AD-A009 701

SURVEY OF SOLDIERS' ATTITUDES TOWARD TROOP HOUSING. VOLUME II

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Champaign, Illinois

April 1975

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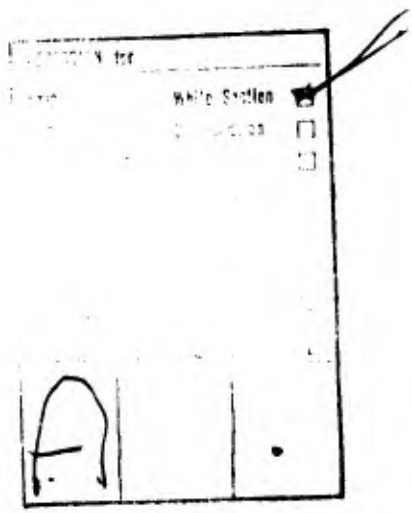

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REPORT DOCUMENTATION PAGE

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1. REPORT NUMBER: TECHNICAL REPORT D-29	2. GOVT ACCESSION NO.
3. RECIPIENT'S CATALOG NUMBER: AD-A009 701	
4. TITLE *(and Subtitle)*: SURVEY OF SOLDIERS' ATTITUDES TOWARD TROOP HOUSING, VOL II	5. TYPE OF REPORT & PERIOD COVERED: FINAL
	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s): Roger L. Brauer	8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS: CONSTRUCTION ENGINEERING RESEARCH LABORATORY, P.O. Box 4005, Champaign, Illinois 61820	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS: FY72 O&MA
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE: April 1975
	13. NUMBER OF PAGES: 279
14. MONITORING AGENCY NAME & ADDRESS *(if different from Controlling Office)*	15. SECURITY CLASS. *(of this report)*: UNCLASSIFIED
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT *(of this Report)*

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)*

18. SUPPLEMENTARY NOTES

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

barracks
enlistment
soldiers' attitudes
troop housing

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

The purpose of this study was to determine what changes in the condition of barracks were most desirable to enlisted men, to document these attitudes, and to obtain some understanding of the responses.

To attain these goals, a survey was conducted at six U.S. Army posts and included a sample of about 2000 men, which was considered representative of the enlisted Army population. The major instrument in the study was a questionnaire that was completed by all men in the sample. For some respondents, a brief slide presentation, an activity

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diary, and a personality inventory were used in support of the questionnaire. Two architects provided a professional comparison of several barracks at each location.

The results show how the barracks were rated in a large number of scales, how satisfied the enlisted ranks were with various aspects of their barracks, what items the troops would most like to see changed, and what background factors contributed to the attitudes and responses. Although significant differences in ratings occurred by installation, the differences by post appear to be more related to age, rank, number of roommates, intent to reenlist, educational level, type of unit, and type of barracks construction all of which were interrelated. The items which were considered to be the most important changes did not significantly vary when broken down by the background factors mentioned above.

FOREWORD

This study was sponsored by the Department of the Army, Chief of Staff, Office of the Special Assistant for the Modern Volunteer Army (OSAMVA), and was funded as a direct allocation in the approved operating budget for Fiscal Year 1972 O & MA funds. The research was conducted by the Architecture Branch of the Facilities Habitability and Planning Division at the Construction Engineering Research Laboratory (CERL), Champaign, IL.

The principal investigator on this project was Dr. Roger L. Brauer, with assistance from Richard W. Cramer, the American Institute of Architects (AIA), and others. Administration of the survey instruments in the field, data reduction, and most of the data analysis was completed by the Survey Research Laboratory (SRL) at the University of Illinois at Urbana-Champaign, with Dr. Edward Lakner as project coordinator. Architectural ratings of selected barracks were completed by the Small Homes Council-Building Research Council (SHC-BRC) at the University of Illinois, under the direction of Mr. Donald Brotherson, AIA. Evaluation of personality inventory results was completed by Dr. Jerry Wiggins, Department of Psychology, University of Illinois.

Technical guidance on this study was also provided by Dr. H.M. Bowen, Management Science Department, Stevens Institute of Technology, Hoboken, NJ; Dr. S.B. Sells, Institute of Behavioral Research, Texas Christian University, Ft. Worth, TX; Donald Conway, Director, Research Programs, AIA, Washington, DC; Dr. W.H. Ittelson, Environmental Psychology Program, The City University of New York, New York City, NY; Professor W. Kleinsasser, School of Architecture and Allied Arts, University of Oregon, Eugene, OR; and Dr. Blair McDonald, Navy Medical Neural Psychiatric Research Unit, San Diego, CA.

Appreciation is expressed to staff members at CERL, SRL, SHC-BRC, and OSAMVA (COL D.R. Hampton and CAPT G.L. Fredericks), and to CAPT L. Branch of the U.S. Army Natick Laboratories, Mr. Arnold Prima and LT Robert Shibley of the Office of the Chief of Engineers, and members of the staff at Army installations which were included in the study, particularly MVA officers.

Dr. R.M. Dinnat is Chief of the Facilities Habitability and Planning Division. COL M.D. Remus is Director of CERL and Dr. L.R. Shaffer is Deputy Director.

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1 INTRODUCTION

Background. As stated in the Army's Master Program for the Modern Volunteer Army (MVA)[1], one of the two categories of action in developing an MVA is improving Army life by removing sources of aggravation which are deterrents to service. One of those deterrents is unattractive living conditions, such as barracks.

The first objective of the MVA program in improving barracks life is to develop "a pattern of soldier life, fostered by command policies, which a) reflects an attitude of trust, and affords soldiers the dignity and respect of mature citizens, b) respects the private time of soldiers during off-duty periods, and insulates them from arbitrary intrusions, and c) permits soldiers to express individual preferences (in decorating their rooms, for instance) within the limits of propriety and good taste."[2]

The second objective in improving barracks life is to provide "barracks housing for unmarried soldiers which a) is reasonable and modern, b) is well maintained and in a good state of repair, c) provides privacy, initially to the extent of two to four man living spaces, d) includes suitable facilities for personal needs (day rooms, washers, and dryers, safeguarded storage space, convenient dining facilities serving appetizing food, etc.), e) is outfitted with adequate, attractive furnishings, and f) is separated from the office and work areas of the unit."[3]

In response to these and other objectives for reducing dissatisfaction with military facilities, CERL outlined a research program, entitled "Toward a Volunteer-Compatible Military Construction Program," that would support the improvement of these facilities. The barracks study reported here was part of that program and w s conducted in the context of the MVA objectives outlined above.

Purpose. There were several objectives to this study. The first was to determine which changes in barracks conditions were most desirable to soldiers living in barracks. The second objective was to document the attitudes of soldiers toward their barracks and thus provide a baseline of data against which evaluation of improvements or new designs could be compared. The third was to identify what background factors were related to these attitudes.

2 METHODS

Installations Sampled. The survey was administered at six Army posts: Forts Dix, Hood, Knox, Lee, Sill, and Leonard Wood, as shown in Figure 1.

Several criteria were used in selecting these posts. First, posts which were included in the Fiscal Year 1971 Volunteer Army (VOLAR) program were excluded from this study. These posts were being heavily surveyed and the soldiers had developed a negative attitude about being respondents to surveys. Therefore it was felt that results from these installations might have a built-in negative bias.

Furthermore, an attempt was made to select installations which were located in different areas of the continental United States, varied in proximity to a metropolitan area, and contained a mixture of unit types (combat arms, combat support, or training). The sample installations were categorized according to those which were not included in the VOLAR program and those which were included in the VOLAR program in Fiscal Year 1972 only.

[1] *The Army's Master Program for the Modern Volunteer Army* (Department of the Army, 1971).

[2] *The Army's Master Program for the Modern Volunteer Army*.

[3] *The Army's Master Program for the Modern Volunteer Army*.

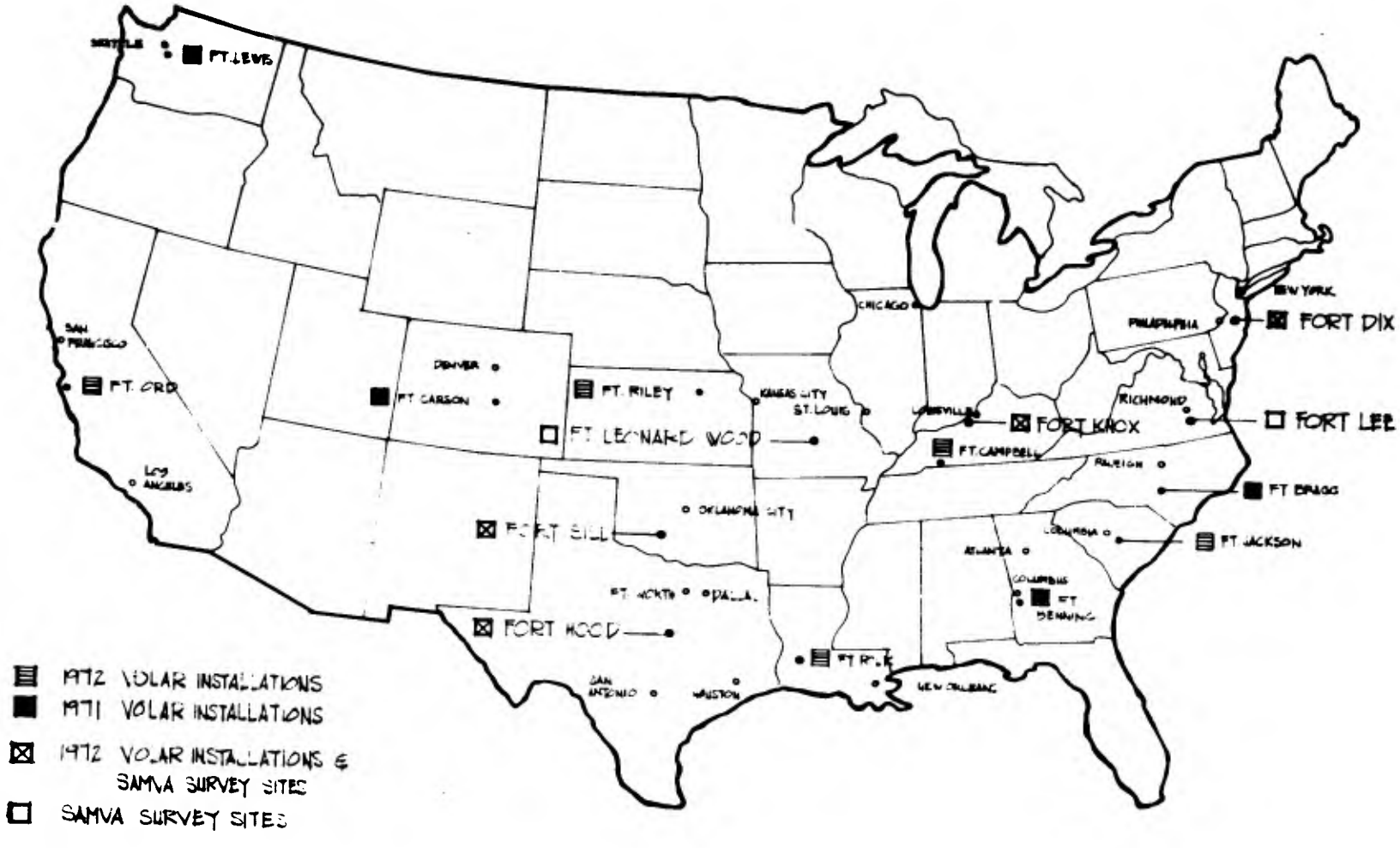

Figure 1. Survey sites.

Sample of Respondents. For each post a list was compiled of the types of barracks construction and what units were housed in each barracks. A sample of enlisted men was then requested from units randomly selected from within each barracks construction type. The soldiers requested from each unit that was included in the study were to be distributed by pay grade. The respondents were required to be living in barracks and to be on permanent assignment (i.e., to have completed Advanced Individual Training).

Survey Instruments. There were four instruments used in this survey: a questionnaire, a slide presentation, an activity diary, and a personality inventory. All respondents were asked to complete the questionnaire; about 40 percent completed the slide presentation response form; 50 percent completed an activity diary; and about 15 percent completed the personality inventory.

The questionnaire consisted of eight sections dealing with the post, barracks, sleeping room, latrine, day room, dining hall, organizational climate in the Army, and personal background of the respondent. The eight sections were further subdivided for clarity. The overall organizational structure of the questionnaire is shown in Figure 2. The questionnaire is included in Appendix A.

The purpose of the questionnaire was to document troop attitudes toward barracks housing, to identify which things they would most like to see changed, and to determine the factors which were related to the responses.

The slide presentation included sets of slides (from two to four slides per set) which were shown for the most part in pairs. The slides were an artist's illustration of partitioning, furniture style, furniture quantity, room color, and exterior appearance and landscaping. All possible combinations of slide pairs within each set were shown using a paired comparison method. Respondents were required to select one slide in each pair. A score was then computed for each picture to determine how often it was favored. Occasionally, a related question was asked about the slides. The slide presentation response form and the illustrations are included in Appendix B.

The activity diary had two forms. One form asked respondents to state what buildings they entered and left, while the other form requested respondents to state what areas within the barracks were used. The two forms were distributed to alternate respondents.

The diaries were intended to determine if the time spent in barracks and other facilities was related to attitudes about barracks and whether barracks conditions affected the use of the barracks or areas within it. A copy of each diary form is included in Appendix C.

The final instrument, a personality inventory, was given to a small subsample of respondents to determine if personality traits, defined in terms of needs, were related to attitudes about physical facilities. For example, a high need for aggression might be reflected in a high number of requests for physical recreation facilities. The personality inventory used was the *Personality Research Form.*[4]

Administration of Instruments. The survey was conducted at the six sample installations during the spring of 1972 (April–May). At each post, two sessions were conducted per day (one morning, one afternoon) for 5 days. The schedule for presenting the survey instruments is shown in Table 1.

The total population billeted in barracks or BEQs at each post and the number of respondents included in the survey are tabulated in Table 2.

The number of respondents included in the study was such that if 50 percent answered the same way, then 95 percent confidence limits were ±5 percent.

3 RESULTS

General Comments. A completed questionnaire provided about 350 items of information. Individual responses to the slide presentation provided an additional 30 items and 50 items comprised each activity diary. The soldiers who completed a personality inventory responded to 440 items which were reduced to 22 personality scales. Overall, this survey generated about one million pieces of information. The intent of the results section is to reduce this large volume of infor-

[4] D.N. Jackson, *Personality Research Form Manual* (Research Psychologists Press, Inc., 1967).

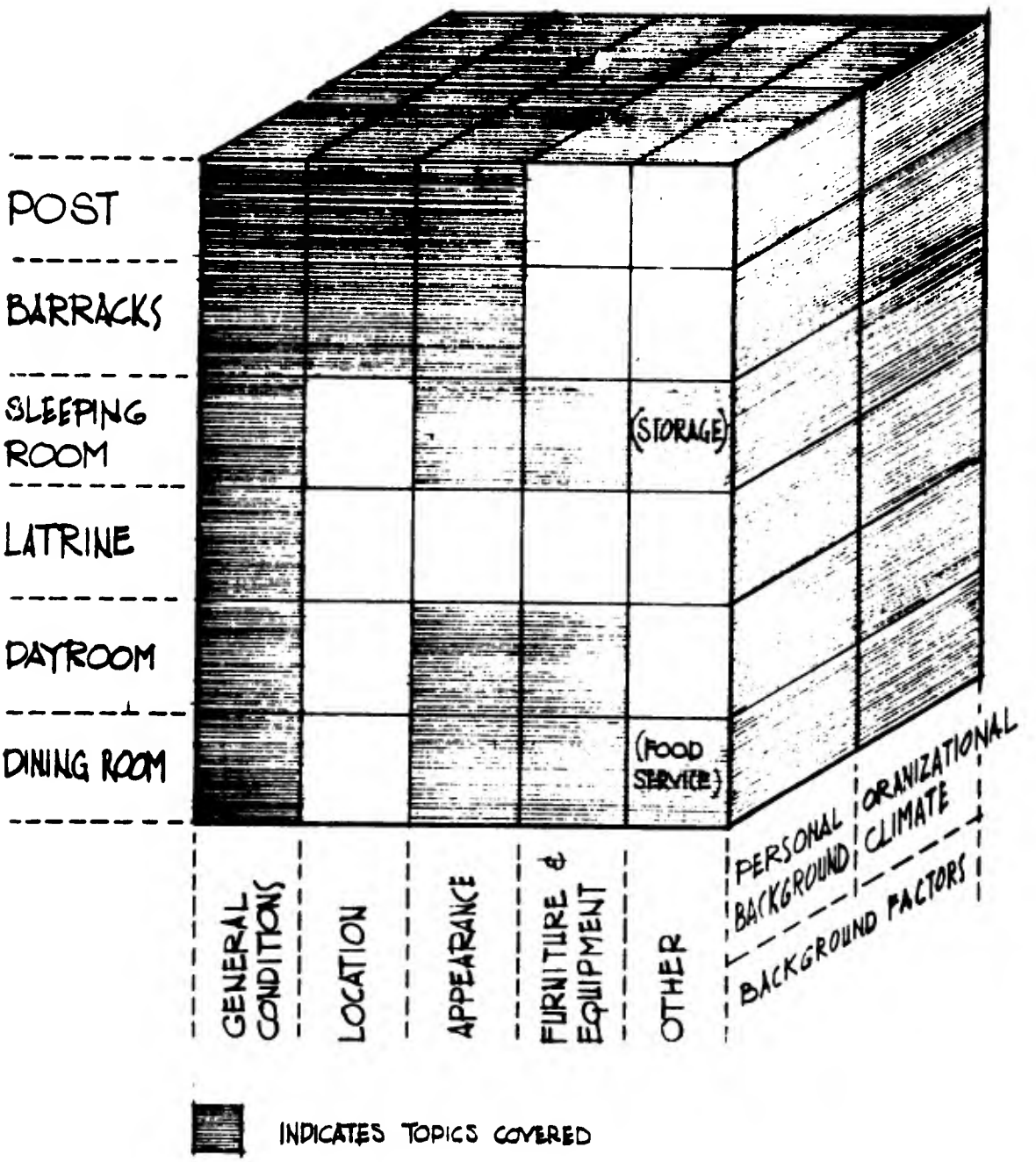

Figure 2. Schematic diagram showing organizational structure of questionnaire.

