yards were deeper than the back yards although they had not been planned for as many activities.

The need for better transportation facilities, a closer school and shopping area, was expressed strongly. Children attended school only half a day due to the crowded conditions in the school which was located a mile away.



Mud and clotheslines

The yards, walks and roads were still unimproved and there was considerable mud. Clothesdrying yards were located too near to the roads; many housewives did not dry their clothes outdoors because cars and trucks passing by splashed them with mud.

#### MAINE PERMANENT



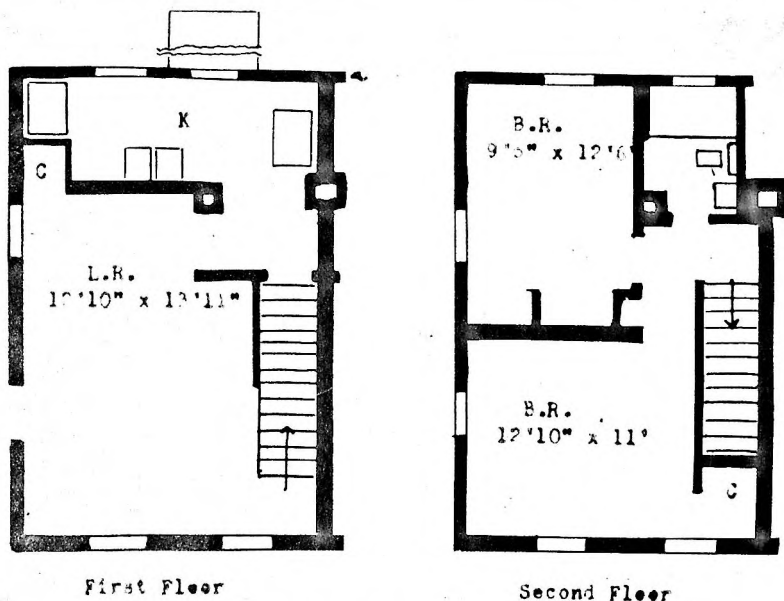
This project is located one mile closer to the city than Maine temporary and also is on the bus line.

There are 500 one and two story units (50 one-bedroom, 300 two-bedroom, 150 three-bedroom) of permanent wood frame construction. The houses have pitched roofs and

are uniform in appearance. Coal is used for cooking, hot water and house heating.

Thirty-nine families cooperated on the study.

A two-bedroom unit floor plan is illustrated in Figure B.



MAINE PERMANENT

Figure B

A community building, shopping area and grade school are in the project, and outdoor recreation areas for both children and adults are provided. Churches are nearby

The city hospital is approximately four miles away.

### Interviewers' Comments

#### I. Description of the people

Tenants had been recruited from rural parts of Maine and New England states in the immediate vicinity. They are reserved, self-determined, independent and thrifty. Several interviewers felt that although they were received cordially by the housewives, it was not through understanding of the aim and purpose of the study, but rather out of curiosity or loneliness.

#### II. Attitude of tenants toward war housing communities

The tenants regard their present mode of living as a temporary expedient for the duration, and spoke often of plans for "going home". A majority lived formerly in large, roomy, old-fashioned houses with parents or in-laws and were "homesick". One interviewer stated that although she had been told 60% of the families planned to remain at the end of the war, whenever she asked whether they intended to stay permanently, the answer was something like this: "Lord, no!"

#### III. Tenant participation in community life

There was little feeling of community interest. The people appear to be isolated from one another and seldom spoke of social contacts, participation in community life, or the desire for or advantages thereof.

The interviewers considered the management cooperative and genuinely interested in the welfare of the

tenants. However, they felt it might be difficult for it to enlist the cooperation of the tenants for project improvement because they regarded their present quarters as temporary only and were unwilling to give any thought to it.

A small but energetic nucleus had formed a tenant organization. It collected funds both through various tenant activities and the project newspaper for planned playgrounds and a skating rink. One interviewer reported a talk with one of its members who was proud of their activities. He remarked, "We want the best for our children in this community and we are going to give it to them by organizing nursery schools, playgrounds, etc., -- and we want to pay for it."

#### IV. Report on features inside the house

In the two-family dwellings one apartment gets much more sun than the other and consequently is much brighter. The interviewers feel that this influences the attitudes of the tenants accordingly.



One Side Gets More Sun



In general the interior of the house (especially the bedroom arrangement) has been well-planned with the exception of the following two major discrepancies:

1. Arrangement of living room and kitchen. The kitchen is too small to provide space for eating, which these people prefer to do in the kitchen. Furthermore, the location of the door at the extreme right end of the kitchen-living room wall makes it difficult to serve meals in the living room.

2. Storage space, indoor and outdoor.

Due to the extreme Northern climate, tenants have much heavy outerwear and need extra closet space to accommodate such bulky clothing. In addition, outdoor storage space (a shed or partially protected porch) is desirable for such items as bicycles, children's large play objects, work clothes, clothes baskets, as well as for clothes drying during bad weather or winter months.



### They Need Storage Space

The following complaints were general

1. Omission of doors on clothes closets.
2. Kitchen: shelves out of reach and lack doors:  
insufficient work and storage space; broom  
closets omitted.
3. Poor plaster on walls.
4. Drafts from windows.
5. Safety menace of narrow, dark stairs from the  
kitchen to the basement.



Pitched Roofs - - And Monotony

#### V. The house in relation to the community

The house design conforms to the local architectural tradition, characterized by pitched roofs, frame construction and uniformity of exterior finish.

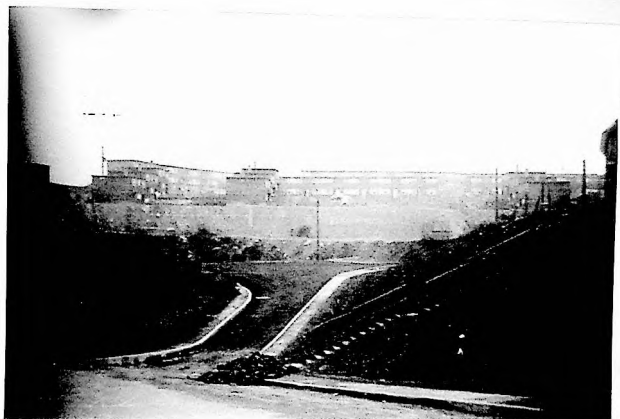
The general appearance of the project is monotonous; trees and shrubbery would improve it. Several families expressed their desire for low picket fences in front and back yards in order to give each family an individual garden and children's play space.

Lawns and yards are soggy and muddy the year around--a source of constant irritation in the clothes-drying space, where gravel might be put to good use.



A Housewife Hangs Her Wash

# PENNSYLVANIA A



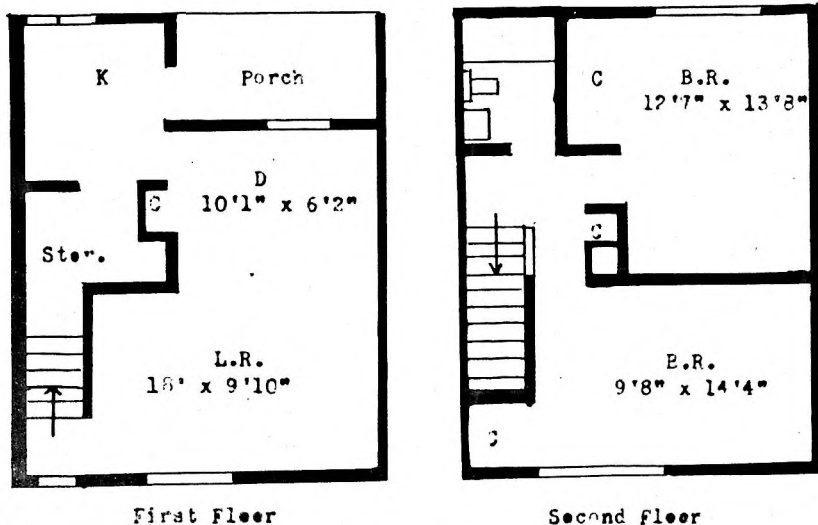
This project is situated on hilly terrain about an hour's trolley or bus ride from the center of a large industrial city, and two miles from a neighboring community. There is a bus stop in the project.

The site consists of thirty acres of land. There are 11.4 families per acre.

There are 342 units (34 one-bedroom, 180 two bedroom, 66 three-bedroom, 12 four-bedroom\* in two-story groups of permanent wood frame row houses, modern in design and characterized by flat roofs. The houses are heated by coal. Electric refrigerators are supplied.

Fifty-four families cooperated on the study.

A two-bedroom unit floor plan is illustrated in Figure C.



PENNSYLVANIA A

Figure C

No schools, churches or community buildings are built in the project, and it is located one-quarter mile from a shopping area. A hospital is four miles away.

Interviewers' Comments

I. Description of the people

The project is a permanent slum clearance one, composed of natives (white and Negro) of the area. Their



families live nearby-- in fact, there were several instances of three sisters and their families all maintaining separate establishments in the community. They are responsive and friendly, and were noticeably eager to be helpful on the study. Several stated that even though they themselves might not receive any benefit as the result of information they were willing to give, perhaps one day other families might have better houses.

## II. Attitude of tenants toward war housing communities

The community gave a strong impression of permanency. Tenants appeared to be relatively contented, particularly the negro group, who showed sincere interest in the community and in making practical suggestions for its improvement and growth. They were proud of their homes, took excellent care of them and considered them the best they had ever had.

## III. Tenants participation in community life

There appears to be no attempt made to develop community life. Interviewers' thought management showed "paternalistic" tendencies. It is closely associated with tenants in a personal, although casual way, as demonstrated by the readiness with which problems are submitted to the office. However, either through lethargy, carelessness or lack of desire it takes no steps to foster community unity-- more specifically, to take advantage of a made-to-order laboratory to temper the incidence of race discrimination.

There was necessity for repeated assurance to the negro group that knowledge of their observations and complaints would not reach management, thereby jeopardizing their tenancy. In spite of this, they were not critical. Either they were truly satisfied or they felt insecure.

The need for an organized health program in the community was apparent. Improper diet, over-heated homes, lack of sun are some of the causes of poor health immediately noticeable in the community. However, most of the families recently lived in slums, which still may be taking its toll. The children get little sun, either indoors or outdoors. Many tenants kept their shades down,--apparently a Middle Western custom dating back to the days of the old-fashioned "parlor" when window draperies and rugs were protected from the sun to prevent fading. One interviewer stated that when she asked why they did this, the answer was, "I like my rooms dark".

#### IV. Report on features inside the house

The house layout is well-handled, particularly the relationship between the living room and kitchen. The main deficiencies in the houses are listed below in the order of importance to the families:

1. Lack of laundry drying facilities inside the house. Indoor clothesdrying is an urgent problem in view of the northern climate and the location near a large and

sooty city, which prevent housewives from hanging their clothes outdoors about half the year. The utility and furnace room is too small to accommodate even a washing machine, much less line space. Clotheslines are strung in all rooms of the house, including the bedroom and living room. Many families expressed dissatisfaction over the failure to make the potential cellars available for use as laundries.

2. Lack of doors on closets. Again, this major complaint is intensified by the climate and dirt. Tenants furnish their bedrooms with movable wardrobes in order to keep their clothes clean.
3. Stationary windows. Wood framed windows, two of which are stationary, are built in sections of three. Condensation, especially on the stationary ones, stains the walls and in some instances has already caused the plaster to crack. They are hard to clean on the outside, a ladder being required for the second story ones.
4. Lack of adequate outdoor and indoor storage space.
5. Kitchen. Shelves inadequate and out of

reach; insufficient storage and work space; size and height of windows from the floor make the kitchen dark.

6. Location of the bathroom. At the top of the stairs, Considered a safety menace for children.

7. Miscellaneous. (a) Window shades and refrigerators not supplied by the project. (b) Hot air vents placed near the ceiling instead of the floor make the upstairs rooms too hot during the winter months.

V. The house in relation to the community



Up and Down Hills

The modern frame houses conform to the terrain

and are built around curves and up and down hills as it requires-- considered by the interviewers a welcome relief from the monotony of previous projects visited. The site on the hills is well chosen and affords air during the hot, dry, Middle Western summer. However, the general appearance of the project is dull and untidy. Planting trees and shrubs that would grow in sunless and sooty atmosphere would improve it.

The chief dissatisfactions concern garbage disposal and fuel storage. Tenants must carry their garbage, refuse and ash collection, in some instances, a distance of 200 or more feet. Collections occur once a week. Originally community collection stations had been planned for each group of units facing each other, as demonstrated by the small cemented spaces at the beginning of each communal path leading from the steps. However, these have never been used as collection depots, in fact, only a few tenants are aware of their existence.

When it was impossible to secure the gas furnaces initially planned, coal boxes, which hold only a ton of coal, were built outside the front doors. Because the local companies will not deliver less than four tons at a time, surplus coal is piled on the porches, or dumped beside the coal boxes.

Coal must be carried through the living room to the furnace room off the kitchen, except in the end houses

of each unit where a side yard leading to the rear of the house offers an alternative.



Coal Boxes



Back Erch

PENNSYLVANIA B





This project is located an hour's bus ride from the center of the same large city as Pennsylvania A but in the opposite direction. It is one mile from an existing community.

