

SPACE DESIGN CRITERIA PROJECT
PROJECT REPORT, 1955 AND 1956

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INTRODUCTION

In order to minimize the accumulation of extraneous data, the Space Utilization Committee agreed that it would be desirable to concentrate on the study of space requirements for a limited area of the house. Furthermore, it was agreed that it would be desirable to concentrate on the study of space requirements for new living patterns and the use of new kinds of equipment which are being enjoyed by a larger and larger proportion of American families today, especially including the television set. And finally, it was agreed that it is desirable that this program continue to be concerned with the establishment of space standards for quality houses, not just minimum houses.

At the present time, there is a strong trend toward raising the standard of new housing by increasing the over-all house size. In order to plan these enlarged houses intelligently, there is a critical need for standards to guide the planning and design of areas for family activities. The living room or living-dining room alone is not sufficient for all of these activities. For this reason, it was deemed advisable to concentrate the next year's space study on the open areas and furniture space for all activities normally carried on in the living room, dining room or multi-purpose room.^a Special emphasis will be given to the study of the multi-purpose room because it is the opinion of the committee that this technique for expansion of the family living area is one of the least understood and most important improvements in house planning which will become more and more popular in the near future.

a. See definition in Section B.

A. OBJECT AND SCOPE OF THE INVESTIGATION

1. Primary Objectives

Following are the questions to be answered by the study of data accumulated under the Space Utilization Program during 1955-1956:

- A. Which activities influence the space requirements of the multi-purpose room?
- B. What are the space requirements for these activities? The analysis shall consider separately the needs for:
 - (1). Furniture
 - (2). Clearance for Activity
 - (3). Free Area for Activity
 - (4). Total Room Area
- C. Which activities migrate away from the living room, bedroom and other rooms when the multi-purpose room is available and adequate?
- D. What savings in space are possible in these other rooms due to the elimination of these activities?
- E. What advantages or disadvantages result from the provision or omission of the multi-purpose room, besides those influencing activities?^a

2. Activities to be Studied

The first question under Primary Objectives was tentatively answered in order to form a basis for scheduling the questions to be asked and data to be accumulated. To do this, all of the activities on Maude Wilson's "Check List--Functions of the House"⁽¹⁾ were reviewed and classified as either:

- a. For example, see (2) Appendix 3, page 3-I-2 (2) - A5. This answer mentions the advantages of: (1) Feeling of Openness (2) Better Ventilation

A. Activities to be studied for one of the following reasons:

- (1). Multi-purpose room activities.
- (2). Activities in adjoining kitchen.
- (3). Activities elsewhere that might occur in the multi-purpose room.

B. Activities not to be studied for one of the following reasons:

- (1). Strictly a farm activity.
- (2). Always in the bathroom.
- (3). No baby in the family.
- (4). No measurable effect on plans or plan has no measurable effect on the family.
- (5). Strictly storage problem.
- (6). Will not affect selected families.
- (7). In bedroom, regardless of size.
- (8). Always outside or in garage.
- (9). - Basement house only.

For a complete listing, see Appendix 2, "Activity Areas of the House".

B. DEFINITIONS


Multi-Purpose Room

A multi-purpose room is an area within the house that:

1. Is isolated from the living room. *flex part*
2. Has large windows; i.e., 15% to 25% of the floor area.
3. Is at least 100 square feet in area.
4. Is not located in the basement; i.e., all window sills are above grade.
5. Has an outside entrance.
6. Can be used for at least three of the following activities:
 - (a). Recreation
 - (b). Eating
 - (c). Sewing
 - (d). Laundry
 - (e). Desk Work
 - (f). Sleeping (Napping or Double-up Sleeping when housing guests)

C. TEST PROCEDURE

Data to be Recorded

Fifteen different sets of information were collected from the first three families. See Table C-1. Six of these proved valuable and should be obtained from families IV and V. See Table C-2. In addition, one new kind of information, "Activity Space Drawings," should be obtained in order to clearly identify the critical positions of the human body that determine space requirements and the dimensional relationship with the surrounding furniture and walls. 