Table 1
Survey Administration Schedule at Each Installation

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	Set up equipment and materials	Questionnaire Personality inventory	Questionnaire Personality inventory	Questionnaire Slide presentation Diary (Fri., mail back)	Questionnaire Slide presentation Diary (Sat., mail back)
Afternoon	Questionnaire Diary (recall Sun.)	Questionnaire Diary (recall Mon.)	Questionnaire Diary (recall Tue.)	Questionnaire Slide presentation Diary (recall Wed.)	Questionnaire Slide presentation Diary (recall Thurs.)

mation into a set of meaningful statements about the responses.

In order to accomplish this, the results from each of the four instruments will be reported separately. The questionnaire will be evaluated first and will be divided into subsections. Results from the slide presentations, the activity diaries, and the personality inventories will then be reported. Relationships between and within instruments will also be evaluated.

Ninety-seven WAC's were included among the questionnaire respondents. Their responses will be kept separate from those of the enlisted men.

After the survey was administered at each of the six installations, two copies of the questionnaire were mailed to a number of unit commanders at each of the six installations. The officers were asked to complete the questionnaires, keeping in mind how their troops would have answered the questions. The other copy of the questionnaire was to be completed by the first sergeant in the unit, again, with consideration of how the troops would respond. Forty-four officers and 45 first sergeants returned a completed questionnaire. These results will also be reported.

In addition, two architects visited the six installations and examined several barracks. While visiting these barracks, the architects rated the conditions on many of the same scales as did the men. The architects evaluated two 1930s barracks, six World War II temporary barracks, ten 1950s barracks, and five 1960s barracks. The architectural evaluations are reported at the end of the results from the questionnaire.

The results show overall responses for the sample groups. However, it should be remembered that overall trends or average responses do not represent the response of all individuals. Implementation of changes based on the overall trends will probably satisfy a majority of men, but will never satisfy all.

Questionnaire—General. Each section of the questionnaire will be discussed in alphabetical sequence except for Section H which contains information about the respondent's background. This section will be discussed first. In order to understand the sample of respondents who actually completed this survey, it is best to examine their backgrounds and then use that information when considering the other results.

Although it is easy to report results for the entire group of men respondents, an overall view of the questions may not reflect variations that occur based on specific factors. For example, rank, age, number of roommates, etc., when separated into smaller categories, may show major differences. If the results are viewed only for the overall sample of respondents, these differences would be overlooked.

Table 2
Total Number of Respondents in the Survey and Barracks Population at Each Installation

Post	Barracks or BEQs Population	Number of Respondents
Dix	3,464	274
Hood	17,852	546
Knox	5,552	493
Lee	1,645	282
Sill	5,220	287
Leonard Wood	3,125	161
Total	36,858	2,043

The responses of the soldiers were broken down by 11 background factors. These factors include post, educational level, number of people in sleeping room, drafted or enlisted, type of unit, nights spent in room per week, pay grade, age, race, barracks construction type, and reenlistment potential. To determine whether significant variations occurred, statistical evaluation of the responses was completed on each question for each factor using a Chi-squared test of response frequency.

Questionnaire–Section H: Background (Questions 1 to 15). Respondents are described according to the information they provided on each item in the background section. Subsequently, the interrelationships between background items are discussed.

After deleting incomplete questionnaires and the ones from inappropriate subjects (those not living in barracks), the total number included in the analysis was 1683.

The number of useable questionnaires from each post is presented in Table 3.

The overall mean age for the sample group was 25.5 years. The distribution of respondents by age (Question H1) is shown in Table 4.

While Question H2 was not used in analyses, of the 1683 men living in barracks, 26 percent were married, 62 percent were never married, and 12 percent were divorced, separated, or widowed.

The ethnic background of respondents (H3) was distributed as shown in Table 5. In later analysis, the three smaller groups (Spanish-American, Oriental, and Other) were regrouped into the "Other" category.

The educational level of respondents (H4) is presented in Table 6. For later analysis, the respondents were regrouped by education into the following categories: 1–9 years completed, 10–12, 13–15, and 16 and above.

The distribution of respondents' pay grades (H5) is presented in Table 7. For later analysis, respondents were grouped into the following pay grade categories: E1–E2, E3–E4, E5–E6, E7–E9.

Respondents were asked how they entered the Army (H6). The responses are shown in Table 8. The respondents were regrouped into (1) drafted and volun-

Table 3
Usable Questionnaire Responses from Each Post

Post	Number of Usable Responses	Percent of Total
Fort Dix	246	15
Fort Hood	428	25
Fort Knox	383	23
Fort Lee	234	14
Fort Sill	257	15
Fort Leonard Wood	135	8
Total	1683	100

Table 4
Age of Respondents

Age (years)	Percent of Respondents
17–20	16
21–23	41
24–26	17
27–30	8
31–40	13
41–65	6

Table 5
Ethnic Background of Respondents

Race	Percent of Respondents
White	70
Black	22
Spanish-American	5
Oriental	1
Other	3

Table 6
Educational Level of Respondents

Years Completed	Percent of Respondents
1–8	2
9–11	12
12	57
13–15	22
16 or more	7

teered for the draft, (2) enlisted, and (3) other.

Although Question H7 was not used in further analyses, the length of time which respondents were on active duty in the Army is shown in Table 9.

The length of time remaining in the respondents' present commitments (H8) was not analyzed further. However the responses are as presented in Table 10.

The intent to reenlist for another tour of duty at the end of the present tour of duty (H9) was reported by the men as shown in Table 11. In the report of results this question is often referred to as re-up potential.

Table 7
Pay Grade of Respondents

Pay Grade	Percent of Respondents
Pvt. E1	2
Pvt. E2	6
Pfc. E3	12
Cpl. E4	9
Spec. E4	30
Sgt. E5	13
Spec. E5	10
Ssg. E6	13
Spec. E6	1
E7 to E9	7

Table 8
Respondents' Mode of Entry in the Army

Entry	Percent of Respondents
Drafted	32
Volunteered for draft	11
Enlisted	55
Other	3

Table 9
Time on Active Duty for Respondents

Active Duty Time	Percent of Respondents
Less than 1 year	13
1 to 2 years	41
3 years	10
4 years	3
More than 4 years	33

Respondents reported having been at their present post from zero to 66 months (H10). Further analysis on this question was not performed. The respondents are grouped in several categories in Table 12.

Question H11, identifying which installation respondents were stationed at before arriving at their present post, was not analyzed.

Respondents were distributed by type of unit (H12) as shown in Table 13.

The name of the unit (H13) and the building number (15a) was used to identify the type of barracks construction in which respondents lived. About 6 percent of the respondents did not provide the information requested due to apprehension about remaining anonymous. For those who did, the distribution by barracks construction types is presented in Table 14. Photographs of typical facilities are shown in Figure 3.

Table 10
Time Remaining in Present Tour of Duty

Time to End of Present Commitment	Percent of Respondents
6 months or less	14
7 to 11 months	26
1 to 2 years	33
More than 2 years	26

Table 11
Intent to Reenlist

Intent to Reenlist	Percent of Respondents
Yes	14
Undecided	21
No	64

Table 12
Length of Time Stationed at Present Location

Time on Post	Percent of Respondents
6 months or less	46
7 to 12 months	33
13 to 24 months	18
Over 24 months	3

Question H14 was used to determine whether respondents lived in barracks of BEQs. Those that said they lived in family housing or in off-post housing were dropped from the analysis.

The background factors from Section H which were used for cross-tabulating responses in the questionnaire were noted earlier in Table 3. Table 15 shows which of the background factors that were used in later analysis were significant when compared to each of the other factors.

Referring to Table 15, all background factors showed significant variation by post (indicated by a dot in the matrix), with the exception of mode of entry into the service (drafted or volunteered). The first significant variation shown in Table 15 is between post and educational level. The results showed that

Table 13
Distribution of Respondents by Type of Unit

Type of Unit	Percent of Respondents
Combat arms (infantry, armor, artillery, etc.)	35
Combat support (engineers, signals, military police, or military intelligence, etc.)	19
Training (permanent party)	26
Other (technical, administrative, medical service, support, etc.)	21

Table 14
Distribution of Respondents by Barracks Construction Type

Barracks Construction Type	Percent of Respondents
World War II temporary barracks	14
World War II temporary BEQ	8
1930s barracks	7
Temporary block	1
1950s barracks	50
1960s barracks	19
Other	1

Table 15
Significance* of Background Factors When Crossed With Themselves

	Post	Education	Number of people in room	Drafted or volunteered	Type of unit	Nights spent in room	Pay grade	Age	Race	Barracks construction type	Re-up potential
Post											
Education	•										
Number of people in room	•										
Drafted or volunteered		•	•								
Type of unit	•	•	•								
Nights spent in room	•	•									
Pay grade	•	•	•	•	•						
Age	•	•	•	•	•		•				
Race	•	•	•	•		•	•	•			
Barracks construction type	•		•		•	•	•	•	•		
Re-up potential	•	•	•	•	•		•	•	•		

* Significance based on Chi-squared test at a confidence level of 99 percent.

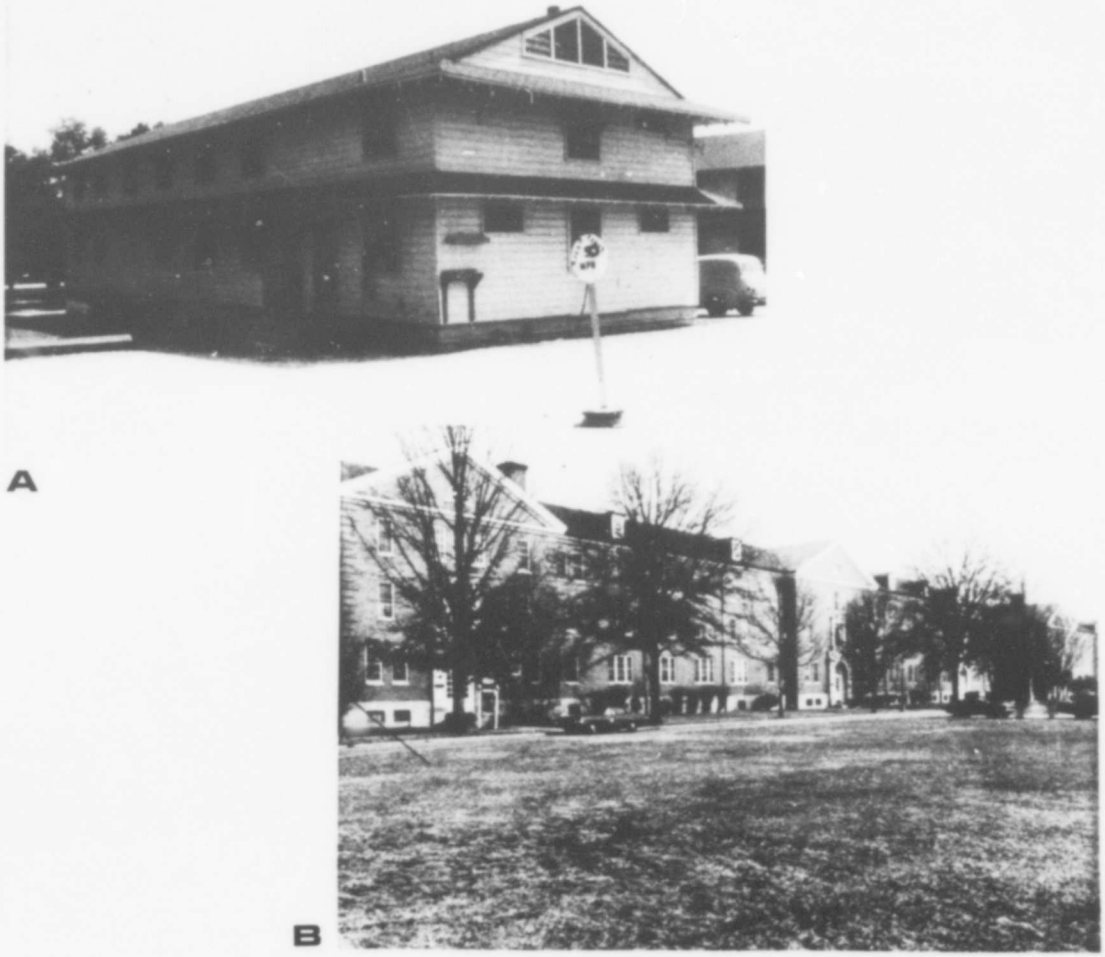

Figure 3. Photographs of typical barracks of each type included in the study (examples are not shown of WWII temporary BEQs and "Others"). a. WW II temporary barracks. b. 1930s barracks.

respondents at Fort Lee tended to have the highest level of education, while those at Fort Hood tended to have less than average education. Respondents at the other four posts were very similar and fell in between. The next significant variation indicated that respondents at Fort Dix tended to have the fewest number of roommates, while those at Fort Hood had a higher density of men per room.

More than half of the respondents at Forts Sill and Hood were in combat arms, while more than half at Fort Dix were in training units. Most respondents at Fort Lee were in training or other types of units. Over 70 percent of the respondents at Fort Leonard Wood were in combat support or training units, while respondents at Fort Knox were approximately divided among the four types of units. About 60 percent of the

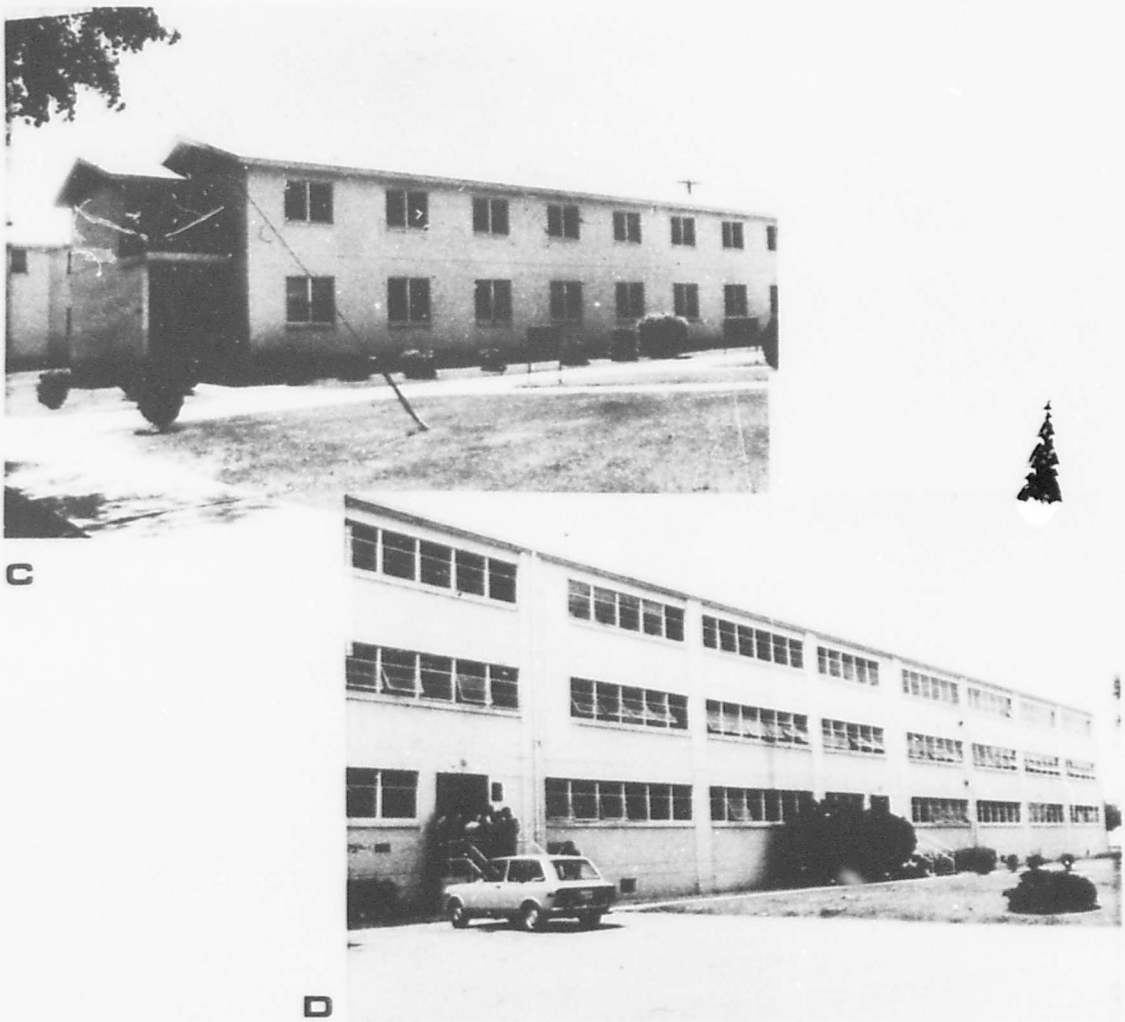

Figure 3. (Continued) c. Temporary block barracks.
d. 1950s barracks.