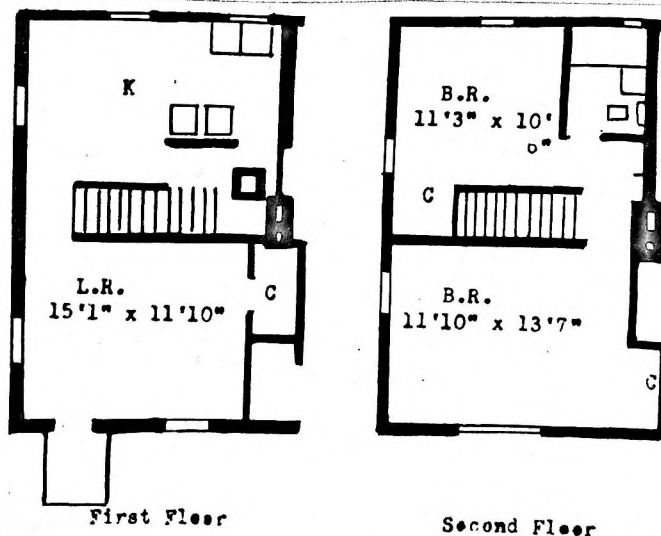
It is situated on 38 acres of hilly ground, and there are seven families per acre.

There are 251 units (25 one-bedroom, 161 two-bedroom, 59 three-bedroom, 6 four or more bedroom) in one and two-story buildings of the conventional pitch-roofed, private house pattern, each housing two to six families. Part of the buildings are brick, others frame and asbestos shingles. Some hillside buildings have a three-story face with an extra basement unit on one side. Gas is used for cooking, hot water and house heating. Electric refrigerators are supplied.

Fifty families cooperated on the study.

A two-bedroom unit floor plan is illustrated in

Figure D.



PENNSYLVANIA B

Figure D

Community buildings and shopping areas are being built. The schools are one mile, and the churches from one to two miles away in a neighboring community. The hospital is three miles distant.

### Interviewers' Comments

#### I. Description of the people

Despite some interviewers' objections to the barren physical appearance of this project, it is one of the few communities chosen by them as a place in which they themselves would want to live. The reasons for their choice appear to be based largely on their liking and respect for the people. The families have been residents of this locality since childhood and feel "rooted" in their present quarters. They are friendly and intelligent and showed understanding of the need for the study and enthusiasm in their cooperation.

#### II. Attitude of tenants toward war housing

Tenants had great pride and interest in their houses and furnishings. They plan to remain indefinitely in the project—at least until they can buy or build their own homes after the war. They are appreciative of the homes now occupied, and consider them far superior to any other dwelling they might have been able to secure for the rental in this area.

#### III. Tenant participation in community life

The interviewers' opinion was that under the direction of imaginative leadership this could become a

splendid, active community. Although there was little verbalizing about the need of a community building, there are evidences of the desire for general group activity through the considerable amount of social gatherings initiated by the people themselves, i.e., bingo, card clubs (several husbands and wives playing "Five Hundred", etc. on specified evenings), men's and women's bowling teams and numerous childrens' birthday parties, which assumed the proportions of as many as 25 in attendance at one party.

There is immediate need for a health clinic, nursery school and organized play for older children. Although many complaints were expressed about vandalism of cars in the central parking lot, there was no indication of community action to curb it.

#### IV. Report on features inside the house

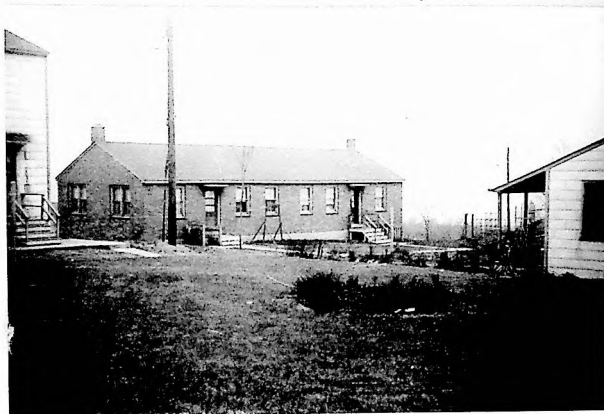
The room arrangement and size are outstandingly good, allowing for the maximum amount of light, sun and air. Tenants were particularly appreciative of the large and comfortable kitchens, in which they preferred to have their dining space, as opposed to a dining room-living room combination.

They also expressed enthusiasm about the cleanliness and efficiency of gas heating.



### Need for Outside Storage

The two important deficiencies in the house were lack of laundry or basement space for clothes washing and drying, and of outside storage space for such articles as sleds, bicycles, door and window screens, etc. The former is an especially serious oversight in planning a permanent project such as this due to the climate and atmosphere of this area.



"A Good Beginning...."

V. The house in relation to the community

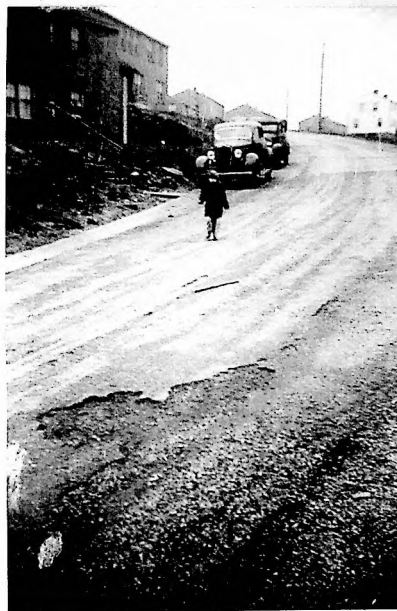
The location on a high hill above the soot and smoke was a good beginning. However, the total effect is bare and unfinished, although the houses are well built and pleasing in structural design. The interviewers felt that it indicated lack of thought and bad planning to have cut down all trees and natural shrubbery that would have somewhat relieved the dull monotony of the buildings.

The original plan was to have service entrances (or back of the house) face traffic streets, and family entrances (or front of the house) face safety streets. Like the families in Maine Temporary, those here considered the traffic street entrance the "front" of the house. Consequently,

garbage cans, clotheslines and coal boxes were standard equipment of "front" yards. No paths or cement walks were provided so that private lawns were trampled continuously.



Service Entrances



Traffic Street

One interviewer indicated that the "crate-like" porches jutting out at random throughout the project were offensive.

The lack of a school and such conveniences as a store, and inadequate bus service are serious problems for tenants.



## KANSAS



This project is situated five miles from the center of a city. Bus service runs through the project.

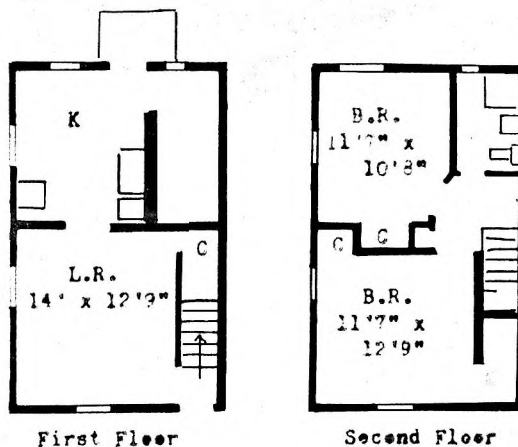
One section has 2300 demountable units (322 one-bedroom, 1380 two-bedroom, 598 three-bedroom) on a site of 352 acres. There are 6.5 families per acre. The other has 2200 temporary units (220 one-bedroom, 1321 two-bedroom, 547 three-bedroom, 112 four-bedroom) on 193 acres of ground. There are 11.4 families per acre.

There are two types of houses: detached and semi-detached one-story frame dwellings with pitched roofs, and two-story frame row houses with flat roofs. Both have similar accommodations. Gas is used for cooking and hot water and

coal for heating. They have ice refrigeration. One hundred eighteen units in the first section have gas heating.

One hundred and five families cooperated on the study.

A two-bedroom unit floor plan is illustrated in Figure E.



KANSAS

Figure E

Shopping areas, community buildings and schools, including nursery schools and kindergartens, are provided in the project. Hospitals are located in the city five miles away.

## Interviewers' Comments

### I. Description of the people

Tenants are a vital and cheerful group from Kansas or nearby Mid-West and Southwest states, of higher intelligence and better educational background generally than the groups studied up to this time. They were responsive and cooperative, although they required initial fuller explanations of the purpose of the study because of their intellectual need to comprehend the meaning and background of the undertaking.

Culturally there were sharp contrasts in the project. One interviewer illustrated this by citing her experience with two families who lived within a few doors of each other. One was the family of an architect and aircraft company engineer of unusual background and advantages, who spent his leisure hours drafting plans for post-war houses. The other was a sharecropper's family. The mores of the latter included a preference for the custom of father, mother and baby all sleeping in a three-quarter bed, with brother and sister at opposite ends of the same single cot in the living room. They told the interviewer they owned no toothbrushes, explaining that they had once had them but that they "wore out"! (This is a report -- not a commentary on which one of these approaches to living is better.) All interviewers reported similar observations on the heterogeneity in the project.

## II. Attitude of tenants toward war housing communities

Different attitudes toward war housing prevailed due to the variety of background and economic status represented. Those whose dwellings were the best they had ever had were appreciative. The attitude of the majority -- a comfortable middle class group -- was quizzical tolerance of temporary "camping-out" quarters. They expressed general appreciation, however, for the government's efforts to house them; "for temporary houses, they're really pretty good". Many repeated the same story of having brought their families to the area before the project was completed and being forced to pay exorbitant rents for congested quarters in the city.

All the interviewers were impressed with the alive and enthusiastic atmosphere and with the people's happy adjustment to war-time living. Basically they are so absorbed with the contribution they are making through their work that any discomforts or inconveniences in daily living are accepted as only an unimportant part of that effort.

They have only the barest necessities in furnishings and clothing, having stored their possessions in home communities, and obviously intend to return to their homes after the war. Their previous economic status appears to have no relation to the manner in which they are living at the present time. Many had no bureaus or chests for clothes storage, but used orange crates and the built-in bedroom and hall closet shelves for this purpose. Interviewers would be

mildly astonished to find expensive camera and golf equipment in the closets of the same families who were using makeshift orange-crate furnishings.

### III. Tenant participation in community life

The tenants regard the project as a separate community rather than a part of the nearby city. The spirit of unity is noticeably strong. Tenant participation in activities such as dances, craft classes, 'teen age recreation groups etc., is highly developed.

An outstanding feature of the project are the community buildings. The interviewers were favorably impressed by the schools, particularly the nursery schools and kindergartens.

A wide range of attitudes toward management prevails, from indifference or mild antipathy to extreme dislike and distrust in a few instances. The reactions of the interviewers themselves to members of the management staff were favorable. They felt they received ready cooperation and helpful information and that the management group shared the enthusiasm and vitality that permeated the community.

### IV. Report on features inside the house

The room arrangement is good; they are light and well ventilated and provide adequate living space. The combination kitchen and eating space separated from the living room is especially satisfactory.

The biggest drawbacks of the house are the cheap construction and common wall space. In units where bedrooms

interlocked, cracks of light from neighbor's bedrooms could be seen, and ordinary low conversational tones could be heard plainly. This is a serious problem in a community largely composed of workers on night or swing shifts who need to sleep during daytime hours.

The pastel painted walls are attractive but proved impractical; they show dirt more plainly and cannot be washed without streaking.

Closets are adequate but the omission of doors is unsatisfactory. Housewives complain that they are unable to hang curtains on the rods because the required pulley-type of curtain fixture can no longer be bought; the poles are stationary and cannot be removed to accommodate any other variety of curtain. The built-in shelves are a good feature. However, the top shelves in the closets cannot be reached even by a tall person and are seldom used.

The showers were difficult to operate and children were unable to control them alone. In general, mothers find showers inconvenient for bathing children under six years. No soap trays were built in for shower or basin.

#### V. The house in relation to the community

The site plan had been carefully thought out, especially in view of the extent and flatness of the land. One main road runs the length of the project, affording excellent bus transportation for all areas. However, families



living at extreme edges of the project often complained that the stores had not been located conveniently or centrally. In some cases it was a 20 to 30-minute walk to the shopping area.

Apparently out of a hope of relieving the monotony with unusual groupings and shapes of courts, etc., the houses are so placed as to cause incredible confusion not only among visitors, but also tenants, about the location of addresses. The interviewers felt that much of the bewilderment and criticism could have been avoided had the tenants been instructed on the logic involved in the street and number arrangement. Then they, at least, would have been able to instruct visitors -- a feat yet to be conquered by a majority of the natives.

The careful use of color on the roofs and in the house trimming produces a favorable first reaction. However, the lack of landscaping, especially grass, detracts from the project's appearance and is the source of one of the chief complaints -- mud. Housewives found it difficult to keep houses clean and free of mud. The outside clothes-drying space could not be used because mud made the area impassable.

The major complaint concerned the combined community garbage, refuse, ashes and coal stations, spaced one or more to a block at the front of units serviced by them.

These are largely responsible for the impression of carelessness and indifference -- whether of management or tenants -- one gains on closer acquaintance with the project. Either the containers (supplied by the project) are too small or collections are not made frequently enough. Cans are tipped over by the play of children and by dogs, and the litter of garbage, broken glass, papers, etc., is strewn over the area surrounding the depots. No individual responsibility exists for keeping the cans covered or the stations orderly.

No provision is made for cleaning or sterilizing the cans. Children play around the stations in the disorder and filth. One interviewer reported seeing them throwing mudballs, orange peels, etc., at each other much as they would snowballs. During the summer the flies and odors are extremely unpleasant, as well as unhealthy, especially for those families whose homes are near the stations. Front door screens have not been supplied by management, although they have been attached to back doors.

The coal (back to back with the garbage) is directly in front of the sidewalk. When it is delivered, more coal is dumped than the station can accommodate and overflows to the adjacent sidewalks. Tenants cart coal by wheelbarrow, basket or box to individual coal boxes built at the rear of the houses. Since the dwellings are row houses, they carry it through the living room and kitchen to these boxes rather

than walk around the entire row of houses.

A community car parking lot is provided at the front of each dwelling unit. In those sections where the lots are located in front of garbage collection stations the paths of the men making collections are often blocked.

#### CALIFORNIA TEMPORARY



This project is built on approximately 265 acres of hilly ground about a 15-30 minute bus ride from the existing community. There are 6.4 families per acre.