Primary attention will be given to a study of the activities that would normally be carried on in the multi-purpose room. See Appendix 2 for a detailed breakdown of these activities. Limited attention will be given to the study of activities carried on exclusively in the kitchen and activities that might occasionally overflow into the multi-purpose room.

Other than the time log, no attention will be given to: activities that never occur in the multi-purpose room or kitchen, house cleaning, or storage problems.

TABLE C-1
TEST PROCEDURE

Data recorded for Families I, II, and III

	Time of Accumulation	Quantity of Information	Data in Final Report
FORMS:			
Electric Counter Readings	2 to 3 weeks during each plan	100 to 225 per plan	
Pedometer Readings	2 weeks during each plan	10 to 15 readings per plan	
Door Counter Readings	2 weeks during each month	40 to 50 readings per plan	
Storage Questionnaire	Interview during each plan	64 questions per interview	Page 169
Preliminary Interview	Prior to time family moved into test house	227 questions per interview	Appendix I
Schedule A (Livability Questionnaire)	Within 24 hours after test family moved into each plan	27 questions per interview	Appendix II and pages 97-164
Schedule B (Livability Questionnaire)	After family lived 3.5 weeks in each plan	164 questions per interview	Appendix III and pages 97-164 family reaction sections; i.e., pages 97-103 for Living-Dining Room
Family Activities (Time Schedule)	14-day log during the middle of each test period	1000 to 1250 time entries per log	Pages 17-65
DRAWINGS:			
Clearances for Household Activities	Once during each plan	1 or 2 plans with 10 or 15 measurements and critical notes by recorder	Page 144 and on
Furniture Placement	Once during each plan	1 or 2 plans	Pages 74-93
Elevations Showing Storage in Kitchen	Sketch made during each plan	1 or 2 sketches	
Desired Plans	After each plan, family sketched desired test plan	1 plan per change	Pages 184-193
Suggested Plan Changes	After each plan, family sketched suggested plan change	1 plan per change	Pages 173-182

	Time of Accumulation	Quantity of Information	Data in Final Report
TEXT:			
Informal Interviews	Interview at middle of each test period	1 paragraph recording interview from memory	
PHOTOGRAPHS:	One photographic session with each family during each plan	8 to 10 photos per plan	

TABLE C-2

TEST PROCEDURE

Data to be Recorded for Families IV and V

Title	Time of Accumulation
A. Preliminary Livability Schedule	Prior to time family occupies Test Dwelling
B. Furniture Placement Drawings	Normal: After 1-1/2 to 2 weeks in new room arrangement Special: Same as normal if possible
C. In Formal Interview	After 1-1/2 to 2 weeks in new room arrangement
D. Time Log. 7:00 a.m. until Midnight	14-day interval after two weeks in new plan
E. Schedule "B"	After 5 weeks in new plan (i.e., must follow analysis of Time Log)
F. Activity Space Drawings	After analysis of Schedule "B" and with family members in place
G. Photographs	Along with activity space sketches and measurements

*all have
multiples*

APPENDIX 2

ACTIVITIES OF THE HOUSE

APPENDIX 2

Activities of the House

All of the activity areas of the house are herein listed under the major headings and divisions for their analysis. Activities that are not within the scope of the project are also listed under the reason for excluding them. See Reference (1) for the original list on which this table is based.

Activities to be Studied

I. Primary Multi-Purpose Room Activities

A. Recreation

1. Radio and Phonograph

Radio

Phonograph

2. Child Play

Indoor Sand Box

Floor Space for Play of Young Children - Near Kitchen

Table Space for Play of Young Children - In or Near Kitchen

Games (List)

Desk Space for Children

Work with Carpenter Tools

Blackboard Space

Rough Indoor Play and Exercise

Held Shows and Meetings

3. Playing with Children

Playing with Children

4. T. V.

Watching Television

5. Entertaining Friends

Serve Company Meals

Receive Guests in place other than Family Living Room

Dancing

6. Hobbies

Arrange Flowers

Work with House Plants

Place Indoors to Grow Flowers

Work with Sports Equipment

Work with Hobbies (list)