respondents at Forts Sill and Hood spent at least 6 or 7 nights per week in their assigned quarters while about 50 percent of the respondents at the other four posts spent that many nights in their room. Although about 10 percent of all respondents slept 2 or fewer nights per week in assigned quarters, the distribution varied considerably by post. More than half the respondents at Fort Sill were in the pay grade E5 or above, while at Forts Lee, Leonard Wood, Knox, and Hood more than half the respondents were in pay grade E4 or below. By post, the age distribution closely followed that of pay grade. While the overall age of all respondents was 25.5 years, the average age by post was as shown in Table 16. Of the total group of respondents, 22 percent were blacks. However, Fort Dix had considerably more blacks, while Forts Knox and Leonard Wood had considerably fewer. Thus, there were fewer whites than average at Fort Dix and more

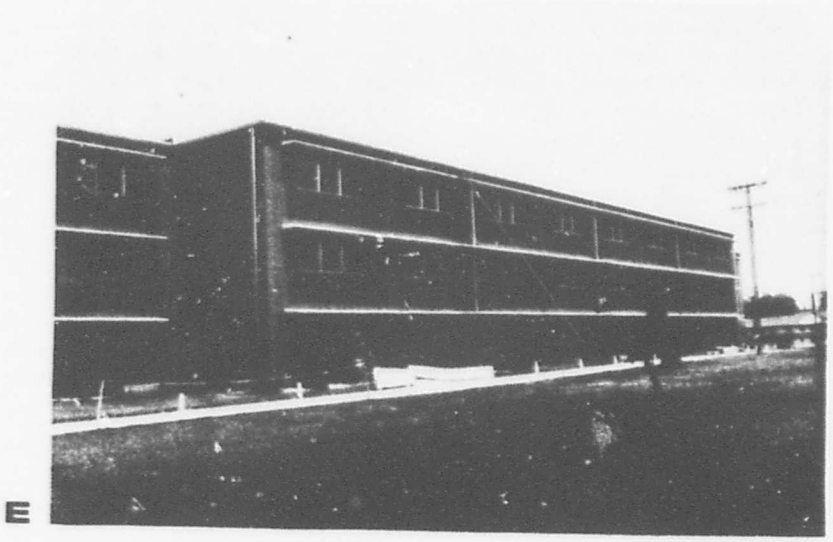

Figure 3. (Continued) e. 1960s barracks.

than average at Forts Knox and Leonard Wood. Most respondents at Forts Knox and Lee lived in 1950s construction. Most men at Fort Sill lived in either 1950s or in World War II temporary barracks or BEQs. The majority of respondents at Fort Dix lived in 1960s barracks. The majority of respondents at Leonard Wood lived in either World War II temporary barracks or 1960s barracks. Men at Fort Hood were distributed among the World War II temporary barracks, 1950s construction, and 1960s construction. More respondents at Forts Sill and Dix intended to reenlist than average, while the majority at Leonard Wood and Hood did not.

Table 16
Average Age of Respondents by Post

Post	Average Age
Dix	26.9
Hood	23.0
Knox	25.5
Lee	26.0
Sill	27.8
Leonard Wood	25.7

The majority of the respondents, who had 9 years of education or less or who had completed college, were drafted; while the majority of those whose education ended at the high school level had enlisted. Overall, the lowest average level of education was found in combat arms units, while that for combat support units was slightly higher. Training units showed another slight increase. The educational level of other support units was highest. Pay grades E3 through E6 tended to have the highest level of education, while E7 to E9 had the lowest. Respondents 24 to 26 years old tended to be the most educated, while those 17 to 20 and 31 to 40 were the least educated. Whites tended to be slightly more educated than did blacks or others. The percent of respondents who did not intend to reenlist increased as educational level increased. Respondents with less than 9 years of education tended to spend fewer nights per week in their room than did all others.

Although the number of respondents per room and mode of entry into the Army was significant, no trends are apparent that explain the significance. Respondents in training units tended to have fewer people per room with over half those in training units having single rooms. Combat arms and combat support units tended to have a higher density of people in a room. The density of roommates tended to increase as

pay grade decreased. Similarly, as expected, the density of roommates decreased as age increased. Fifty-one percent of the blacks had single rooms, while less than half the others did. Densities of people per room was related to the type of barracks construction. The 1950s barracks, 1930s barracks, and World War II temporary barracks had the highest densities, with World War II temporary BEQs having the lowest density. The percentage of respondents who said they did not intend to reenlist increased as the number of roommates increased.

More respondents in the higher pay grades enlisted than did those in lower pay grades. The majority of the respondents who were 17 to 20 years of age or 27 years or older had enlisted, while about half the respondents who were 21 to 26 years of age had enlisted. The majority of whites had enlisted, while the majority of blacks were drafted. A large portion of those who intended to reenlist had originally enlisted, while those who did not intend to reenlist were approximately divided between those who were drafted or those who enlisted originally.

Respondents in training units tended to be older, while those in combat arms and combat support units tended to be younger. Similarly, those in training units tended to be in higher pay grades while those in combat arms and combat support units tended to be in lower pay grades. Although barracks construction type was significant when crossed with type of unit, no trends were apparent. Expected reenlistment was higher in training units compared to the other types of units.

Although the number of nights spent in the assigned room was significant when crossed with race, differences were small. Again, although the number of nights spent in the assigned quarters was significant when crossed with barracks construction type, differences were too small to identify a trend. Significance is probably caused by the unequal distribution of construction types by post. As expected, pay grade increases as age increases. Blacks tended to be unequally distributed in the higher pay grades compared to whites and others; therefore, when interpreting the results by race, it should be remembered that the percent of blacks in the lower pay grades was much lower than in higher pay grades. A large portion of respondents in higher pay grades tended to live in World War II temporary BEQs, otherwise specific trends were not apparent. The percent of the respondents who intended to reenlist increased directly with pay grade.

Overall, blacks tended to be older than whites in the sample group. This should be remembered when interpreting results by race. Older repondents were housed more frequently in World War II temporary BEQs. Other effects by construction type and age were not apparent. The percent of the respondents who said they would reenlist tended to increase with age.

Although race is significant when crossed with barracks construction type, the only specific trend seems to be that more blacks are housed in World War II temporary BEQs, which is probably caused by the effect of age and pay grade being higher for the blacks who were in the sample, than it was for whites and others. Undoubtedly because of the higher age and pay grade of the blacks, a larger portion said they would reenlist than did whites or others.

These significant relationships between background factors which describe the sample population should be borne in mind when interpreting the results in the other sections of the study.

Questionnaire–Section A: General Conditions on Post (Questions 1 to 11). Overall results show that the entire group of soldiers felt the post where they lived was extremely hot in summer, extremely dull, moderately roomy, cold in winter, unpleasant, large, poorly lighted at night, and noisy. The troops were moderately dissatisfied with the general conditions on post. The distribution of these overall results is shown in Figure 4. All scales found in questions 1 through 9 showed significant differences by post. As one would expect, the variations in response to temperature conditions in summer (A2) or winter (A3) and weather conditions (A8) seem to vary with geographic location. The perceived size of the post (A5) reflected the actual size of the post.

The roomy-cramped scale (A1) showed significant variation based on the number of roommates. This appears to reflect a general attitude resulting from the density of people in a room or a crowding factor which carried over to their opinion about the post, with those having more roommates responding more frequently with "cramped." The 17- to 20-year old group was considerably different than the others in their evaluation of the roomy-cramped aspect of the post. This group had a greater degree of crowding in the rooms.

Temperature conditions in the summer (A2) showed significant variation based on the type of unit. Undoubtedly this is because combat arms and combat

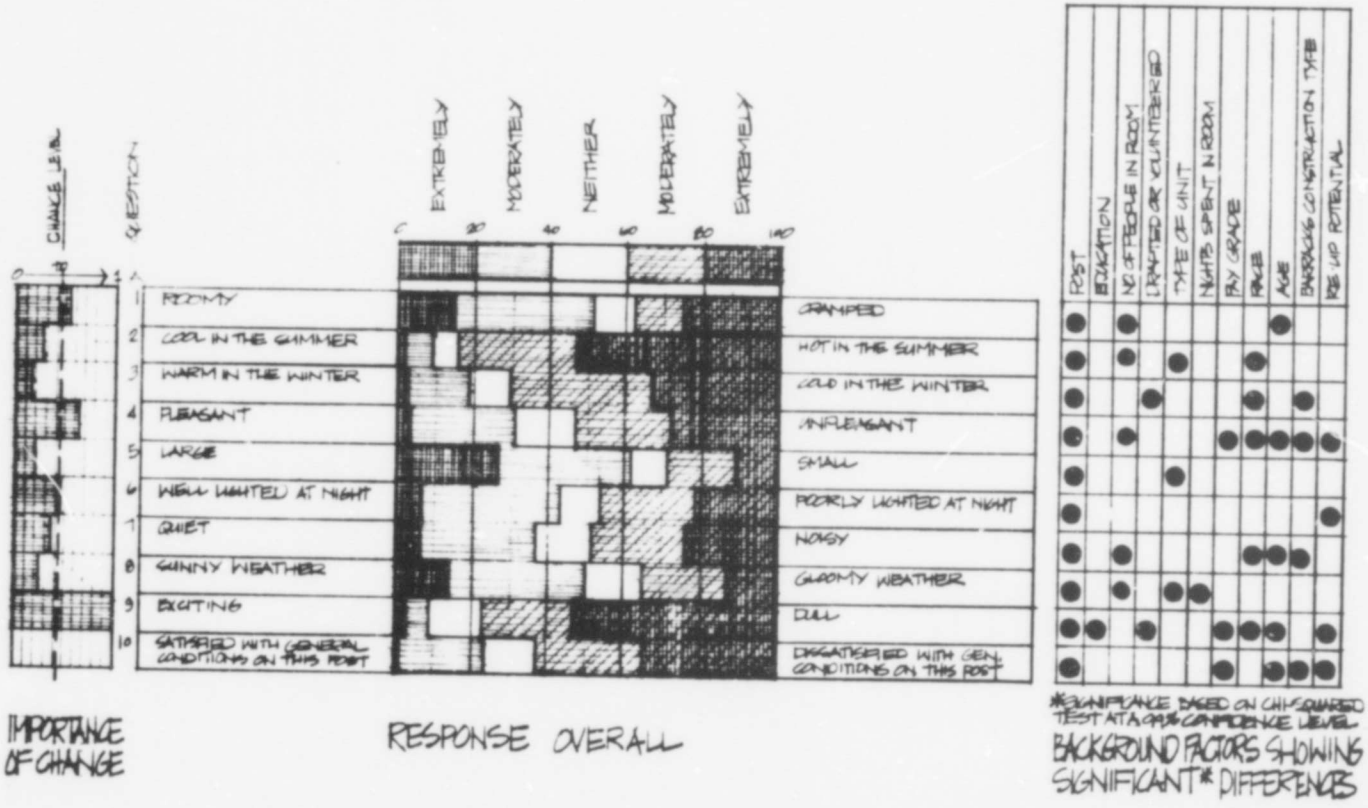

Figure 4. General conditions on post.

support units, which responded with "extremely hot" more frequently, tended to be located at southern installations, while training and support units were located at more northerly posts. Similarly, the southern installations had a higher density of people per room. Although race also showed a significant variation on Question A2, specific trends are not clear. The fact that race was significant is undoubtedly a result of its unequal distribution by age.

On Question A3, temperature conditions in winter, entry into the Army (drafted or volunteered), and race were significant, as well as barracks construction type. Race being significant is probably a result of the unequal distribution by barracks construction type. The variation by entry into service did not show any major differences. The variance based on barracks construction type also showed no major trends and is also probably the result of the unequal distribution of the construction types at the posts.

On the pleasant-unpleasant scale (A4), respondents at Fort Hood felt that their post was more unpleasant than did those at the other posts. This is probably a function of several other factors besides the post itself. Fort Hood had more full-strength units, more people on the post living in barracks, and more negativism on nearly all scales than did those at other posts. Those who stated that they would not reenlist felt that the post was more unpleasant than those who said they would reenlist. Generally, those who said they would reenlist felt more favorable to their post. Again, though race was shown to be significant on the pleasant-unpleasant scale, no specific trends were apparent. Age also showed a significant variation, with younger individuals responding that the post was more unpleasant; as age increased, the post was rated more pleasant. This may reflect the length of time an individual had served in the Army, and is supported by the fact that pay grade was also significant, with those with higher pay grades taking a more positive view toward pleasantness of the post than those with lower grades, who found it more unpleasant. The significance of barracks construction type appears to relate to the density of people in a room, rather than the building type itself. For example, those who said they lived in BEQs found the post more pleasant, while those who lived in World War II temporary barracks, as well as those who lived in 1950s and 1960s construction types, felt the post was more unpleasant.

Respondents generally perceived the true size of the post correctly on the large-small scale (A5). The fact that combat-arms and combat-support units found the post larger than other unit types reflects the fact that combat-arms and combat-support units were located at the larger installations.

The installations were fairly uniform in their attitude about the lighting conditions at night at their posts (A6). While the number of roommates and the reenlistment potential showed significance on this question, the response appears to be related to the fact that those who had more crowding and those who decided not to reenlist took a more negative position about physical conditions on post. The respondents at Fort Hood felt that their post was more noisy than did those at the other installations (A7). The fact that Fort Hood was different from the other posts on several factors appears to have caused the post to be significantly different on the quiet-noisy scale. This is supported by the fact that the number of roommates was also significant on this question, with those living in rooms with more people feeling that the post was also more noisy. Similarly, the lower age brackets (who were probably more crowded) found the post to be more noisy than those who were older. The respondents who lived in World War II temporary barracks thought the post was the most noisy, while those buildings which had the lowest population density per room felt that their post was more quiet. No trends appear to be apparent based on race.

Respondents at Fort Hood thought that their post had the most sunny weather (A8) while those at Forts Knox and Dix felt the weather was more gloomy. The fact that the type of unit, number of people per room, and number of nights spent in the room were significant on this item is undoubtedly a reflection of the unequal distribution of these factors by post.

Nearly all respondents felt that the post was dull (A9). No trends could be distinguished in the response by post, though it was significant that those who were more educated, those who decided not to reenlist, and those who were younger and in lower pay grades all felt that their post was more dull than did their respective counterparts. Although the mode of entry into the service (drafted or enlisted) was significant on this question, no specific trend could be found. Although whites found the post slightly more dull than did all other racial categories, this difference is couched in the fact that blacks did not have the same distribution of age and pay grade.

The respondents at all six installations were dis-

satisfied with the general conditions of their post (A10), with those at Hood being the most dissatisfied. Those who stated that they would reenlist, who were older, who were in higher pay grades, and who lived in building types with lower population per room were not as dissatisfied as were others. The majority were simply dissatisfied with the general conditions on post, regardless of background factor.

Two questions showed a moderate correlation with the satisfaction-dissatisfaction scale. The first factor was the pleasant-unpleasant scale ($r = .57$) (see Appendix E for discussion of correlation coefficient, r) and the exciting-dull scale ($r = .48$). This indicates that about 32 percent of the variance in the satisfaction-dissatisfaction scale could be explained by the pleasant-unpleasant scale and about 23 percent of the variance in the satisfaction-dissatisfaction scale could be explained by the exciting-dull scale.

Evaluation of Question A11 and all similar questions about the importance of change were handled by computing a mean rank score and an adjusted mean rank score for each item in each list. The computation of these scores is detailed in Appendix D. When the mean rank scores were computed for each page in the questionnaire that contained an importance-of-change question, the items in the list are not only ranked, but the intervals between ranked items are determined. (In ordinary rank ordering it is assumed that the intervals between ranked items are all equal, for example, that one item is ranked first over a second by the same amount as the second is over the third.)

The mean rank scores also accounted for how many choices the individual had (usually three on each importance of change question), how many items were in the list (the number of items varied from five on pages 9, 15, and 28 of the questionnaire to as many as 15 on page 26), and how many individuals actually completed the question. Because of these variations from question to question, the range of scores varied widely. Therefore, in presenting the results in Figure 4 and other similar figures, the scores were adjusted to fit a zero to 1.0 scale to reduce confusion for the reader.

In addition, in order for the reader to understand what effect the above variations had on the scores, a chance score or chance level was computed. The chance score is that score which all items in a list would have attained had all the choices been equally divided among all items in the list. Another way of stating it is that the chance score is that score for each item in a list if each item had an equal probability or chance of being selected (as first, second, or third choice). In reality, some items were selected as more important than others. As a result the real score for the important items fell above the chance level and the items of little importance fell below the chance level.

Hence, the chance level is useful as a reference point or score for comparing items from different lists on different pages of the questionnaire. The distance above or below the chance level is a way of determining the approximate importance of choice.

The results of the importance-of-change items are presented in the following pages in connection with each section of the questionnaire. However, the scores for all importance-of-change items were recomputed so that all chance levels were made equal and are presented later for the express purpose of comparing the importance of all items across the entire questionnaire.