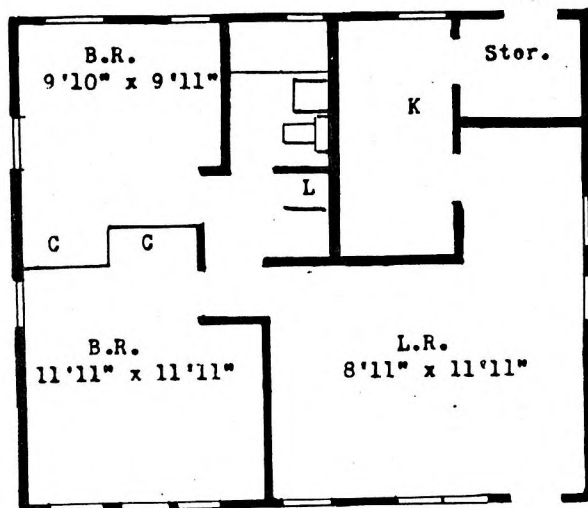
There are 1692 units (311 one-bedroom, 1045 two-bedroom, 311 three-bedroom, 25 experimental) of one-story flat roofed, demountable row houses, built of pre-assembled panels.

The experimental units are of three types: one-story masonry, one-story "frame bent" and two-story skeleton frame with balcony on the second floor.

One hundred and two families cooperated on the study.

Gas is used for cooking and heating. Electric refrigeration is supplied.

A two-bedroom unit floor plan is illustrated in Figure F.



CALIFORNIA TEMPORARY

Figure F

A community building in the project provides space for indoor recreation, church services, etc. The nursery and grade schools have outdoor recreation areas for both children and adults, and other play areas are provided for smaller children. No stores are in the project. Hospitals are located in the nearby town.

### Interviewers' Comments

#### I. Description of the people

Most of the people in this project came from states west of the Mississippi. They were friendly, alert and eager to cooperate on the study. Preoccupation with personal post-war housing plans, rather than desire to appraise their present homes, seemed to be the basis for their interest in it. The interviewers agreed that they were better educated, more resourceful and "sophisticated" than any group encountered so far.

#### II. Attitude of tenants toward war housing communities

Tenants expressed no great dissatisfaction with the dwellings themselves, but there was an unusually strong sense of temporary living promoted by the sectional prejudice between transients and the native Californians. Without exception they were impatiently awaiting the end of the war in order to return to their former communities. One interviewer suggests that this temporary state of mind was influenced -- perhaps induced -- by the building structure; all tenants appeared convinced that the houses could not remain upright for more than another five years.

An interviewer reported a talk with one of the housewives which brought out that she and her husband were "back again for this war". She described the precipitate mass exodus from the community on Armistice Day 1918, when people were so eager to leave that they did not even retrieve their pay checks or any clothing or possessions from their houses -- simply threw their hats in the air, collected their families in cars and departed immediately. Somewhat wistfully the housewife concluded her story by saying that she had become very friendly with neighbors from whom she had not heard since that time, and that she had been "sort of looking around for them this war".

The area has expanded so rapidly during the war that it is not equipped to handle adequately the needs of the increased population. Food is scarce and unusually high in price, and clothing and furnishings are expensive and poor in quality, many household supplies being non-existent.

### III. Tenant participation in community life

The general effect of the project is neighborly and sociable. The people are concerned with their individual interests but show total indifference to any participation in community activity.

The newly constructed community building is not used at all, in fact, has no one even in charge to allot rooms. No recreation groups were organized except a small archery club not far from the project, the membership in



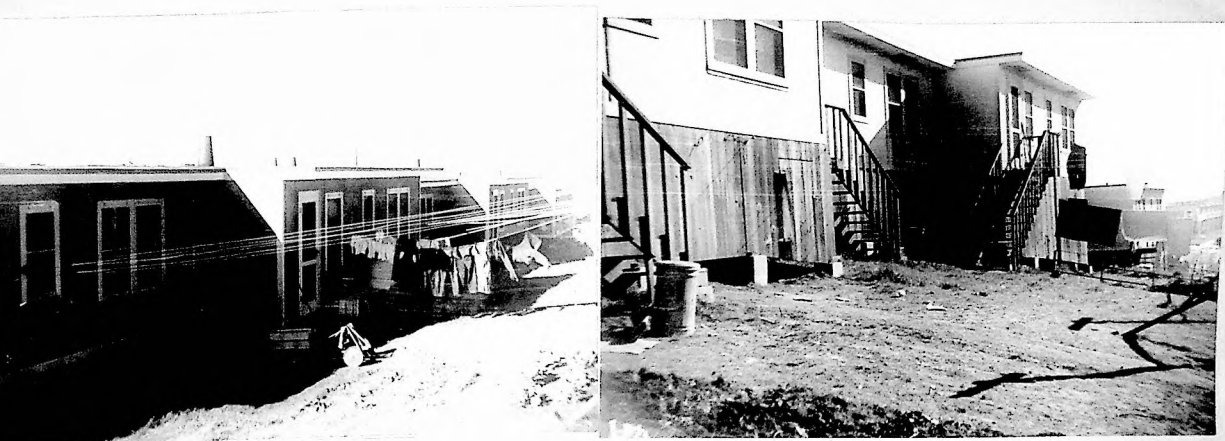
which was not open to everyone. The alarm of many families over delinquency prevalent in the community (some had forbidden their children to go into the town even to attend movies in the evening) points up the need for a supervised playground with equipment for children of all ages.

Some tenants regard management as unprogressive and unsympathetic to their needs, and have no feeling of identification with it. Many families resent the lack of medical and hospital service -- facilities available in all other housing projects in this area. A small PTA nucleus had been formed which was circulating a petition in a group effort to obtain these services.

#### IV. Report on features inside the house

The rooms of the house are well arranged, spacious, light and well-ventilated. However, the location of the living room closet is criticized because it breaks up the wall space, making it difficult to arrange large pieces of furniture. In fact, only one wall in the living room can be utilized to advantage; the windows and doors take up one wall, the closet breaks into another, and the location of the furnace or large register of the set-in furnace makes the third useless.

Lack of shelving and cupboard space for storage of vegetables and household supplies in the kitchen is noticeable. Many tenants had built their own shelves.



Need for outdoor storage

Boarded up spaces and steps

Tenants complain about the lack of finished basement space for clothes drying in bad weather and for storage. An unsatisfactory attempt was made to utilize the space underneath the houses (occasioned by the hilly terrain and the house construction) for storage of large objects such as tools, bicycles, etc. It is regarded as a rat trap and because it is not separated by families many articles are stolen or destroyed. Also, the dampness rusts such items as metal tools.

The tenants' lack of confidence in the house construction and their conviction that the material is

extremely inflammable produces constant fear of fire. A few months before the group visited the project, when the "Big Wind" had lifted roofs, and even some entire houses off their foundations, dangerous fires ensued.

Gas heating as compared with coal is clean, economical and easily regulated, and removes fuel storage problems. However, the gas furnaces, which are located directly in front of the entrance to the living room from the hall, contribute to the fear of fire. They are installed by two methods, both of which are unsatisfactory. Children burn themselves on those set upright; those recessed in the floor are considered even more dangerous because children throw paper, clothing, etc., into the open flame. One tenant observed that "every baby has waffle marks from falling on the floor furnace". Anxiety is increased in families with small children; many families do not burn the furnaces unless adults are present to watch them.



"Little boxes"



"Illuminated staircases"



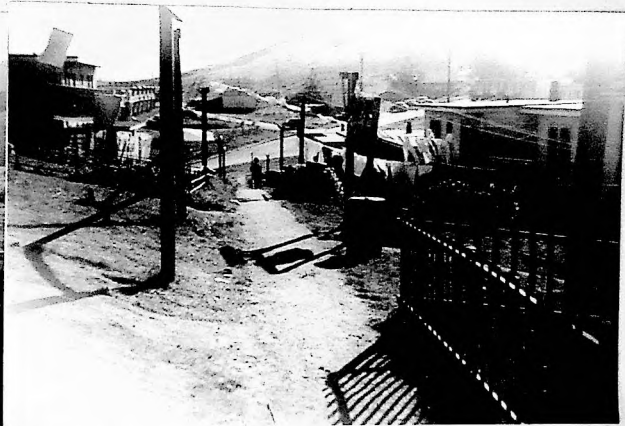
### "Picturesque"

#### V. The house in relation to the community

This project gives a highly dramatic and spectacular first impression. It motivated the interviewers to such adjectives as "breath-taking, picturesque, vast". The setting in the hills, the climate, vivid green trees, shrubbery and grass, and abundant flower and vegetable gardens provide variety in location and view. The contrast with the flat, barren land and drab color of most of the projects previously visited contributed to the group's excessive enthusiasm.

\* The houses are architecturally well suited to the landscape. One interviewer thought they looked like "little boxes stuck together and arranged on papier mache

hills surrounded by artificial grass". Another was inspired to remark that "at night the houses, marching up and down the hills, look like illuminated staircases".



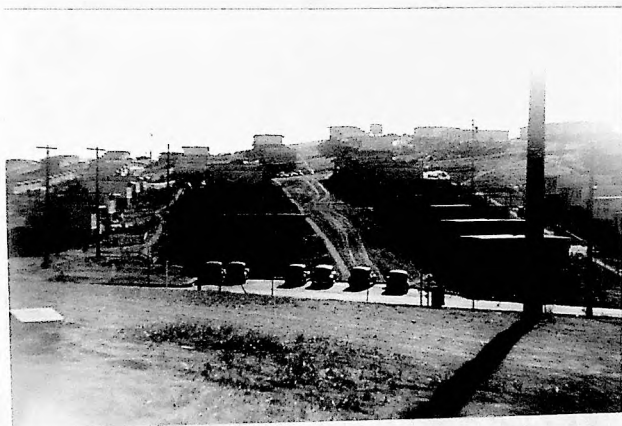
### Paths

The chief objections were to insufficient paths through the deep mud and the safety menace of the narrow high wooden steps leading to the houses. Many tenants had built wooden platforms under clothesline space to prevent sinking knee-deep in the mire. There are no gutters on the roofs; when it rains water drains down the sides of the houses, making deep gullies. The outdoor steps, especially on muddy, rainy days, are slippery and dangerous for both adults and children. Many mothers were continually uneasy about the



possibility of children either falling off or down these steps.

Several interviewers felt that the project appearance could have been improved by a better choice of color of paint for the houses and by the use of terraces to furnish some level outdoor "sitting out" space for those tenants who reside on the sides of hills.



A walk uphill

A major objection of the tenants was the inaccessibility of stores. In most instances, in addition to a considerable walk up and down hills, it was necessary to board a bus to reach the nearest shopping area -- a 15-minute ride under crowded conditions.

Some tenants with cars had to park them at



the bottom of hills and walk to their homes, attended by small children and encumbered by packages.

There is a strong sense of insecurity present in the project because of the location near a possible military objective.

#### CALIFORNIA PERMANENT



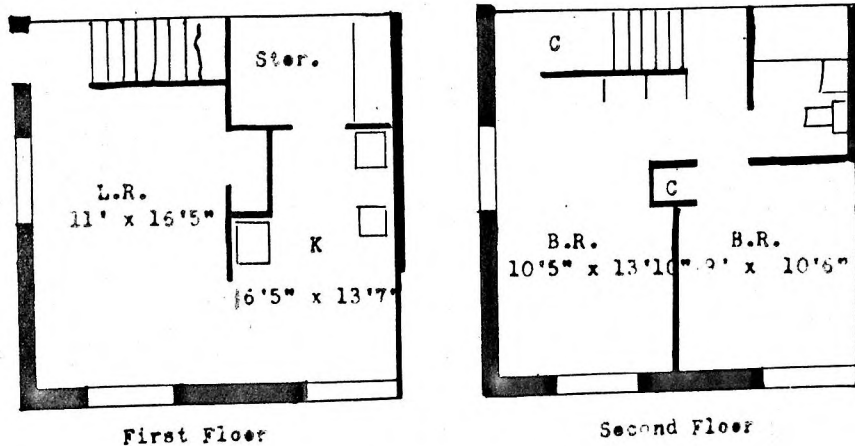
This is a permanent slum clearance project used for war housing. It is  $2\frac{1}{2}$  miles (15 minutes by trolley) from the main part of a large city. The site has 42 acres of land and there are 18.9 families per acre.

There are 802 units (248 one-bedroom, 376 two-bedroom, 156 three-bedroom, 22 four-bedroom) in two and three

story brick and masonry buildings, some of which are characterized by attractive balconies on top floors. Gas is used for cooking, hot water and house heating, and electric refrigeration is supplied.

One hundred and five families cooperated on the study.

A two-bedroom unit floor plan is illustrated in Figure G.



CALIFORNIA PERMANENT

Figure G

A community building provides indoor recreation in the project. Grade and nursery schools have outdoor play.

areas. Churches and shopping areas are in the neighborhood. The hospitals are in the city 2½ miles away.

Interviewers' Comments

I. Description of the people

From the nature and amount of material the interviewers reported, and the strength and variety of their convictions, this slum clearance project would appear to have been more interesting and challenging to them than any other community studied. This is due perhaps, in part, to the complex psychological and sociological problems it presents.



Project composition

It replaced much worse  
than this

The people are a mixed group of whites, Mexicans and Negroes and there is no attempt at segregation. Many had lived in the slums which the project replaced. They were friendly and interested in the study, although casual in their sense of responsibility toward it and cautious about imparting information. Some interviewers reported they had "the uncomfortable feeling" that the people "were not understanding the questions despite long and careful explanations", and either deliberately or out of ennui not giving "true answers". Others felt their reserve was due to fear of the consequences of making criticisms by penalization from management.

A few interviewers were particularly impressed by the relation of parents to their children; they seemed to be more affectionate and less harassed than those in communities formerly studied. One interviewer attributed this to the slower tempo of life in general and the fact that due to the climate children play outdoors a large part of the time and "rid themselves of excess energy". Another observed that this relationship had its roots in the simpler, more elemental nature of the culture of the people themselves.