7. Reading
Reading
- B. Eating
See IIB and IIIB
- C. Sewing
 8. Sewing
Sew at machine - usual
Cut large garments
Cut small pieces
Baste and pin
Do Hand sewing
Use mirror when designing or fitting
Tie comforters, or quilt
- D. Laundry
 9. Hang and take in clothes
Dry special wash
Air ironed clothes
Dry washing indoors
 10. Ironing
Iron clothes usually
Press clothes for immediate wear
Dampen clothes
Press while sewing
Sponge and press garments
Do dry cleaning
See IID also
- E. Desk Work
 11. House Business
Write checks, keep records, make plans for the household
 12. Studying
Study away from others in family
 13. Letter Writing
Write personal letters
 14. Telephoning
Use telephone
- F. Sleeping
 15. Napping
Lie down during day
Put young children to nap

16. Lodging Guests
Lodge Guests
Place for use of Women Guests

G. Meal Preparation and Cleanup
See IIG

H. Personal Care
See IIH

II. Secondary Multi-Purpose Room Activities

A. Recreation

See IA

B. Eating

1. Eating - family only

Serve family breakfasts, dinners, suppers - light meals

C. Sewing

See IC

D. Laundry

See ID and IIID

E. Desk Work

See IE

F. Sleeping

See IF

G. Meal Preparation and Cleanup

See IIIG

H. Personal Care

2. Dressing and Personal Grooming

Clean muddy boots and shoes

Polish shoes

Dress and undress*

Place near kitchen for homemaker to use when kitchen
is not near bedroom

Wash hair

Dry hair

Comb own hair*

Shave*

Get weighed*

Use sun lamp

Dry wet outer garments

*Consider for each person

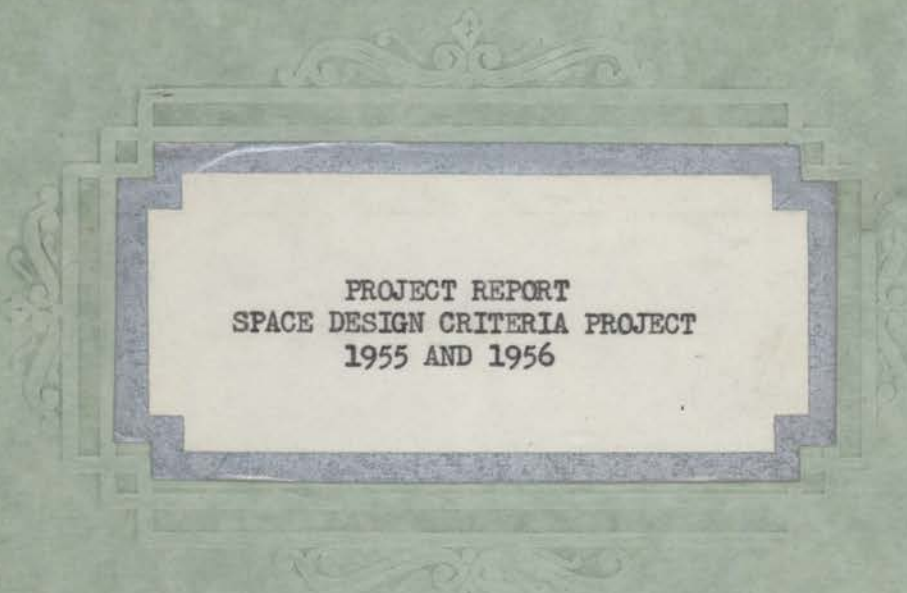
3. Caring for Children

Help younger children dress

Cut hair

III. Activities in Adjoining Kitchen

- A. Recreation
See IA
- B. Eating
 - 1. Eating - family only
- C. Sewing
See IC
- D. Laundry
 - 2. Load and Unload washer
 - 3. Load and Unload dryer
 - 4. Hand Laundry
Do special washing (underwear, baby clothes, etc.)
See ID also
- E. Desk Work
See IE
- F. Sleeping
See IF
- G. Meal Preparation and Cleanup
 - 5. Meal Preparation and Cleanup
Prepare regular meals, including foods (as bread)
prepared for more than one meal at a time
Prepare fruits and vegetables for canning
Process canned fruits
Check over groceries
- H. Personal Care
See IIH

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