The results from Question A11 show that the item which the respondents wanted changed most when responses were tabulated was the dullness of the post, followed rather distantly by the unpleasantness, the cramped conditions, and the poor lighting. Other items in the list fell below the chance score (defined in Appendix D). These results were presented in Figure 4.

Questionnaire–Section A: Location of Post (Question 12 to 19). The overall response with regard to location of the post is that the respondents felt that their post was located an extremely long distance from home. The respondents perceived the natural surroundings to be slightly attractive. The post was said to be moderately inconvenient to off-post recreation areas, convenient to off-post shops and stores, and inconvenient to off-post night spots. The off-post community was perceived to be moderately unpleasant. Overall, the respondents were moderately dissatisfied with the location of their post. The distribution of responses on these scales is shown in Figure 5.

On the attractive-unattractive natural surroundings scale (A12), there was considerable variation between posts. The respondents at Forts Knox, Lee, Sill, and Leonard Wood tended to lean toward the position that the post was attractive, while respondents at Dix and Hood felt that the post was unattractive. Respondents who intended to reenlist and had few or no roommates took a more positive view toward the attractiveness of the post, while those who did not intend to reenlist and had more roommates took a more negative posi-

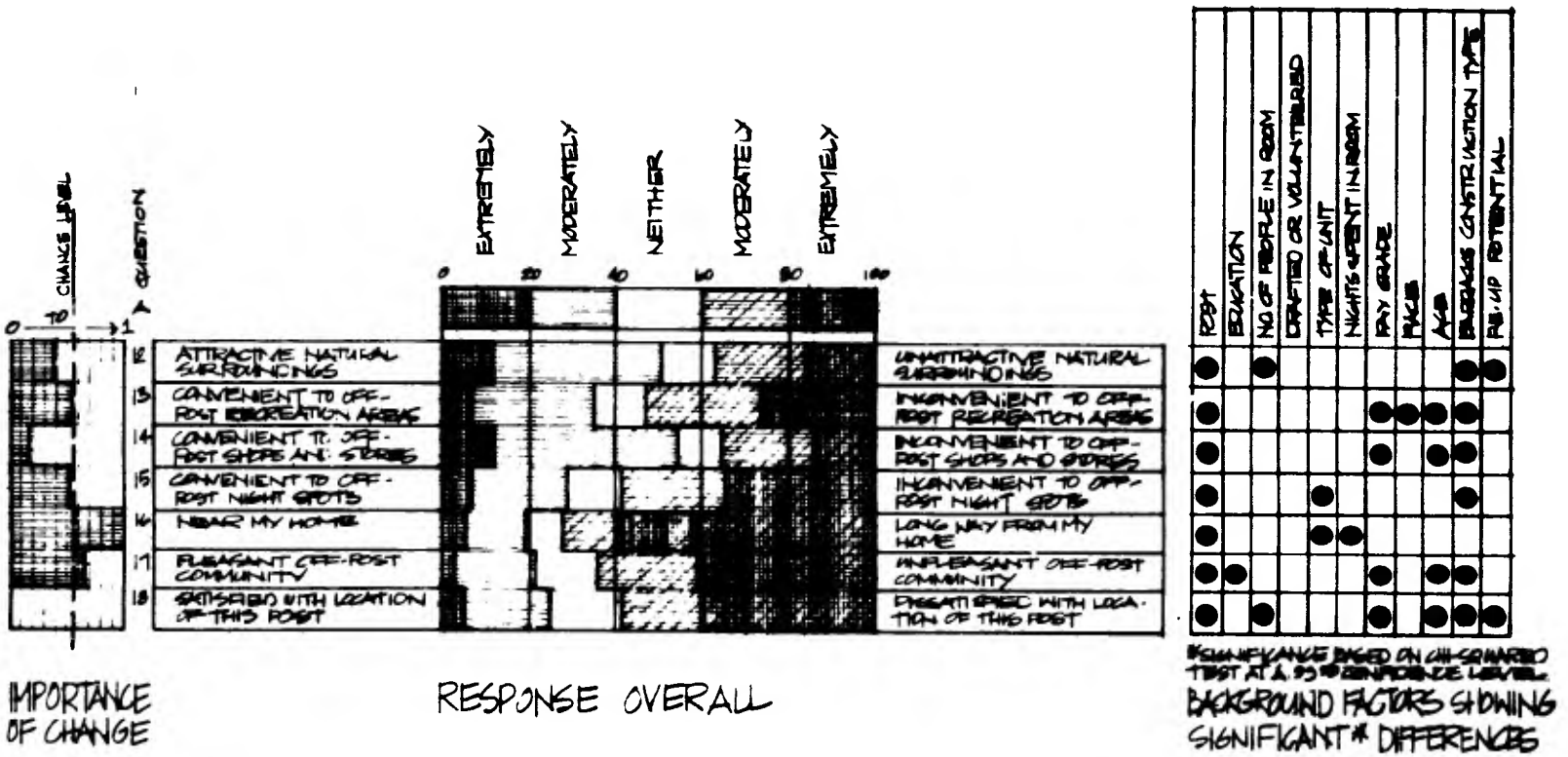

Figure 5. Location of post.

tion. The fact that barracks construction type was significant on this item is probably due to the unequal distribution of the buildings among the posts.

While on Question A13, most respondents felt that their post was located inconveniently to off-post recreation areas, the respondents at Fort Sill felt that the post was a bit more convenient to off-post recreation areas. While race was significant on this question, no trends were found. The inconvenience to recreation areas off-post appears to be a function of age and rank. The younger, lower ranking men found the post to be more inconvenient to recreation areas while older, higher ranking men found it slightly more convenient. The fact that barracks construction type was significant seems to reflect the age-rank factor with BEQ respondents leaning more toward convenience.

On Question A14, the men, in general, felt that the post was conveniently located to off-post shops and stores, although Dix leaned toward the inconvenient position. Again, while race was significant on this item, no specific trends were noted. As age and rank increased, the location of the post to off-post shops and stores was found to be more convenient. Also, those living in BEQs rated convenience to shops and stores higher than those living in the other types of barracks.

Even though most respondents felt that their post was inconveniently located to off-post night spots (A15), the respondents at Fort Sill felt that the post was more conveniently located to off-post night spots. The type of unit was significant on this item and appears to be the result of the fact that the various unit types were unequally distributed by post. No trends were apparent based on barracks construction type though it was significant on this question.

Respondents at all the posts felt quite strongly that the post was located a long distance from their home (A16), with men at Fort Hood taking the strongest position. The fact that type of unit and the number of nights spent in the room turned up significantly often on this question is probably reflected in the unequal distribution of the categories at the different installations.

Respondents at all posts agreed that the off-post community was unpleasant (A17), with Fort Hood receiving the strongest negative response. The degree with which respondents felt that the community around the post was unpleasant seems to increase with education, and to decrease with age and rank. The barracks construction type seems to follow the age and rank factors.

While the respondents at all the installations were dissatisfied with the location of their posts (A19), Fort Hood respondents again took the most negative position. Those who plan to reenlist were more satisfied with the post and satisfaction with the post seemed to increase with age and rank and decrease with the number of people per room. Barracks construction type again seemed to follow the age, roommate, and rank factors, as well as geographical location.

The relative satisfaction or dissatisfaction with the location of the post showed a weak relationship with the attractiveness of natural surroundings ($r = .33$), with convenience to off-post recreation areas ($r = .36$), with distance from the respondent's home ($r = .36$), and with the pleasantness of the off-post community ($r = .38$).

Those who felt that the location of the post was convenient to off-post recreation areas tended to feel that the post was also convenient to off-post shops and stores ($r = .53$), and also responded that the post was convenient to off-post night spots ($r = .51$). The correlation between convenience to off-post shops and stores and off-post night spots was also moderate ($r = .49$).

The items which respondents would like to see changed first are, referring to Figure 5, distance from the respondent's home, followed by pleasantness of the off-post community. All other items fell at or below the chance score.

Questionnaire–Section A: Appearance of Post (Questions 20 to 27) Overall, the respondents felt that the posts were well-landscaped, were clean looking, had unattractive buildings, were drab, old-fashioned, and ugly. Again, respondents tended to be moderately dissatisfied with the appearance of their posts. These results are presented in Figure 6.

On Question A20, men at Fort Hood disagreed with those at the other five posts in reporting that their post was poorly landscaped. The fact that type of unit, age, pay grade, people per room, and building-construction type were all significant on this item appeared to be related to the fact that at Fort Hood more of the respondents were in combat-arms or combat-support units, were younger and in lower pay grades, and were

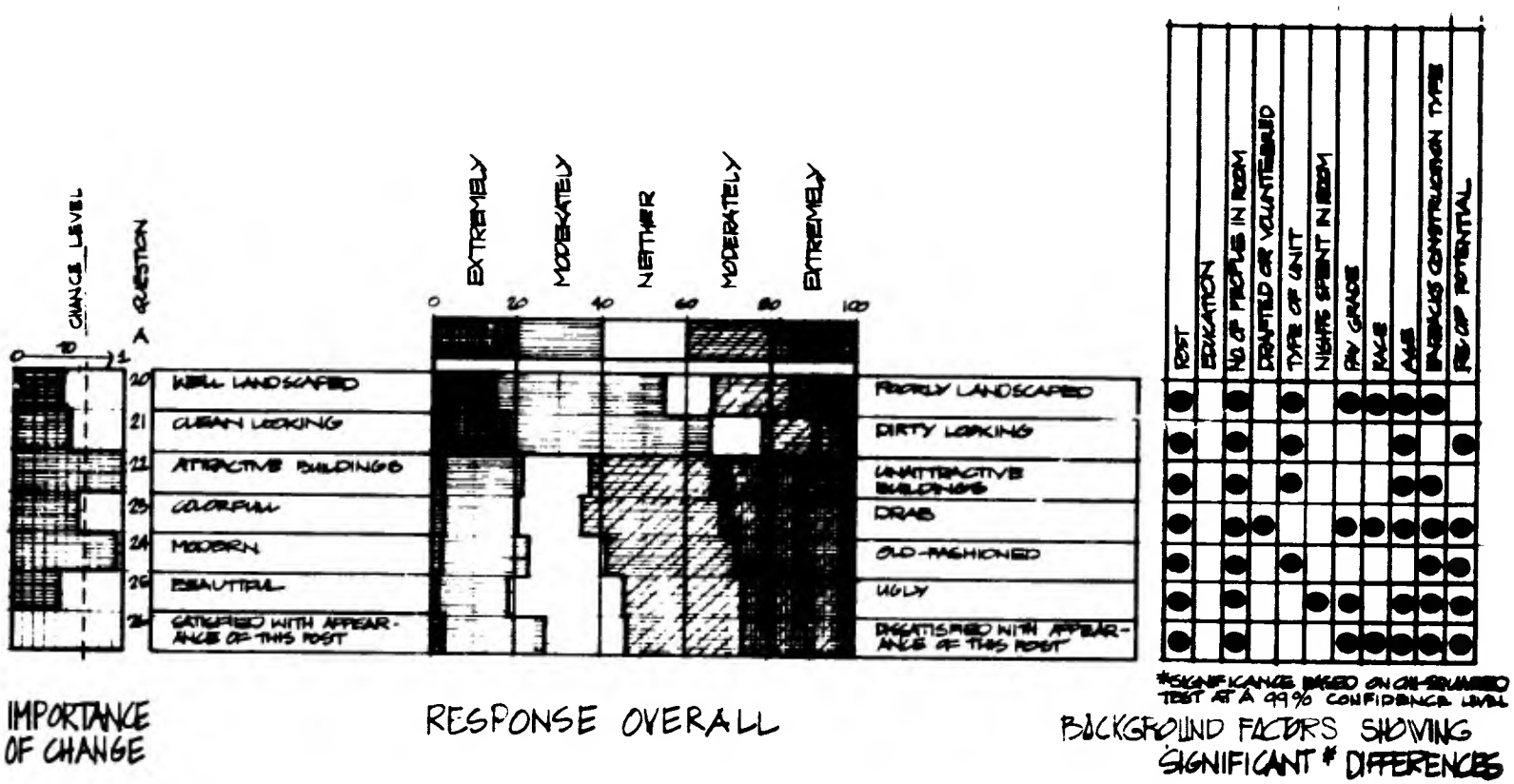

Figure 6. Appearance of post.

As far as what existing facilities on-post should be expanded (A29), most responses were recreation oriented, though there were some variations by installation. Common responses were to expand clubs, bowling alleys, theaters, and craft shops. Also common was a need for restaurants, PX facilities, libraries, and more facilities for those who enjoyed working with cars. Post by post these responses were as follows:

Fort Knox PX, recreation facilities.
Fort Lee: clubs, theaters, library, sports facilities.
Fort Sill: swimming pool.
Fort Dix: NCO club.
Fort Leonard Wood: PX.
Fort Hood: PX, recreation facilities.

When asked what new facilities should be added to the post (A30), the responses fell in the same general categories as they did for what facilities should be expanded. Apparently the differentiation between these two questions was not totally clear. However, the responses most common on a post-by-post basis are as follows:

Fort Knox: auto parts and auto workshops, restaurants, snack bars.
Fort Lee: theaters and recreational facilities.
Fort Sill: BEQs.
Fort Dix: class 4 store.
Fort Leonard Wood: drag strip and auto parts store.
Fort Hood: barracks.

When asked to list what activities respondents participated in during their off-duty hours (A31), the most common answers at all the posts were sports, cars, clubs, theaters, and television. The most common answers on a post-by-post basis were:

Fort Knox: sports, especially water sports.
Fort Lee: bowling, movies, water sports (swimming and fishing).
Fort Sill: swimming and fishing.
Fort Dix: movies and water sports.
Fort Leonard Wood: swimming and fishing.
Fort Hood: fishing and swimming.

Questionnaire–Section B: General Conditions of Barracks (Questions 1 to 16). The overall results for all respondents for this section are presented in Figure 7. The respondents felt that repair service in barracks was extremely slow. They also felt that barracks were moderately clean, dry, in poor repair, hard to keep repaired, had narrow hallways and stairways, were convenient to enter and leave, were safe from fire, had a low number of safety hazards, were bug infested, were free of rodents, were unpleasant, uncomfortable, and poorly designed. In general, the respondents were moderately dissatisfied with the general conditions of their barracks or BEQ.

The respondents at all posts agreed that the barracks were clean (B1). However, the variation in distribution by post appears to be related to the unequal distribution of barracks construction types at each installation. Those living in World War II temporary barracks were almost evenly split on attitude towards cleanliness, and those who lived in 1930s barracks felt their barracks were the cleanest.

Respondents at all posts agreed that their barracks were dry (B2). Although the particular post was significant for this item, no special trends could be determined. Building construction type was also significant. The major deviation appeared in World War II temporary barracks which were rated less dry than other construction types.

On state of repair (B3), three factors were shown to be significant: post, pay grade, and barracks construction type. As pay grade increased, the state of repair was rated worse. Those living in World War II temporary buildings rated the state of repair the worst, while those living in 1930s and 1960s construction rated the state of repair moderately good. The fact that the post was significant seems to be related to the unequal distribution of construction types at the various installations.

In order to better understand what thoughts the individual respondents had in making their judgment about the state of repairs, two additional questions were asked, one relating to the speed of repair service (B4) and the other to the ease of keeping things repaired (B5). Respondents at all posts agreed that repair service was extremely slow (B9). Although the post was significant, no specific trends were apparent.

Again, those at all posts agreed that the barracks were hard to keep repaired (B5). However, there were some differences in response.