## II. Attitude of tenants toward war housing communities

The main impression was that although the houses satisfied the people's physical needs, conflict and uneasiness pervaded the project atmosphere. The Negro and Mexican families indicated pleasure and satisfaction about their homes;

most of them had been moved into the project from one of the worst slum areas in the United States and had never lived in houses with the conveniences and advantages their present quarters offered. However, many white families were restless and dissatisfied and intended to move at the end of the war.

### III. Tenant participation in community life

Lack of unity and understanding among the groups represented in the project appears to make them withdraw from participation in organized community life. The families had few social gatherings of even a "neighborly" nature, although whatever casual contacts developed were amiable. The community clothesline problem might well have produced much bickering, yet it was adjusted, most of the housewives having evolved a working plan, however inconvenient and unsatisfactory, among themselves. One interviewer reported that through attempts to work out a cooperative plan on clotheslines, better understanding and neighborliness resulted among tenants in a particular unit.

There is a great deal of variety in the degree of adjustment among the groups represented. Objections to non-segregation were expressed by members of all groups except the Negroes. White families object to both the Negroes and the Mexicans; the Mexicans object to the Negroes. However, despite the oft-repeated comments, no specific neighborhood antagonisms were noted. The interviewers reported considerable criticism of neighbors, who most often turned out to be



of their own group, but who were considered "lower" in the human scale.

Several white families based their objections not on race prejudice, but on careless housekeeping and behavior of children. They often expressed fear about allowing their children to go to playgrounds because the gangs were "rough and tough, used vile language and picked on younger children". The project sustained a nursery school for children of working mothers but there was no adequate supervision after school hours for older and "more destructive" children. The "Pachucas", as mischievous Mexican boys are called, cut clotheslines, removed telephones from public booths, etc. One interviewer remarked that, so far as she had been able to determine, "all the children appeared to do violence to each other at one time or another during the day with knives, rocks and air rifles".

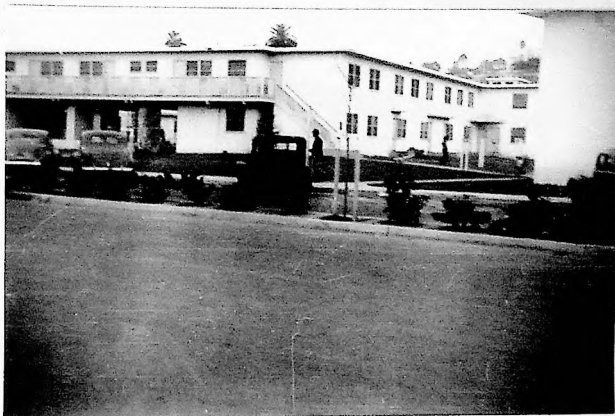
Other white families expressed their attitudes about the Negroes with such remarks as, "they are very clean but we don't want our children to acquire Negro speech habits".

One interviewer cited the following episode as the best result she encountered of inter-racial acceptance fostered by side-by-side living. The husband in a white family she saw confessed that on principle he strongly objected to colored and white mingling, but all of his negro neighbors were so nice -- in fact, superior to most of his white neighbors -- he couldn't object to them.



It is gratifying to find that although an undercurrent of dissension exists, many are conscious of their part in a true democratic experiment, and feel impelled to contribute to better community life in whatever ways they see possible.

There is considerable evidence among the tenants of fear and distrust toward management, founded on what the interviewers felt to be lack of sympathy and understanding of the people.



#### Pleasing architecture

#### IV. Report on features inside the house

Architecturally the buildings are pleasing and well suited to the tradition of the area. Room space is

adequate, the kitchen being especially well done. The layout in the two-story units, however, gives a feeling of limited space, which is emphasized by the steep, dark stairs. Many apartments are dark and get no sun, particularly the living rooms.

The floor plans and location and size of closets, utility rooms, etc., vary widely. Wherever three-bedroom units have smaller kitchen pantrys than the two-bedroom units, the living room utility closets are larger. But as one housewife remarked: "Who wants to keep grocery and staple supplies in the living room?"

The lack of a back or side entrance in the corner apartments causes great dissatisfaction; tenants are forced to use one door -- the front one -- for all traffic, including carrying out garbage, refuse and clothes on washday.



Balcony apartments



Steep, dark stairs

Tenants of second floor apartments complain of the difficulties produced by the balconies, particularly those related to day sleeping. Both the master bedroom and living room are on the balcony. Garbage cans are kept there and children upset them while playing. Windows must be kept closed to eliminate both noises and odors.

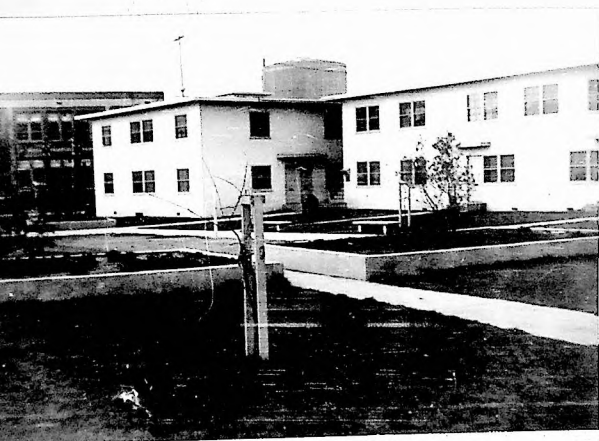
Interviewers felt that the cement floors gave the houses a gloomy, "institutional" look, and tenants considered them cold and unhealthy.

Tenants thought the front door letter slots should have been placed higher; they are annoyed by children throwing trash and peeping through them.

Windows are located too close to doors; curtains are caught and torn in them. Condensation on balcony windows forms large water puddles on the floors.

The bathroom skylight is unsatisfactory; it is too high to clean and too small for adequate ventilation and light; it is difficult to open and must be kept closed when it rains.

Tenants suggested the following specific improvements; toilet lids, built-in clothes hamper and linen closet with doors and larger medicine chest in the bathroom; closed cabinets with additional shelves within reach, more than one built-in silver drawer, a drainboard or cover on the washtub, and a larger utility closet with natural light and ventilation for clothes drying and food storage in the kitchen.



Community benches



"Substantial living"

#### V. The house in relation to the community

The interviewers first reaction was that the project was the most attractive and well-planned seen thus far. The buildings, schools and landscaped grounds lend an air of substantial living to the community. The cheerful, firm architecture is especially well-suited to the geographical area and the Monterey balconies are colorful and artistic. However, closer inspection brought disappointment.

The few benches arranged on paved squares make the outdoor space seem "public" rather than areas for community or private use. The space is so regulated that it is not conducive to relaxation, such as sitting out or working in the flower or vegetable patch, and tenants have no feeling

of personal responsibility for it. All of them would have preferred a separate yard rather than what seemed to be public property so that they might have individual flower gardens, etc., and keep their own yards and paths clean and tidy.



Garbage



Littered roads



Can't swing after a rain



The litter of broken glass, tin cans, rubbish, etc., in yards, paths and roadways is unsightly and dangerous. Attempts were being made to encourage cleanliness in the project by organization of older boys into clean-up squads. They were given free movie tickets for their efforts. Untidy refuse collections in paper boxes are stacked near incinerators of each dwelling unit. Incinerators may be used only between 6 and 10 a.m. and are locked thereafter by the women in charge of them, but the people ignore this ruling and place their boxes around the incinerators whenever they find it convenient. The incinerators are built so low that when trash is burned a little after 10 a.m., soot and smoke fall directly on the clothesline area and odors permeate damp clothes hanging there.



Clothes drying on a balcony



Community clotheslines



The chief complaint concerns the community clothes drying arrangement which caused a great deal of neighborhood friction. No specific number of lines was allotted to a family; the housewives vied with each other for their use. Such ratios existed as 42 families to 40 lines of approximately 16 feet each, or 30 families sharing 25 lines. Many women washed at night and rose anywhere between 3 and 5 a.m. to secure lines. Often neighbors made agreements to keep clothes on the lines (long after they were ready to be taken down) until their confreres were ready to take possession of them.

In units where weekly line schedules had been worked out, housewives found it too restricted and inconvenient to be held to a specific day; if some circumstance prevented their washing on the assigned day they were forced to postpone it until the following week.

#### TEXAS

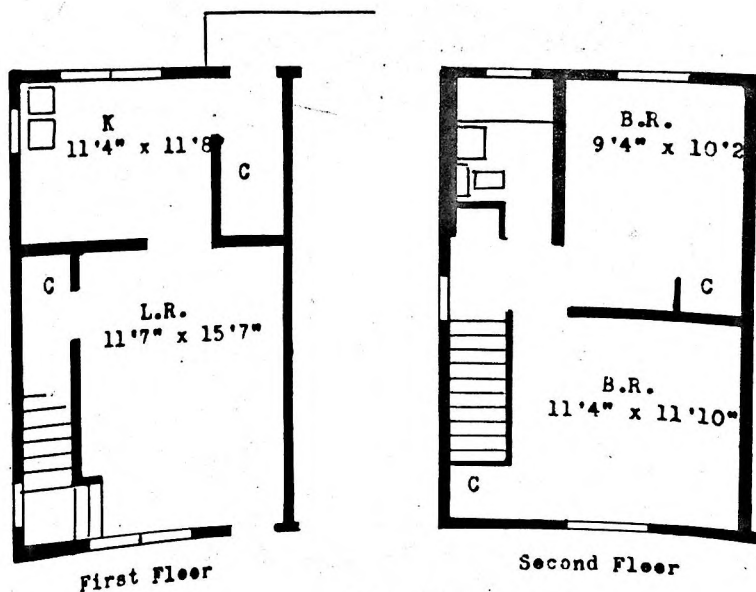


Two projects are joined to form one community situated about  $3\frac{1}{2}$  miles from the center of a city. Bus service runs through the projects. The site covers 34 acres of ground and there are 12 families per acre.

There is a total of 650 units: 250 brick in the first project, and 400 wood frame and asbestos shingle (60 one-bedroom, 237 two-bedroom, 103 three-bedroom) in the second, in one and two story row houses.

One hundred and five families cooperated on the study.

A two-bedroom unit floor plan is illustrated in Figure H.



TEXAS

Figure H

A community building provides indoor recreation rooms and there are outdoor play areas for children. A grade school is in the project. A junior high school, junior college and other grade schools are nearby. Churches are two miles away. The hospital is located  $1\frac{1}{2}$  miles distant. There are some stores in the project. A larger shopping area is one mile away.

### Interviewers' Comments

#### I. Description of the people

The project consists of intelligent, attractive families of Naval personnel. They were friendly and cooperative although they hesitated to participate in the study on initial contact and required detailed explanations of its purpose and scope before consenting to be interviewed.

#### II. Attitude of tenants toward war housing communities

Being Naval personnel, they are accustomed to adjusting themselves to new people and places and creating at least the illusion of "temporary permanency". Many were newly married and had complete household equipment and furnishings. They were well satisfied with their surroundings and felt they were receiving good value in living space for the amount of rent paid. Husbands were subject to call to sea duty at any time and this would often result in families leaving the project with very short notice. However, there was little outward manifestation of strain or tenseness in what appeared to be an atmosphere of marked calm and stability.

### III. Tenant participation in community life

The social atmosphere was similar to that in a small town. There was constant "neighborly" visiting and many functions flourished: regular luncheons at the community house sponsored by a different group of women each week, weekly young couples' clubs for covered-dish suppers, dancing, bridge, etc., and garden clubs, for which the project supplied garden tools.

The interviewers reported a stronger feeling of harmony between management and tenants than in any other project studied. Many accounts indicate the efforts of both to improve community spirit. One housewife (not in good health) spoke of the interest management had taken in trying to secure a house in a different section where she would not be disturbed by the noise of children's play. Another told of being placed in her present quarters because she had found her neighbors incompatible in another section. The project's general air of quiet efficiency appears to substantiate the interviewers' estimate that management functioned effectively and sympathetically.



Asbestos shingled units



Brick units

#### IV. Report on features inside the house

Two types of dwellings were studied: permanent brick houses and asbestos shingled multiple dwellings.

The major dissatisfaction in the brick houses was the cement floors which are hard to keep clean and carry sound. Tenants contend that noise made by their neighbors in the second, third or even the fourth units in row houses are transmitted as distinctly as those next door.

Living room closets in the brick units are not high enough in which to hang long garments. In both the shingled and brick units they are under the stairs, but in the brick units the staircase goes steeply down into the living



room without turning. In the shingled units a platform at the foot of the first flight lifts the staircase about a foot, giving the necessary height to the closet.

Another objection in connection with the straight staircase is the location of the bathroom at the head of the stairs. One looks directly into it from the living room. More important, it causes accidental falls.

The plaster walls in the brick units are extremely rough. Skin abrasions, especially on children, are frequent.

The interiors of both types of dwellings appear to be more spacious than others studied. They are well arranged; both the living room and kitchen are used to the best advantage. There is no door, merely a conveniently sized opening, between the living room and the kitchen. None of the kitchen fixtures can be seen from the living room.

In the shingled houses the kitchen is the room most generally used. It is large enough for eating space and looks more inviting than the living room. There is a serious lack of shelving and work space. The considerable amount of unused wall space could have been utilized for this purpose. Tenants prefer linoleum to the wooden floors which are difficult to clean.

The bedrooms in the shingled units have only one window and it is difficult to arrange furniture to get proper ventilation. In the houses facing north and south the ventilation is better, but those facing east and west are



extremely uncomfortable in hot weather. A door between the front and back bedrooms of the three-bedroom apartments would have allowed cross ventilation.

