

AN ABSTRACT OF THE THESIS OF

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Title HOUSE DESIGN SCORES OF FORTY CORVALLIS, OREGON,
RESIDENCES RELATED TO HOMEMAKERS' EXPRESSED SATIS-
FACTION AND RANKING OF VALUES

Abstract approved 
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The purpose of this study was to gain information regarding interrelationships among homemakers' expressed satisfaction with their houses, their expressed hierarchy of values and house design scores.

The sample consisted of 40 homemakers who lived in owner-occupied residences located in Corvallis, Oregon, constructed since 1955, and ranging in size from 1200 to 1700 square feet. Cooperators were limited to persons who had not employed an architect or designed their own house.

Data were collected by interviews with homemakers and included: (1) general information about the homemaker, her family and their house, (2) an expressed satisfaction score based on principles developed by the American Public Health Association, (3) the hierarchy of nine values determined by previous research as having

relevance in housing, and (4) a house design score using plan-evaluation check lists.

The families ranged in size from two to seven persons with the median being four. One-half of the homemakers were under 35 and 82.5 percent were high school graduates. Approximately 62 percent of the families were in the expanding stage of the family life cycle. Forty percent of the families were in social position IV as determined by Hollingshead's Two Factor Index of Social Position.

The median size of the houses was in the 1300 to 1399 square feet category; the median price range fell into the \$17,000 to \$17,999 category. Over three-fifths of the homemakers had made no changes in the original floor plan of the house they selected. Fifty percent of the families had lived in their present house fewer than three years.

The majority of homemakers interviewed seemed satisfied with their houses, especially in regard to wiring, daylight illumination, facilities for cleanliness, and protection against contagion and accidents. Storage and adequate space for guests, privacy, and individual interests of family members as well as noise were found unsatisfactory by a number of homemakers.

Many homemakers mentioned they would, in buying another house, desire family rooms, more than one bathroom, larger bedrooms, and a front entry. Nearly five-eighths of the homemakers wanted some part of their houses enlarged.

In general homemakers with smaller families including those without children or with children over 18 expressed the most satisfaction with the type of house included in the study. Homemakers who were not high school graduates and those over 40 years old expressed greater satisfaction with their houses than other respondents.

If the plans were selected prior to building the house, the homemakers expressed more satisfaction with their houses than if the houses were completely built when purchased. Homemakers who had lived in their houses fewer than two years were more satisfied than the other respondents. Homemakers living in more expensive houses expressed greater satisfaction than those in less expensive houses.

A correlation coefficient of .52 between the design of the house as rated on house plan-evaluation check lists and the homemakers' expressed satisfaction with the house was significant at the 1% level of probability. Significant correlation coefficients were found between expressed satisfaction and three of the specific topics of the check lists: landscape (.40), circulation (.42) and kitchens (.56).

The correlation coefficient of -.37 between the ranking of the value aesthetics and the expressed satisfaction score was significant at the 2% level of probability.

House design scores and values were found to have no correlation in this study.

HOUSE DESIGN SCORES OF FORTY CORVALLIS, OREGON,
RESIDENCES RELATED TO HOMEMAKERS' EXPRESSED
SATISFACTION AND RANKING OF VALUES

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HOUSE DESIGN SCORES OF FORTY CORVALLIS, OREGON, RESIDENCES RELATED TO HOMEMAKERS' EXPRESSED SATISFACTION AND RANKING OF VALUES

INTRODUCTION

Housing influences every person in our nation either economically or socially. Economically, expenditures for housing affects individuals directly because a large segment of their income is spent on housing; indirectly individuals are affected through the total housing expenditures in the national economy. According to Glenn Beyer (1965), an economist who works in the field of housing, almost one-fourth of the personal consumption expenditure of our population is represented in housing expenditures. One-fourth of our national wealth is in the form of city and village dwellings. Jean Warren (1961), a specialist in home management from Cornell, states the "Equity in homes in the United States almost equals the combined value of savings accounts, savings bonds, and cash value of life insurance" (p. 349). The 1960 United States census stated that almost 62 percent of the occupied housing units were owner-occupied and that the median value of newer houses has increased. (U. S. Bureau of the Census, 1965).

Housing has highly significant social implications because it provides the shelter for the basic unit of our society--the family.

Social scientists generally agree that almost every person's life is affected by the kind of house in which he lives. The house influences activities, relationships and satisfactions involved in family living. Values which individual families attach to housing are factors affecting the choice of features to be included in the house and the selection of the house itself. Today the average homeowner selects his house from either a number of speculative houses already built or from a stock plan which he alters to his specifications. The speculative house is one for which a builder buys land, builds several houses and sells them to the general public. The motive for building is to make the houses salable and profitable. The alteration of a stock plan gives the family some chance to express its individuality. An individual's chosen physical environment visually reflects his hopes and beliefs.

Do builders' houses fulfill these hopes and provide satisfaction to the homemaker? To my knowledge no study has been made which deals primarily with the overall satisfaction of the homemaker with the house. Some surveys have been taken to gain information on what homemakers desire in a house. Many check lists have been designed to give prospective homeowners an idea of what to look for before buying. Individual features have been studied for consumer satisfaction. Minimum housing standards have been established. It has been concluded that certain groups of people hold some housing desires in common.

Are the homemakers satisfied with the houses in which they are living? The family has selected a house to be its expression of family life, the location of its activities, and the reflection of the tastes and emotions of its members. Has the house they selected met the expectations of their decisions? What influence if any do the homemakers' expressed values have on their satisfaction with the house in which they are living? Would a house with which a homemaker is highly satisfied also rate high on a check list designed by an architect to be used when evaluating a house plan? This thesis is designed to gain some insight into the answers to the above questions and to fulfill the following objectives:

1. To measure the homemaker's expressed satisfaction with the house in which she is living
2. To determine the rank of nine value definitions held by the homemaker
3. To ascertain numerical scores of the house plan for a selected number of houses in the Corvallis area
4. To compare the rank of the values held by the homemaker and her expressed satisfaction with the house
5. To establish a correlation between the numerical score of the house plan and the numerical score of the homemaker's expressed satisfaction with her house
6. To compare the rank of the values held by the homemaker and the house plan score.

REVIEW OF LITERATURE

Importance of Housing and Design

Housing represents a complex product which has highly significant economic and social implications. Housing "must contribute effectively to the development of the family, community and nation" (Beyer, 1960, p. 644). Herbert Hoover stated home ownership is "the foundation of a sound economic and social system" (Barach, 1959, p. 45). According to the 1960 United States Census, 62 percent of the housing units in the U.S. are owner-occupied. This represents nearly 33 million houses with the median value of nonfarm houses being \$11,900 (U.S. Bureau of the Census, 1965). "Home ownership is the oldest and most enduring sign of social status. It constitutes a life philosophy and a life goal" (Moholy-Nagy, 1960, p. 60). "The design or building of every house is an act of social importance. It influences the future trend of family life. By force of material environment it presses family life into one shape or another. By deciding upon one design or another this influences the formation of family habits in the most intensive manner" (American Public Health Association, 1950, p. 6).

Even though the house has such an important influence on the people living in it, very few families have an opportunity to plan this

environment. Eighty-five percent of the new houses were built before the owners were identified (Cramer, 1958). The trend is toward more prefabricated houses. According to the article, A Quick Look at Today's Housing Trends, (1965) over 20 percent of the new houses in 1964 were prefabricated. Most sources agree that these new houses are not meeting the needs of today's families. Many of the complaints stem from noise, lack of storage room and poor planning. Three-fourths of the homeowners are dissatisfied with their houses according to the article, A Quiet House is a Better House (1955). This conclusion was drawn by observing behavior of occupants.

There is a need for quality homes in our present affluent society (Prentice, 1960). In the article, U. S. Need for More Livable Homes (1958), one builder expressed that he felt "hamstrung by codes and zoning rules; by unpredictable whims of mortgage lenders; by union featherbedding; the public who would rather save a dollar than buy quality" (p. 68). Home buyers should assume some of the blame for the quality of houses on the market. If people are willing to buy the poor quality house, the builders will continue to construct this type of house. In the above mentioned article it was stated that homeowners spend less time buying a house than a car.

Several housing authorities have established what is important in the design of the house. "To be a good design a house should be so planned and built that it will accommodate in the best manner

possible all the activities that go on in it; this is what is meant by functional design" (Beyer, 1965, p. 280). "A truly functional house, a space for living, should be amenable to modification resulting from family activity" according to Gough (1955, p. 236). Pickering (1945) says, "Architecture, to be completely satisfactory and useful, should have utility, stability and beauty" (p. 116). Carter and Hinchcliff (1949) state that housing is a "personal problem of attaining a satisfactory home and a public problem of meeting living needs of all families" (p. 1).

Many check lists and suggestions have been compiled for prospective homeowners. Some deal primarily with circulation or zoning such as in the article, What is Good Planning (1954). Other more inclusive check lists critically analyze design, style, circulation, and appearance (Watkins, 1962). Some are referred to as guides and include lot, location, styles of houses and space requirements (Sleeper, 1948). Gottlieb (1965) feels the following items are the basic needs in a house:

1. Shelter and privacy
2. Temperature control
3. Light control
4. Seating
5. Space for reclining
6. Necessary horizontal surfaces
7. Storage space (p. 194).

A goal of the housing program is to create "a home and community environment conducive to the health, growth and development

of all members of the family at all stages of the family cycle" (Beyer, 1960, p. 646).

Past Research, General

Housing research has been undertaken by many individuals and groups. Specifications have been recommended to fulfill the physical needs of individuals in housing but little research has been done which deals with mental and emotional satisfaction.

Early housing research dealt primarily with space standards and work simplification. Later research was focused on planning houses around family needs, preferences and activities (Wilson, 1933; Thorpe and Gross, 1952; Smith, Gerhold and Kivlin, 1961). The early studies were often conducted with rural families. The Research and Marketing Act of 1946 made possible an extensive study of farm household activities, facilities and family preferences in four regions covering the U. S. to determine space requirements for these activities to aid in planning functional farmhouses (U. S. Department of Agriculture, 1952). In some research, women were asked what they wanted in housing (Wilson and Wells, 1940). Women representing the entire United States were assembled in 1956 for the Women's Congress on Housing. These women wanted better organization of space from interior to exterior (U. S. Housing and Home Finance Agency, 1956). Space preferences in storage have been the subject of some

recent research (Davis, 1962; Davis, 1964). Some housing requirements were ascertained in one early study (Mikkelson, 1937). Housing images of women college students were obtained on a regional basis (Montgomery, 1963). Specific building features have been evaluated by homemakers (Sansom, 1942; U. S. Federal Public Housing Authority, 1945).

An extensive study was conducted for the National Association of Home Builders and House and Garden Magazine to discover what women want in housing on a national basis (Mark Clements Research, 1964). Each woman interviewed had had at least two home ownership experiences to be used as a basis for comparison. The survey was intended to produce ideas regarding design.

A list of housing features was developed for use in the research on housing choices as evidence by residential mobility (Smith, Kivlin and Sinden, 1963). One research project dealt with development housing and family needs (Linke, 1959). Some features were identified with which homemakers felt dissatisfaction.

One of the books resulting from the White House Conference on Housing deals with house design, construction and equipment including planning, building, sanitation and equipment of dwellings (Gries and Ford, 1932). Many recommendations are given.

The American Public Health Association established a Committee on the Hygiene of Housing on the premise that no housing

program can be sound unless the shelter it provides is healthful. The committee developed principles to meet the basic health needs of individuals in housing (American Public Health Association, 1938). Since its early beginnings the Committee on the Hygiene of Housing has made several studies and established minimum standards for space plus suggestions on heating, ventilation, illumination, noise control, sanitation and safety. These all pertain to basic health needs of individuals and families.

Past Research, Values

Fairly recent research has been conducted regarding human values as related to housing. Human values are defined by Beyer, Mackesey, and Montgomery (1955) as "the totality of a number of factors, such as an individual's ideals, motives, attitudes, and tastes, which are determined by his cultural background, education, habits and experiences" (p. 49). Williams (1956) mentioned a range of important value positions current in our society and suggested their complex interrelations. Values and systems of belief do not operate as single and separate units. Human values represent the basic qualities of people. These qualities are not hastily formed and are not likely to be easily changed. Values are an integral part of an individual which serve as a basis for decision-making.

"Choices families make in the selection of housing would be

expected to reflect their values" (p. 1) is one of the basic assumptions of the study by Smith, Kivlin, and Sinden (1963). One of the purposes of this study was "to determine which features have a different value rating in particular family situations" (p. 1). The study was primarily concerned with the residentially mobile family, their reasons for moving and the housing features involved in selecting another house. This research neither identified specific values nor determined a hierarchy.

Studies of human values have not been widely undertaken, especially in application of these values to the field of housing. At least two studies dealt with values relating to kitchen design (Fortenberry, 1963) and to personal and family activities (Dyer, 1962).

Two studies identified specific human values that have relevance in housing. The study by Cutler (1947) identified ten values and developed a home values test that would "enable individuals and families to think through their housing problems in terms of needs and preferences of family members" (p. 5). This device was tested with 50 families and extensive analysis was undertaken. The test does reveal personal and family values in the choice of a house. However, it does not relate values in any way to expressed satisfaction or house design.

Beyer, Mackesey and Montgomery (1955) identify nine values.

Each value was examined for its relation to life in general and to housing in particular. Quite extensive testing was conducted to confirm the validity of these nine values. A field study was conducted in 1952 with 1,032 families in Buffalo, New York. This field study confirmed "the theory that families can be grouped according to the primary values that govern their lives" (p. 2). On the basis of this research house plans were designed to fulfill the requirements of families which fell in one of the four value groups (economy, family centrism, personal, and social prestige).

Values are hoped to provide a clue to designing more satisfactory housing for individual families. "Research to date has not actually tried to determine what would happen to individuals if they changed to the kinds of housing which would seem to best satisfy their value orientation" (Beyer, 1961, p. 95). "Better understanding of the personal value orientation of American families may hold the key to many factors, including more appropriate design of housing for different groups which could add to greater satisfaction with life in general" (Beyer, 1965, p. 65).

On the basis of available research it would seem possible to hypothesize that there would be some relationship between personal values held by the homemaker and her expressed satisfaction with her house. Values might also be related to house design.

Satisfaction with Housing

✓ Satisfaction with one's house has been agreed upon as important by many authorities; but various opinions exist as to how this can be achieved. Montgomery (1959) feels satisfying houses will result from "value fulfillment, family activities, and physical materials of the dwelling" (p. 9). Agan (1956) states that "satisfaction is conditioned to a great extent by the degree to which decisions made reflect the desires of the whole family group and are reached only after thoughtful and wise study of the many factors involved" (p. 26). Katona (1964) says, "It is not uncommon for a strong desire to improve one's place of residence to exist side by side with a feeling of satisfaction with the place where one lives. Dissatisfied people often feel unable to change their situation, while satisfied people see the possibility of improving it or of arriving at still greater satisfactions" ✓ (p. 268).

Conferences have been held and surveys taken to ascertain which features of houses will bring satisfaction to the homemaker. Of the many housing research projects conducted only one was found to be concerned in part with the overall satisfaction of the current homemaker with the house. This study (Campbell, 1964) was concerned with shell houses and one purpose was to obtain the homemaker's expression of satisfaction with her shell home. It was found

the homemakers expressed both satisfaction and dissatisfaction with their homes; however, more than one-half of the homemakers would invest in another shell house if the need for a home presented itself.

In a report of the Housing Committee of the Association of Land Grant Colleges (n. d.) "intangible aspects in housing such as attitudes, feelings, prejudices and structural interaction related to psychological satisfaction and dissatisfaction" (p. 3) were listed as areas in housing research needing the attention of home economists.

To date, little attention has been paid to the interrelationship of the overall satisfaction of the homemaker with the house in which she is living, the influence of values she holds, and the house design.

GENERAL METHOD AND PROCEDURE

Sample

This study involved 40 Corvallis, Oregon homemakers living in residences selected on the basis of four factors including the square footage of the house, the date of house construction, ownership of the house and the method of house selection.