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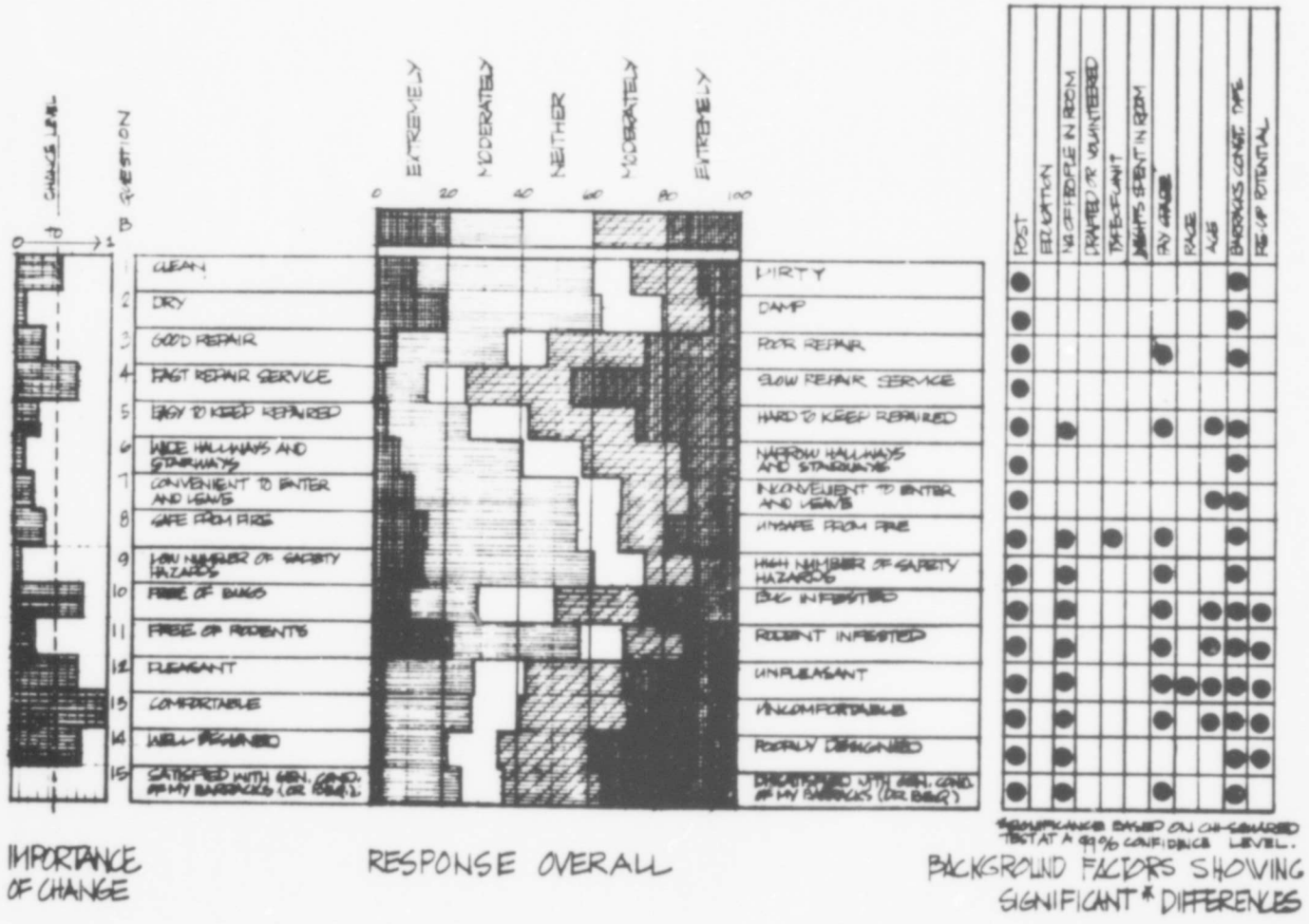

Figure 7. General conditions of barracks.

rary buildings rated the barracks as hard to keep repaired, while those in 1930s construction did not take as extreme a position. The rating on how difficult it was to keep things repaired seemed to become more negative as age and pay grade increased and as the number of people per room decreased.

Although the width of hallways and stairways (B6) was significant by post, the relationship seems to be based on the construction type. Those living in 1930s and 1960s construction felt that the hallways were moderately wide, while those living in World War II temporary construction felt that the hallways were narrow. Those living in 1950s construction were approximately evenly split on whether hallways were wide or narrow. Respondents tended to agree that barracks were convenient to enter or leave. The significance by post, again, is related to the unequal distribution of construction types. Those living in World War II temporary construction were approximately evenly split on convenience of entry and leaving, while those living in other construction types generally had higher ratings. Although age was shown to be significant, no specific trends were apparent.

In Question B8 the respondents felt that the barracks were safe from fire. Again, significance by post is related to construction type. Those living in World War II temporary construction felt rather strongly that the buildings were unsafe from fire, while those living in 1930s, 1950s, and 1960s barracks felt that fire hazards were approximately related to the age of the building. The fact that number of roommates, type of unit, and pay grade were significant on this question, seems clearly to be related to the type of construction in which each category lived.

The rating of the number of safety hazards (B9) in a barracks seemed to follow rather closely the response of safety from fire. It was probably influenced by its position in the questionnaire following fire safety scale. The post, number of roommates, and pay grade were factors that seemed to be related to barracks. Many people felt that there was a high number of safety hazards in the old barracks. Those living in more modern barracks felt that there was a low number of safety hazards.

Overall, the barracks were rated as bug infested (B10). Of those respondents who felt that they would reenlist, slightly more than half felt that the barracks were free of bugs, while among those who did not intend to reenlist, more considered the barracks as bug-infested. The response on this question seems to be geographically related, with southernmost installations feeling that the barracks were more bug-infested. However, significance by post as well as by number of roommates, age, and pay grade, again seems to be related to building construction type. Those living in World War II temporary construction felt very strongly that their barracks were bug infested, while those living in 1930s construction felt that the barracks were more free of bugs.

While most respondents felt that the barracks were free of rodents (B11), the items of significance closely followed those of the previous question. Significance by post, number of roommates, age, and pay grade appear to be related to building construction type. Again, those living in World War II temporary construction felt that their barracks were rodent-infested, while those living in the other construction types felt that their barracks were free of rodents. Those who did not plan to reenlist felt that their barracks were slightly less free of rodents than those who intended to reenlist.

Most respondents found the barracks to be unpleasant (B12), with those living at Fort Knox approximately evenly split on whether the barracks were pleasant or unpleasant, and those at Fort Hood feeling very strongly that the barracks were unpleasant. Generally, those respondents who had more roommates, who did not plan to reenlist, who were younger, and who were in lower pay grades took a more negative position on the pleasantness of barracks. There was considerable variation by construction type, with World War II temporary barracks receiving a strong unpleasant rating. The newer the barracks, the better they were rated, with 1960s construction still leaning somewhat toward unpleasant. However, of those living in 1930s construction, more felt the barracks were pleasant than unpleasant. The fact that race appeared as significant in this question is partly related to age and pay grade.

The response on the comfortable-uncomfortable scale (B13) was very similar to the pleasant-unpleasant scale. Variation by post seemed to be related to other factors. In general, those who intended to reenlist, who were older, in higher pay grades, and had fewer roommates felt the barracks was more comfortable. Again, World War II temporary barracks were rated more comfortable, with 1930 construction receiving the best response with slightly more than half the respondents giving their barracks a comfortable rating.

In general, respondents agreed that barracks were

poorly designed (B14). Significance by post was probably related to the barracks construction type, as well as was the number of roommates. 1960s and 1930s construction were rated best, with about two-thirds of the respondents in these barracks types saying that the barracks were poorly designed. In World War II temporary construction the response was nearly unanimous about the poor design of barracks. There was a slight variation based on reenlistment potential with those who did not intend to reenlist feeling that the barracks were slightly more poorly designed than those who planned to reenlist.

Overall, the soldiers were dissatisfied (B15) with their barracks. Regardless of which factor was considered, more respondents were dissatisfied than were satisfied. The level of dissatisfaction seemed to increased with the number of roommates and to decrease with pay grade. However, E7s to E9s were more dissatisfied than E5s to E6s. Significance by post is probably related to the unequal distribution of other factors, including construction type. Those living in World War II temporary barracks were extremely dissatisfied with the general conditions of their barracks, while those living in newer construction types were less dissatisfied. Of those respondents who lived in 1930s construction, slightly more than half were satisfied with the general conditions of their barracks.

Four scales in this subsection showed a moderate relationship with satisfaction level. These were good-poor repair ($r = .54$), pleasant-unpleasant ($r = .69$), comfortable-uncomfortable ($r = .69$), and well-poorly designed ($r = .68$). All other items showed a weak relationship with level of satisfaction ($r = .30$ to $r = .49$).

The pleasant-unpleasant scale showed a moderately strong relationship to the comfortable-uncomfortable scale ($r = .75$). A weaker relationship occurred between the pleasant-unpleasant scale and the well-poorly designed scale ($r = .55$), and between the comfortable-uncomfortable scale and the well-poorly designed scale ($r = .59$). This indicates that the definitions of these three scales are not completely independent. The good-poor repair scale was also related to the comfortable-uncomfortable scale and well-poorly designed scale ($r = .52$, $r = .54$, respectively).

The good-poor repair scale showed a relationship to several other scales. The strongest of which were clean-dirty ($r = .51$), fast-slow repair service ($r = .50$), easy-hard to keep repaired ($r = .62$). The fast-slow repair service and easy-hard to keep repaired scales were related ($r = .55$). This indicates that much of what was perceived as good or poor repair was related to cleanliness, speed of repair, ease of keeping things repaired, the overall comfort of the barracks, and the quality of design. The scales had some overlap in meaning and were not independent.

The safety from fire and the number of safety hazards in a barracks also had a moderate relationship ($r = .64$). As was previously indicated, part of this relationship may have stemmed from their adjacent position in the questionnaire.

The questions about the presence of bugs and rodents were also related ($r = .65$), which indicated that either the scales were not independent or that those problems tended to be present at the same time. Again, the adjacent position may have caused the relationship to be stronger.

Referring to Figure 7, it can be seen that the items which respondents would most like to have changed are the comfort of the barracks, followed by freedom from bugs, good design, pleasantness, speedy repair service, and cleanliness. Other items fell below the chance level.

Questionnaire–Section B: Location of Barracks (Questions 17 to 24). In general, the respondents felt that the location of their barracks was convenient to their work area, the main PX, a branch PX, a PX snack bar, on-post health facilities, and on-post facilities for off-duty activities. The satisfaction-dissatisfaction level was almost evenly split. The responses are presented in Figure 8.

While all posts agreed that the barracks were conveniently located to work areas (B17), Fort Hood was less strong in this position. Those in training units felt most positively about the convenience to their work area, with those in combat-support units feeling less positive about convenience to the work area. The fact that the number of roommates was significant on this question was probably due to the fact that those in training assignments lived in one- or two-man rooms, while those in combat-arms, combat-support, or other units had higher population densities per room.

The ratings on convenience to a main PX (B18) were undoubtedly, in part, a function of the size of the installation. The respondents at Fort Lee and Fort Dix felt that barracks were located within a reasonable distance from the main PX, while at other installations the feeling was opposite, particularly for Fort Hood,

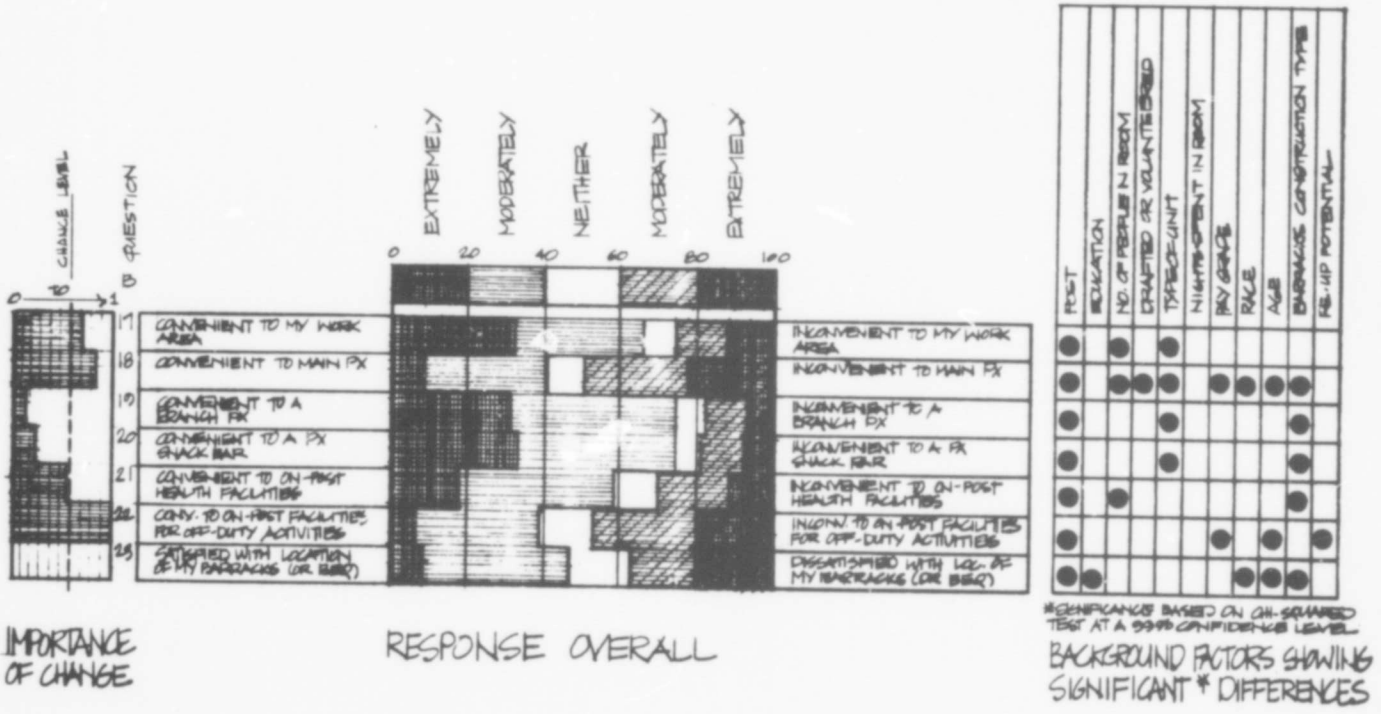

Figure 8. Location of barracks.

with about two-thirds of the respondents feeling that barracks were inconveniently located to a main PX. Those with more roommates, who enlisted, who were younger, and of lower rank thought their barracks were more inconveniently located to a main PX than did the others. Those living in World War II temporary barracks found their barracks location least convenient to the main PX. Race seems to be related to age, pay grade, and unequal distribution of races by post, with blacks responding more positively than whites or others.

All installations agreed that barracks were conveniently located near a branch PX (B19) with variation by post seemingly related to size of the post. The significance of type of unit and building construction type were also probably a function of the size of the installation.

The response about the location of the barracks to a PX snack bar (B20) was almost identical to that about a branch PX. Significance by type of unit and barracks construction type are probably related to post. Significance by post is undoubtedly a function of the size of the post.

The respondents in general felt that their barracks were conveniently located near on-post health facilities (B21). Fort Dix had the most positive response and Fort Hood the least positive. Variation by number of roommates and by building construction type is probably related to the unequal distribution of these factors by installation.

The majority of respondents felt that their barracks were inconveniently located to on-post facilities for off-duty activities (B22). Variations by post were not strong. However, Fort Hood took the strongest negative position and Fort Sill a slightly more positive position. Those who did not intend to reenlist, who were younger, and who were in lower pay grades took the strongest negative positions.

More respondents were satisfied with the location of their barracks than were dissatisfied (B23). However, the overall mean was almost at a neutral point. Satisfaction with barracks location appeared to increase with education and decrease with age. Those living in World War II temporary barracks were most dissatisfied with their barracks location. Most other construction types were satisfied with their location. The effect of race was, again, probably related to education and age and its unequal distribution on these factors.

The satisfaction-dissatisfaction with the location of the barracks showed a moderate relationship to convenient-inconvenient to main PX ($r = .50$), and to convenient-inconvenient to on-post facilities to off-duty activities ($r = .53$). All other items in this subsection showed a weak relationship to satisfaction ($r = .39$) to ($r = .47$). Convenient-inconvenient to the branch PX and convenient-inconvenient to a PX snack bar showed a moderate correlation ($r = .68$). Again, this indicated that these items are not independent. In many cases, a PX snack bar is located within a branch PX.

The respondents felt that the most important change was convenience to on-post facilities for off-duty activities. This was followed by convenience to main PX and convenience to work area. Other items fell below the change score (refer to Figure 8).

Questionnaire—Section B: Outside Appearance of Barracks (Questions 25 to 31). Overall, the respondents felt that the outside appearance of their barracks was moderately ugly, drab, poorly landscaped, old-fashioned, and had an unattractive entrance. Respondents were moderately dissatisfied with the outside appearance of their barracks (refer to Figure 9).

Regardless of the installation, respondents generally felt that their barracks were ugly (B25). The strongest position was taken by Forts Leonard Wood and Hood, with the least negative position taken by Fort Knox. The significant effects of number of roommates, type of units, race, and pay grade seem to be related to the type of building construction. Those living in World War II temporary barracks or BEQs felt very strongly that their barracks were ugly, while those living in 1950s and 1960s construction were less unanimous in their response. Those living in 1930s construction were evenly split on the beautiful-ugly scale.

While respondents at all posts agreed that the barracks were drab (B26), those at Fort Knox responded that their barracks were the least drab. Drabness seemed to increase with level of education, to be worse for those who did not intend to reenlist, those who had more people per room, and those living in World War II temporary barracks. Those living in 1930s construction took the least negative position. Although significant, the effects of entry into service (drafted or volunteered) and race seemed to show no discernable strong trends.