One bedroom is so small (7'8 x 9'2) that it is not used for sleeping. (In fact it was believed to be the smallest bedroom in any house studied) By contract the master bedroom, although only medium size (9'8 x 12'7), was considered very large.

In some instances in this project the size of the family did not warrant the use of a three-bedroom house. A state law which prohibits children of different sexes sleeping in the same bedroom affected this. When tenants are assigned houses, provision is made for putting children of different sexes in different rooms. However, this is not the practice of the families, who use the additional bedroom for other purposes than sleeping, such as workshops, dens, etc. -- a windfall which the husbands appear to enjoy. It allows them a space to work on their hobbies where they have freedom from interruptions and the responsibility of "cleaning up" afterwards.

Objections to lack of doors on closets were not so pronounced in this project. In fact, many housewives thought the doors had been eliminated intentionally due to the climate in order to allow more circulation of air and prevent mildew of clothing. This underlines a conviction the interviewers held that over-all thought and planning in general design to meet problems of necessity in climates were lacking in most

projects. Another demonstration of this design principle here is that in the hot climate showers would have been more acceptable than tubs. Contrariwise, showers were installed in Maine Temporary (a cold, northern climate), where all tenants preferred tubs.

Tenants thought the bathroom should have been in the rear of the house instead of over the living room because plumbing noises carried so distinctly.

Families with small children prefer houses on one level. Many housewives had placed chairs across the stairways to keep children from climbing the stairs -- and falling down once they arrived at the top. In addition, during toilet training of small children having the bathroom on the first floor saves steps.

The porches of brick units facing the street were used and appreciated. However, tenants of units facing courts (with an alley in the rear) sit in their back yards rather than use the front porches, which they contend give them a feeling of being crowded and lacking in privacy and a sensation that neighbors are watching them (which they undoubtedly are).

The shingled units have small "stoops" (approximately 8x3x3) which serve two families. The doors are hinged at the center and when they swing back, only about eleven inches between the door opening and the end of an unprotected

platform 23" from the ground is allowed. This is an accident hazard not only for the tenants, especially those carrying infants, but also for visitors. The interviewers reported this with considerable acrimony reminiscent of personal experience with the inconvenience. There is no roof over the door for protection on rainy days.



Variety of grouping



Spaciousness

#### V. The house in relation to the community

Some interviewers stated this was the first project in which they themselves would like to live. It is very pleasing in appearance, due to its spaciousness and landscaping and the variety in the group arrangement of units. What might have been monotonous seemed not to be so because of

responsibility for their own ground, and it might have provided incentive for keeping small children and pets within their own confines. There were constant complaints about the behavior of children and the destruction wrought by dogs. Many tenants had started flower and vegetable gardens but were forced to relinquish their ambitions because the gardens were destroyed before they had a chance to grow. As one tenant put it: "There are too many families with too many children -- and too many dogs -- in too small quarters, with too little parental control". A large central park playground for children was provided but seldom used by them. Mothers did not urge them to do so; it had no play equipment whatsoever, and, more important, no supervision.

A community vegetable garden had been started at one end of the project with space allotted to tenants requesting it, but it was located too far distant for those living in the other extreme ends of the project to reach conveniently.



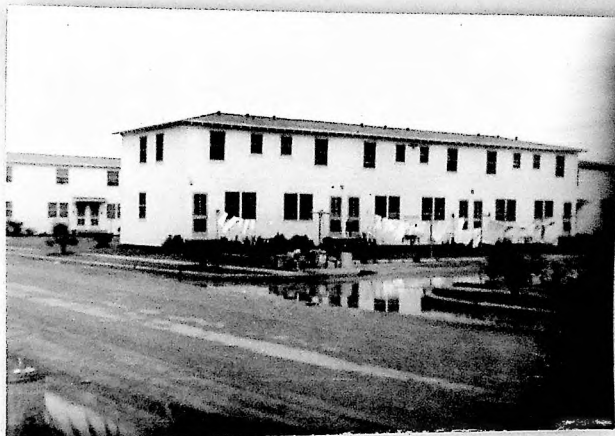
Garbage collection squares



Garbage cans



Garbage cans



Garbage cans

Efforts of both tenants and management to keep the grounds in order were frustrated by the garbage collection problem. The ruling was that cans were to be taken three days a week to the collection stations (small cement squares located at the center of the service walks for each unit). However, the collections were not made regularly and refuse and garbage from cans without lids were scattered over a large area by high winds. Those cans with lids were tipped over by the aforementioned dogs and during the neighborhood play of children. Enclosure of these spaces would alleviate a part of the difficulty.





### Clotheslines

Clothesline space is very limited. Each dwelling has one hook attached to the house and one pole, a total of two lines. Many tenants string additional lines but clothes do not dry well because they are too close together. Some work out arrangements with neighbors to share their space.

The bus service in the project is convenient and the shopping areas accessible.



## ALABAMA HOUSES

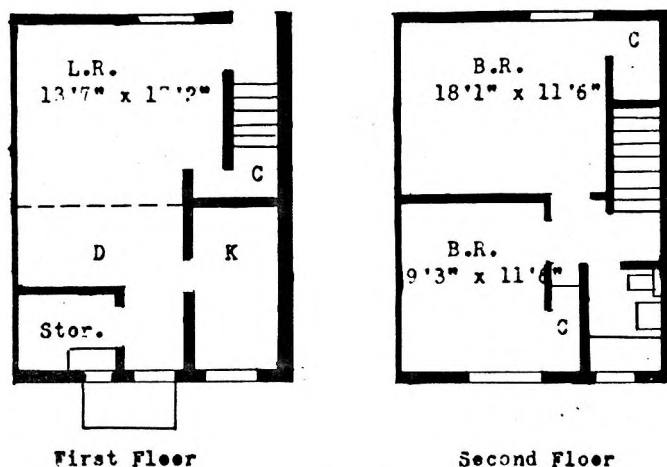


This project is located about a 3/4-hour bus ride from the center of a large city. Bus service runs to and through the project. The site is 375 acres and there are 28 families per acre.

There are 1060 permanent units (150 one-bedroom, 645 two-bedroom, 265 three-bedroom) in detached, semi-detached and group houses of wood frame construction; each accommodates one to three families. They resemble bungalows and are arranged in a variety of groupings, not being planned in rows or straight lines. Gas is used for cooking, hot water and house heating and electric refrigeration is supplied.

Fifty-five families cooperated on the study.

The two-bedroom unit floor plan is illustrated in Figure I.



ALABAMA HOUSES

Figure I

Shopping areas, a church, school, community building with indoor recreation rooms, outdoor play areas and an infirmary with a doctor and dentist in attendance are provided.

#### Interviewers' Comments

##### I. Description of the people

The families were from Southern rural settlements

or farms. They had either rented or sold their former homes. They are noticeably conscious of the contribution they wish to make to their country at war and are serious in this purpose. The interviewers felt that while their formal education might be limited, their inherent intelligence was not; that while they might take a long time to answer questions, the answers, when forthcoming, were very much to the point. They were extraordinarily friendly and gracious. Several interviewers stated that they enjoyed working with them more than with any other group.

## II. Attitude of tenants toward war housing communities

To the rural people their present quarters with modern conveniences such as running water, electricity and plumbing seemed more than adequate, but they want to return to their home localities as soon as possible after the war.

There is considerable resentment over the practice (which apparently emanates from the military, not the housing, authority) of forcing tenants, without previous consultation, to share their houses with other families. It is not uncommon to find two families of three or four members each living in a two-bedroom unit. Friction and daily irritation result from two families, strangers to each other, being compelled to reside in one house, using one or the other's furniture.

## III. Tenants participation in community life

The community buildings and services are new and the tenants have not learned how to take full advantage

of the opportunities they represent. Schools, thriving shopping and community buildings are available.

The community as a whole is disturbed by the juvenile delinquency in the area. Meetings were being held in an effort to find ways of controlling this problem. They felt that the largest contributing factor was lack of parental care, or its substitute, supervision. In many families both parents are working and no supervised or organized play or care has been provided for the children.

There is strong resentment (which the interviewers thought justifiable) among tenants because the local citizenry appear to regard them as slum dwellers. Apparently the city authorities are not as eager to solve their war housing problems as those in other areas studied.

#### IV. Report on features inside the house

Although sincere effort and thought had been expended in an attempt to make these houses less stereotyped than the usual war housing, the interviewers felt that it was one of the poorest arrangements of rooms and most inconvenient houses in which to work that had yet been encountered.



3 doors and a "washhouse"

The arrangement of the doors is one of the worst features. Both the kitchen and living room doors, as well as the door to the utility closet (which has no lock and in which is stored such articles as canned goods) opened on the screened porch. There are no back or side doors. (The interviewers knocked on the closet door on their first exposure to this array of doors.) The kitchen is on the street side and the living room, facing yard space, commands a view of mostly ditches and clotheslines. Some tenants thought having bedrooms in the rear was a good arrangement for day sleepers. Others stated that having a bedroom on the street side produced sleeping problems for night and swing shift workers.

The bedrooms are too small to accommodate furniture adequately, especially the so-called single bedroom, which more often than not two or more people must occupy. There is not sufficient space for either a dresser or chair when a double bed is set up in this room. Although more closet space is provided in these houses than in most projects, the tenants consider it inadequate.

The kitchen is too small and is badly ventilated. Tenants would have preferred a larger kitchen with eating space rather than the living room-dining space combination. This latter arrangement involves extra steps in carrying food back and forth from the kitchen, and eating in the living room keeps it in constant disorder. The dining space provided is too small to accommodate a dining table with chairs for four people; they



have to be pushed back and forth for each meal. It might be noted that in Pennsylvania A the combination living room-dining space is acceptable to the tenants. The dining space runs the length of the living room (L-shaped) on a direct line with a large kitchen door. In this Alabama project the dining space runs the width of the living room in an indirect line from the kitchen door.

The houses are heated by gas stoves which smoke and streak the ceilings and walls. The walls are painted and cannot be washed without streaking.

There is a more even distribution of heat throughout the duplexes than there is in the ground floor units. Because heat rises, the upstairs bedrooms and bathrooms of the duplexes are better heated than those of the ground floor units which the heat seldom reaches.

The windows installed in the houses are a source of annoyance. Instead of rope pulleys they have catches at the sides that fit into holes in the frames to hold them open. They are not only difficult to clean but it is practically impossible for one person to manipulate them. There are no handgrasps to facilitate opening them. It is necessary to stretch both arms across the window, pull out the small pegs at the sides, lift up the window, maintaining the sideways tug at the same time.

Washday presents almost a ludicrous situation for the housewife. With what must be judged to have been the best, albeit misguided, intentions, these houses are equipped



with an outside "washhouse", which is not large enough to hold a washing machine or tubs, and has no drain. It contains one faucet which provides either hot or cold water. It is necessary to circumvent the house, mount the steps to the screened porch where, in the utility closet, exists a gadget which must be turned to determine whether or not cold water comes out of the "washhouse" faucet. Depending on their temperaments, the tenants either ridiculed the "washhouse" or were puzzled by it. But, whatever their attitudes, it is never used as a "washhouse", rather as an outside space for storage of large articles such as bicycles and tools, for which they find it useful. Inasmuch as washing machines and tubs are kept either in the kitchen or on the porch, and in view of the door arrangement, the housewife must carry her clothes to the drying lines through the kitchen door, across the porch, through a screen door (which swings back on her as she makes an exit) down four narrow steps and around the house to the umbrella dryer. This is only the beginning of her washday problem.

The umbrella type of clothesdryer is most unsatisfactory. The lines are too short to stretch sheets and blankets to their full size. And when they are folded they do not dry quickly or thoroughly. (Wherever possible -- which is infrequent -- housewives have supplemented the dryer with straight lines). Being subject to the whims of the wind it is more often than not necessary for the housewife to "chase"

the dryer in order to pin her washing on a line. Clothes flap against the pole in the wind and get soiled by paint and rust, with the result that the entire complex washing operation must be repeated. The only advantages that can be accredited to this type of dryer is that it has approximately 120 feet of drying lines in a compact space and is not too unsightly.

No path to the dryer is provided and due to the lack of proper drainage on the grounds, after rainy periods the problem of mud is added to the other washday inconveniences.



Whirligigs ... Housewives "chase" them

The interviewers listed the following advantages of the house:

1. Screened porch for drying clothes in bad weather.
2. Outside storage closet for tools, bicycles, etc., called a "washhouse", but not used as such.

3. Utility closet adjacent to kitchen for storage of canned goods.



Variety of design

V. The house in relation to the community

As one interviewer put it, "This is the first project that doesn't look like one. It looks as though people live here, not as though it just came off somebody's drawing board". The general appearance is pleasing and refreshing. It is evident that a great deal of thought has been given to try to make it look less barracks-like. The variety in design and size and the diversity in the placement of the houses relieve it of the monotony encountered so often in row houses. The yards are sowed with grass, and small flower gardens are planted beside steps and around porches.

Many interviewers felt that the variety of groupings made getting about the project a bewildering experience for the visitor. The streets were planned in loops and unless you were acquainted with the logic behind the plan it was difficult to orient yourself. According to one interviewer, even intimate knowledge of the plan was no guarantee of accuracy. She tells of a doctor (a member of the project planning committee) who, when called on a case, wasted several hours in trying to reach his patient because he could not locate the address.

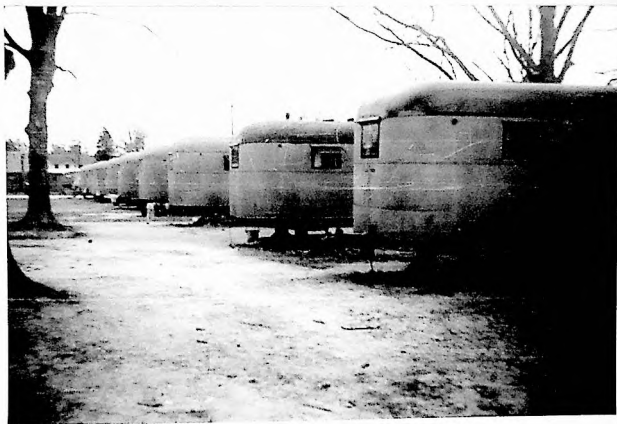
The plan also encourages cutting across yards so that tenants feel they have no privacy. Everybody's space is regarded as public property. Children have no supervised play space and use the yards indiscriminately for their activities.