The houses ranged in size from 1200 to 1800 square feet. The size range was decided upon after consultation with the Head of the Department of Architecture and research on minimum size standards determined by the American Public Health Association. The houses were built within the last ten years and had been purchased by the present occupants. The families had either (1) selected a house in which they had no choice in the construction and plan, (2) chosen a plan and built it exactly the same or (3) selected a plan and modified it. Eliminated from this study were houses designed by the owners or an architect employed by the owner because (1) only a minority of houses are custom built in this country, and (2) it could be assumed that people who live in custom houses express more satisfaction with the house.

Areas of Corvallis in which the newer houses are located were designated by an employee in the Chamber of Commerce office. The city directory was used to select the random sample which was

restricted by the four factors mentioned above. A cross section of later housing developments was represented. Approximately 100 contacts were made in order to obtain 40 participants because of the selective sample desired.

Each of the homemakers living in the residences selected was sent a letter to explain the study and to inform them they would be contacted later by the interviewer (Appendix A). A telephone call followed the letter to establish a date and time for a personal interview for those who agreed to participate in the study. The interviews were conducted between December 15, 1965 and February 18, 1966.

Measuring Devices

To obtain the information needed to fulfill the objectives of this study, an interview schedule was devised by the author which consisted for four basic components (Appendix B). The house plan was evaluated on a professional check list, nine value definitions were ranked in order of importance to the homemaker and score sheets were completed by the homemaker to indicate her satisfaction with the house. General information about the house and the family was also asked of the homemaker.

House Design

The House Plan-Evaluation check lists developed by H. R. Sinnard,

Head of Architecture at Oregon State University, were adapted to rate the house plan. These check lists were developed by Professor Sinnard for use in his architecture classes to evaluate student house plans. The fact that the population is quite mobile was taken into consideration in the development of the check lists. They represent a realistic approach to house planning for people in general. The items listed are not only desirable to the family living in the house but also for planning houses with high resale value.

The check lists consisted of five pages each covering a specific topic. Orientation was concerned with the location of the house on the lot with regard to the sun. The amount of natural illumination was also considered. The page on landscape had a list of items that would assure a desirable house and garden relationship. The traffic pattern or circulation between areas in the house was given particular attention on the third page. The possibility for flexibility or expansion to adapt to the changing needs of the family was the next topic. The last page was devoted to the kitchen, its arrangement and storage space. Although the last page is not always included with the check lists, it was considered important to include when conducting a study with homemakers about their houses. Many consider the kitchen as the heart of the home.

Each sheet of the check lists had a maximum score which constituted the evaluation of the house plan in each specific area. The

points were added to obtain the total score of which the maximum was 109. The higher the total score, the better planned the house from the professional point of view. To develop some reliability the interviewer had several consultations with Professor Sinnard to establish accuracy in using the check lists. When interviewing a homemaker, the check lists were filled in by the interviewer with the homemaker's assistance in locating items.

Ranking of Value Definitions

The nine value orientations identified as having relevance to housing design by research at Cornell University (Beyer, Mackesey and Montgomery, 1955) were chosen for use in this study. They are as follows: economy, freedom, family centrism, equality, physical health, mental health, leisure, social prestige, and aesthetics. The definition of each of these nine values were typed on slips of paper for each homemaker to rank in order of most importance to her in regard to housing (Appendix B). She rearranged them until they were ranked from one, rating highest to nine, rating lowest. The slips of paper were then placed by the researcher in an envelope with slots to prevent confusing the order before they were recorded.

Expressed Satisfaction Score Sheet

A measuring device for expressed satisfaction was developed by

the researcher. The Basic Principles of Healthful Housing determined by the American Public Health Association Committee on the Hygiene of Housing were used as a basis for the score sheet on expressed satisfaction. These principles were developed in 1938, revised in 1950, and are still considered basic in housing today. The basic principles are grouped into four main categories which include fundamental physiological needs, fundamental psychological needs, protection against contagion and protection against accidents.

To insure similarity between the three components measured, expressed satisfaction, the ranking of value definitions and the house plan-evaluation, all three were compared and more statements were added to the score sheet for measuring expressed satisfaction. Statements were added concerning values, space, storage and circulation within the house. Two specific statements were added concerning the kitchen. These statements added were deliberately placed into one of the four main categories by the author in consultation with her major professor to facilitate later study.

Each statement was preceded by three columns labeled very satisfactory, satisfactory and unsatisfactory. The number of points allotted were 3, 2, 0. The points for each statement were added together to total a numerical score for expressed satisfaction. The highest possible score was 126. A higher score indicated greater expressed satisfaction with the house. Each statement was rated by

the homemaker's checking of the appropriate column.

An open-end question was developed to ascertain what homemakers had learned from the present house and lot that they would consider when buying another house.

Procedure

The devices used when interviewing the homemakers were pre-tested with four homemakers. Some of the basic principles on sanitation were felt outdated for houses built in the last ten years so they were omitted from the expressed satisfaction score sheet. The kitchen check list of the House Plan-Evaluation check lists was revised to make it more discriminating.

When interviewed the homemaker completed questions of general information about the house and the family. Background information concerning such family characteristics as age and education of the homemaker, the age of the husband, the stage in the family life cycle, the number and sex of the children and the occupation of the head of the household was ascertained. The family's social position was determined by Hollingshead's Two Factor Index of Social Position. Questions about the house included the specific size, method of selecting, cost of house, date the family moved into the house and remodeling the family had done.

After completing the general information questions, the

homemaker filled in the score sheet on expressed satisfaction and completed the open-end question. She then ranked the value definitions in order of importance to her in regard to housing. The interviewer filled in the House Plan-Evaluation check lists. As soon as possible after the completion of the interview, the writer recorded more complete details of the conversation and a rough sketch of the house plan.

Treatment of Data

The information from each interview was coded and recorded on IBM sheets. It was then transferred to IBM cards.

The IBM sorter was used by the writer to compile data for additional study. Selected family characteristics were used as variables to determine what influence if any they had on expressed satisfaction. Some features of the house were also compared to expressed satisfaction to determine significance.

The scores of expressed satisfaction and total house plan scores were plotted on a scatter diagram to illustrate the relationship which exists between the two variables. Scatter diagrams were also made for expressed satisfaction and each section of the house plan-evaluation checklists, including orientation, landscape, circulation, flexibility, and kitchens. Each of the nine values was charted on scatter diagrams with expressed satisfaction and the total house plan

scores.

The coefficient of correlation was calculated for each diagram by using the formula:

$$r = \frac{\Sigma xy - \frac{(\Sigma x)(\Sigma y)}{n}}{(\Sigma x^2 - \frac{(\Sigma x)^2}{n})(\Sigma y^2 - \frac{(\Sigma y)^2}{n})}$$

FINDINGS

Characteristics of Families

Of the 40 homemakers interviewed 38 of the households were headed by the husband. Two households were headed by divorced homemakers with children. Only the children presently living at home, 84 in number, were counted as family members in the study. The average number of children per household was 2.1. The number of children at home ranged from none in five households to five in one household. The children's ages varied from two months to 58 years (a handicapped son of retired parents). About 37 percent of the households contained four persons which was both the median and the mode (Table 1). Fifteen percent of the families contained two persons presently living at home.

Table 1. Number of Persons in Household of 40 Families.

Household Size	Number of Families	Percent of Families
2	6	15.0
3	5	12.5
4	15	37.5
5	10	25.0
6	3	7.5
7	<u>1</u>	<u>2.5</u>
Total	40	100.0

The ages for both husbands and wives ranged from 25 to 80 years, with approximately one-half of both being under 35 years of age (Table 2).

Table 2. Age Distribution of Husbands and Wives.

Age	Number of Participants	Percent of Husbands and Wives
<u>Husbands</u>		
25-29	3	7.7
30-34	15	39.5
35-39	5	13.3
40 and over	<u>15</u>	<u>39.5</u>
Total	38*	100.0

<u>Wives</u>		
25-29	7	17.5
30-34	13	32.5
35-39	5	12.5
40 and over	<u>15</u>	<u>37.5</u>
Total	40	100.0

* Total possible, two families headed by mother.

The ages of the children and the homemaker were used as a basis for the classification of the stage in the family life cycle (Table 3). The expanding family stage includes 62.5 percent of the families in the sample. This could be because of the broad definition which includes a wide span of ages for the children and the type of house

included in the study.

Table 3. Stage of the Family Life Cycle* for 40 Families.

Stages in Family Life Cycle	Number of Families	Percent of Families
Young Couple ¹	1	2.5
Founding Family ²	8	20.0
Expanding Family ³	25	62.5
Contracting Family ⁴	<u>6</u>	<u>15.0</u>
Total	40	100.0

* (Beyer, 1949, p. 10-11)

¹ The family type in which the woman is under 35 years of age and there are no children.

² The family type having some children, all under the age of eight.

³ The family type having some children between the ages of 8 and 18 (maybe some above 18 and under 8).

⁴ The family type in which the woman is 35 years old or older and no children under the age of 18.

The amount of schooling obtained by the homemakers and their husbands ranged from less than high school to a doctoral degree (Table 4). Fifty-five percent of the homemakers had completed their formal education as high school graduates. Five homemakers had graduated from college. The majority of husbands who had completed college also had done additional work at the graduate level. This is probably a result of Corvallis being the location of Oregon State University. Almost 20 percent more husbands had completed

college than wives. Eighty-seven and one-half percent of the wives and 94.7 percent of the husbands had graduated from high school.

Table 4. Amount of Schooling for Husbands and Wives.

Education Level	Number of Participants	Percent of Husbands and Wives
<u>Husbands</u>		
Less than high school	2	5.3
High school graduate	15	39.5
Partial college	9	23.7
College graduate	2	5.3
College plus graduate work	<u>10</u>	<u>26.2</u>
Total	38*	100.0

<u>Wives</u>		
Less than high school	5	12.5
High school graduate	22	55.0
Partial college	8	20.0
College graduate	5	12.5
College plus graduate work	<u>0</u>	<u>0.0</u>
Total	40	100.0

* Total possible, two families headed by mother.

The social position of the family was determined by the Two Factor Index of Social Position by August B. Hollingshead. The index is based on occupation and formal education of the head of the household. Hollingshead presumes that occupation reflects the skill and power individuals possess as they perform the many maintenance

functions in society, and that education reflects not only knowledge, but also cultural tastes. Each head of household is assigned one of seven occupational scale scores and one of seven educational scale scores. Lowest scale scores were given to those persons with occupations reflecting highest skill and power in performing maintenance functions in society and to those persons with highest levels of education. Weighting the scale score enables the researcher to properly combine the two factors. A weight of seven was given the occupation factor and a weight of four to the education factor. The weighted scores were added together for a total social position score. These scores were grouped so that families were classified into five social classes with I being the highest class and V being the lowest. No occupation factor was given for a full-time student so the author included that person as a separate group, VI (Table 5). The number five position was held by a non-high school graduate currently unemployed. Forty percent of the families were in number IV social position and 55 percent of the families were in the number III social position or above. In social position IV the heads of households have a high school education and are employed as clerical and sales workers, technicians and owner of little businesses. Some might be skilled manual employees.

Table 5. Social Position as Determined by Hollingshead's Two Factor Index for 40 Families.

Social Position	Number of Families	Percent of Families
High I	5	12.5
II	8	20.0
III	9	22.5
IV	16	40.0
V	1	2.5
VI*	<u>1</u>	<u>2.5</u>
Total	40	100.0

* Full time student.

Characteristics of Housing

The houses included in the sample were all one-story houses built within the last ten years. Approximately two-fifths were built within the last five years.

Primarily the homeowner either selected the house completely built or selected plans and modified them. The majority of families chose a house which was completely built at the time of purchase (Table 6). Over three-fifths of the homeowners had made no changes in the original floor plan.

The length of time the families had lived in their houses ranged from under a year to over seven years (Table 7). Fifty percent of the families had lived in their houses fewer than three years.

Table 6. Methods 40 Families Used to Select Houses.

Methods of Selection	Number of Houses	Percent of Houses
House completely built	23	57.5
House partially built	1	2.5
Plans selected and no changes	2	5.0
Plans selected and modified	<u>14</u>	<u>35.0</u>
Total	40	100.0

Table 7. Length of Time 40 Families Have Resided in Houses.

Length of Time	Number of Families	Percent of Families
Under 12 months	8	20.0
1 yr up to 2 yrs	3	7.5
2 yrs up to 3 yrs	9	22.5
3 yrs up to 4 yrs	5	12.5
4 yrs up to 5 yrs	0	0.0
5 yrs up to 6 yrs	4	10.0
6 yrs up to 7 yrs	5	12.5
7 yrs and over	<u>6</u>	<u>15.0</u>
Total	40	100.0

The sample was to include houses which ranged in size from 1200 to 1800 square feet. However, none of the families participating owned houses over 1700 square feet. Forty percent of the families lived in houses less than 1300 square feet. The houses were slightly larger than the minimum of approximately 1200 square feet for basic household activities for a household of four persons recommended by the American Public Health Association. Sixty-five percent of the

households in the study were four persons or less. The median size house in this study was in the 1300 to 1399 square feet category (Table 8). Only five percent of the houses exceeded 1600 square feet. Often the homemaker was not positive of the exact size of her house.

Table 8. Square Footage of 40 Houses.

Square Footage	Number of Houses	Percent of Houses
1200 - 1299	16	40.0
1300 - 1399	8	20.0
1400 - 1499	7	17.5
1500 - 1599	7	17.5
1600 - 1699	<u>2</u>	<u>5.0</u>
Total	40	100.0

The costs of houses at the time of purchase were quite varied even though the majority of the houses were less than 1400 square feet. The lot was also included in the estimated cost so this would account for some of the variance. The median price of the house and lot was in the \$17,000 to \$17,999 category (Table 9). The most expensive house was \$26,000.

The stage in the family life cycle showed some influence on the amount spent on the house (Table 10). The one young couple had both members working which might account for their spending more on housing than the average spent by the founding families. As a group, the founding families spent less on their houses and the contracting

families spent more.

Table 9. Estimated Cost of 40 Houses and Lots at Time of Purchase.

Cost	Number of Houses	Percent of Houses
\$ 13,000 - 13,999	6	15.0
14,000 - 14,999	4	10.0
15,000 - 15,999	3	7.5
16,000 - 16,999	5	12.5
17,000 - 17,999	9	22.5
18,000 - 18,999	6	15.0
19,000 - 19,999	2	5.0
20,000 and over	<u>5</u>	<u>12.5</u>
Total	40	100.0

Table 10. Average Cost of the Houses for 40 Families in Each Stage of Family Life Cycle.

Family Life Cycle	Number of Families	Percent of Families	Average Cost of House
Young	1	2.5	\$17,950
Founding	8	20.0	16,500
Expanding	25	62.5	16,984
Contracting	<u>6</u>	<u>15.0</u>	<u>17,966</u>
Total	40	100.0	\$17,350

Although the homemakers were asked what remodeling had been done to the houses, so few had made any changes to the structure that remodeling was not considered significant.

Considerations for Future Housing

An open-end question was included to ascertain what the homemaker would want in another house. The answers indicated that family rooms, more than one bathroom and larger bedrooms are important to a number of homemakers (Table 11). The circulation or traffic pattern within the house including a front entry was mentioned by one-half of the respondents. Nearly five-eighths of them wanted some part of their houses enlarged.

A large number of individual features were mentioned only once by various homemakers. White fireplace, stainless steel sinks, thermopane windows, wider driveway, and eating space in the kitchen were but a few of the many features mentioned.

House Design Scores

The House Plan-Evaluation check lists used in the study showed a range in scores of only 20 points (Table 12). The houses included in the study were quite similar in plan and design. This could account for the narrow range in scores. The highest score was 67 out of the possible 109. The type of house included in the study had little flexibility; this tended to lower the scores. Some families had not developed the landscape.

Table 11. Items Considered by 40 Homemakers for Future Housing.

Items Considered	Number of Times Item was Mentioned by Homemakers	
		<u>Total</u>
1. Specific rooms desired		
Family room	12	
More than one bathroom	11	
Utility room	6	
Basement	3	
Separate dining room	2	
Ample bedrooms	2	
Workshop	1	
Den	<u>1</u>	38
2. Enlarge present rooms and/or garage		
Bedrooms	10	
Bathrooms	5	
Garage	3	
Living room	2	
Kitchen	2	
Utility room	1	
House	<u>1</u>	24
3. Circulation or traffic within house	10	
Including the addition of a front entry	<u>11</u>	21
4. Location of house in regard to sun, lot and community services		14
5. Desirable storage		12
6. Individual features mentioned such as: eating space in kitchen, color of exterior, wider driveway, white fireplace, less open space in plan, etc.		<u>38</u>
	Total	147

Table 12. House Design Scores of the 40 Residences.