The majority of respondents felt that their bar-

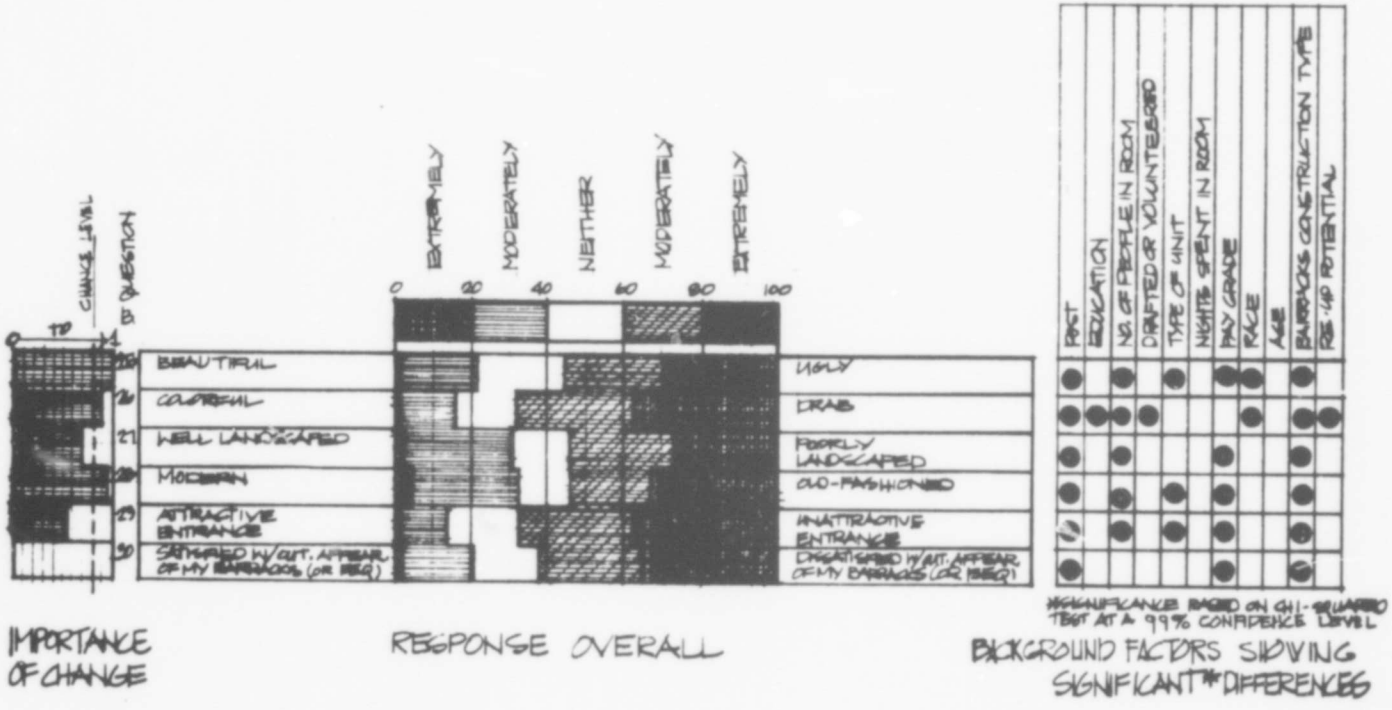

Figure 9. Outside appearance of barracks.

racks were poorly landscaped (B27), with Fort Hood taking the strongest negative position. Fort Knox showed a slight positive response. The effects of pay grade and number of roommates are probably related to post as well as to construction type. Again, World War II temporary barracks received the worst rating.

Most respondents felt that their barracks were old-fashioned (B28). However, respondents at Fort Knox were about equally split on this scale. The effects of number of roommates, type of unit, and pay grade appears to be related to post and construction type, with World War II temporary barracks and BEQs receiving the worst ratings. Those installations where a large number of permanent party people were housed in World War II barracks received the worst ratings.

The attractiveness of entrances of barracks (B29) seemed to follow the same patterns as previous questions in this section. Effects by number of roommates, type of unit, and pay grade seemed to be related to building construction type and its distribution by post. Consistent with previous questions, World War II temporary barracks and BEQs received a very strong negative response.

Again, those at all posts were dissatisfied with the outside appearance of their barracks (B30), with Fort Hood taking the most negative position and Fort Knox the least negative position. Higher ranks were more dissatisfied, as were those in World War II temporary barracks and BEQs.

A moderate relationship occurred between satisfaction level and each of the five scales in this subsection (for B25: r = .69; for B26: r = .66; for B27: r = .61; for B28: r = .60; for B29: r = .69). The correlations between scales about the outside appearance of barracks were also moderate. The colorful-drab scale showed the weakest correlation with the well-poorly landscaped scale (r = .56), while the beautiful-ugly scale showed the strongest relationship with colorful-drab (r = .76). Again, these relationships indicate that the scales used to describe the outside appearance of the barracks are not totally independent.

Overall, the items which the respondents wished to see changed were beauty, followed very closely by modern-old fashioned and by colorfulness. The other two items fell below chance. These choices are shown in Figure 9.

Questionnnaire–Section B: Other Questions about Barracks (Questions 32 to 36). When men were asked about the exterior color of their barracks (B30), the responses were quite mixed and varied considerably by post. Overall, the responses were as shown in Table 17. Forts Sill and Hood showed the least color distribution in the buildings on the post, while Fort Knox showed the greatest color distribution. Although number of roommates, type of unit, pay grade, and barracks construction type were significant on this question, no trends were noted.

After analyzing how respondents rated their barracks compared to others on post (B33), the responses were distributed as shown in Table 18. In general, the responses were about evenly split. Those living in Forts Sill, Leonard Wood, and Hood said their barracks were worse than others and those living in Forts Knox, Dix, and Lee said their barracks were better than others. The significance by number or roommates and type of unit, as well as by rank, seems to be related to the type of construction. Those living in 1930s, 1950s, 1960s, and temporary block rated their barracks as better, while those living in World War II temporary barracks and BEQs and in other categories rated their barracks worse than others.

Table 17
Distribution of Color of Barracks

Color	Percent of Respondents
White	10
Light brown or sand	42
Green or shades of green	8
Grey	10
Red	20
Other	9

Table 18
Ratings of Barracks Compared to Others on Post

Rating	Percent of Respondents
Much worse	16
Somewhat worse	15
About the same	35
Somewhat better	24
Much better	9

When respondents were asked why they responded as they did (B33b), those who said that their barracks were worse than others usually stated that it was because they lived in World War II temporary barracks. Those who stated that their barracks were better than others said they lived in more modern brick or concrete block buildings. If they responded that their barracks were the same as others, they meant that there was very little difference in quality of barracks or they frequently made a statement that showed hostility toward the Army.

The respondents at all posts agreed that parking was adequate (B34). The overall response on this question is shown in Table 19. Several factors were significant on this question. In general, when a category showed a higher population of automobiles, the rating of inadequate parking also increased. Those who were more likely to have a car were those with higher education, who were older, who spent fewer nights in the room, who were of higher rank, and who were white. Respondents at Fort Hood and those in combat-arms units had the fewest cars. Those in BEQs were more likely to have a car.

When asked how many nights per week the respondents usually slept in their assigned quarters (B35), responses were distributed as presented in Table 20. Those with 9 years of education or less spent the fewest nights per week in their barracks. Those respondents who were neither black nor white spent slightly more nights per week in their room, and those living in 1930s and 1950s construction spent most nights per week in their room than did those in other construction types. Undoubtedly, there are factors affecting how many nights the individual usually spends in his barracks other than those related to the quality of the barracks. Those barracks which received the worst ratings on many scales were the ones that had the highest utilization rate based on how many nights per week the men slept in them.

Table 19
Adequacy of Parking

Rating	Percent of Respondents	Range of Responses by Post
Adequate parking	46	37–53%
Inadequate parking	25	19–30%
Do not have a car	29	24–38%

Table 20
Numbers of Nights per Week in Assigned Quarters

Average Number of Nights	Percent of Respondents
0	6
1–2	4
3–4	13
5	23
6–7	54

Respondents were also asked to indicate how important it would be to have each of several items in their barracks. The most important items were having free washers and dryers in the barracks, and having living quarters where you are free from reminders of daily Army life, followed closely by having pay telephones for making outside calls and having vending machines for snacks. The remaining items were also rated as somewhat important, including having living quarters where you are not accessible to superiors during off-duty hours, having living quarters where you are not responsible for group action, having a place in the barracks for visiting with guests, having a game room, having a reading or study room, and having free telephones in the barracks for making on-post calls. The overall distribution of responses is shown in Figure 10. Many of the items in this list are those which have been planned for future barracks improvements by the Army.

For Question B36a, respondents at Fort Hood felt the strongest about not having reminders of daily Army life in the barracks. Importance increased for those who were younger, who had more roommates, who did not intend to reenlist, and who were in lower pay grades. The significance of race and building construction type are most likely related to age and pay grade effects.

Again, the men at Fort Hood took the strongest position on the importance of not being accessible to superiors during off-duty hours (B36b). This item was more important for those with more roommates, who did not intend to reenlist, those who were younger, who spend fewer nights in their room and those of lower rank. Again, significance of race and building construction type seemed to be related to age and pay grade effects.

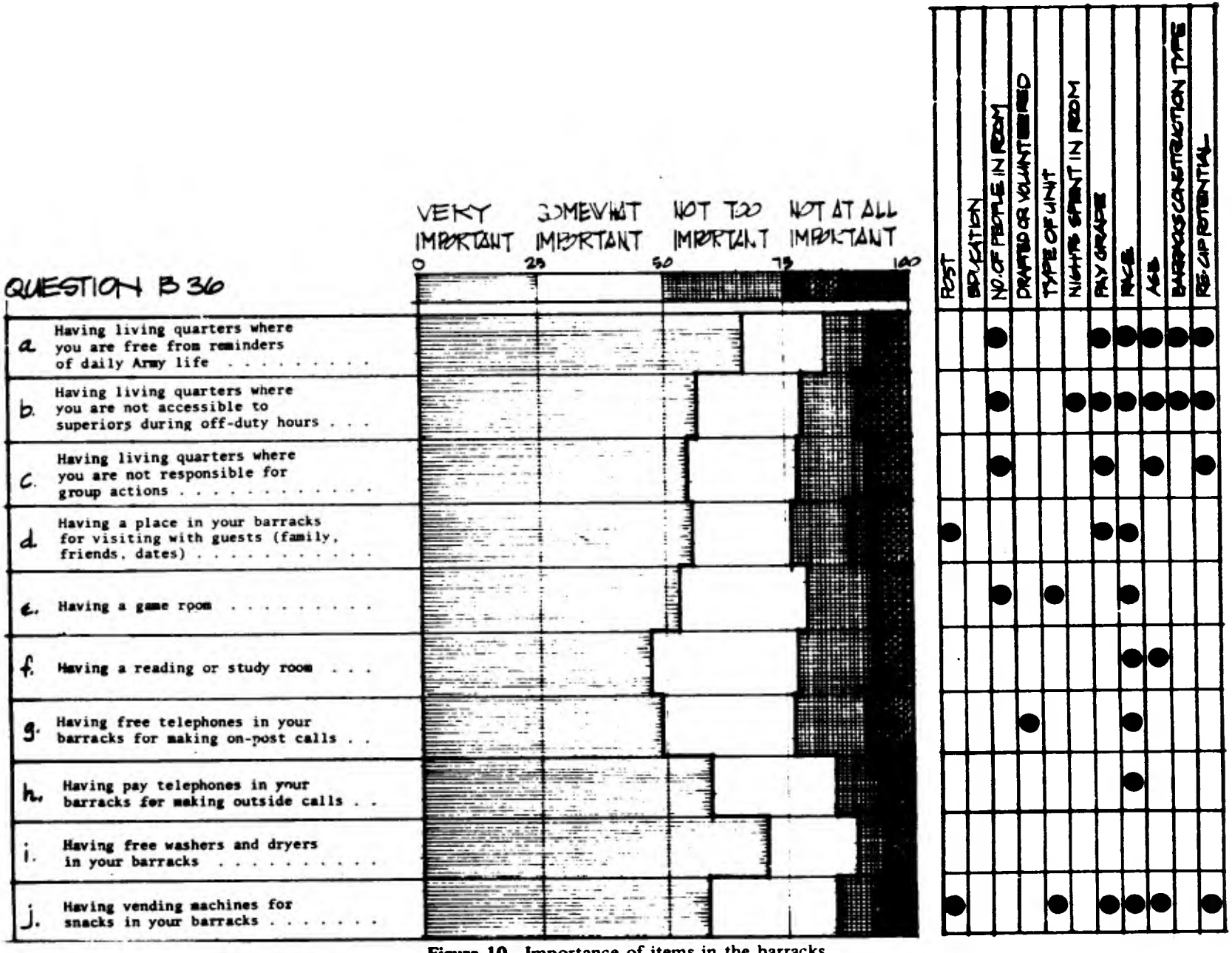

Figure 10. Importance of items in the barracks.

Having living quarters where you are not responsible for group action (B36c) was most important to the men at Fort Lee. Those with no roommates, those who intended to reenlist, who were older and of higher rank all found this item to be of less importance.

Most men were in strong agreement about having a place to visit guests in the barracks (B36d). Some variation occurred by post, though there are no clear trends. Men in higher ranks felt this was more important than did lower ranks. Significance of race seems to be related to the rank effects.

Having a game room (B36e) seemed to be more important to those with more roommates and to those in combat-arms and combat-support units. The effects of post and race are not clear.

Having a reading or study room (B36f) was most important to the 27–30 year age bracket and least important to the 41–65 age bracket. Although it was more important to blacks, the effect is not clear.

There was near unanimous agreement on the importance of having free telephones in barracks for making on-post calls (B36g). The only factor which was significant was race and the effect, again, was not clear.

Having pay telephones in the barracks for making outside calls (B36h) again was very important to everyone. Although the effect is not clear, blacks responded slightly more positively than others.

Having free washers and dryers in the barracks (B36i) had the strongest importance to everyone. There were no significant differences for any category.

Having vending machines for snacks in the barracks (B36j) was also very important. Those in combat-arms and combat-support units provided a slightly stronger response than did other types of units. Those who did not intend to reenlist or were undecided about reenlistment also had a more positive response than those who did intend to reenlist. Although variations by race were significant, the effect was not clear. Whites had a slightly stronger response than did blacks and others. The importance of this item decreased slightly as rank increased.

A few items within Question B36 showed a moderate correlation. The responses about having living quarters where you are free from reminders of daily Army life were very similar to having living quarters where you are not accessible to superiors during off-duty hours ($r = .51$). The response to having a game room was very similar to having a reading or study room ($r = .61$). The remaining items in this question showed weak correlations.

Questionnaire–Section C: General Conditions of Sleeping Area (Questions 1 to 14). In general, respondents felt that it was hard to control temperature and lighting in the sleeping area, that the sleeping area was clean, poorly lighted, stuffy, sunny, easy to clean, odor free, noisy, cramped, hard to be alone in, and hard to sleep in. The respondents in general were moderately dissatisfied with the overall conditions of their sleeping area. These results are presented in Figure 11.

All responses in this subsection were significant by post. On cleanliness (C1), four posts responded similarly with Forts Leonard Wood and Hood rating their sleeping area less clean than the other two posts. Those who had fewer people in their room felt their rooms were cleaner than those with more roommates. Those who slept in their room more than half the nights per week rated their rooms as cleaner than those who slept in their room less than half the nights per week. Blacks felt their rooms were slightly cleaner than whites, though this may be a function of the number of roommates. World War II barracks received the worst ratings on cleanliness, while 1930s, 1950s, and 1960s construction were rated higher.

Most respondents felt that the temperature was extremely difficult to control (C2), with Fort Sill taking the strongest negative position. The perception of the temperature control problem seemed to increase with the level of education and with the number of roommates. Whites found it harder to control temperature than did blacks. Rather than being a real racial difference, this was probably caused by the fact that the blacks in the sample had a lower educational level than did the whites. As far as building construction type is concerned, the 1960s construction received the best rating though it still was not very satisfactory to the respondents. The worst temperature control problem occurred in World War II temporary construction.

Although some variation occurred on the lighting level (C3) based on post, no specific trends were apparent. As level of education increased, the perception shifted from brightly lighted to dimly lighted. The level of lighting was rated dimmest in the World War II temporary buildings, while it was rated the brightest in 1960s construction.

The difficulty of controlling lighting (C4) also

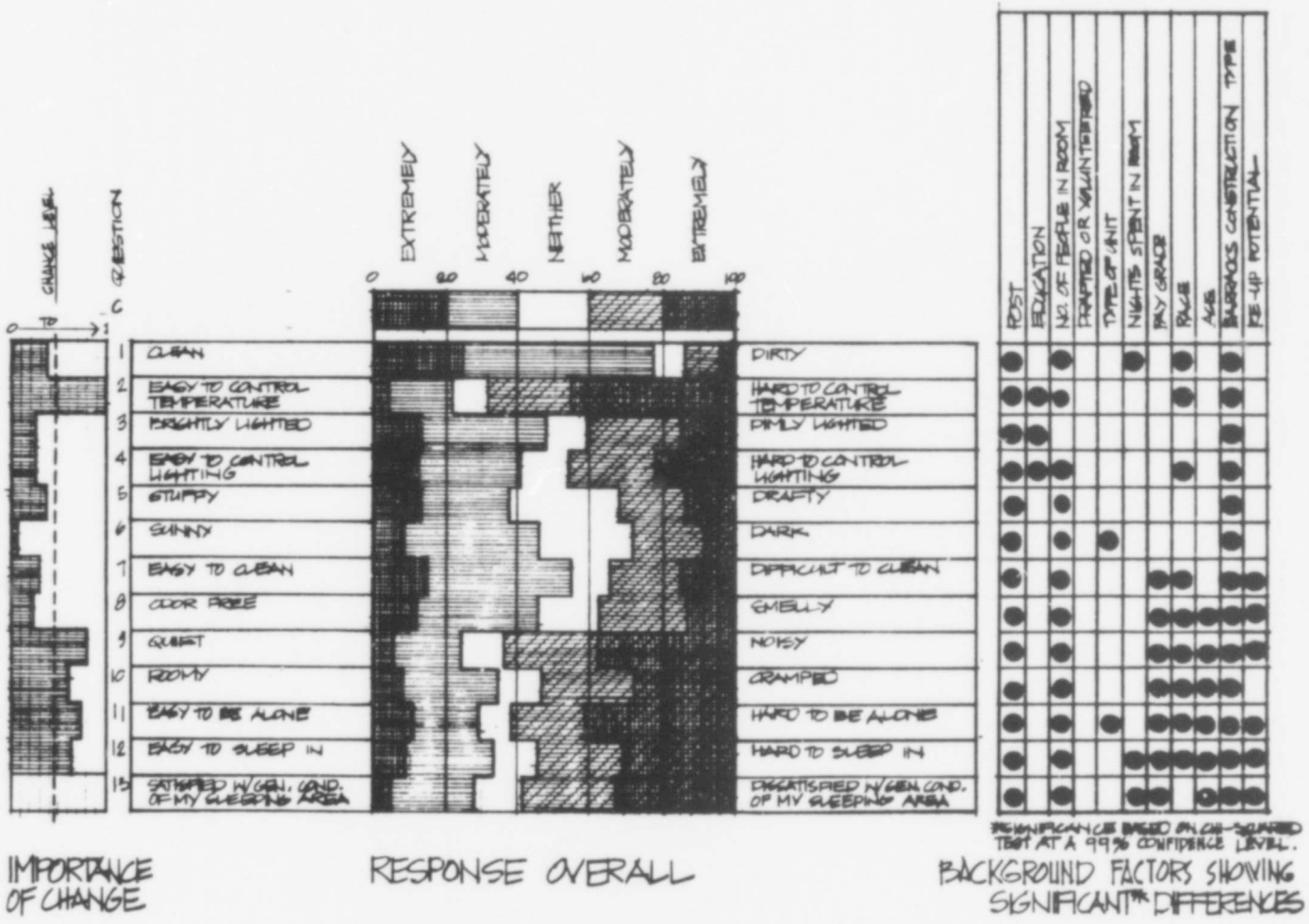

Figure 11. General conditions of sleeping area.

showed some variation by installation. The variations are probably related to equal distribution of construction types. Respondents felt that it was easier to control lighting with fewer roommates. As education level increased, it became harder to control lighting. Blacks felt that it was slightly easier to control lighting than did whites. As might be expected, it was found most difficult to control lighting in World War II temporary construction types, while in 1960s and temporary block types it was easier to control lighting.