Tenants feel that the houses facing each other are too close together and make private conversation on porches impossible. Had the houses been set parallel on the lots, there would have been more individual grassy space surrounding each separate dwelling.

Exposed drainage ditches make certain areas unsightly. Garbage cans are often kept regularly on curbs rather than placed there only for collection on certain days. They are not only odoriferous but are often overturned by dogs or children during play.

The project has been well placed from the standpoint of the tenants' proximity to work; some are within walking distance. There is excellent bus service for those living in the far reaches of the project.

## ALABAMA TRAILERS



Two hundred olive drab standard and expansible trailers are set closely together in straight rows on marshy land about an hour's bus ride from the main section of a city, approximately two miles beyond the Alabama Houses studied. Bus service runs to the project.

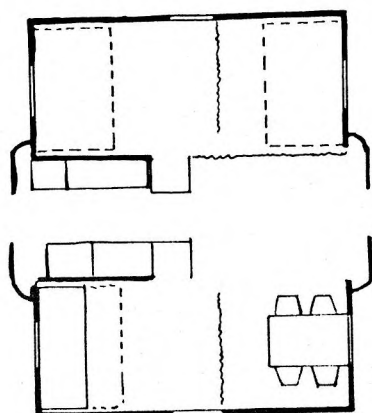
Cooking is done on gasoline stoves, and the trailers are heated by kerosene heaters. Ice boxes are provided.

Expansible trailers serve as bathhouses and laundry rooms (approximately one for every 27 families). Bathhouses are partitioned into men's and women's sections; each has three toilets, a bathtub, shower and four wash basins. Laundry rooms, in separate trailers have four double set tubs and three ironing boards.



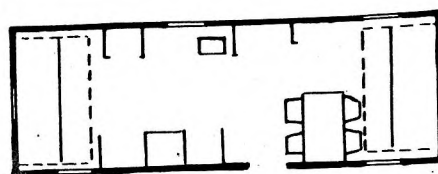
Forty-nine families cooperated on the study.

Floor plans of typical standard and expansible trailers are illustrated in Figures J, K.



EXPANSIBLE HOUSE TRAILER

Figure J



STANDARD HOUSE TRAILER

Figure K

A community recreation building in the camp supplied a cafeteria, gymnasium and game rooms.

See page 109 for interviewers' comments.



## VIRGINIA TRAILERS



This is reputed to be the largest trailer camp in the United States. It is located near Virginia Houses, about four miles from a city, and is serviced by the same bus connections.

There are 2450 (1950 standard, 500 expansible) trailers painted different pastel colors to form sections, set closely together in straight rows.

This project has 100 utility buildings instead of trailers; each serves about 25 trailers. Each building is divided into separate sections for men and women, a laundry room and a heater room. The bathhouse sections each contain three toilets and four basins; in addition, there are two showers and

a urinal for men, a shower and bathtub for women. The laundry room has two sets of tubs and two ironing boards.

No recreational facilities exist since the destruction of the one community building originally built for the camp. A school and shopping area are provided.

Sixty families cooperated on the study.

### Interviewers' Comments

The features and problems of the two trailer communities studied are so similar that they are presented in one section. Differences in the specific projects will be indicated.

#### I. Description of the people

Trailer tenants of both projects showed casual friendliness and were eager to talk with the interviewers about their reactions to trailer living and their problems. Those in the Alabama trailers came predominantly from rural sections of that and nearby states.

Those in the other project are Navy personnel and shipyard workers of more widely contrasted cultural backgrounds. One interviewer illustrated this with account of two of the tenants she visited. (Incidentally, these highlight certain unfavorable conditions in the community).

One was a family from a rural area. There were already five children even though the housewife was only 25 years old. Their habits were somewhat unhygienic in the conventional sense. The children retired fully clothed, although the nine-year-old boy removed his shirt and pants (retaining his

underwear) as a tribute to the influence of a teacher. On Friday nights one small tin bathtub of water was heated on top of the stove and each child was bathed successively in the same tub of water. (To heat more than one was "too much trouble", according to the mother). The infant received sponge baths every other day but was never completely submerged in water.

A large quantity of home-cured pork, unwrapped and unrefrigerated, was stored in the kitchenette drawers.

The major problem to this large family was that all its members could never take a holiday together because the round trip busfare into the city was too expensive for their budget.

The other family were Middle Western ex-city dwellers. The young wife was well-groomed and fastidious and entertained the interviewer at dinner. She was most dissatisfied over the lack of playgrounds for her two children and of adult recreational facilities. During the winter the weight of snow had collapsed the roof of the local community recreational hall, which now stood facing the road, a prominent and unsightly wreck. Recreation such as Bingo and dancing had ceased for lack of a place for the people to gather.

The day after the interviewers arrived the only local drugstore burned down. This represented a serious loss to this trailer housewife's social life. Since the elements had closed the recreational hall the only relaxation afforded

this ex-city dweller had been joining her friends at the drug-store for a "coke". Now she was even more depressed and dissatisfied with trailer life.

## II. Tenants attitude toward war housing communities

Trailer living is vastly different from any other planned community life, including temporary war housing. The latter has a minimum of planned standard requirements, such as sanitation and privacy, necessary for normal living. But a trailer camp is a congested, thickly populated area without adequate indoor or outdoor space, and people are crowded into less space, with fewer sanitary provisions, than comfort or health permit.

Trailer living seems to encourage careless standards. Hygienic habits suffer. Carrying water to the trailer is inconvenient and the lack of privacy and cleanliness in public bathhouses takes a psychological and social toll.

Training and control of children grow lax. They go to bed later because the entire family is confined to such a small space for living functions that there is no privacy or quiet. They also get up any time they choose. The younger ones who cannot dress themselves are left to their own devices within the trailer and are at liberty to walk around the grounds and go to the bathhouses (in night clothes and bare feet) without supervision.

During the summer months it is impossible to keep children inside the trailer because of the extreme heat. Inasmuch

as no shaded play area is available, they play under the trailer, where garbage cans are usually kept and stagnant water forms in large pools.

The schools are so over-crowded that many school age children cannot attend. Two alternatives present themselves in the absence of supervised playgrounds: -- keeping them within the space limitations of the trailer, where quarreling and friction develop between themselves and parents, or allowing them freedom to roam at will through the grounds. The interviewers observed that they often gravitate toward public bathhouses and garbage collection stations or water stations for play activities.

In almost every instance living in a trailer is not a matter of choice, but of necessity. Many families arrived without funds enough to pay their first week's rent and could not afford either to buy furniture or have their own shipped. That the trailer is a furnished living space, however inadequate, is not only the factor that makes them decide to move into it, but also the one that most often makes them remain. Families in Virginia who had moved from trailers to houses, either because of increases in family size or inability to adjust to trailer living, told interviewers it had taken most of their savings to have their furniture shipped or to buy second-hand furnishings locally.

The rent of Virginia trailers was \$6.50 a week, and that of houses in a nearby project only \$7.50 a week. Interviewers were informed that the low rental was in effect in order



to induce trailer tenants to move into the houses but that not many had taken advantage of it.

Several tenants in this project reported that misrepresentation and misleading tactics had been used to induce people to live in trailers. The best expansible models, completely furnished with linen, blankets, dishes and superior furniture were displayed at the shipyards and presented as the typical trailer.

The families who remained in trailers were attempting to adjust themselves to the limited space, the unsanitary and inadequate bathing and washing facilities and the unsavoury condition of the camp grounds as one of the exigencies of war. Housewives' remarks such as "When I first saw this place I never thought I could stand it", and "At first it was terrible... but I'm getting used to it now" are the testimony of their efforts.

Families with no children, an infant or 'teen age children accept trailer living with less strain. A few interviewers felt that the necessity for adjustment to a variety of cultures and social mores might exert a broadening influence on parents. However, a majority of the interviewers thought that the danger of disease from unsanitary conditions in bath houses and drainage ditches on the grounds might produce serious future results for both children and adults.

Some interviewers observed that attitudes toward trailer living varied according to the past living conditions



of the families. The complaints of those accustomed to crowded living quarters focussed on trailer camp living itself, i.e., garbage disposal and bathing facilities problems, rather than on the inside of the trailer, i.e., lack of space or privacy.

A very small group of families expressed a desire to own a trailer after the war, not as a permanent dwelling, rather in addition to a house, to be used only for vacations.

### III. Tenant participation in community life

Restlessness and neighborly bickering were pronounced. Considerable random social activity, i.e., "visitin'" back and forth between trailers, was prevalent, but there was no organized community life. As has already been indicated, there was a dearth of recreational facilities in the Virginia trailer community; even the nearest movie house was several miles away. A cafeteria and recreation center offering a gymnasium, games and dancing were available in the Alabama trailer project but were not used to their fullest capacity or as a means of fostering community unity.

In both projects tenant organization was needed for fire prevention and for education on control of contagious diseases and maintaining health standards, with emphasis on the individual's responsibilities toward the use of public utilities.

Lack of cooperation and understanding between tenants and management was strongly marked. Tenants in the Alabama trailers felt that they were being "patronized" and

treated like children. Whatever contact they had with management, whether through submitting complaints or receiving instructions, appeared to leave them with the same impression: -- they had been guilty of an infraction of rules, and either were or would be punished in a commensurate fashion.

In Virginia a bathhouse furnace had remained broken through the winter months so that the tenants (50 families) were unable to use the facilities due to lack of heat. Tenants of another section had signed a petition stating they would not pay their rent unless the garbage disposal situation was remedied and the bathhouses, especially the men's section, cleaned and disinfected and hot water provided. However, the majority appeared to feel hopeless about taking any action to secure improvement.

#### IV. Reactions to features inside the trailer

Two kinds of trailers were studied -- standard and expansible. In the Alabama trailers there are two types of standard trailers. The living space is better arranged in the one with the cooking stove in the so-called living room (the front end with the entrance door); the living room section is larger than the bedroom space (rear end), thereby creating an impression of more space in the trailer. The second type appears to be more cramped because the cooking stove is in the back section and divides the trailer exactly in half.

A door separates the living room from the bedroom in both trailers. In the former type the door is made by

closing two closet doors opposite each other and is less satisfactory than the sliding door provided in the second type.

The standard trailers in the other project were similar to the above two types in fundamental arrangement.

Space arrangement in the expansible trailer is good, and in general the additional amount of it made for less discontent and nervous strain, and a more orderly living space, although the larger-sized families living in them usually neutralized this effect. Children could play indoors in bad weather. There is also room enough for a medium-sized dining table and several chairs, whereas in the standard trailer when this furniture is put up at mealtime, no one can enter until it is taken down. An interviewer reported that two small boys in one of the families she visited always stood up for their meals.

However, the curtains used to separate the expansible trailer sections are a poor attempt at providing privacy and not as effective as the closet doors which form partitions similar to a door when closed in the standard trailer.

Trailer camps have no occupancy standards. Families of from two to seven persons live in a standard trailer. The interviewers noted as many as four children of varying ages sleeping crosswise on a folding couch, the center ridge of which is always the family "bone of contention". The older ones push the smaller children to the middle in order to get more comfortable space for themselves.

Storage and drawer space in expansible trailers is most inadequate. Shirts, workclothes and underwear are kept in kitchen drawers, sometimes in suitcases and trunks. One interviewer suggested that the two walls enclosing the kitchen unit might be expanded to include built-in drawers back to back with the kitchen drawers, to be opened on each side of the bedrooms.

In the standard trailer there is much variation in the built-in drawers. Combined with the two closets, they provide adequate storage space for clothes and furnishings, as well as kitchen articles, for a family consisting only of husband and wife.

Electric refrigerators for food storage would represent a great saving to tenants through prevention of spoilage. If electric refrigeration cannot be installed, the icebox might be placed near the door to avoid the iceman's "tracking through the whole house", as the housewives so magnificently overstate.

Storage space for rarely used and large articles is needed. Many tenants suggested that management provide central space for outdoor storage for specified trailer sections. They also felt that a safety deposit vault should have been made available in the office for their valuable papers.

The main fear of trailer tenants is fire. It is linked strongly with the gasoline cooking stoves which have caused many fires in trailers. One interviewer reported that

while she was on her way to interview a family in Virginia she was advised that their trailer had burned early that morning; the fire had started with the explosion of the stove. Most of the women do not know how to operate this kind of stove and should receive instructions on and demonstrations of its use. In addition, the stoves are neither cleaned regularly nor repaired adequately.

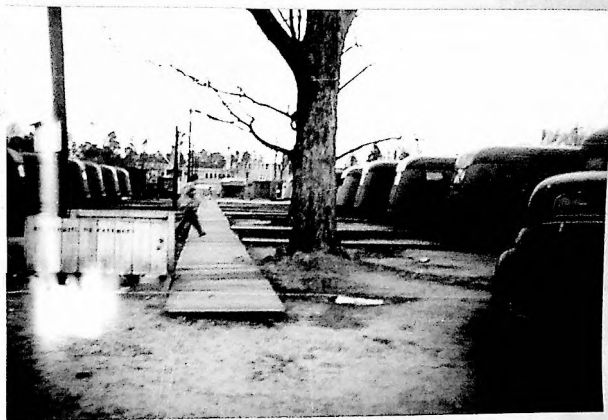
Another contributing factor to this fear of fire is the fact that the trailer has only one door, the single avenue of escape. Six small heavily curtained windows (26" x 17½") and two ceiling ventilators (15" x 15") that open only half way (or not at all, due to broken hinges), not only do not furnish sufficient air, light and ventilation but do not offer a means of exit from the trailer in case of fire. The only advantage of these windows are that they may be operated by means of a swivel rod and are placed at such an angle as to permit them to remain open when it rains.