House Design Score	Number of Residences	Percent of Residences
45 - 49	2	5.0
50 - 54	10	25.0
55 - 59	13	32.5
60 - 64	13	32.5
65 - 69	<u>2</u>	<u>5.0</u>
Total	<u>40</u>	<u>100.0</u>

Ranking of Value Definitions

Values, the end product of human experiences, are quite individual. Each homemaker ranked the nine value definitions in a different order. Forty-five percent of the homemakers ranked economy first which indicated it was the most important value to them (Table 13). Equality was ranked first by 30 percent of the homemakers. Slightly over 62 percent of the homemakers ranked social prestige last or as the least important value. The values economy, equality, physical health and aesthetics were ranked in the top four positions by the 40 homemakers. Family centrism, leisure, mental health and social prestige were ranked in the bottom five positions.

Expressed Satisfaction

The expressed satisfaction score sheet stated features in housing essential for physical and mental health as well as safety and protection from contagion based on the principles established by the

Table 13. Ranking of Nine Value Definitions by 40 Homemakers

Value ¹	Rank																		Number Total
	1		2		3		4		5		6		7		8		9		
	Number of Homemakers and Percent																		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Economy	18	45.0	10	25.0	4	10.0	1	2.5	2	5.0	1	2.5	2	5.0	2	5.0	0	0.0	40
Equality	12	30.0	9	22.5	6	15.0	6	15.0	3	7.5	1	2.5	2	5.0	1	2.5	0	0.0	40
Aesthetics	3	7.5	4	10.0	4	10.0	9	22.5	5	12.5	5	2.5	1	2.5	6	15.0	3	7.5	40
Physical Health	2	5.0	10	25.0	13	32.5	7	17.5	4	10.0	2	5.0	1	2.5	1	2.5	0	0.0	40
Mental Health	2	5.0	1	2.5	1	2.5	5	12.5	3	7.5	7	17.5	7	17.5	9	22.5	5	12.5	40
Family Centrism	2	5.0	0	0.0	5	12.5	6	15.0	10	25.0	8	20.0	6	15.0	1	2.5	2	5.0	40
Leisure	1	2.5	5	12.5	5	12.5	4	10.0	7	17.5	9	22.5	7	17.5	2	5.0	0	0.0	40
Social Prestige	0	0.0	1	2.5	1	2.5	0	0.0	0	0.0	1	2.5	3	7.5	9	22.5	25	62.5	40
Freedom	0	0.0	0	0.0	1	2.5	2	5.0	6	15.0	6	15.0	11	27.5	9	22.5	5	12.5	40
Total	40	100.0	40	100.0	40	100.0	40	100.0	40	100.0	40	100.0	40	100.0	40	100.0	40	100.0	

¹(Beyer, Mackesey and Montgomery, 1955, p. 50-51).

American Public Health Association Committee on Hygiene of Housing. The homemaker checked whether each statement regarding the provision for these features was very satisfactory, satisfactory, or unsatisfactory in her house. The statement of each basic principle was then sorted from the score sheet into the four main categories and analyzed by category.

More homemakers expressed satisfaction than dissatisfaction with each of the features meeting fundamental physiological needs in their houses (Table 14). All the women interviewed felt their houses provided "adequate daylight illumination and avoidance of undue daylight glare" (Principle 4).

Very satisfactory was most frequently checked for "sufficient electrical wiring for appliances as well as lighting" (Principle 26); but only a few homemakers indicated they were very satisfied with "adequate artificial illumination and avoidance of glare" (Principle 13). Approximately one-half of the homemakers were very satisfied with the provision for "adequate space for storage in the kitchen" (Principle 34). The table also indicates several women were dissatisfied with the provision of that principle in their houses.

Nearly three-eighths of the homemakers checked unsatisfactory for the statement on "adequate storage for leisure and garden equipment" (Principle 41). One-fourth of the homemakers felt dissatisfied with "storage for all possessions owned by family members" and

Table 14. Homemakers' Expressed Satisfaction with Houses Based on Principles Concerned with Fundamental Physiological Needs¹

Basic Principles Concerned with Fundamental Physiological Needs	Principle Number ²													Mean
	2	5	8	9	13	18	23	26	34	37	39	41	42	
Expressed Satisfaction	Number of Homemakers													
Very Satisfactory	17	19	8	16	6	19	6	24	21	16	17	8	18	15.0
Satisfactory	21	21	21	23	28	14	23	13	11	21	19	18	20	19.5
Unsatisfactory	2	0	11	1	6	7	11	3	8	3	4	14	2	5.5
Total	40	40	40	40	40	40	40	40	40	40	40	40	40	40.0

¹ (American Public Health Association, 1938).

² 2. Maintenance of the temperature and humidity which prevents undue heat loss and permits adequate heat loss from the human body.

5. Adequate daylight illumination and avoidance of undue daylight glare.

8. Adequate storage for all possessions owned by family members.

9. Admission of direct sunlight.

13. Adequate artificial illumination and avoidance of glare.

18. Adequate space for exercise and for the play of children.

23. Protection against excessive noises.

26. Sufficient electrical wiring for appliances as well as lighting.

34. Adequate space for storage in kitchen.

37. The house and lot meet the physical needs of each family member.

39. There is a desirable arrangement of rooms which permits efficient traffic circulation.

41. The house has adequate storage for leisure and garden equipment.

42. There is adequate parking space for cars.

"protection against excessive noises" (Principle 8 and 23).

Seven-eighths of the homemakers expressed satisfaction with features meeting the fundamental psychological needs in their houses (Table 15). Four of the principles were considered either satisfactory or very satisfactory by all the women interviewed. They felt the houses had provision for "allowing the family opportunities to be together", "possibilities for aesthetic satisfaction in the home and its surroundings", "harmony with the prevailing social standard of the local community", and "my friends have commented favorably about the house" (Principles 4, 24, 29, and 38).

Approximately two-thirds of the homemakers were very satisfied with the provision for "adequate facilities for maintenance of cleanliness of the dwelling and of the person" (Principle 20). "Opportunities for normal community life" and "the house represents a sound investment" were felt to be very satisfactory by over one-half of the homemakers (Principles 10 and 36).

The most unsatisfactory feature to one-third of the homemakers was "adequate space for provisions of guests without upsetting family routine" (Principle 32). One-fourth of the women were dissatisfied with "adequate space to meet individual interests of all family members" (Principle 22). "Adequate privacy for the individual" was checked unsatisfactory by nearly one-fourth of the homemakers (Principle 3).

Table 15. Homemakers' Expressed Satisfaction with Houses Based on Principles Concerned with Fundamental Psychological Needs¹

Basic Principles Concerned with Fundamental Psychological Needs	Principle Number ²																				Mean
	1	3	4	6	10	12	14	17	20	22	24	27	28	29	32	33	35	36	38	40	
Expressed Satisfaction	Number of Homemakers																				
Very Satisfactory	19	17	26	19	22	6	19	18	27	11	16	15	10	20	6	17	18	22	23	13	17.3
Satisfactory	15	14	14	20	16	26	18	17	12	19	24	22	22	20	18	19	18	17	17	24	18.6
Unsatisfactory	6	9	0	1	2	8	3	5	1	10	0	3	8	0	16	4	4	1	0	3	4.1
Total	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40.0

¹ (American Public Health Association, 1938).

²

1. A front entry in a desirable location in regard to the rest of the house.
3. Adequate privacy for the individual.
4. Allowing the family opportunities for being together.
6. Opportunities for normal family life.
10. Opportunities for normal community life.
12. Opportunities for flexible use of space.
14. Facilities which make possible the performance of the tasks of the household without undue physical and mental fatigue.
17. Service area or utilities in a desirable location in regard to rest of house.
20. Adequate facilities for maintenance of cleanliness of the dwelling and of the person.
22. Adequate space to meet individual interests of all family members.
24. Possibilities for aesthetic satisfaction in the home and its surroundings.
27. A desirable view from the interior to the exterior.
28. Adequate amount of total space.
29. Harmony with the prevailing social standard of the local community.
32. Adequate space for provisions of guests without upsetting family routine.
33. Suitable arrangement of kitchen.
35. The exterior of the house is pleasing to me.
36. The house represents a sound investment, including initial cost, maintenance, operation expense and resalability.
38. My friends have commented favorably about the house.
40. The house and lot enables each family member to maintain peace of mind.

The last two categories were protection against contagion and protection against accidents (Tables 16 and 17).

Table 16. Homemakers' Expressed Satisfaction with Houses Based on Principles Concerned with Protection Against Contagion.¹

Basic Principles Concerned with Protection Against Contagion Expressed Satisfaction	Principle Number ²			Mean
	15	19	30	
	Number of Homemakers			
Very satisfactory	24	20	17	20.3
Satisfactory	16	20	20	18.7
Unsatisfactory	<u>0</u>	<u>0</u>	<u>3</u>	<u>1.0</u>
Total	40	40	40	40.0

¹(American Public Health Association, 1938)

²15. Avoidance of insanitary conditions in the vicinity of the dwelling.

19. Exclusion from the dwelling of vermin which may play a part in the transmission of the disease.

30. Sufficient space in sleeping-rooms to minimize the danger of contact infection.

All of the homemakers were satisfied with protection against contagion by "avoidance of insanitary conditions in the vicinity of the dwelling" and "exclusion from the dwelling of vermin which may play a part in the transmission of disease" (Principles 15 and 19). A few homemakers expressed dissatisfaction with "sufficient space in sleeping-rooms to minimize the danger of contact infection" (Principle 30).

Table 17. Homemakers' Expressed Satisfaction with Houses Based on Principles Concerned with Protection Against Accidents.¹

Basic Principles Concerned with Protection Against Accidents	Principle Number ²						Mean
	7	11	16	21	25	31	
Expressed Satisfaction	Number of Homemakers						
Very satisfactory	18	15	22	34	18	14	21
Satisfactory	22	24	18	6	22	21	18
Unsatisfactory	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>1</u>
Total	40	40	40	40	40	40	40

¹ (American Public Health Association, 1938)

² 7. Control of conditions likely to cause fires or promote their speed.

11. Adequate facilities for escape in case of fire.

16. Protection against danger of electrical shocks and burns.

21. Protection against gas poisoning.

25. Protection against falls and other mechanical injuries in the home.

31. Protection of the neighborhood against the hazards of automobile traffic.

In four out of the six principles stated for protection against accidents, none of the homemakers were dissatisfied with the provisions for these principles in their houses (Table 17). "Protection of the neighborhood against the hazards of automobile traffic" was unsatisfactory to approximately one-eighth of the homemakers (Principle 31). The homemakers felt confident that their houses were providing "protection against gas poisoning" (Principle 21). If a house did not have gas the homemaker usually checked that

principle very satisfactory.

Very satisfactory, satisfactory, and unsatisfactory on the expressed satisfaction score sheet were assigned points of 3, 2, 0. The total number of points indicated the amount of satisfaction expressed by the homemaker with her house. The number of points ranged from 45 to 119 out of a possible 126. The average score or mean was 92 points. One homemaker indicated much less satisfaction with her house than the majority of homemakers which tended to lower the average (Table 18). Thirty percent of the homemakers had scores which fell into the 90 to 99 point category. Thirty-seven and one-half percent had 100 point scores or above. This would seem to indicate the majority of homemakers included in the sample were fairly satisfied with their houses.

Table 18. Distribution of the Scores Indicating Homemakers' Expressed Satisfaction with Houses.

Total Number of Points	Number of Homemakers	Percent of Homemakers
40 - 49	1	2.5
50 - 59	0	0.0
60 - 69	3	7.5
70 - 79	3	7.5
80 - 89	6	15.0
90 - 99	12	30.0
100 - 109	6	15.0
110 and over	<u>9</u>	<u>22.5</u>
Total	40	100.0

Expressed Satisfaction and Family Characteristics

The total points given by the homemakers on the expressed satisfaction score sheet were compared to selected family characteristics. To easily see the significance of these characteristics, the mean of the expressed satisfaction scores was calculated for each characteristic.

The characteristics of the family which were compared with the expressed satisfaction score included the number of persons in the household, the stage in the family life cycle and the family's social position as determined by Hollingshead's Two Factor Index of Social Position. The age and education of the homemaker were also compared to expressed satisfaction.

Table 19 shows that on the average homemakers with smaller families express more satisfaction with the type of house included in the study than those with larger families. Those without children (the young family) or children over 18 (the contracting family) expressed the most satisfaction with their houses. The homemakers of families in social position III and IV expressed more satisfaction than homemakers in the other social positions.

The homemakers 40 years of age and over expressed more satisfaction with their houses than the younger homemakers. The homemakers who were not high school graduates indicated higher expressed satisfaction

Table 19. Mean of Expressed Satisfaction Score for Selected Family Characteristics.

Family Characteristics	Mean of Expressed Satisfaction
Number of persons in household	
2 - 3	100.0
4 - 5	93.8
6 - 7	75.5
Stage in family life cycle	
Young couple	108.0
Founding family	87.0
Expanding family	92.3
Contracting family	103.8
Social position	
I	90.0
II	85.5
III	100.6
IV	96.5
V	92.0
VI	90.0
Age of homemaker	
25 - 29	85.1
30 - 34	89.4
35 - 39	94.8
40 and over	101.3
Education of homemaker	
Under 12 years	103.2
High school graduate	95.9
Partial college	81.8
College graduate	98.0

with their house than homemakers with more education.

Expressed Satisfaction and Housing Characteristics

The housing characteristics used as variables with expressed satisfaction included the method of selecting the house, length of time lived in the house, square footage and cost of the house and lot (Table 20).

If the plans were selected prior to the building of the house, the homemaker expressed more satisfaction with her house than if the house was completely built when purchased. Only two home owners had selected a plan and made no changes. Both of these homemakers had lived in the house fewer than two years.

In this study families living in the house less than two years seemed to be the most satisfied. The recent decision to buy her particular house might be an influence on a homemaker's expressed satisfaction.

The homemakers with houses of 1500 square feet or more expressed high satisfaction with their houses. Homemakers living in more expensive houses expressed greater satisfaction than homemakers in less expensive houses.

Table 20. Mean of Expressed Satisfaction Score for Selected Housing Characteristics.

Housing Characteristics	Mean of Expressed Satisfaction
Method of selecting house	
House completely built	80.6
House partially built	82.0
Plans selected and no changes	99.5
Plans selected and modified	89.4
Length of time lived in house	
Under 2 years	96.5
2 years up to 4 years	80.7
4 years up to 6 years	90.8
6 years and over	89.2
Square footage of house	
1200 - 1299	88.0
1300 - 1399	84.4
1400 - 1499	79.0
1500 - 1599	102.0
1600 - 1699	104.5
Cost of house and lot	
\$13,000 to 14,999	80.5
15,000 to 16,999	87.2
17,000 to 18,999	89.3
19,000 and over	102.0

Expressed Satisfaction and House Plan-Evaluation Scores

The total score of the homemakers' expressed satisfaction and the total score of the house plan check lists were plotted against each other to form a scatter diagram (Chart 1).