Again, post was significant on the stuffy-drafty scale (C5), with Forts Leonard Wood and Dix leaning toward stuffy while the other installations were approximately evenly split. The respondents felt that the World War II temporary buildings were slightly drafty, while other building types were felt to be stuffy. The men who had more people per room responded more strongly toward stuffy.

Respondents at Forts Sill and Dix felt that their barracks were the sunniest (C6), though respondents at all installations felt that their barracks were sunny rather than dark. Significance based on type of unit is probably related to the unequal distribution of unit types at the various installations. Rooms with large numbers of people were perceived as less sunny. 1930s, temporary block, and 1960s barracks were the sunniest. Men who lived in World War II temporary construction leaned slightly toward dark.

Most installations agreed that the sleeping area was easy to clean (C7), ranging from Fort Hood which was approximately evenly split on difficult and easy, to Fort Lee which found it easiest to clean. The ease of cleaning seemed to be related to the number of roommates, with cleaning becoming more difficult as the number of roommates increased. Those intending to reenlist found their rooms easier to clean than those who did not intend to reenlist; blacks found it easier to clean their rooms than did whites. Also, as pay grade increased, the room was rated easier to clean. The World War II temporary barracks were found to be difficult to clean, while the easiest to clean were the 1960s and 1930s construction.

More respondents found the sleeping areas odor free than smelly (C8), with Fort Knox the most odor free and Fort Hood responding that the barracks were smelly. The results show that the smelly rating increased almost directly with the number of roommates. Those who intended to reenlist found their rooms more odor free, while those who did not intend to reenlist found their rooms smelly. Blacks found their rooms more odor free than did whites. The racial factor is probably confounded by the age, pay grade factors, since the odor free rating increased with age and pay grade. World War II temporary construction was rated smelly, while 1930s and 1960s construction were rated odor free.

All installations found their sleeping areas to be moderately to extremely noisy (C9). The rating of noisiness seemed to increase with the number of roommates. Those who intended to reenlist found it less noisy than those who did not. Blacks found it quieter than did whites, which is probably related to age and rank. As age and rank increased the rating of quietness increased. The World War II temporary barracks were rated the most noisy with 1950s construction following very closely. The World War II temporary BEQs received the best rating where quiet-noisy was approximately evenly split.

Most respondents found the sleeping areas rather cramped (C10). The best post was Fort Knox where the rating between roomy and cramped was almost equally split, and the worst rating was at Fort Hood where three-quarters of the respondents found the sleeping area cramped. About half those who had single rooms felt the room was cramped and the rating of cramped became more extreme as the number of roommates increased. Blacks found their sleeping area more roomy than did whites, though, again, this is probably a function of age and pay grade, since the sleeping area became less cramped as age and pay grade increased. The barracks construction type which was found most cramped was the World War II temporary barracks, while those living in 1930s construction leaned slightly toward roomy.

The installations were in strong agreement that it was difficult to be alone in the sleeping area (C11). Fort Sill took the more moderate position while Fort Hood took an extreme position. Quite clearly it is easier to be alone with fewer roommates. Expectedly, the rating of hard-to-be-alone increased with a greater number of roommates. Those who intended to reenlist were approximately evenly split on easy-hard to be alone, while those who did not intend to reenlist felt strongly that it was difficult to be alone. Those who had training responsibilities said that it was easier to be alone than did other types of units. However, type of unit is probably related to number of roommates, since those with training responsibility probably had one- or two-man rooms. Again, blacks found it easier to be

alone than did whites, which is probably related to the unequal distribution of blacks by age and pay grade, supported by the fact that respondents found it easier to be alone as age and pay grade increased. Those living in World War II temporary construction and 1950s barracks leaned heavily toward hard to be alone, while those living in World War II BEQs found it slightly easier to be alone.

The respondents at all installations were unanimous in their feeling that it was hard to sleep in the sleeping area (C12). Again, it was a function of the number of roommates with the rating of difficulty increasing as the number of roommates increased. Also, those intending to reenlist found it easier to sleep in the sleeping area than those who did not intend to reenlist. Blacks found it easier than others. The rating of hard-to-sleep in the sleeping area decreased as age and pay grade increased. Those who spent 3 or more nights in the sleeping area did not find it as hard to sleep in the sleeping area compared to those who spent less than 3 nights per week in the room. World War II temporary barracks again received the worst rating, while World War II temporary BEQs and 1930s construction were approximately evenly split on easy or hard-to-sleep in the sleeping area.

The posts all agreed that they were dissatisfied with the general conditions of the sleeping area (C13). Respondents were more dissatisfied as the number of roommates increased. Those who intended to reenlist were more satisfied than those who did not intend to reenlist. The level of satisfaction increased with age and pay grade and with the number of nights spent in the room. The level of satisfaction by construction type was as follows: World War II temporary barracks received the worst rating, with World War II BEQs slightly better, followed by 1950s, 1960s, and finally by 1930s construction, where respondents were about evenly divided on satisfied or dissatisfied.

Several items showed a moderate relationship to level of satisfaction with the sleeping area. The strongest relationship was with easy-hard to sleep in ($r = .70$), which indicates that approximately 50 percent of the variation in satisfaction level can be accounted for by the difficulty of sleeping in the sleeping area. Easy-hard to be alone in the sleeping area was also related to level of satisfaction ($r = .58$), as was roomy-cramped ($r = .58$) and quiet-noisy ($r = .51$). The other items in the list showed a weak to negligible relationship to satisfaction, with stuffy-drafty being the weakest ($r = .20$) and odor free-smelly being the highest of the remaining ones ($r = .49$).

Items which showed a moderate correlation were as follows: brightly-dimly lighted and easy-hard to control lighting ($r = .55$); easy-difficult to clean and odor free-smelly ($r = .58$); quiet-noisy and easy-hard to sleep in ($r = .56$); and easy-hard to be alone and easy-hard to sleep in ($r = .63$).

The items which the respondents preferred to change were led by difficulty in controlling temperature, followed rather distantly by noisiness, hard to be alone, and easy-hard to sleep in and roomy-cramped. All other items fell below the chance level. Preferences are shown in Figure 11.

Questionnaire–Section C: Appearance and Atmosphere of Sleeping Area (Questions 15 to 22). Overall the respondents felt that the appearance and atmosphere of their sleeping area was ugly, drab, unsuitable for decorating, hard to relax in, and provided an unpleasant outside view. Respondents were dissatisfied with the appearance and atmosphere of their sleeping area. These ratings are presented in Figure 12.

The posts were unanimous in their response about the ugly quality of their sleeping area (C15). Although post was significant on this question, there was little variation in response. The attractiveness decreased with the number of roommates and improved slightly as age and pay grade increased. Those who intended to reenlist responded slightly less negatively than did those who did not intend to reenlist. Blacks found the appearance of the barracks slightly better than did whites. World War II temporary barracks were rated the most ugly, while those living in 1930s barracks, though they still felt that their sleeping area was ugly, rated their's the best.

The response on the cheerful-dreary scale (C16) was very similar to the beautiful-ugly scale. Soldiers at all posts agreed that the sleeping area was dreary. Those who lived alone felt that their room was less dreary than those with more roommates. Those who intended to reenlist felt that the sleeping area was slightly less dreary than those who did not intend to reenlist. Again, blacks found it less dreary than did whites. The dreary response was more extreme as age increased. Again, World War II temporary barracks received the worst rating and the 1930s construction was noted only slightly better.

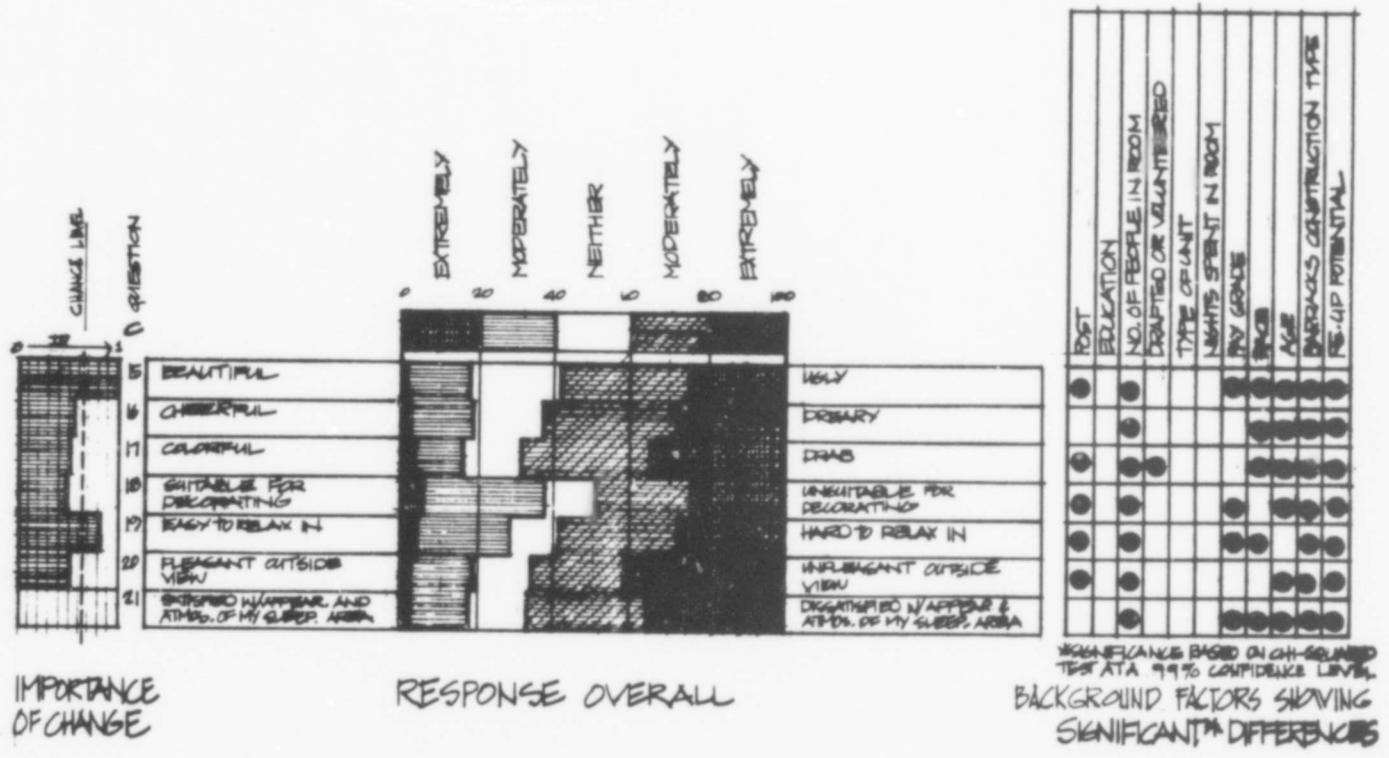

Figure 12. Appearance and atmosphere of sleeping area.

Again, all posts were quite consistent in the response on the colorful-drab scale (C17), with the sleeping area considered extremely drab. The drab rating became slightly less extreme as the number of roommates increased. A slight variation occurred between draftees and volunteers, but the difference was not distinct. Again, blacks and those who were older were less extreme in their response on the drabness of the sleeping area. World War II temporary barracks received the worst rating, while 1930s construction was nearly evenly split on colorful-drab.

Respondents at all posts felt that their sleeping area was fairly unsuitable for decorating (C18). However, while respondents at Fort Knox leaned slightly toward rating their sleeping areas as suitable for decorating, those at Fort Hood took the other extreme. The sleeping area was found less suitable for decorating as the number of roommates increased. Those not intending to reenlist felt that the sleeping area was slightly less suitable for decorating than did those who did intend to reenlist. Although age was significant on this question, differences between groups were minor and irregular, except for those who were 17 to 20 years old and responded more negatively. Variations occurred by pay grade, but no trend was apparent. Like the response in the previous questions, World War II temporary barracks received the worst ratings, while 1930s construction received the best.

Responses by post were again consistent in rating the sleeping area as hard to relax in (C19). The hard to relax response increased with the number of roommates, for those who did not intend to reenlist, for those who were white, and for men in lower pay grades. World War II temporary barracks received the worst rating and 1930s barracks the best.

Minor differences occurred by post in the response that the outside view from the sleeping area (C20) was extremely unpleasant. The rating of an unpleasant outside view was not quite as extreme for those who intended to reenlist and had less roommates, and for blacks. When broken down by construction type the response here was consistent with previous questions in this section.

Small variations occurred by post on being strongly dissatisfied with the appearance and atmosphere of the sleeping area (C21), with men at Fort Leonard Wood being slightly less dissatisfied than those at other installations. Satisfaction level decreased as the number of roommates increased, was lower for those who did not intend to reenlist, for whites, and for those 21 to 23 years of age. Satisfaction with the appearance and atmosphere of the sleeping area tended to increase with pay grade particularly for the E3 and E6 range. However, men in both E1-E2 and E7-E9 were less satisfied than others. Again, World War II barracks received the worst rating and 1930s construction received the best, with respondents there approximately split on satisfaction and dissatisfaction.

All items in this subsection were moderately related to satisfaction level. The correlations between satisfaction level and each scale are presented in Table 21. A moderate correlation existed between all scales in this subsection, except the pleasant-unpleasant outside view, which had no more than a weak relationship with the other scales.

The items which the respondents would most like to see changed were the ugly appearance of the sleeping area, followed somewhat distantly by ease of relaxing in the sleeping area. Other items in these scales fell below the chance level. These choices are also shown in Figure 12.

Questionnaire Section C: Furniture and Equipment in Sleeping Area (Questions 23 to 31). Overall, the respondents felt that the furniture and equipment in their sleeping area were extremely limited in variety, and were extremely plain and drab. The troops were extremely dissatisfied with the furniture and equipment in the sleeping area. In addition, they felt that the furniture and equipment were moderately uncomfortable, unsuitable for rearranging, dirty, and that their beds were uncomfortable. These results are presented in Figure 13.