Trailer doors are not high enough for the normal-sized person to pass through without bumping his head. In addition, the steps leading to the door are seldom fastened securely enough for safety.





Garbage collection stations  
(Alabama)



Straight rows and boardwalks  
(Alabama)

V. The trailer in relation to the community



Miles of pastel trailers  
(Virginia)



The appearance of the trailer camps is dismal and depressing. The trailers are set closely together in straight rows on swampy land criss-crossed by drainage ditches filled with stagnant water in which stray garbage, tin cans, old tires, papers, etc., float. Tenants living near drainage ditches are annoyed by insects, vermin and odors of stagnant water and garbage. One interviewer remarked that she felt as though she were walking through a city "dump".

Narrow, broken or rotted boardwalks lead to trailers and public services. As one interviewer put it, "You have to walk with your head hanging down all the time to avoid the pitfalls...it's either ditches or missing boards".

It is not safe to allow small children to walk about the grounds unattended by an adult. Even then, as one mother remarked, "You have to remind them all the time not to step in the water and get their only pair of shoes wet".

There are few trees in the camps and no "sitting out" areas or benches are provided. During the summer the heat in the trailer is extreme and tenants do not even have the recourse of sitting outside under a shade tree.

### Bathhouses



Expansible trailer used as bathhouse (Alabama)

The public bathhouses are extremely unsanitary and inconvenient. Those in Virginia are less crowded (usually not more than 21-27 families to one bathhouse) than in Alabama, where the interviewers reported even more crowded conditions. However, some interviewers reported that in certain sections of Virginia long lines of people form outside bathhouses at the morning and evening "rush hours" awaiting admittance.

The bathhouses are rarely heated and there is a constant shortage of hot water.

All toilets, tubs and shower stalls are uncurtained in Alabama. This is also true of the men's bathhouses in Virginia, although the women's sections here have wooden doors

in front of toilets and curtained spaces and a wooden platform on which to stand in front of tubs and showers.

Serious complaints center about the lack of supervision and care of facilities, the consequent danger of disease and the psychological and social effect of public bathhouses.

Toilets are continually clogged and out of order because they are used as dumps for debris. Some children are permitted to use them unattended by adults and often throw rolls of toilet paper into commodes. Toilet seats are either broken or missing.

Night chambers are emptied into bathtubs. Some women also use them for soaking diapers. The faucets are out of order. Those who use the tub fill it laboriously only about a third full by carrying water from the basin faucet and usually sit on the edge of the tub to take a sponge bath. A large majority of children are given sponge baths in the trailer, and many adults have adopted the same practice. Interviewers told of several men who state they go to a local barber shop once a week to bathe.

Floor linoleum is buckled and badly cracked.

The interviewers felt that the lack of privacy and sanitary measures in public facilities had serious psychological effects upon children. A mother with an eight-year-old son said he refused to use the women's section any longer. He showered in the men's section unattended, with the

result that "he only half washes himself and never comes home clean". Holes were poked between women's and men's sections, apparently for "peeking purposes", and small boys took full advantage of them. Small boys formed lines to wait for little girls coming out of bathhouses and "rocked them home", i.e., threw rocks at them until they reached the doors of their trailer homes.

#### Garbage collection

Garbage collection stations containing 4 to 7 uncovered garbage containers are spotted among the trailers. They are approximately 4 feet square with a concrete floor base and a drain about 3" deep, covered with a wooden drain plank.

Those in Alabama are comparatively well-maintained largely due to a regular daily collection schedule.

In Virginia the cans are overflowing with garbage and refuse because collections, which are supposed to be made twice a week, are not made regularly. Tenants in one section told interviewers that collection had been made only three times in six weeks, and then not thoroughly, since trash (including an old Christmas tree) had been overlooked. Another interviewer reported seeing a child the first day of her visit turn a large paper bag of garbage upside down directly over the drain in a station with cans too full to hold the sackful. The mound of garbage still remained at the end of the week.

Some tenants told interviewers that they had received instructions to separate trash from garbage and bottles

so that it might be burned by maintenance men in a rusty container placed next to each station. Presumably this is done neither regularly nor properly, judging from the amount of residue strewn about. Children attempt to carry out this incineration when the occasion arises. An interviewer reported that a child of one of the tenants she visited had severe burns on his mouth and face as a result of his experimentation.

Stationary concrete tubs with running water adjacent to the stations service families with fresh drinking and cooking water and are also used for washing leafy vegetables.

The fresh water supply container holding from 2½ to 5 gallons inside the trailer is filled here. It has a small faucet and is placed over the kitchen sink, giving the illusion of running water. A rubber hose attached to the sink leads to a 3-gallon pail under the trailer, which is to be emptied over the drain in the garbage collection stations. (Pools of dirty water collect around the pails because many tenants do not empty them as soon as they are filled.) Both tubs and drains are stopped up with grease, stray garbage and refuse so that the water does not drain off and is left to stagnate.

Tenants in trailers near the collection stations are harassed by rats, flies and odors.



Utility houses (Virginia)

Clotheswashing and drying

Clotheswashing facilities in Alabama consist of one expansible trailer with the partitions removed. It contains four double stationary tubs and three ironing boards. Folding and work space is omitted. In the other project each laundry section has four tubs, and occasionally an ironing board (in bad shape). Shortage of hot water in both projects necessitates soaking work clothes for several hours, thereby reducing the amount of tub usage per family.

There appears to be sufficient clothesdrying line space (approximately 472 feet) in Virginia, but the ropes



are broken and used mostly by children as swings. Many women string their own lines between trailers. They fear having clothes stolen when hung out of sight.

#### VIRGINIA HOUSES



This project is a community in itself, located four miles from the center of a city. Bus service runs through the project.

The site covers 911 acres of land and there are 4.7 families per acre.

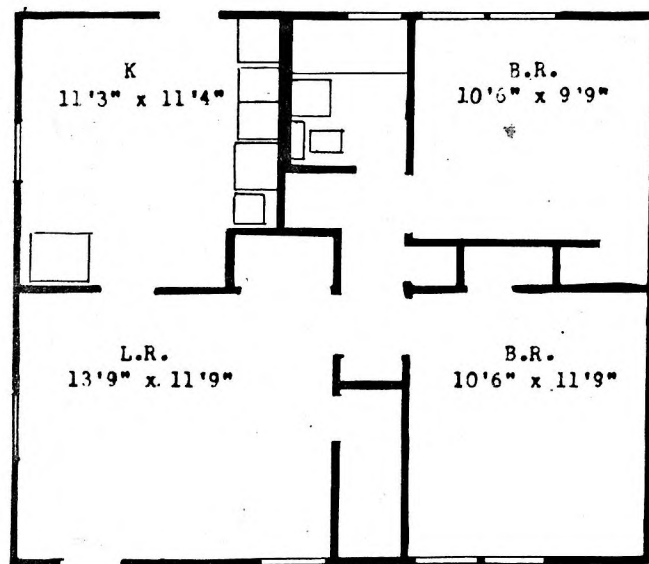
There are 4253 units (850 one-bedroom, 2550 two-bedroom, 853 three-bedroom) in one-story, one-family dwellings of demountable panel construction. A few are completely detached,

the rest are double houses, about 4 inches apart.

Coal is used for cooking, hot water and house heating, and electric refrigeration is provided.

Forty families cooperated on the study.

A two-bedroom unit floor plan is illustrated in Figure L.



VIRGINIA HOUSES

Figure L

Four combination management-social buildings provide indoor recreation rooms; around each are outdoor play areas for

small children. Three shopping centers are located in the project. There is a regular school building and several apartments are used as additional classrooms. Hospitals and churches are 2-3 miles away. Church services are held Sundays in one of the community buildings. A number of bus stations containing public telephone booths have been spaced throughout the grounds.

### Interviewers' Comments

#### I. Description of the people

The tenants are Navy personnel and civilian shipyard workers and vary widely in background and standard of living. The selection of this sampling differed from that in other projects inasmuch as only those families who had formerly lived in a trailer were included. This was done so that a comparison could be made of family living functions of people residing in the same community, one group of which had formerly lived in trailers and now lived in houses, the other group of which were present trailer residents.

#### II. Attitude of tenants toward war housing communities

Families moved into these houses due to their dissatisfaction with trailer living, and their critical faculties of the houses were considerably dulled. As one interviewer put it, "They are in such bliss over space in which to move, running water, bathroom and washing facilities, and most of all, privacy, they fail to voice any complaints".

Many houses are vacant due to the fact that insecurity over husbands' status prevents families taking them because of the necessity of buying furniture. None of them planned to remain in the area after the war.

### III. Tenant participation in community life

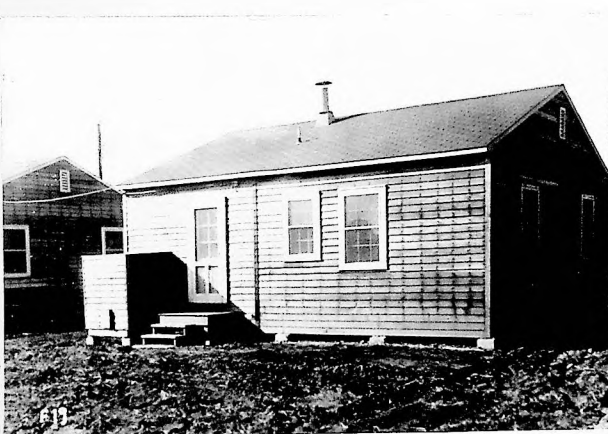
This project is conspicuous by the absence of any comment on the community life in the interviewers' reports. One interviewer only made the interpolative remark that the people did not appear to be integrated into any community feeling whatsoever.

IV. The houses are well-planned, light and airy, and the room arrangement convenient. As indicated above, the houses seem almost luxurious to the tenants after trailer life. Bathrooms, running water and electric refrigerators have become "objects of devotion". Closets and storage space is unusually adequate: 3 closets in the hall, one for linen, one for clothes, and one for general storage purposes; one closet to each bedroom and another in the living room.

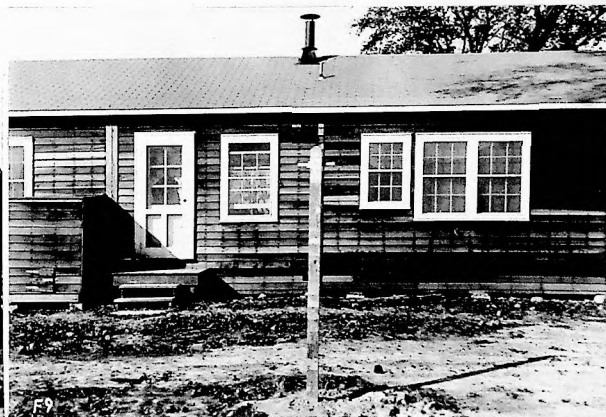
Many families are buying furniture on the installment plan. One housewife stated her reasons thus: "We had a small furnished apartment when we were first married -- and then a series of trailers. We feel that we will want to have our own furniture some time so decided to buy it now while my husband is still making good wages rather than wait 'till after the war when our income may be uncertain."

The kitchen coal range and the living room coal heater are dirty and unsightly and present fuel storage problems. There is no means of getting quick heat for a small amount of cooking; therefore the house is kept continuously and uncomfortably heated during the summer. The water heater is attached to the living room stove. Housewives would prefer to have it connected with the kitchen stove, which would seem more logical.

However, the major factor in the objections to the stoves is fear of fire. Fires are easily generated due to the fact that the two stoves have the same flue. The beaverboard walls burn so quickly that by the time fire apparatus control arrives the house has been completely destroyed. Small ventilators have been put in the wall where the two stoves stand and the partitions facing the hallway have been removed in an attempt to cut down fire hazard.



Rear single house. Swampy ground.



Rear row house. Fuel storage and clothesline pole.





Front row house

V. The house in relation to the community

The unpainted redwood houses with green and red painted roofs are pleasing and have a certain rustic air well suited to their location in wooded terrain. However, most of them have been placed on swampland and the drainage system is completely inadequate; pools of stagnant water stand all over the grounds. The large back, front and side yards have potentialities, the back one even being ample enough for planting a vegetable garden, but the drainage ditch problem is too great for the tenants to overcome.



## MARYLAND PRE-WAR PERMANENT



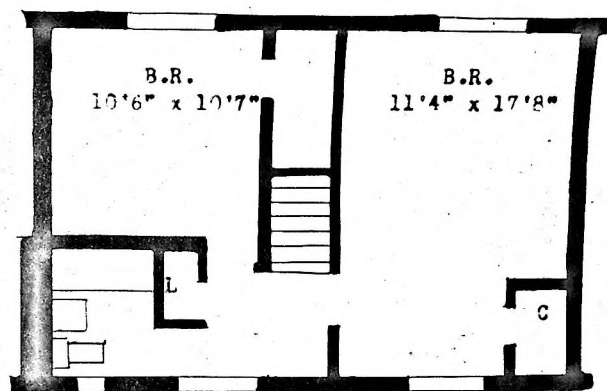
This project is a complete community in itself located seven miles from the limits of a large city, with the bus connection running through the project. The resident area covers 120 acres. 3,100 acres were allocated for parks and reserves for future development.

There are 885 permanent units of two-story houses and four-story apartment buildings constructed mostly of brick or concrete block. There are some detached and semi-detached single family dwellings and a few experimental prefabricated houses. Electricity is provided for cooking and refrigeration. Each row of houses has a central heating plant. Garages are either attached or built in rows near the homes. Apartment houses have laundry room storage and recreation space in basements.