The coefficient of correlation was calculated to determine the degree of relationship between two variables. A correlation coefficient of .40 or more was significant for a sample size of 40 at the

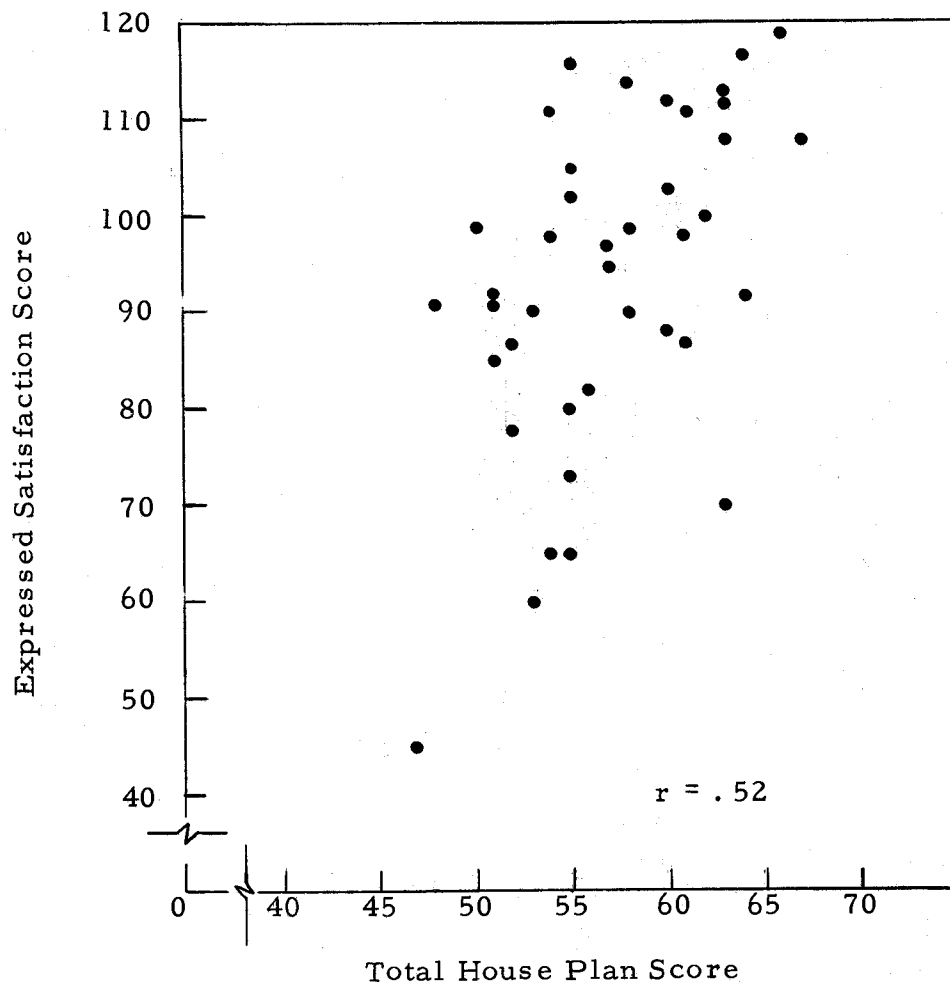


Chart 1. Relationship Between Homemakers' Expressed Satisfaction Scores and Total House Plan-Evaluation Scores.

one percent probability level.

The correlation between homemakers' expressed satisfaction scores and the total house plan scores had a coefficient of .52.

The homemakers' expressed satisfaction and each of the five specific topics included in the House Plan-Evaluation check lists were plotted on scatter diagrams to show the relationship which exists. The coefficient of correlation between the expressed satisfaction score and the orientation score was .06 showing virtually no correlation (Chart 2).

Expressed satisfaction and landscape had a correlation coefficient of .40 (Chart 3).

The correlation coefficient of expressed satisfaction and circulation was .42 (Chart 4).

No significant correlation was shown between expressed satisfaction and flexibility (Chart 5).

The relationship between the homemakers' expressed satisfaction scores and the kitchen scores showed the highest correlation coefficient (.56) of all the check lists (Chart 6).

Expressed Satisfaction and Ranking of Values

The homemakers' expressed satisfaction score and the ranking of each of the nine values were plotted to form scatter diagrams (Charts 7 - 11). The coefficient of correlation was calculated for

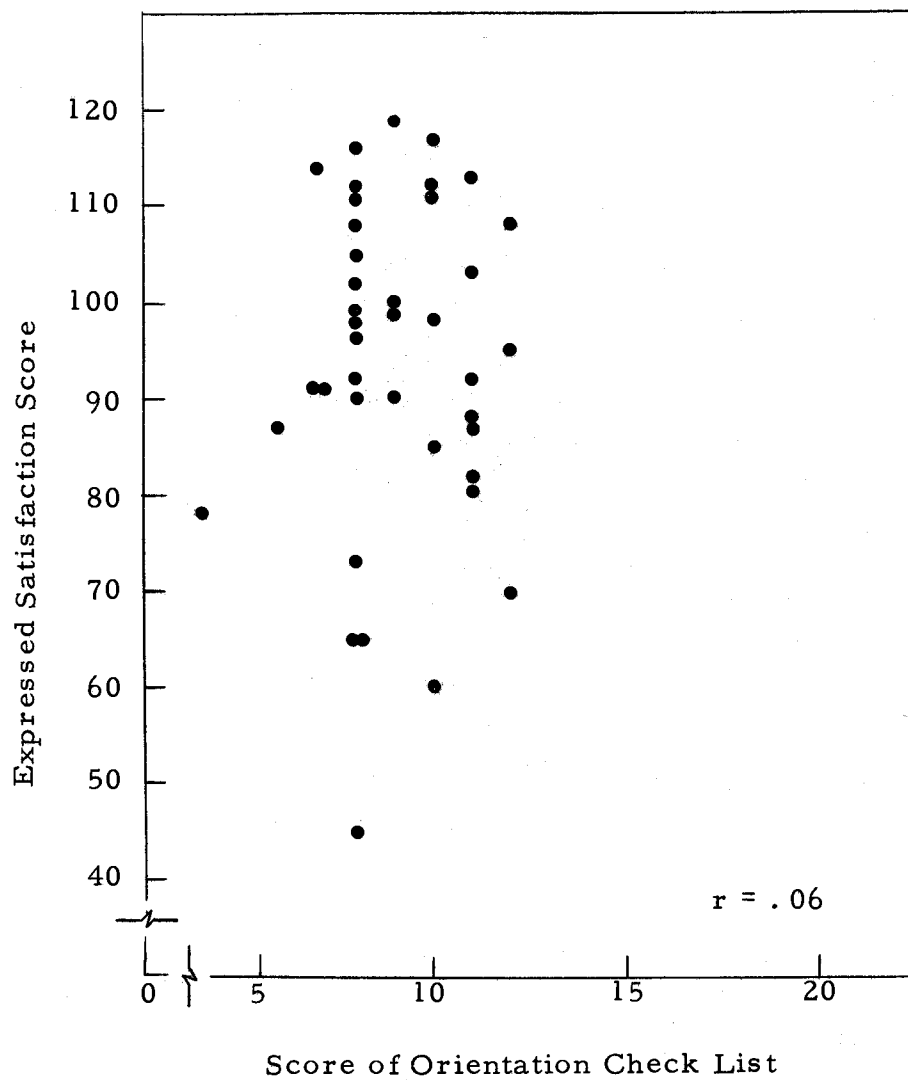


Chart 2. Relationship Between Homemakers' Expressed Satisfaction Scores and Orientation Scores.

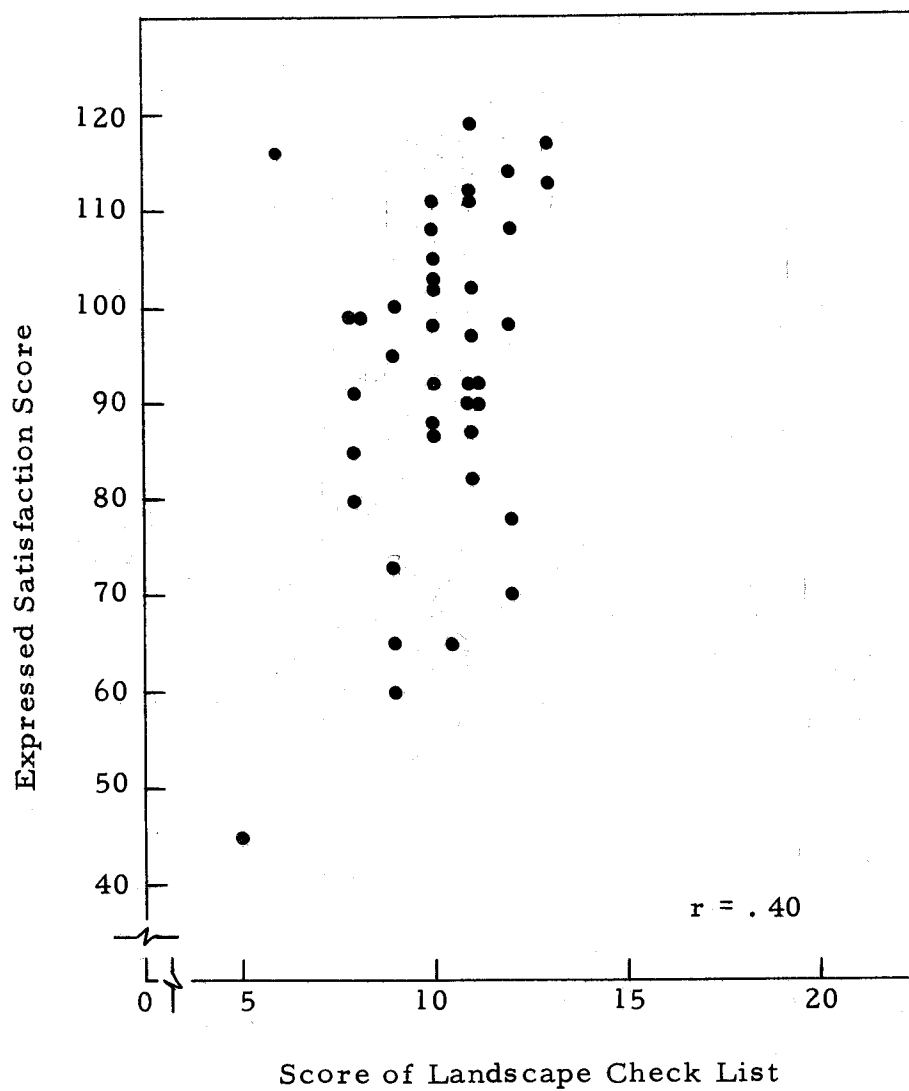


Chart 3. Relationship Between Homemakers' Expressed Satisfaction Scores and Landscape Scores.

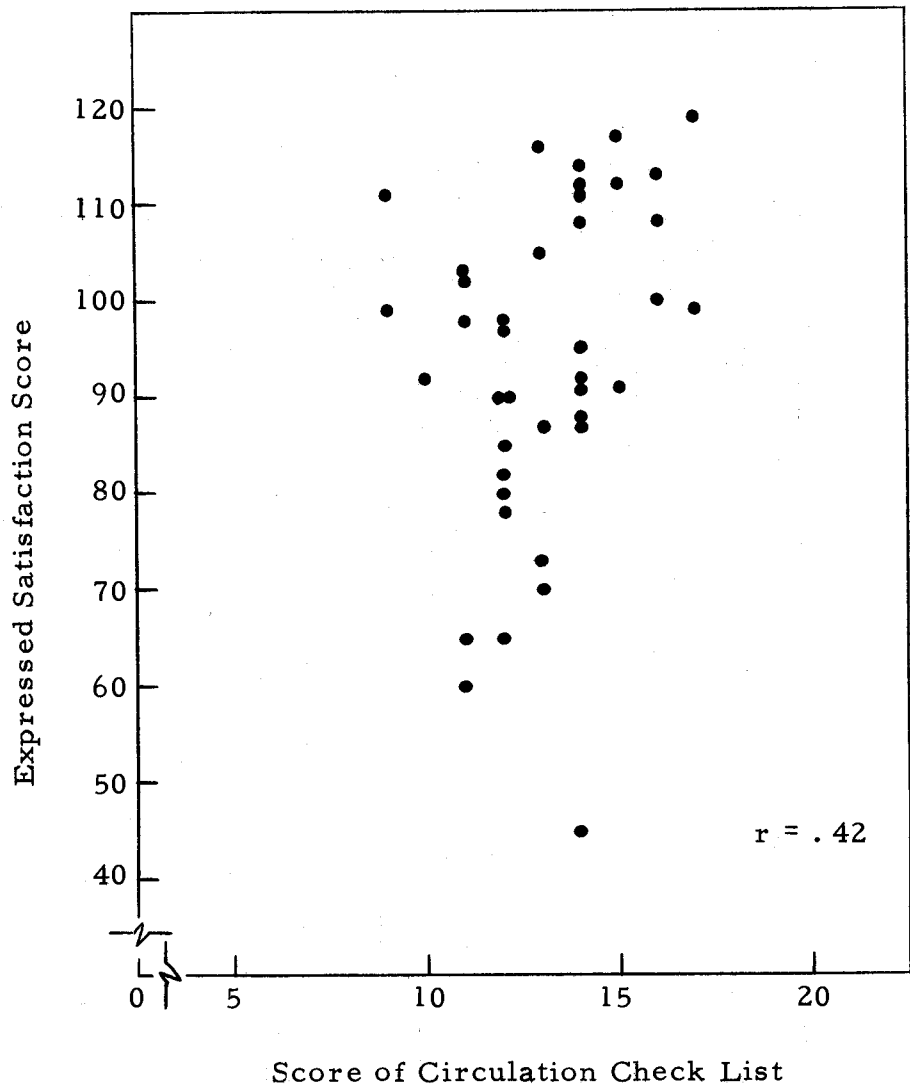


Chart 4. Relationship Between Homemakers' Expressed Satisfaction Scores and Circulation Scores.

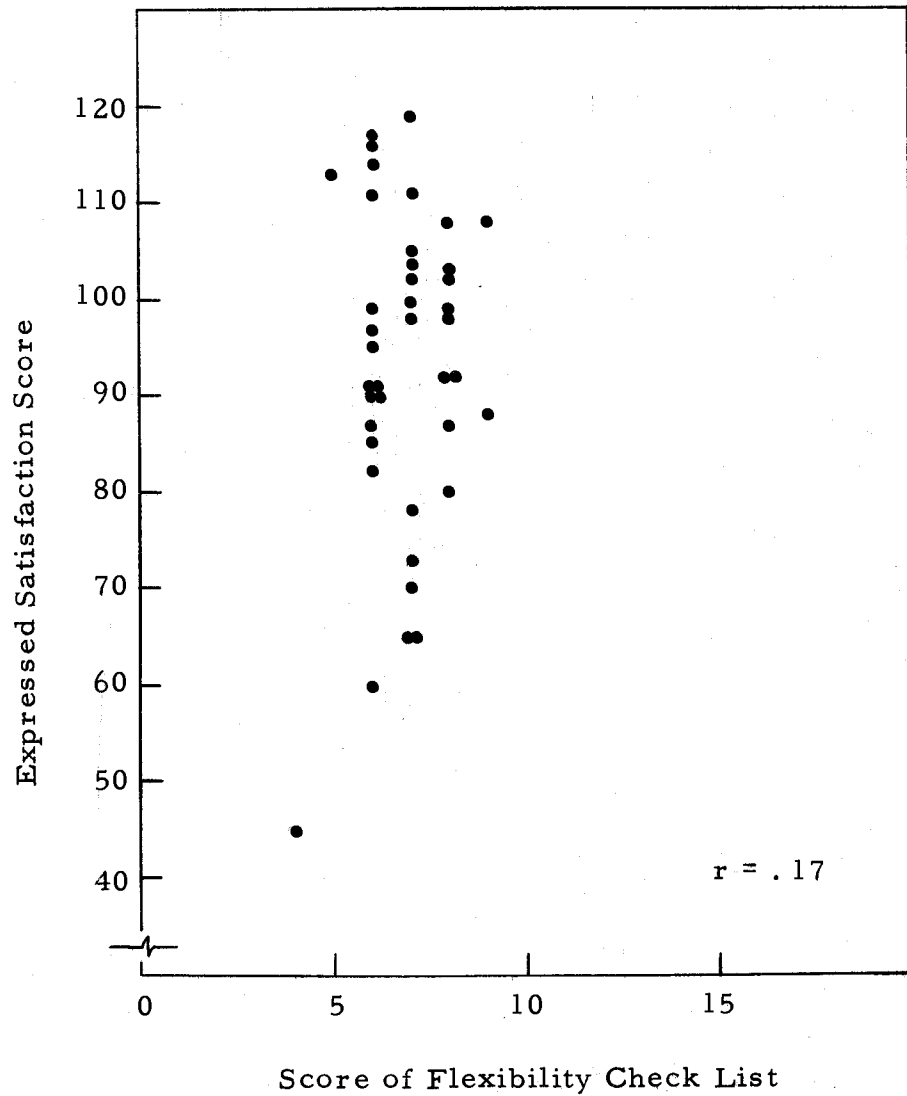


Chart 5. Relationship Between Homemakers' Expressed Satisfaction Scores and Flexibility Scores.