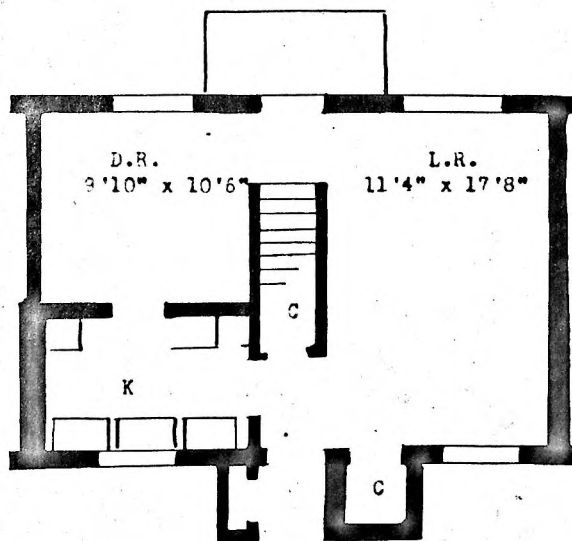
Fifty-five families cooperated on the study.

A two-bedroom unit floor plan is illustrated in

Figure M.



Second Floor



First Floor

MARYLAND PRE-WAR

Figure M

Community buildings and grade and nursery schools are built in the community. Church services are held in the movie house or school auditorium.

Outdoor recreational facilities such as picnic and play areas, and athletic field, lake and swimming pool, are provided. Indoor recreation rooms are available in the schools.

The community center supplies large cooperative stores and such facilities as a dry cleaning establishment, gas station, laundry, post office and police and fire department headquarters.

The community has a health association and medical care program. The hospital is located six miles distant.

It has its own city manager type of government, the officers of which are elected by the tenants. A civic affairs group and community council are active in the project.

#### Interviewers' Comments

##### I. Description of the people

The tenants are government personnel of a higher social and economic level than any group studied. They are more sophisticated and have a greater awareness of the world at large and the role of their community in it.



Beautifully located

Attractive Design

## II. Attitude of tenants toward war housing communities

Tenants are very well-satisfied with their homes and community. The houses are attractively designed, well-built and beautifully located, and the families appreciate the advantages and benefits they derive from the community planning. The project is an outstanding example of government-sponsored permanent housing. It demonstrates the results to be gained from careful planning in the comfort and well-being of its occupants. Not only the dwellings and grounds, but also the well-rounded and thoughtfully conceived community life, are large factors in this atmosphere.

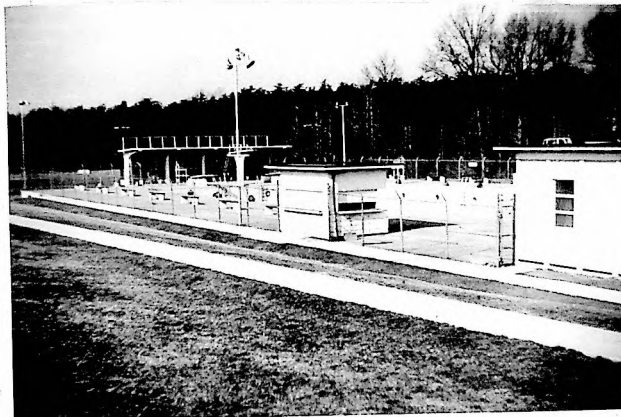
### III. Tenants participation in community life

Inasmuch as this project is a permanent and well-established community, it is not comparable to any other community studied except perhaps Pennsylvania B, which is newer and therefore has not fully developed its recreation, shopping and transportation facilities, or its community life. Many interviewers stated that this Maryland project was the first area where they had found any real community spirit. It is a very well-organized communal social group. Tenants themselves help to manage the project through cooperative organizations. There are numerous children's playgrounds and ample provision is made for all forms of recreation and community activities for both children and adults. Different kinds of clubs appealing to a variety of interests among the tenants are organized and a large majority participate in them.

A few tenants expressed a desire for a comparative shopping area larger than that afforded by the project.

Notable among its outstanding features are:

1. Encircling parks for gardens, picnics, etc. protected from encroaching industry.
2. Well laid out dwellings and protection for children from arteries of traffic.
3. Playgrounds for small children in each block.
4. Well-cared for grounds. Submerged garbage cans, clotheslines out of sight.
5. Recreational activities such as swimming pool, tennis courts, gymnasium, etc.
6. Cooperative stores.



### Recreational Facilities

The only objection expressed in the community was that the school was "too progressive". Many mothers felt that the children were not being "taught enough". Several parents stated that they were holding their own classes for their children.

#### IV. Report on features inside the house

The house interiors had the best plan of any project studied. The position of the living room with windows front and back allows for plenty of light and air. The dining arrangement proves satisfactory except in units where it is less convenient because there is no door from the kitchen.

Although tenants have much more clothing and possessions here, closet space is adequate.



The attics are useless as such, because the steps leading to them are very steep. (Many housewives use them for linen storage). In some houses they are too awkward to reach, being located at the rear of a closet which has no light.

The living room radiators absorb more wall space than necessary.



Lawns and Hedges

"Like a Park..."

#### V. The house in relation to the community

By comparison with other projects, this one seemed like a park to the interviewers. It has a simple site plan and the lawns, trees and hedges give each tenant a feeling that they have individual space for which they assume personal responsibility. Some families stated they would like to have

higher hedges to enable them more easily to keep children in their own yards. This also would contribute to a greater sense of privacy.

A few tenants stated that there is need for better drainage. The sidewalks in some front yards dip, and one is forced either to wade or high-jump water puddles that gather on rainy days.



#### Clotheslines

The provisions for garbage and its collection are excellent and those for clothes washing and drying very satisfactory.

Tenants at the extreme ends of the project feel that the bus transportation should be extended to these areas. In some instances it is necessary for them to walk a mile or more for a bus.

## MARYLAND WAR HOUSING PERMANENT



This development had been added to the Maryland Pre-War Permanent project and is considered a part of this community.

1000 units are provided in two-story row houses of frame construction.

Tenants have access to all existing facilities and services of the permanent community.

### Interviewers' Comments

#### I. Description of the people

The people are "typical" of those in other war housing communities, with similar educational background and economic status. However, the incorporation into a permanent

community with its superior community development and opportunities has enlarged their scope and stimulated them to have varied interests outside of their homes.

## II. Attitude of tenants toward war housing communities

As a whole, tenants are satisfied with their dwellings and surroundings. There is little feeling of permanence among them since the husbands are either in the service or engaged in some war activity centered in this section and may be moved at any time. None of them plan to remain after the war.

## III. Tenant participation in community life

The tenants' sense of responsibility in the community is pronounced. Although their backgrounds are widely different they are well adjusted to each other, and cognizant that they have an opportunity through wartime living to widen their acquaintance and understanding of people whose social and mental heritage differ from their own--a circumstance unlikely in peace time. Community activities of the nearby permanent project facilitate this process. They take full advantage of all the available recreation opportunities, such as swimming, tennis, canoeing, fishing, hiking, baseball, etc.

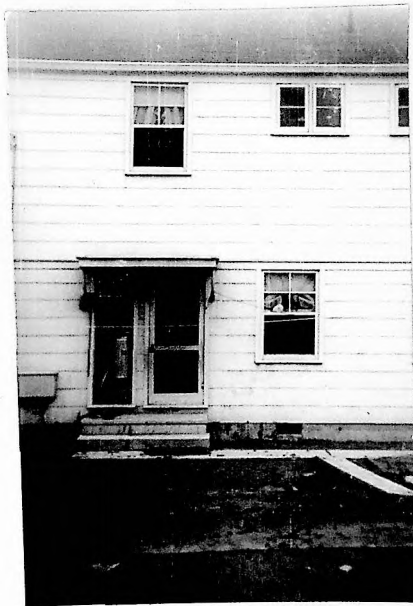
## IV. Reports on features inside the house

The rooms of the house are well arranged but the interior plan is not as good as that at California Temporary or Virginia Houses. The small kitchen and the combination large

living room-eating space plan again prove unsatisfactory. In addition, the dining end of the living room generally was dark, except in the end houses which had extra windows in that area.

Tenants thought the bathroom was too small and that the radiators were placed too near to the toilet.

The outstandingly best feature of the house is the outside garbage closet. It could have been improved by the addition of a window or ventilator.



Outside Garbage Closet

Clothes storage and closet space is sufficient, but storage space for such large articles as washing machines, bicycles, etc., inadequate. Washing machines are kept in the



kitchen, but its small size prohibits even their temporary use there. Therefore each washday they must be dragged back and forth between the kitchen and the utility closet, which is located across the hall. A few tenants suggested that a community laundry would be desirable.

Thin walls were a source of constant complaint. They seriously interfere with sleeping since the slightest noise carried. The paint streaked when the walls were washed.

The front porches were not large enough and had to be shared with neighbors so that they were seldom used. A larger door overhang would have kept water from dripping on the platform.

V. The house in relation to the community



Monotonous



Although the appearance of this project is better than most of the temporary projects studied, the frame houses are monotonous in conception. It should be noted that this reaction undoubtedly is influenced by contrast with the originality of its sister project.



#### It has Possibilities

However, even with its potentialities and the improvements possible through landscaping the interviewers thought it could not achieve the grace of the other project.

The site is wooded, hilly and very pleasant but the land appears to be wholly unsuitable and unprepared for homes. Mothers with small children hesitate to allow them out of the house fearing they will fall into waterholes, some as

deep as three feet, or down steep, slippery embankments of mud.



### Mud

The condition of the grounds creates a serious clothes-drying problem. Housewives whose lines are not on pulleys (which are scarce at the present time) wade ankle-deep in mud in order to hang out clothes.

Tenants have no individual yard space; children playing all over the grounds discourage what attempts are made at growing gardens or grass. This lack of personal responsibility for yard space that has no specific boundaries of any kind, either real or imaginary, has been noted in many projects.

One of the major complaints about the site is the lack of transportation to schools and shopping areas which are

located approximately a mile away. Mothers with children who are too young to walk either must stay at home or leave them with neighbors while shopping.

Many tenants object to the location of the heating plant too near to the dwellings.

#### SUMMARY OF INTERVIEWERS' COMMENTS

With the importation of thousands of workers to war production areas, it was necessary to house them quickly with a minimum of waste. It should be emphasized that the interviewers considered the projects studied a very good attempt to solve this urgent war-time problem. Without exception the projects had a high percentage of occupancy.

However, although basic needs of the people were met, the interviewers' reports indicate that many improvements could have been made. Some difficulties could be attributed to lack of time for establishing sites and planning, but others seem to be more related to the materials available. The following suggestions for improvements are offered.

##### House Plan and Construction

1. Families with small children prefer houses on one level and those with older children houses on two levels.
2. The housewives interviewed prefer a larger kitchen providing eating space rather than a combination eating space and living room. Apparently eating and cooking are considered one function, to be separated from other living functions. However, eating space does not necessarily have to be in the

kitchen; it may be in a dining room or part of or off of the living room--as long as it does not provoke intrusion on living room activities.

3. There is evidence that omitting a specific detail from an improvement in a house makes the improvement not only lose its meaning but also become an irritant.

This was brought out in Alabama Houses in the inconvenience of the outside washhouse, in Maine Permanent where potential cellars were provided but not completed, and in California Temporary, where boarded-up spaces under the houses were intended for utilization as outside storage but were not accessible or sufficiently finished to serve adequately for this purpose.

4. Fear of fire in war housing is perhaps uppermost in the minds of tenants and is intensified by such factors as what they believe to be flimsy construction of the houses, narrow stairways, one door servicing four families and placement of two coal stoves against a common wall, utilizing a single flue.

5. Thin walls and common wall space in row houses are responsible for a serious problem in connection with noise disturbance for sleeping, especially acute for war-time night shift workers who must sleep during the day.

6. Both inside and outside storage space was inadequate in all projects. The need for undesignated storage

space is evident regardless of how many or how few possessions people have. The need for outside storage space increases in cold climates. Kitchen shelves are out of reach and sufficient storage and work space in kitchens lacking.

7. All project tenants objected to the omission of closet doors except those in a humid Southern climate, where it was thought that the omission had been intentional in order to allow for more circulation of air in order to prevent mildew of clothing. Due to the climate and dirt from a nearby city, there was extreme objection to the lack of closet doors in two of the projects.

8. Tenants' reactions to gas heating were favorable. Those whose houses were heated by coal disliked it.

9. That climate would seem to be an important factor in house design is emphasized again by the need for indoor clothesdrying space expressed by tenants in projects located either in Northern climates or in geographical areas with rainy seasons.

### Site

The factors influencing the interviewers' reactions were:

1. Lack of landscaping, responsible for such major problems as mud, improper drainage and inadequate pathways. A sense of spaciousness is a desirable element in planning sites.
2. Failure to satisfy the fundamental desire of people to exert an individual sense of responsibility for their

property. This is demonstrated strongly through the extreme dissatisfaction with community clothesline space and community garbage collection stations, as well as through tenants' preference for individual yard space and fences outlining the property belonging to them.

3. Lack of such standard conveniences of community life as transportation, schools and shopping areas.

4. Monotony of row houses. Favorable impressions were received of those projects which showed variety in the size and shape of houses and skillful use of color and paint, or whose houses were architecturally well done and/or suited to the local terrain or climate.

5. Failure of management to educate tenants on projects' street plans or significance and use of service and safety streets.

#### Community

The people in the war housing communities studied were a typical cross section of low income and middle class American families, the largest percentage of whom came from the nearby areas in each project. They plan to return to their home communities after the war.

The degree of unity and satisfaction they feel in their present communities, and their sense of identification with it, is directly related to sympathetic understanding and action on the part of management, and provision of community services.



### Trailers

Use of the trailer for temporary housing can be considered satisfactory only for couples. The social and psychological effects of trailer living upon families with children introduce serious problems. Large concentrations of adults and children using inadequate public bath and toilet facilities without proper supervision results in dangerous unhygienic conditions.

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