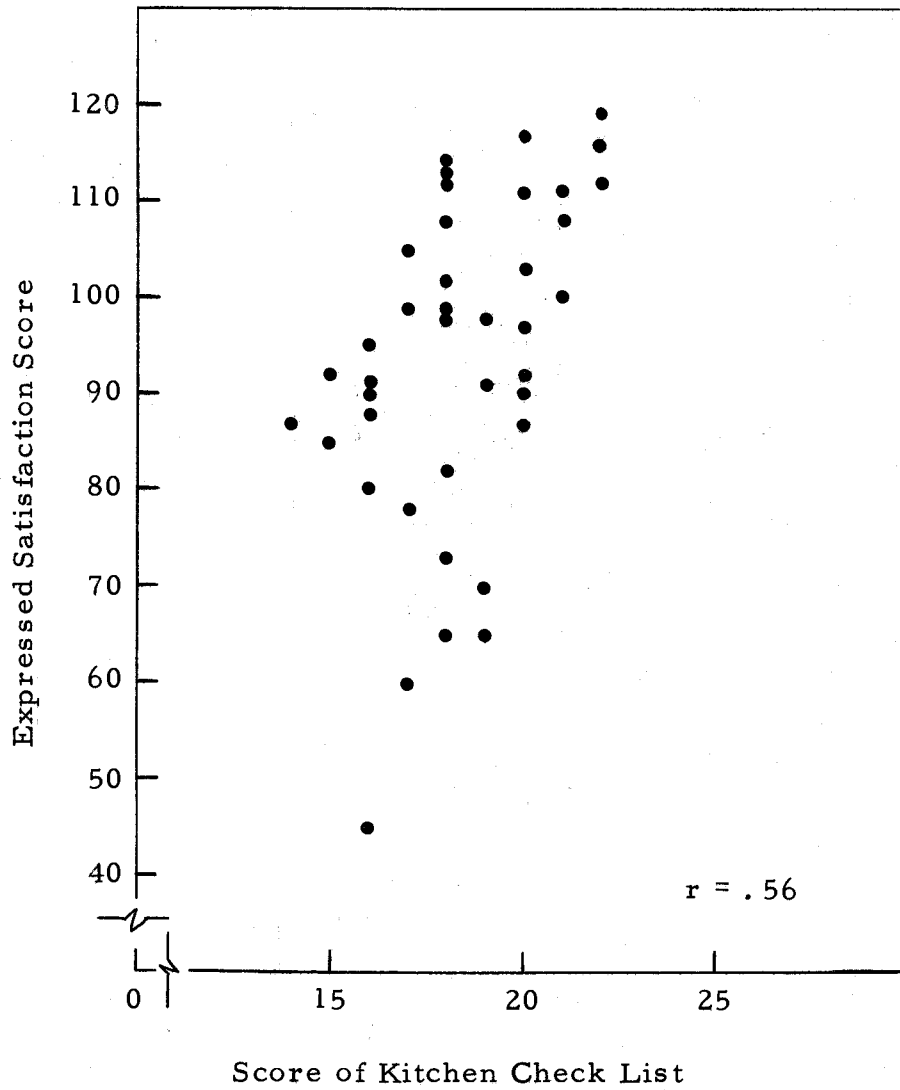


Chart 6. Relationship Between Homemakers' Expressed Satisfaction Scores and Kitchen Scores.

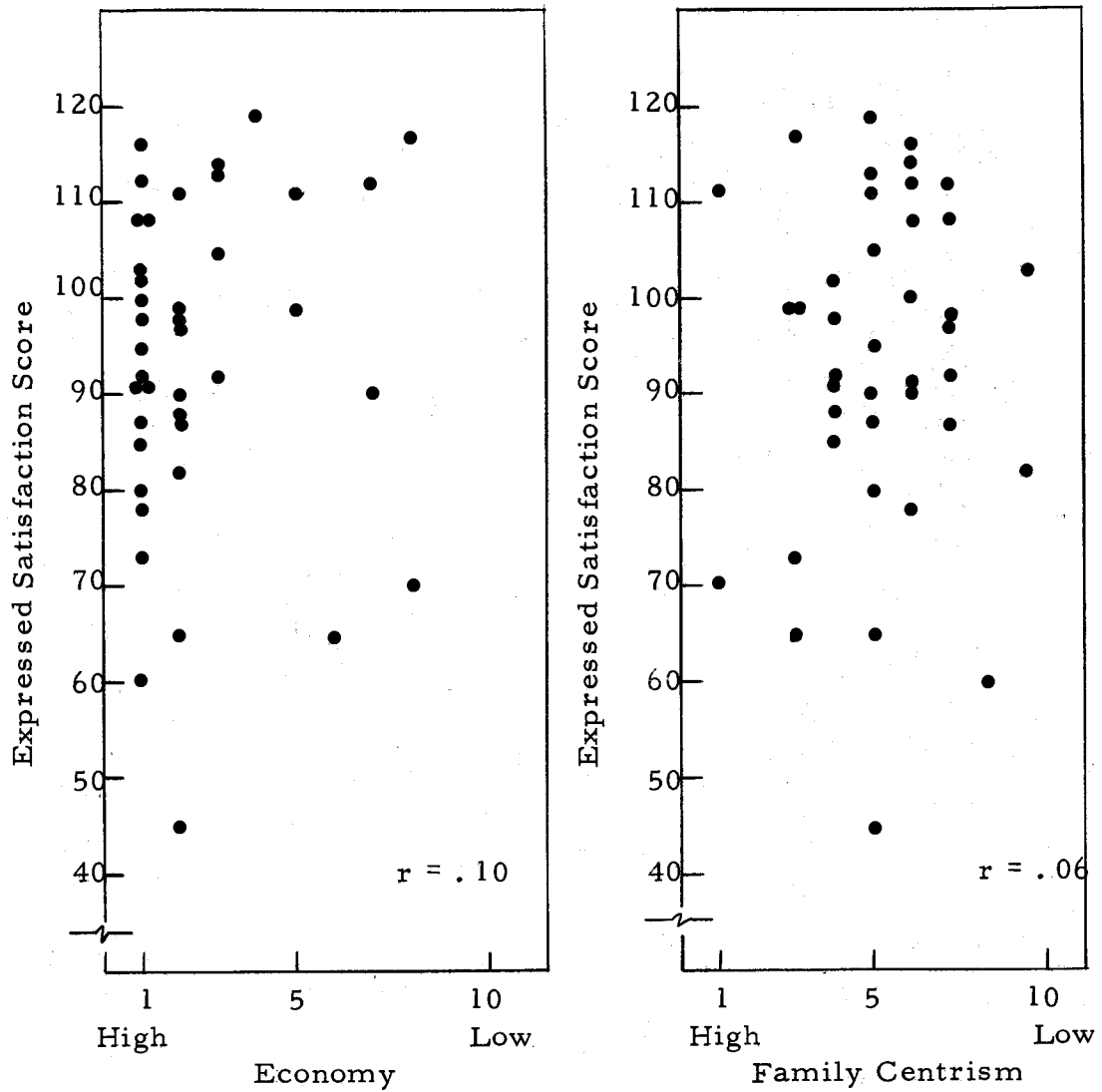


Chart 7. Relationship Between Homemakers' Expressed Satisfaction Scores and the Ranking of the Values: Economy and Family Centrism.

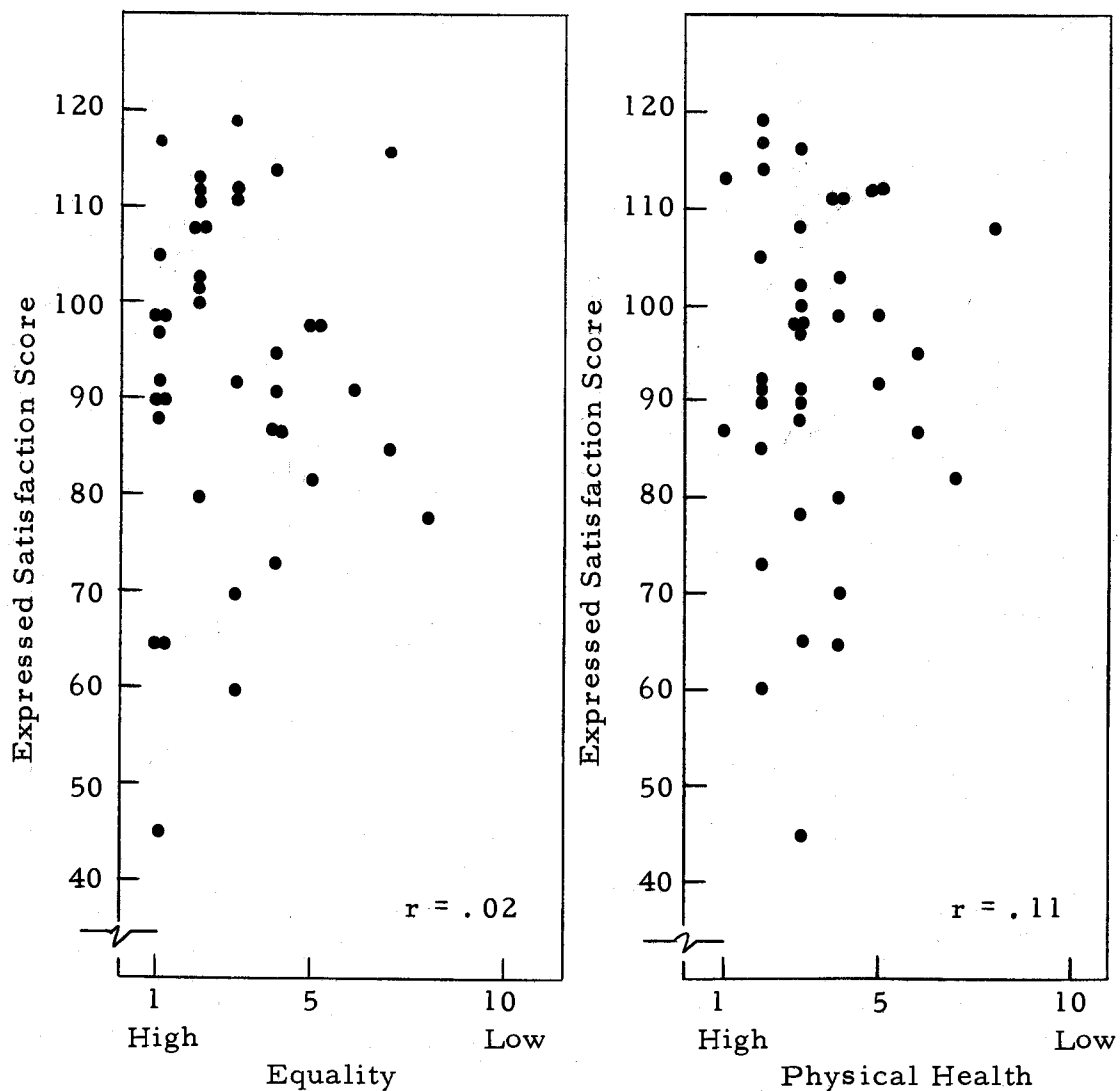


Chart 8. Relationship Between Homemakers' Expressed Satisfaction Scores and the Ranking of the Values: Equality and Physical Health

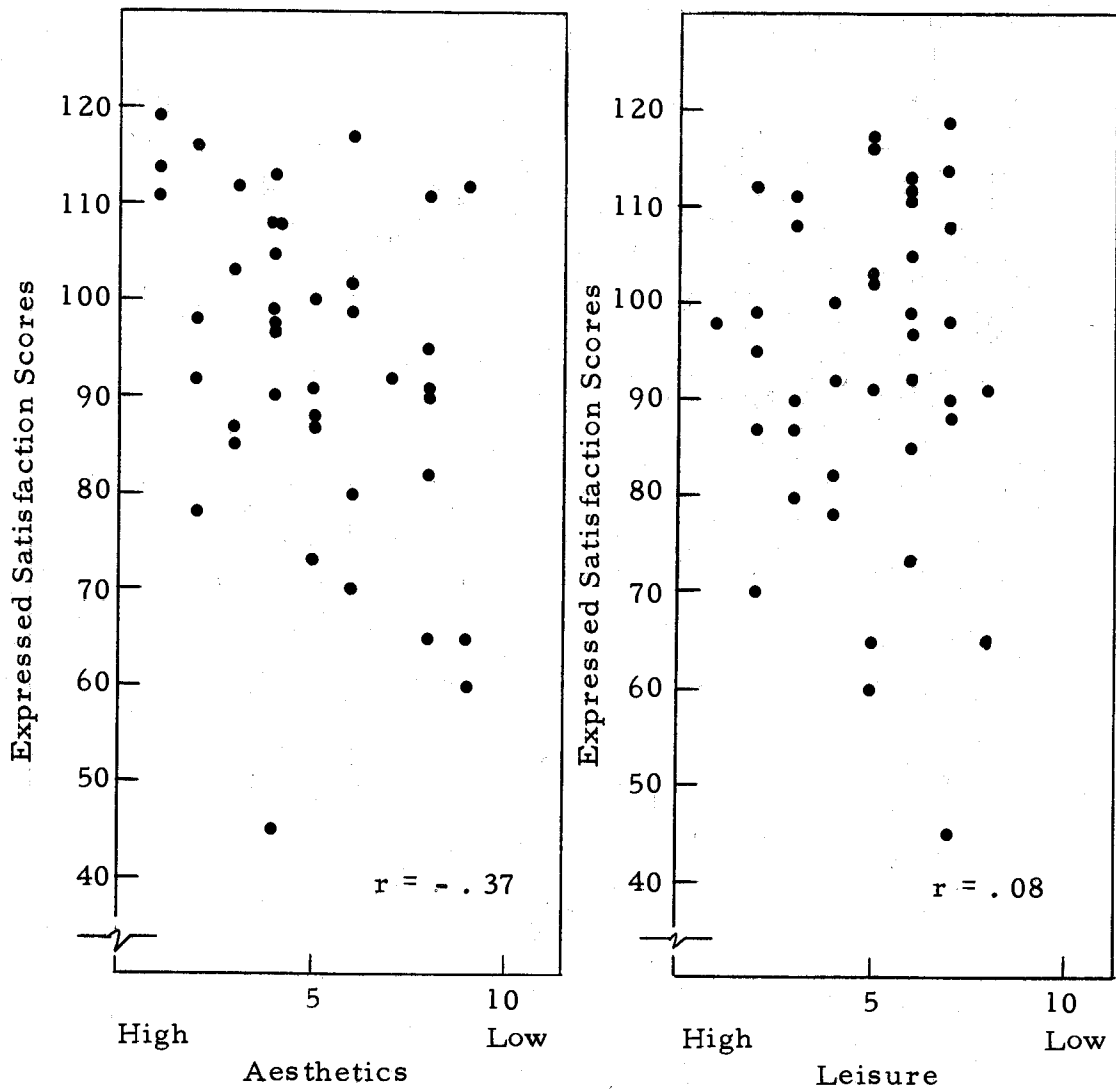


Chart 9. Relationship Between Homemakers' Expressed Satisfaction Scores and the Ranking of the Values: Aesthetics and Leisure.

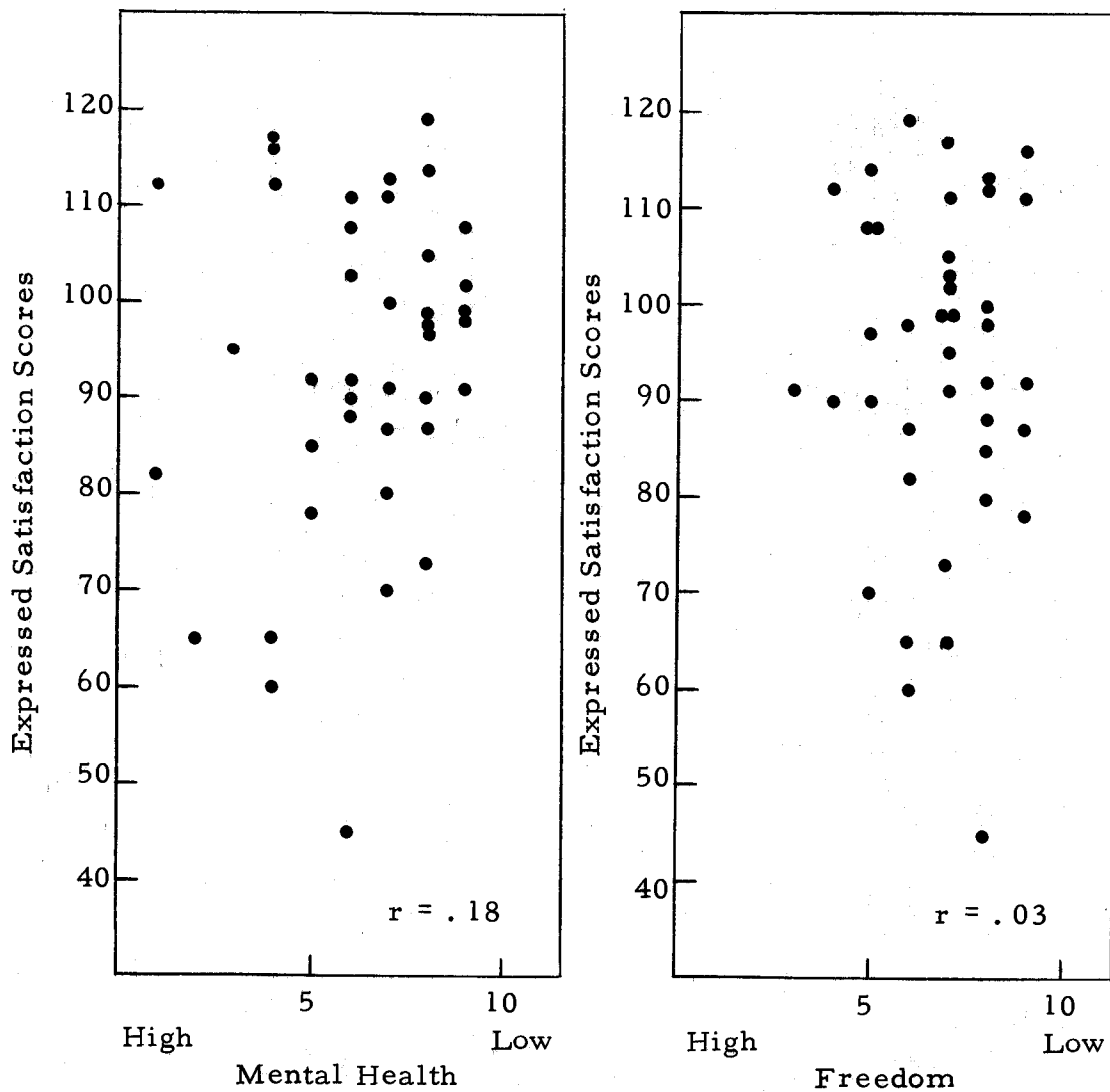


Chart 10. Relationship Between Homemakers' Expressed Satisfaction Scores and the Ranking of the Values: Mental Health and Freedom.

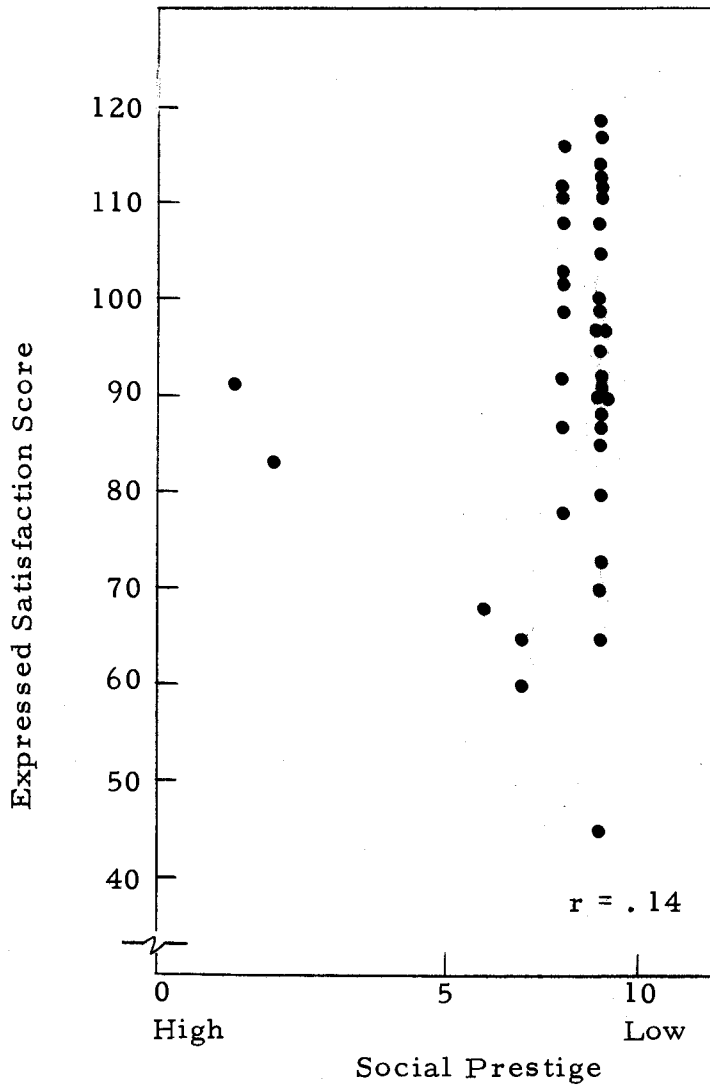


Chart 11. Relationship Between Homemakers' Expressed Satisfaction Scores and the Ranking of the Value Social Prestige.

each of the nine scatter diagrams. Only the value of aesthetics showed a significant correlation coefficient of $-.37$ at the two percent probability level.

Ranking of Values and House Plan-Evaluation Scores

The ranking of the values and the total house plan scores were also plotted and correlation coefficients calculated. No correlation was ascertained to be of significance at the five percent probability level (Charts 12 - 14).

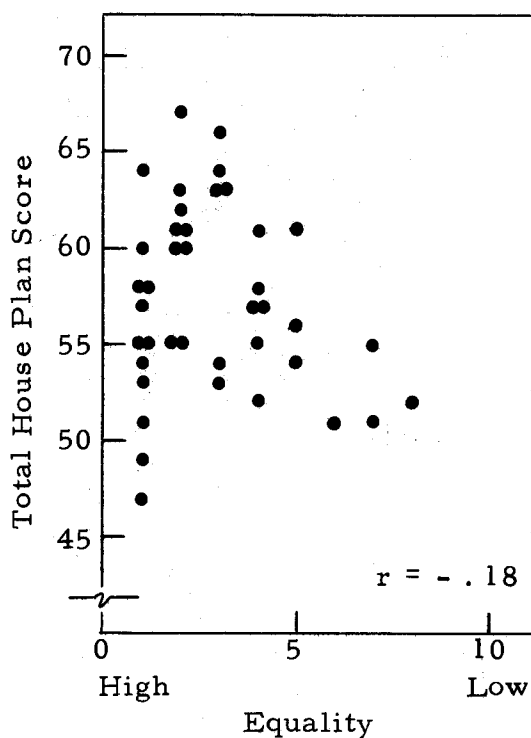
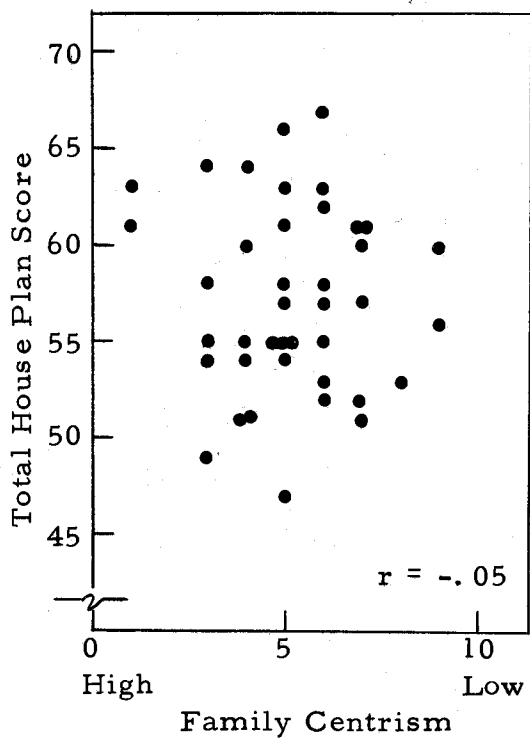
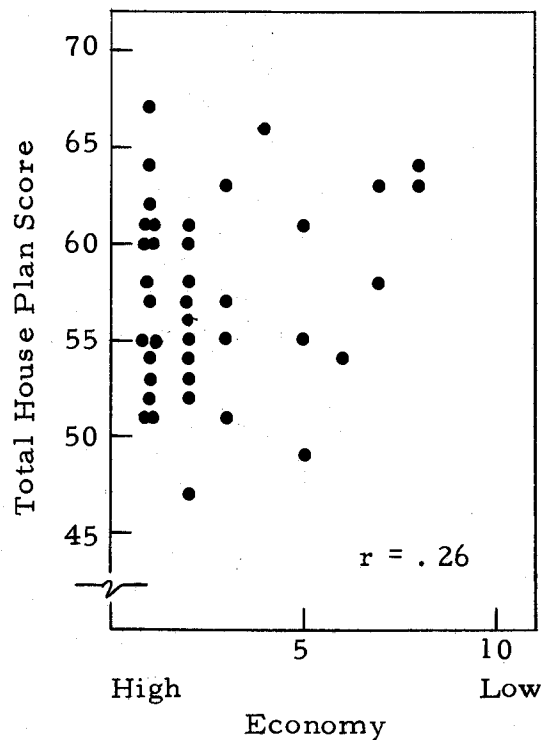


Chart 12. Relationship Between Total House Plan Scores and the Ranking of the Values: Economy, Family Centrism and Equality.

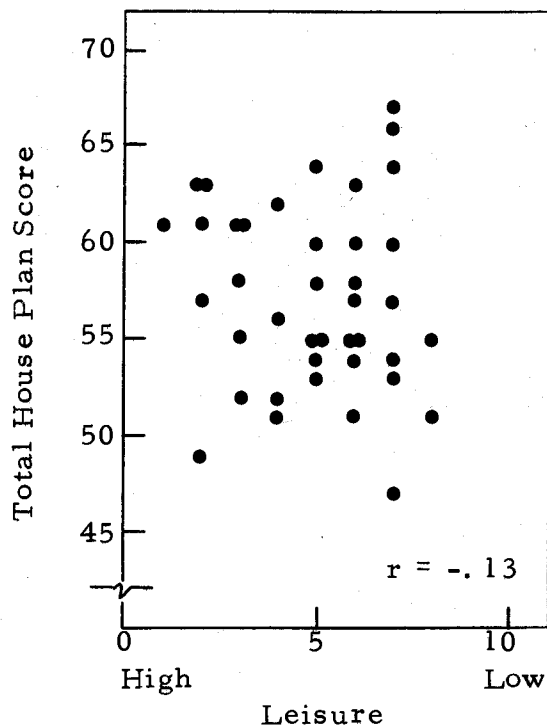
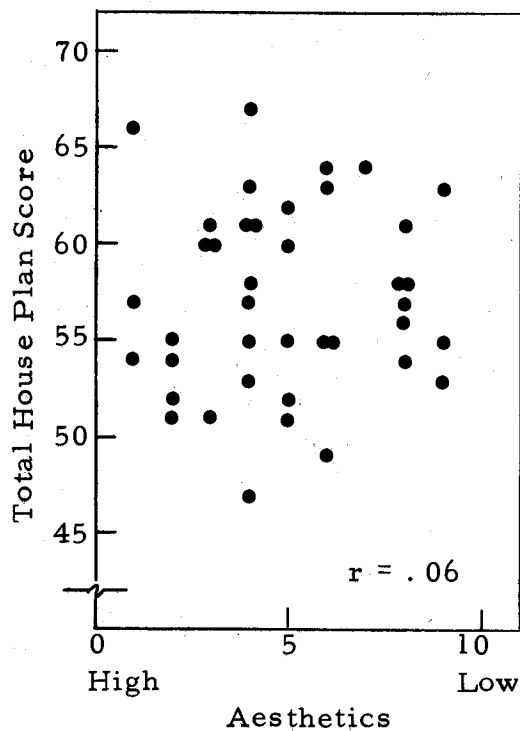
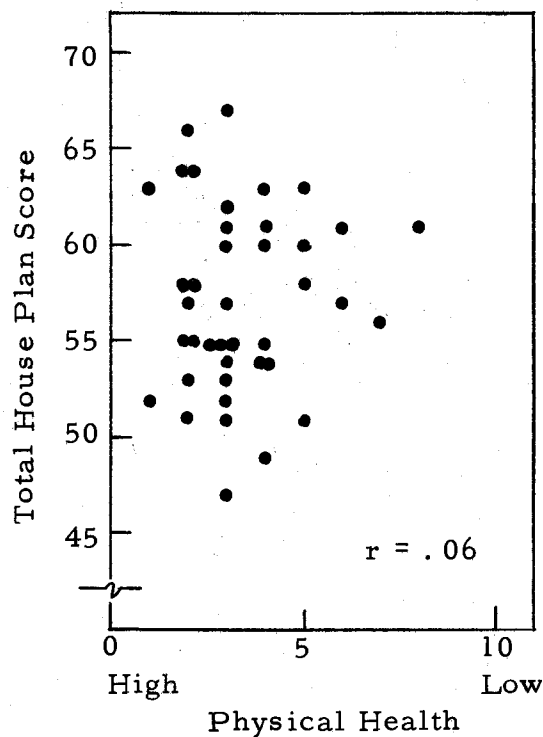


Chart 13. Relationship Between Total House Plan Scores and the Ranking of the Values: Physical Health, Aesthetics, and Leisure.

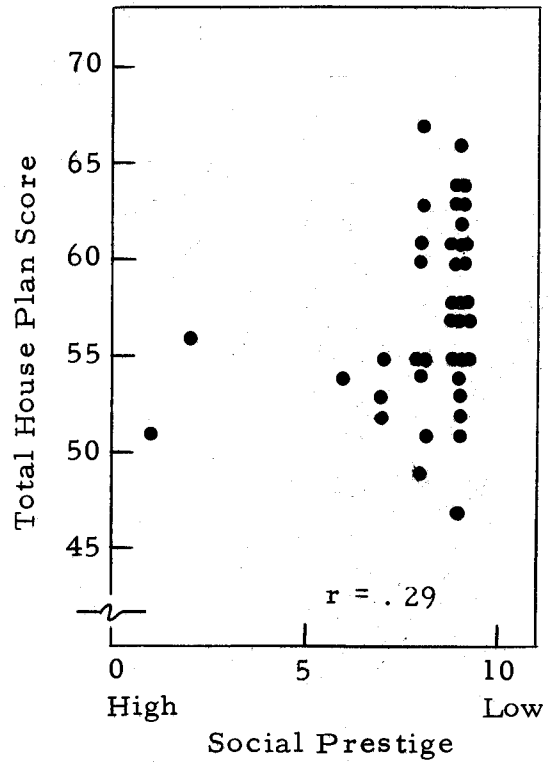
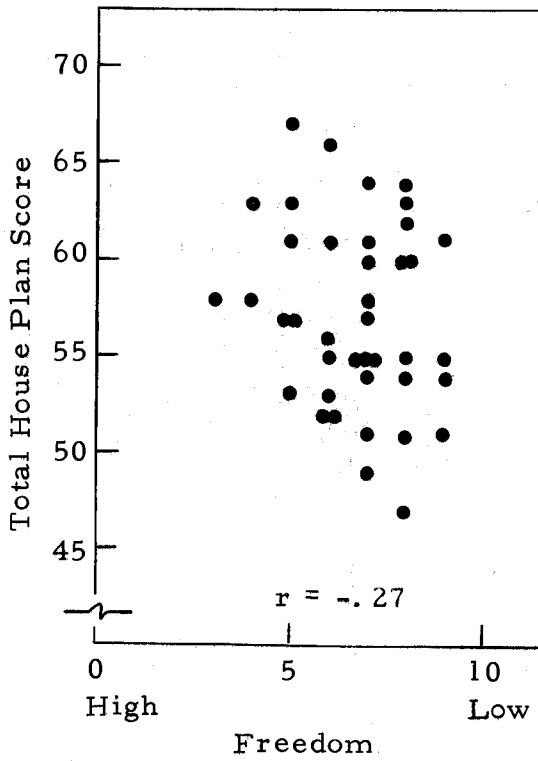
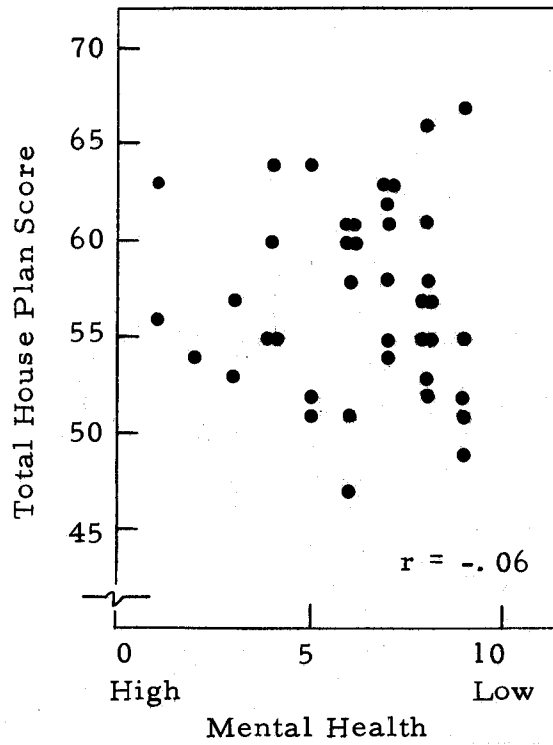


Chart 14. Relationship Between Total House Plan Scores and the Ranking of the Values: Mental Health, Freedom and Social Prestige.

SUMMARY AND CONCLUSIONS

Summary

Purpose

This study was exploratory in nature to gain information about the homemaker's expressed satisfaction with the house in which she is living, the significance of the design of the house in relation to satisfaction and the influence of values upon satisfaction and design.

As one of the three fundamental needs of human existence, housing has a definite influence on people. A primary aim in life for many persons is satisfaction or happiness. Satisfaction with one's house was felt worthy of study by the author.

Method and Procedure

The 40 residences selected for the study were constructed within the last ten years, ranged in size from 1200 to 1700 square feet, and were owner-occupied. Cooperators were limited to those persons who had not employed an architect or designed their own house. All of the residences were in Corvallis, Oregon.

The homeowners selected from the city directory at random from a restricted population were contacted by letter and phone to explain the study and establish a time and date for the interview.

The data collected consisted of four sections. General information was asked of the homemaker to obtain specific characteristics about her, the family, and their house. The expressed satisfaction score sheet based on the principles developed by the American Public Health Association Committee on Hygiene of Housing was completed by the homemaker. The score sheet also included an open-end question to ascertain what the homemaker had learned from the present house and lot which she would consider when buying another house. Nine value definitions were ranked by the homemaker in order of importance to her in housing. The House Plan-Evaluation check lists were completed by the researcher.

Characteristics of Families

The composition of the families cooperating included from two to seven persons with the median family size being four. Fifteen percent of the families contained two persons presently living at home. Thirty-eight of the households were headed by the husband. The other two were headed by divorced homemakers.

Approximately one-half of both the husbands and wives were under 35 years of age. The ages of the children and the homemakers were used as a basis to classify the family into stages of the family life cycle. Slightly more than 62 percent of the families were in the expanding stage of the family life cycle which is described as "the

family type having some children between the ages of 8 and 18 (may be some above 18 and under 8)". The broad span of children's ages used to describe this family type as well as the type of house selected for the study could account for the large percentage of families in this category.

Fifty-five percent of the homemakers had completed their formal education as high school graduates. Five homemakers had graduated from college.

The procedure used in Hollingshead's Two Factor Index of Social Position based on education and occupation was followed to classify the families into social position. Slight revision was made to include a full-time student.

Characteristics of Housing

The houses included in the sample were all one-story houses built within the last ten years. Primarily the homeowners had either selected the house completely built or selected the plans and modified them. Over three-fifths of the homeowners had made no changes in the original floor plan.

Fifty percent of the families had lived in their present house less than three years. The size of the house ranged from 1200 to 1700 square feet with the median in the 1300 to 1399 square feet category. The cost of the house and lot at the time of purchase ranged

from \$13,000 to \$26,000. The median price range fell into the \$17,000 to \$17,999 category.

The stage in the family life cycle showed some influence on the amount of money spent on the house. The contracting family in which "the woman is 35 years old or older and no children under the age of 18" had on the average spent more for their houses than the other family types.

Considerations for Future Housing

The answers to the open-end question regarding future housing indicated that homemakers wanted family rooms, more than one bathroom and larger bedrooms. The circulation within the house including a front entry was mentioned by approximately one-half of the homemakers. Nearly five-eighths of the homemakers wanted some part of their houses enlarged.

House Plan Scores and Ranking of Values

There was only a 20 point range in scores of the House Plan-Evaluation check lists. The similarity of the houses included in the sample could account for this factor.

In ranking the nine values selected for use in this study, 75 percent of the homemakers placed either economy or equality first. Slightly over 62 percent ranked social prestige last or as the least

important of the nine values.

Expressed Satisfaction

The results of the score sheet on expressed satisfaction showed that on the average homemakers tended to be satisfied with the principles meeting fundamental physiological needs and fundamental psychological needs in their houses and very satisfied with principles providing protection from contagion and accidents.

Of the principles listed to meet fundamental physiological needs, over one-half of the homemakers were very satisfied with "sufficient electrical wiring for appliances as well as lighting" and "adequate space for storage in the kitchen. " In contrast a small number of homemakers expressed high satisfaction with "adequate artificial illumination and avoidance of glare" and a fairly large number of homemakers expressed dissatisfaction with "adequate space for storage in the kitchen. "

All of the homemakers felt their houses provided "adequate daylight illumination and avoidance of daylight glare. "

Nearly three-eighths of the homemakers expressed dissatisfaction with "adequate storage for leisure and garden equipment. "

"Storage for all possessions owned by family members" and "protection against excessive noises" were marked unsatisfactory by one-fourth of the homemakers.

Seven-eighths of the respondents expressed satisfaction with features meeting the fundamental psychological needs. Approximately two-thirds of the homemakers were very satisfied with the provision for "adequate facilities for maintenance of cleanliness of the dwelling and of the person" and "allowing the family opportunities to be together." "Opportunities for normal community life", "the house represents a sound investment," "my friends have commented favorably about the house," and "harmony with the prevailing social standard of the local community" were felt to be very satisfactory to over one-half of the homemakers.

The most unsatisfactory principle to one-third of the those interviewed was "adequate space for provision of guests without upsetting family routine." Approximately one-fourth of the women were dissatisfied with "adequate space to meet individual interests of all family members" and "adequate privacy for the individual."

The principles in the last two categories protection against contagion and protection against accidents were primarily checked either satisfactory or very satisfactory. A few homemakers expressed dissatisfaction with "sufficient space in sleeping-room to minimize the danger of contact infection." Under the category protection against accidents approximately one-eighth of the homemakers checked as unsatisfactory "protection of the neighborhood against the hazards of automobile traffic".

Points were allotted for very satisfactory, satisfactory and unsatisfactory on the expressed satisfaction score sheet. The higher score indicated greater expressed satisfaction with the house. The number of points ranged from 45 to 119 with a mean of 92 points. Approximately 37 percent of the homemakers had scores of 100 points or above. This would seem to indicate the majority of homemakers included in the sample were fairly satisfied with their houses.

Expressed Satisfaction and Family and Housing Characteristics

The total points given by the homemakers on the expressed satisfaction score sheet were compared to selected family and housing characteristics. On the average homemakers with smaller families expressed more satisfaction with the type of house included in the study than those with larger families. The homemakers without children (young family) or children over 18 (contracting family) expressed the most satisfaction with their house. The homemakers of families in social position III and IV expressed more satisfaction than homemakers in the other social positions.

The homemakers 40 years of age and over expressed more satisfaction with their houses than the younger women. The homemakers who were not high school graduates indicated higher expressed satisfaction with their house than homemakers with more education.

If the plans were selected prior to the building of the house,

the homemaker expressed more satisfaction with the house than if the house was completely built when purchased. In this study homemakers who had lived in their houses less than two years seemed to be the most satisfied. Homemakers living in more expensive houses expressed greater satisfaction than those in less expensive houses.

Interrelationship of Expressed Satisfaction Scores, House Plan Scores, and Ranking of Values

Scatter diagrams were made for the total expressed satisfaction score and the total score of the house plan check lists as well as expressed satisfaction and each of the five specific topics in the check lists. The correlation coefficient was calculated for each scatter diagram. A correlation coefficient of .40 or above was significant at the one percent probability level for the sample size of 40.

It was found a correlation coefficient of .52 existed for the expressed satisfaction score and the total house design score. Three of the five specific topics, landscape, circulation and kitchens, showed a significant degree of correlation with expressed satisfaction.

A correlation coefficient of .40 existed between the landscape scores and the expressed satisfaction scores. Expressed satisfaction and circulation had a correlation coefficient of .42. This check list deals primarily with the location of the front and service entry in regard to the rooms in the house. Several homemakers commented

on the desirability of a front entry and seemed to be aware of the traffic path between zones and areas in the house. The expressed satisfaction score and the kitchen check list score had a correlation coefficient of .56.

The correlation coefficient of - .37 was found to exist between the value aesthetics and expressed satisfaction. This is significant at the two percent level of probability. No correlation was found to exist between the nine values used in the study and the house design scores.

Conclusions

The majority of homemakers interviewed seemed satisfied with their houses. They were very satisfied with the physical structure in regard to wiring, daylight illumination, facilities for cleanliness and protection against contagion and accidents. To many, the house represented a sound investment in keeping with the neighborhood and allowing the family opportunities to be together. Storage and adequate space for guests, privacy and individual interest of family members were found unsatisfactory to a number of homemakers. Protection against excessive noises was marked unsatisfactory by one-fourth of the homemakers.

If buying another house, many homemakers mentioned they would desire family rooms, more than one bathroom, larger

bedrooms, and a front entry. Nearly five-eighths of them wanted some part of their house enlarged.

The houses in the study were similar in plan and the homemakers generally ranked the values economy or equality first; the majority placed social prestige last.

Homemakers with smaller families including those without children or with children over 18 expressed the most satisfaction with the type of house included in the study. Homemakers who had not graduated from high school were more satisfied with their houses than the other respondents. Those 40 years of age and older expressed more satisfaction with their houses than the younger homemakers.

If the plans were selected prior to the building of the house, the homemaker expressed more satisfaction with the house than if the house was completely built when purchased. Homemakers who had lived in their houses fewer than two years were more satisfied than any of the other respondents. Homemakers living in more expensive houses expressed greater satisfaction than those in less expensive houses.

The correlation coefficient of .52 between the design of the house as rated on the House Plan-Evaluation check lists and the homemakers' expressed satisfaction with the house was significant at the one percent level of probability for a sample of 40. Significant

correlation coefficients were found between expressed satisfaction and three of the specific topics of the check lists: landscape (.40), circulation (.42) and kitchens (.56).

The homemakers who ranked aesthetics as an important value also expressed more satisfaction with their houses. This correlation coefficient of $-.37$ was significant at the two percent level of probability. A basic need according to A. H. Maslow is the need to experience aesthetic pleasure. It may be possible that homemakers who had ranked aesthetics as important may have modified or improved the house to meet this need.

In this study no correlations between the other nine values and expressed satisfaction or the nine values and house design scores were found to exist.

Limitations

In general the methods used to obtain information for this study were felt sufficient by the author. Some inconsistencies in the final results may stem from the fact that some homemakers were not sure of the exact square footage of their house. It must also be recognized that homemaker's expressed satisfaction would be stated in terms of an individual's interpretation of satisfaction based on past experience.

From past research it seemed there should exist a closer relationship between values and expressed satisfaction. The method of

ascertaining which values the respondents held was perhaps inadequate in this study. The homemakers were all given the same nine values with which they established a hierarchy. It is very possible that some of these values may not be ones they hold in regard to housing or several values may be of the same importance. Selection of a house encompasses many choices and this choice may express more than one value of equal importance.

No attempt was made to determine which of the nine value orientations the house design best fulfilled. It may be possible that well designed houses according to the check lists used would not favor one specific value orientation.

Recommendations for Additional Study

Other types of situations in which the House Plan-Evaluation check lists and the expressed satisfaction score sheet could be administered include

- A) regional surveys
- B) tract houses
- C) architecturally designed houses
- D) specific neighborhoods
- E) controlled variables such as same stage in family life cycle or same length of time lived in house

It could be ascertained if a relationship between the two variables house design and expressed satisfaction exist in each case.

The House Plan-Evaluation check lists could become more

widespread in use by builders and prospective home owners as well as architects. The houses planned using the check lists could be tested for homemakers' expressed satisfaction.

More family and housing characteristics could be compared with expressed satisfaction. The interdependence of one variable upon the other could be statistically analyzed with a larger sample.

The instrument for measuring expressed satisfaction could be further developed and tested for reliability and validity.

Further studies could be undertaken to establish correlation between values and the homemakers' expressed satisfaction with their houses.

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APPENDICES

APPENDIX A

Introductory Letter
Sent Homemaker

As a current student in Home Economics at Oregon State University, I am working toward a Master of Science degree in housing. My study is primarily concerned with houses that have not been designed by the present occupants. Also the study deals with houses the occupants are buying and which fall within a 1200 to 1800 square foot range. Your name was selected at random from the city directory to be included in my study. If your home meets the qualifications described, I need your assistance in order to complete my thesis.

My study is designed to correlate the satisfaction and values of a homemaker with the design of her house. Much has been said about the lack of satisfaction the homemaker has with her ready-built house, but little actual research has been done. You can contribute to the furtherance of knowledge in this area by participating in this study. The information given by you will be kept confidential.

Within the next few days I will contact you by phone to determine your eligibility and schedule a time to complete the questionnaire which will take approximately an hour of your time. I would greatly appreciate your cooperation.

Sincerely,

Freda Teitzel

Freda Teitzel is an authorized interviewer gathering information for a research project under the auspices of Oregon State University. Oregon State will appreciate your willingness to answer some questions for this interviewer. What you say will not be connected with your name in any way and your answers will be held in the strictest confidence.

Acting Chairman
Department of Home
Management

APPENDIX B

Interview Schedule

Record No. _____

OREGON STATE UNIVERSITY
 School of Home Economics
 Department of Home Management
 House Design Scores of Forty Corvallis, Oregon, Residences
 Related to Homemakers' Expressed Satisfaction and Ranking of Values
 Freda Teitzel

GENERAL INFORMATION

1. _____

Name	Street Address
------	----------------

2. Check approximate date house was constructed
 - _____ 1954 and before
 - _____ 1955-1960
 - _____ 1961 and later

3. Check approximate square footage of house, excluding basement and garage.
 - _____ 1199 and under
 - _____ 1200-1299
 - _____ 1300-1399
 - _____ 1400-1499
 - _____ 1500-1599
 - _____ 1600-1699
 - _____ 1700-1800
 - _____ 1801 and over

4. If finished basement, how much additional square footage?

5. Check most appropriate statement
 - _____ The house was completely built before purchasing and I had no choice in present design.
 - _____ The plans were selected by me and no changes were made.
 - _____ The house was partially completed and I modified the original plan while the house was constructed.
 - _____ The plans were selected by me and modified before construction began.
 - _____ Other (please describe)

6. Have you made any improvements while living in the house, including remodeling and redecorating? _____
 If so, please list.

Record No. _____

7. Age of Homemaker

_____ 19 and under
 _____ 20-24
 _____ 25-29
 _____ 30-34
 _____ 35-39
 _____ 40 and over

12. Head of Household Age

_____ Father _____
 _____ Stepfather _____
 _____ Mother _____
 _____ Stepmother _____
 _____ Other (specify) _____

8. Members of Household at Home

Number	Ages
_____	Boys _____
_____	Girls _____
_____	Other occupants (relation of _____)

13. Circle the number of the highest grade in school completed by head of household.

Grade School	1	2	3	4	5	6	7	8
High School	9	10	11	12				
College	1	2	3	4				
Post Graduate College								
	1 or more years							

9. Members of Family No Longer Home

Number	Ages
_____	Boys _____
_____	Girls _____

14. What kind of work does the head of the household do? Describe specifically.

10. State estimated cost of the house and lot. _____

11. Type of House

A. Basement

_____ None
 _____ Unfinished
 _____ Finished

B. Number of stories, excluding basement

_____ One
 _____ One and one-half
 _____ Two, finished
 _____ Two, one finished and one unfinished

15. On what date did your family move into this house?

Month _____ Year _____

16. Highest grade in school completed by homemaker.

Rating

Record No. _____

Very
Satisfactory
Satisfactory
Unsatisfactory

EXPRESSED SATISFACTION WITH MY HOUSE

In my house there is provision for:

1. A front entry in a desirable location in regard to the rest of the house.
2. Maintenance of the temperature and humidity which prevents undue heat loss and permits adequate heat loss from the human body.
3. Adequate privacy for the individual.
4. Allowing the family opportunities for being together.
5. Adequate daylight illumination and avoidance of undue daylight glare.
6. Opportunities for normal family life.
7. Control of conditions likely to cause fires or to promote their spread.
8. Adequate storage for all possessions owned by family members.
9. Admission of direct sunlight.
10. Opportunities for normal community life.
11. Adequate facilities for escape in case of fire.
12. Opportunities for flexible use of space.
13. Adequate artificial illumination and avoidance of glare.
14. Facilities which make possible the performance of the tasks of the household without undue physical and mental fatigue.
15. Avoidance of insanitary conditions in the vicinity of the dwelling.
16. Protection against danger of electrical shocks and burns.
17. Service area or utilities in a desirable location in regard to rest of house.
18. Adequate space for exercise and for the play of children.
19. Exclusion from the dwelling of vermin which may play a part in the transmission of the disease.
20. Adequate facilities for maintenance of cleanliness of the dwelling and of the person.
21. Protection against gas poisoning.
22. Adequate space to meet individual interests of all family members.

Rating

Record No. _____

- | Rating | | | | |
|--------|--------------------------|--------------------------|--------------------------|---|
| Very | Satisfactory | Satisfactory | Unsatisfactory | |
| 23. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Protection against excessive noises. |
| 24. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Possibilities for aesthetic satisfaction in the home and its surroundings. |
| 25. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Protection against falls and other mechanical injuries in the home. |
| 26. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sufficient electrical wiring for appliances as well as lighting. |
| 27. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A desirable view from the interior to the exterior. |
| 28. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Adequate amount of total space. |
| 29. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Harmony with the prevailing social standard of the local community. |
| 30. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sufficient space in sleeping-rooms to minimize the danger of contact infection. |
| 31. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Protection of the neighborhood against the hazards of automobile traffic. |
| 32. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Adequate space for provisions of guests without upsetting family routine. |
| 33. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Suitable arrangement of kitchen. |
| 34. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Adequate space for storage in kitchen. |
| ----- | | | | |
| 35. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The exterior of the house is pleasing to me. |
| 36. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The house represents a sound investment, including initial cost, maintenance, operation expense and resalability. |
| 37. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The house and lot meet the physical needs of each family member. |
| 38. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | My friends have commented favorably about the house. |
| 39. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | There is a desirable arrangement of rooms which permits efficient traffic circulation. |
| 40. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The house and lot enables each family member to maintain peace of mind. |
| 41. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The house has adequate storage for leisure and garden equipment. |
| 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | There is adequate parking space for cars. |

If you had a chance to buy another house, what are some of the things you have learned from this house and location which you would want to consider?

Definitions of the nine values given to the homemakers for ranking in order of most importance to them in housing. The values defined follow the definition in parenthesis.

Considering the house from the point of view of how it would enable the individual to minimize frustration, over-stimulation and conflict and to maximize "peace of mind." (Mental Health)

Analyzing housing from the point of view of how it meets the needs of each individual member of family. (Equality)

Evaluating the house in terms of physical safety, ease of housework and maintenance, and abundance of fresh air and sunlight. (Physical Health)

Regarding the dwelling from the point of view of the effects of its lines, color, form and texture on the individual's sense of the beautiful. (Aesthetics)

Thinking of housing in terms of how it would enable the person to spend his free time at home in an enjoyable manner. (Leisure)

Approaching housing in terms of how it would contribute to the cohesiveness of the family as a unit. (Family Centrism)

Viewing the house in terms of how it would enable the individual to do as he pleases and to foster independence. (Freedom)

Examining the house in terms of a sound investment, including initial cost, maintenance and operation expenses and resalability. (Economy)

Viewing the house from the standpoint of how it would effect the person's standing with others in general and with members of his reference group in particular. (Social Prestige)

OREGON STATE UNIVERSITY
 PLAN - EVALUATION
 Professor H. R. Sinnard - Check List I

SOLAR (Light & Ventilation) ORIENTATION

Daylight & Ventilation

	+ = one-half	x = no score	Suggested score
A. <u>ENTRANCE</u> with outside light: window, Side, Sky light, Trans. or Clerestory			1
B. <u>LIVING - PARLOR</u> - Window Wall South or Side Windows to the South			3
or End Windows South			(2)
and daylight from East, North or West			(1)
C. <u>DINING AREA</u> (Formal) - Windows to the East or South and daylight from the North or (East)			1
D. <u>KITCHEN</u> - windows to the East or South and daylight from the North & South			2
E. <u>FAMILY ROOM</u> or Dining Alcove - Windows to the South or East & Family Room next to Kitchen with daylight from the North or (East)			2
F. <u>WORK AREA</u> (utility) - Laundry etc. - Windows East, North, South			1
G. <u>SERVICE HALL</u> (Rear or side entry) - daylight for entry			+
H. <u>STAIR HALL & STEPS</u> (Sky light or side) - well lighted and safe			+
I. <u>BATH ROOM</u> (windows, sky light) - with daylight & ventilation			+
J. <u>LAVATORY</u> or COMPARTMENT BATH (or 2nd Bath with light & vent.)			+
K. <u>BEDROOM</u> Master - Windows to the South, East or West (for sunlight) day light from one other side (cross ventilation)			+
L. <u>BEDROOM</u> #2 facing South, East or West for sunlight day light & ventilation from one other side			+
M. <u>BEDROOM</u> #3 or room that can be used as BR facing South, East or West daylight & ventilation from one other side			+
N. <u>MULTI-PURPOSE</u> - Seclusion Room, Den, Study, Library or Music etc. not listed above with Daylight and Ventilation			+
O. Other			+
Sheet #1 Orientation	20		_____
Sheet #2 Landscape	20		_____
Sheet #3 Circulation	21		_____
Sheet #4 Flexibility	23		_____
Sheet #5 Kitchens	25		_____
Total Maximum Score	109		_____

OREGON STATE UNIVERSITY
PLAN - EVALUATION
Professor H. R. Sinnard - Check List II

LANDSCAPE & SITE

House and Garden

Landscape - Relationship

<u>Area</u>	<u>Suggested Score</u>	
A. <u>ENTRANCE AREA</u> Public front yard, Court, Drive, Parking, Walks. Car porch, Car port &/or Garage	1 +	_____ _____
B. <u>LIVING ROOM</u> - Overlooking View Lawn and controlled distant view (Protected) & facing another intimate, private evergreen garden, out-door living room & paved living terrace or deck	1 1 1 +	_____ _____ _____ _____
C. <u>FORMAL DINING AREA</u> facing view lawn and distant cont. view (protected) & 2nd window facing private evergreen garden &/or intimate dining terrace or deck	1 + 1 +	_____ _____ _____ _____
D. <u>FAMILY DINING ALCOVE</u> overlooking view lawn-garden and play yard enclosed with fence FAMILY ROOM facing intimate garden outdoor living terrace or deck	1 + 1	_____ _____ _____
E. <u>KITCHEN</u> - one window facing a pleasant garden view & childrens play area enclosed and 2nd window facing service area approach	1 + 1	_____ _____ _____
F. <u>WORK AREA</u> facing service area clothes drying, etc. (screened)	1	_____
G. <u>SERVICE ENTRANCE</u> - side & rear walk facing private side yard & parking	1	_____
H. <u>MAIN BEDROOM</u> facing private area and having emergency exit	+ +	_____ _____
I. Two additional <u>BEDROOMS</u> facing enclosed private areas (fire escape)	+ +	_____ _____
J. <u>GARDEN</u> view lawn and other garden areas enclosed shrubs & trees	1	_____
K. <u>TREES</u> functional for shade, framing, accent, screening, backing, etc.	1	_____
L. <u>SHRUBS & VINES</u> functional for screen, transitional, accent, frame, shade, etc.	+	_____
M. Emergency (Storm & Fall out) Shelter	+	_____
Maximum Possible Points	20	_____

Record No. _____

OREGON STATE UNIVERSITY
 PLAN - EVALUATION
 Professor H. R. Sinnard - Check List III

Traffic - CIRCULATION - between Zones & Areas

Movement Pattern - Access.

Circulation, Communications & Views between various areas & centers

Suggested score

1. <u>FRONT ENTRY</u> or Foyer, easy, direct to LIVING AREA (view screened)	1	_____
2. Short access to FAMILY ROOM from Front Entry or Foyer (view screened)	1	_____
3. Short access to SERVICE AREA & KITCHEN from Front Entry (view screened)	1	_____
4. Guest CLOSET & Coat CLOSET close to Front Entry	1	_____
5. POWDER ROOM, BATH or LAVATORY access from front entry via hall (view screened)	1	_____
6. First floor room used as BEDROOM, DEN, or GUEST ROOM accessible to front entry & bath, (sound proofed)	1	_____
7. Front Entry to car port, porte cochere or car porch or GARAGE	+	_____
8. Stair hall leading to BASEMENT &/or 2nd floor accessible to F. E. (doors)	+	_____
9. Front Entry accessible to each room in house without passing thru another	1	_____
10. <u>SERVICE ENTRY</u> direct access to WORK AREA & KITCHEN (cleaning closet)	1	_____
11. Easy & Short access to Bath or Lav.	1	_____
12. Access to Storage Closet from Service Entry (Family COAT CLOSET)	1	_____
13. To Stair hall leading to Basement and/or 2nd floor from Service Entry	+	_____
14. Covered Connection to Garage or Carport from Service Entry	+	_____
15. Easy access from service to each room of house without passing thru Kitchen work centers	1	_____
16. DINING ALCOVE in FAMILY AREA close to serving center in Kitchen	1	_____
17. KITCHEN SERVING CENTER close to Formal Dining-Living-Area	1	_____
18. Direct access from Living Area to Dining Area	1	_____
19. No traffic thru living room conversational group around Fire Place	1	_____
20. Access from bedroom hall to compartment bath	1	_____
21. Master bedroom bath, private but accessible by guest	1	_____
22. LAUNDRY-W & DRYER - accessible to bed rooms, bath, & kitchen	1	_____
23. Doors properly located for through traffic, 90° corners, swing no clash	1	_____
Maximum Possible Points	21	_____

Record No. _____

OREGON STATE UNIVERSITY
 PLAN - EVALUATION
 Professor H. R. Sinnard - Check List IV

FLEXIBILITY

FLEXIBILITY - EXPANSIBLE ADDITIONS, adapted to the
 changing needs of the family

	Suggested score	
A. <u>LIVING AREA</u> Designed for possible isolation & expansion into DINING and expansible FAMILY ROOM or multipurpose area	1	_____
or to Library, Den, Study Office, Guest Room, Music Room, etc.	1	_____
B. <u>DINING AREA</u> that can be isolated or expanded into Dining Alcove or (pass through) kitchen	1	_____
or expansible to Family Room or Multi-purpose area, Music Room, etc.	1	_____
C. <u>KITCHEN</u> that is possible to isolate or expand (pass thru) into DINING ALCOVE or Dining area of Family Room	1	_____
or expansible to family Work Room (Laundry) or Glassed in Porch or Play Rm.	1	_____
D. <u>MULTI-PURPOSE AREAS</u> - Family (work) room with stor. & TV	1	_____
Large Game Room for Family group use (NOT F. R.) - Storage (Play) (TV)	1	_____
Small Seclusion Room, isolated for private conferences, Fallout Shelter	1	_____
Office, Den, Study, Library, Emergency guest room (storage)	1	_____
Dining Area - designed with storage for supervised play, study, etc.	1	_____
Garage used for Shop, Play, Car Port - Garden Shelter (storage)	1	_____
E. <u>BEDROOM</u> - designed to be separated into 2 separate bedrooms w. (folding wall)	1	_____
into play area - with storage and bedroom storage wall & folding wall	1	_____
F. <u>FUTURE ADDITIONS</u> to Basic House - add one or two bedrooms to a 1-bedroom house (divisible bedroom)	1	_____
Add a third or fourth bedroom to a one or two bedroom house	1	_____
Add a FAMILY ROOM on the main floor (w. ample storage) (wall in a carpt. or G)	1	_____
Add a GAME ROOM or PLAY-ACTIVITY AREA with adequate storage (finished basement)	1	_____
Add a second Bath Room or Lavatory or Compartmentalize a Bath Room	1	_____
Add a work room, Utility-Laundry with adequate space for supplies & Equipment	1	_____
LIVING or DINING ROOM. Future addition to the basic house	1	_____
G. Add a GARAGE, Carport or Car porch	1	_____

Maximum Possible Points

23 _____

KITCHEN

Area	Suggested score	
A. <u>SINK CENTER:</u> Length of counter frontage 24" - 41" to right of sink & 18" - 36" to left. Storage for	1	_____
1. Trash & garbage	+	_____
2. Dish towels, etc. - (Ventilated)	+	_____
3. Vegetables - (Ventilated)	+	_____
4. Cutlery, silver and dish storage	+	_____
5. Dishwashing supplies	+	_____
6. Dishwasher	+	_____
7. Sauce pans, strainers, colanders, etc.	+	_____
8. 9-15" counter frontage, end of sink to corner	+	_____
B. <u>REFRIGERATOR:</u> Length of counter frontage adjacent to latch side of ref. 15" - 18"	+	_____
1. No work centers separated by tall appliances	+	_____
2. Storage space for refrigerator-related dishes	+	_____
C. <u>MIX CENTER:</u> Length counter frontage 32" - 54"	1	_____
1. Pull out, cutting, or lap boards	+	_____
2. Canisters (drawers) for flour & sugar	+	_____
3. Divider storage for pans, etc.	+	_____
4. Shallow shelf for mixes, seasonings, etc.	+	_____
5. Mixer storage	+	_____
6. Mixing utensils	+	_____
D. <u>RANGE-SERVE CENTER:</u> 18" - 25" of counter frontage adjoining either side of range (or oven if separate) Cabinet storage for	1	_____
1. Skillets, griddles, utensils, lids, etc.	+	_____
2. Serving dishes, platters, etc.	+	_____
3. Spices - recipe card holder	+	_____
4. Hot pads	+	_____
5. Knives, spoons, turners, utensils	+	_____
E. <u>PLANNING AREA & MISC. STORAGE</u> for	1	_____
1. Bulletin & chalk board near phone	+	_____
2. Cookbooks and recipe files	+	_____
3. Used containers, cartons, bottles, etc.	+	_____
4. Paper & plastic bags, waste paper, etc.	+	_____
5. Step-stool, high chair, etc.	+	_____
6. Cans & opener at point of greatest use	+	_____
7. Personal needs, mirror, etc.	+	_____
8. Chair or space for visitor	+	_____
9. Small appliances in area of most use	+	_____
10. Catchall - uncommitted storage	+	_____
11. Bulk storage	+	_____
12. Other as required	+	_____
F. <u>GENERAL CONSIDERATIONS:</u> Work triangle 23' or less	+	_____
1. Total base cabinet with drawers 72" - 120"	+	_____
2. Total wall cabinet (adjustable shelves) 72" - 168"	+	_____
3. Two or more primary work centers adjoining	+	_____
4. Front of base cabinet to appliance opposite, 48-60"	+	_____
5. Electrical outlets at each work space or each 4'	+	_____
G. <u>RELATION TO OTHER ROOMS</u>	1	_____
Maximum Possible Points	25	_____