In general, the men at all posts felt that the furni-

Table 21
Correlations Between Satisfaction and Scales on Appearance and Atmosphere of Sleeping Area

Scale	r
Beautiful-ugly	.67
Cheerful-dreary	.66
Colorful-drab	.66
Suitable-unsuitable for decorating	.55
Easy-hard to relax in	.70
Pleasant-unpleasant outside view	.54

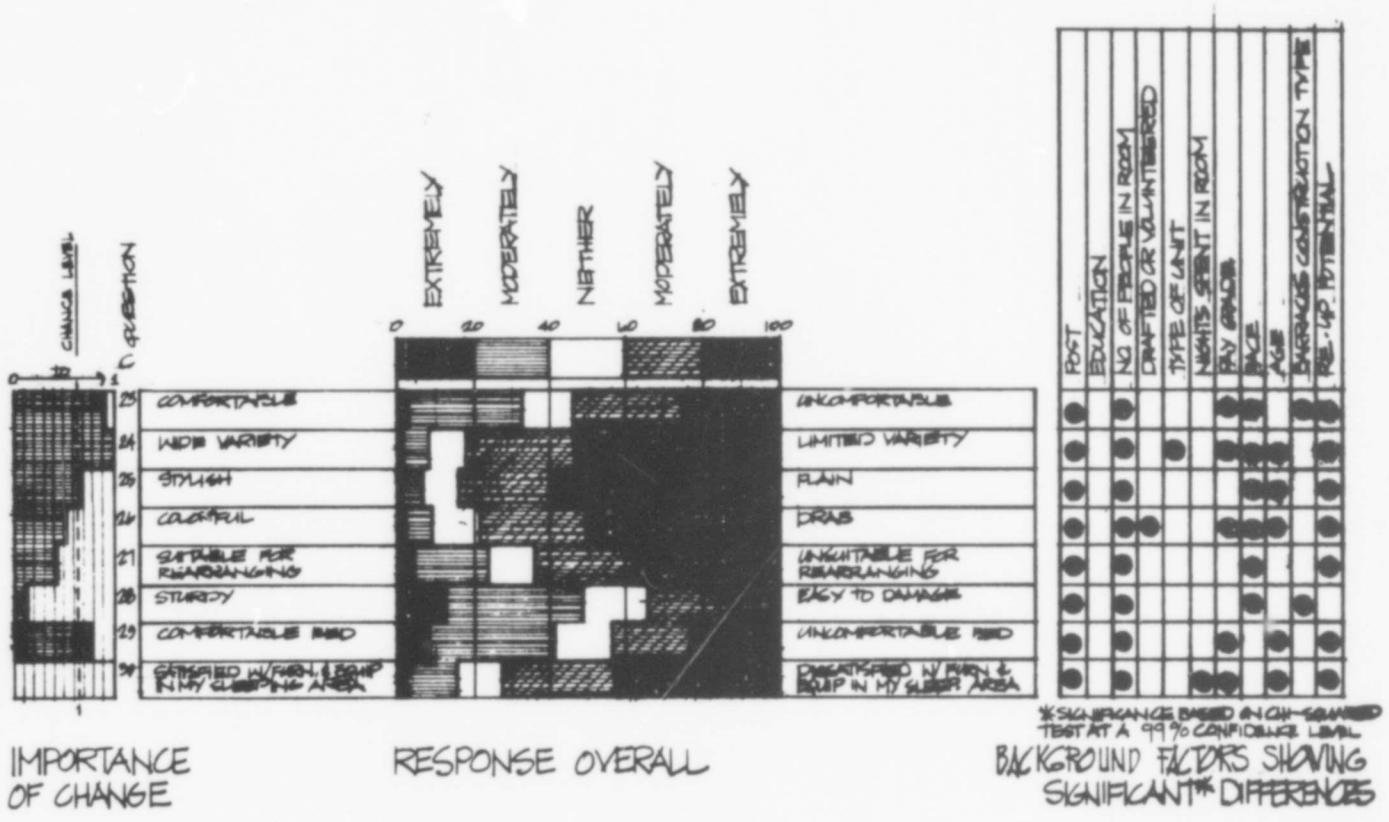

Figure 13. Furniture and equipment in sleeping area.

ture and equipment were uncomfortable (C23). However, those at Forts Knox and Sill were almost equally split on whether it was comfortable or uncomfortable, while men at Fort Hood felt that the furniture was very uncomfortable. The furniture was rated more uncomfortable as the number of roommates increased. Many of the respondents who planned to reenlist thought the furniture was comfortable, as opposed to few of those who did not intend to reenlist. Blacks found the furniture more comfortable than did whites. The furniture was found more comfortable as rank increased. World War II barracks received the worst rating and the 1930s construction received the best.

Respondents strongly felt that there was a limited variety of furniture (C24). This was consistent across the posts with minor variations. The rating of extremely limited variety became slightly stronger as the number of roommates increased. It was also stronger for those who did not intend to reenlist, those who had training responsibilities, whites, those who were younger, and those in the lower pay grades.

The response on the stylish-plain scale (C25) was very similar to that on the wide-limited variety scale. Although slight variations occurred by post, all were in agreement that the furniture and equipment were extremely plain. Extremeness of the plain response was more pronounced as the number of roommates increased, for those who did not intend to reenlist, for whites, and for those in the lower age brackets.

The colorful-drab scale about furniture and equipment in the sleeping area (C27) was again very similar to the two previous scales. Slight variations occurred by post, but all were unanimous in the extremeness toward the drab responses. Drabness became slightly worse as the number of roommates increased, for those who did not intend to reenlist, those who had enlisted rather than those who were drafted, for whites, and for those in the age group from 21 to 23 years.

Again, the respondents at the posts concurred that the furniture in the sleeping area was unsuitable for rearranging (C28). Slight variations occurred here by post, with Fort Knox being least extreme and Fort Hood being most extreme. The response toward extremely unsuitable for rearranging was stronger for those who had more roommates, those who did not intend to reenlist, and for whites. World War II temporary barracks received the worst rating, while 1930s construction was among the best.

Overall, the respondents felt that the furniture was fairly sturdy (C28), with Fort Knox taking a slightly divided position, at best, compared to Fort Hood which, as worst, was almost evenly split. A minor variation occurred based on race. Those living in World War II temporary barracks felt that their furniture was more easy to damage, being approximately split across the scale; while those living in other types of barracks leaned toward the sturdy response.

Slightly more than half the respondents felt that their bed was uncomfortable (C29). Forts Knox and Leonard Wood responded most positively, followed by Forts Lee, Dix, and Sill; however, Fort Hood responded more toward the negative side. The comfortableness of the beds seemed to decrease as the number of roommates increased. Those who did not intend to reenlist found the beds less comfortable than did those who did intend to reenlist. The beds were also rated more comfortable by those who were older and in the higher pay grades.

In general, the respondents were quite dissatisfied with the furniture and equipment in their sleeping areas (C30), with the individual posts differing very little. Troops were more dissatisfied as the number of roommates increased. Those who did not intend to reenlist, those who were younger, and those in lower pay grades were most dissatisfied with the furniture and equipment in the sleeping area. Those who spent fewer nights in their rooms were also more dissatisfied than those who spent the entire week in their room.

The sturdy-easy to damage scale showed a weak relationship to the level of satisfaction ($r = .35$). All the other scales in this subsection showed a moderate relationship to the level of satisfaction. These are presented in Table 22.

Many of the scales in this subsection had moderate correlations as follows: Question C23 and C24 ($r =$

Table 22
Correlations Between Satisfaction and Scales About Furniture and Equipment in the Sleeping Area

Scale	r
Comfortable-uncomfortable	.61
Wide-limited variety	.58
Stylish-plain	.57
Colorful-drab	.59
Suitable-unsuitable for rearranging	.53
Comfortable-uncomfortable bed	.52

.52); C23 and C26 (r = .52); C23 and C29 (r = .57); C24 and C25 (r = .70); C24 and C26 (r = .66); C24 and C27 (r = .53); C25 and C26 (r = .77); C25 and C27 (r = .51); C26 and C27 (r = .55). All other scales showed a weak relationship with each other (r = .21 to r = .50).

Overall, the respondents felt that the items which they would like to see changed most were the limited variety of furniture and equipment in the sleeping area, followed closely by uncomfortable furniture and equipment, and more distantly by uncomfortable bed and plain furniture and equipment. The remaining three items fell below the chance level. These results are also presented in Figure 13.

Questionnaire–Section C: Storage Space in Sleeping Room (Questions 32 to 38). In general, the respondents felt that storage space was extremely inadequate for large personal items and moderately inadequate for clothes and for small personal items. Also, it was moderately hard to keep storage space secure from others and to store items when individuals went on leave. Overall, the respondents were moderately dissatisfied with storage space in the sleeping rooms. These results are presented in Figure 14.

The posts were in general agreement that the storage space for clothes (C32) was inadequate, though there was slight variation between posts. Again, inadequacy of storage space for clothing became worse as the number of roommates increased. Those in combat-arms units were the most dissatisfied with the storage space for clothes, while those in training units were less dissatisfied. Slight variations occurred based on race, though no specific trend is apparent. World War II temporary barracks respondents found the storage space for clothes the most inadequate, while those living in 1930s construction found it better.

All posts found the storage space very inadequate for larger items (C33). Responses by post varied only a few percentage points, but remained extreme. There was a considerable drop in adequacy for those living alone to those with one roommate; with further inadequacies voiced by those having more roommates. Those in combat-arms and in other types of units expressed strongest inadequacy of storage for large personal items, while those in training units were not quite as dissatisfied. Inadequacy was worse for the younger respondents and those in lower pay grades. Those living in World War II temporary barracks found storage for large personal items most inadequate, while, at best, those in 1930s construction found it only slightly less inadequate.

The storage space for small personal items (C34) was found to be moderately adequate. Slight variations occurred by installation with Forts Hood and Leonard Wood responding that the storage space for small personal items was less adequate than for others. In general, the adequacy of storage for small personal items decreased as the number of roommates increased. However, those with five to eight in a room found it the least adequate. Rank was related to the number of roommates where adequacy of storage space for small personal items increased with rank.

All posts were in agreement that it was difficult to keep items secure from others (C35). Forts Knox and Sill felt it was slightly easier than did the other posts, while Fort Hood felt it was the hardest to keep things secure. Again, it became harder to keep things secure from others as the number of roommates increased. However, even those who were living alone thought it was hard to keep things secure. Those who intended to reenlist felt it was slightly easier to keep things secure than did those who did not intend to reenlist or who were undecided about reenlistment. Those who were older and in higher pay grades also found it easier to keep things secure. Respondents who lived in World War II temporary barracks found it the most difficult to keep stored items secure, while, at best, those in 1930s construction were almost equally split on easy-hard to keep things secure from others.

Respondents at all posts agreed that it was hard to store items when they went on leave (C36), with Fort Hood indicating that such storage was worst. Again the trend appeared to be that storage problems during leave decreased with fewer roommates and increased with the age and pay grades of the respondents. Consistent with previous questions, those living in World War II temporary barracks found it the most difficult to store items during leave, while those in 1930s construction were almost equally split.

The respondents at all posts were very dissatisfied with the storage space in their sleeping room (C37), with those at Fort Hood taking the strongest negative position. Dissatisfaction became worse as the number of roommates increased. The most dissatisfied were those who were undecided about reenlistment and those who did not intend to reenlist, as well as the younger respondents and those in the lower pay grades. Respondents living in World War II temporary barracks

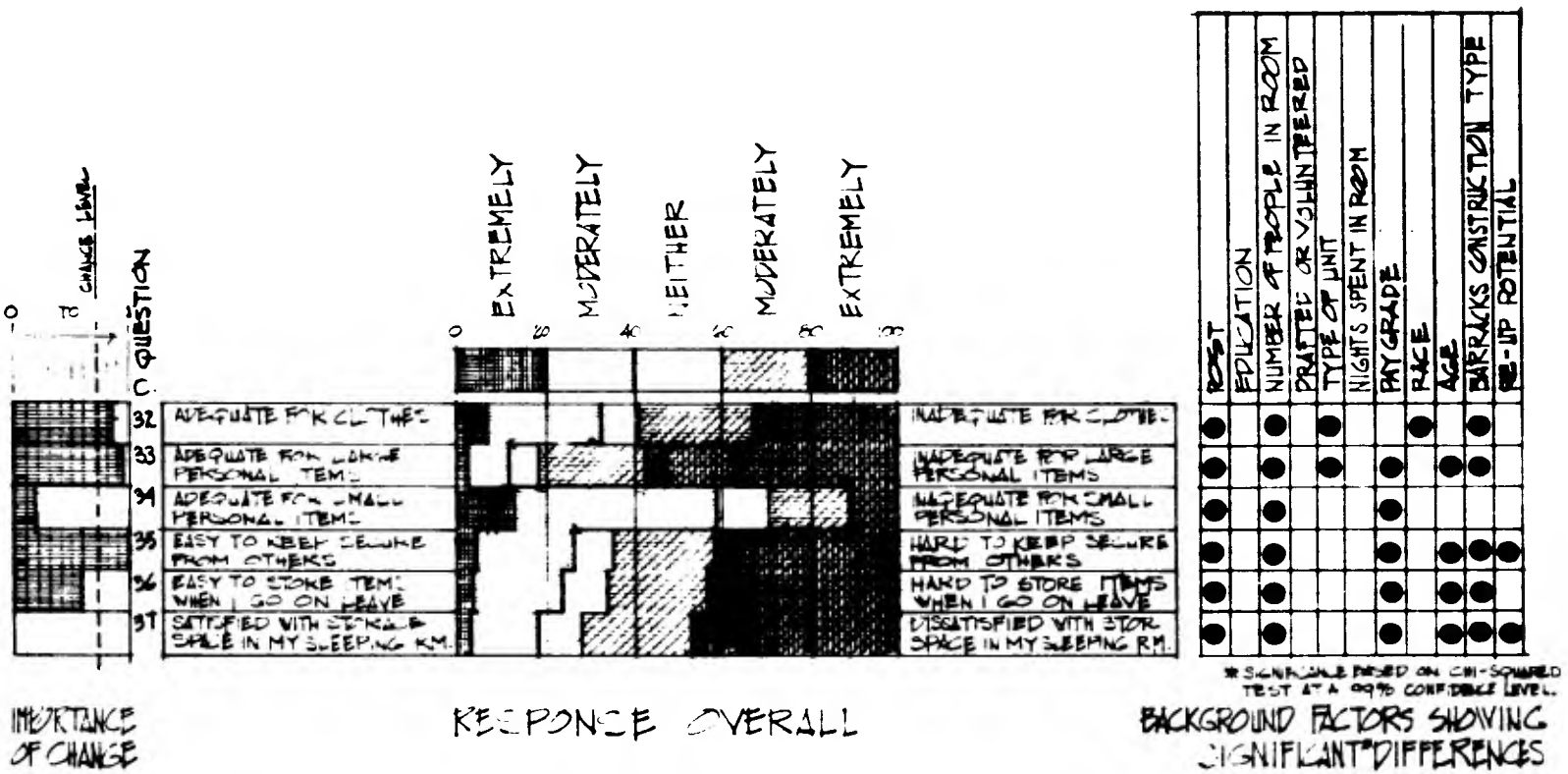

Figure 14. Storage space in sleeping room.

were the most dissatisfied, with those living in 1930s construction the least dissatisfied.

The level of satisfaction showed a weak relationship with the storage space provided for personal items (r = .38); a moderate relationship existed between satisfaction and all the other variables: adequate-inadequate for clothes (r = .63), adequate-inadequate for large personal items (r = .65), easy-hard to keep secure from others (r = .57), and easy-hard to store items when on leave (r = .63).

A moderate relationship existed between adequacy for clothes and adequacy for large personal items (r = .61), and between ease of keeping storage space secure from others and ease of storing items while on leave (r = .63). Weak relationships existed between all other variables in this subsection (from r = .37 to r = .47).

Referring to Figure 14, the items which respondents would most like to see changed were security of storage space, followed closely by storage space for large personal items and for clothes. Storage space during leave and storage space for small personal items fell below the chance level.

Questionnaire–Section C: Other Questions (Questions 39 to 49). When asked how many people are now assigned to sleep in the same room, the mean responses for each post were quite variable and are presented in Table 23 together with the standard deviation. These results show that the density of population in a room is more than twice as high at Fort Hood than at any of the other posts, with Fort Dix showing the lowest density of people per room. At Fort Hood there were as many as 81 people in a room. Overall, the distribution of responses was as shown in Table 24. Those who intended to reenlist had fewer roommates while those who did not intend to reenlist had more roommates. Of those who intended to reenlist, 81 percent had one and two persons in a room, while of those who did not intend to reenlist, only 51 percent had one to two roommates. Combat-arms units had the most people per room, followed by combat support, other types of units, and training units, respectively. Drafted men had a higher density of people per room than did enlisted men, as did whites compared to blacks. As might be expected, the density of roommates decreased as age and pay grade increased. Overall, the population density in World War II temporary barracks, 1930s construction, 1950s construction, and 1960s construction were very similar, while the BEQ population density was considerably lower.

When respondents were asked how many people they would prefer to have in the same room (C40), 97 percent of those who said that they had single rooms preferred single rooms; of those who said they had two-man rooms, 78 percent preferred single rooms; and 21 percent preferred a two-man room; of those who had three or more people living in a room, approximately 50 percent preferred single rooms. Overall, 75 percent of the respondents preferred single rooms, 19 percent preferred two-man rooms, while 7 percent preferred rooms with three or more people.

When asked what "having privacy" in your sleeping area (C41) meant, the respondents said, in general, that it was (1) an area where one can be alone and not be bothered by others, (2) a room by one's self or with one other, or (3) a door with a lock to protect against thievery.

Overall, the respondents were fairly evenly distrib-

Table 23
Average Number of People Assigned to the Same Room

Post	Mean	Standard Deviation
Knox	5.6	7.2
Lee	5.3	7.4
Sill	4.5	6.8
Dix	2.5	3.2
Leonard Wood	4.5	6.8
Hood	12.7	14.0
Overall	6.7	-

Table 24
Distribution of Respondents by Number of Roommates

People in Room	Percent of Respondents
1	34
2	24
3-4	9
5-8	10
9-20	13
Over 20	10

uted on their estimate of how much time they spent in their room each day (C42). The overall distribution is listed in Table 25. Those who spent more nights per week in their room felt that they spent more time in their room each day. It appears that blacks spent slightly more time in their room than did whites, though racial differences are small. Those who intended to reenlist said they spent more time in their room than those who said they did not intend to reenlist.

When asked how often present room conditions kept respondents from spending time in their room (C43), the majority felt that the conditions of their room at least sometimes or frequently kept them from spending time there. The soldiers at Forts Lee and Hood answered most unfavorably, and were only slightly different from those at the other posts. In general, as the number of roommates increased, respondents felt more strongly that room conditions kept them from spending time there. Whites responded more unfavorably than did blacks as did those who were younger, those who were in lower pay grades, and those who spent fewer nights in their rooms.

In Question C44 respondents were asked to select six items of furniture and equipment from a list of 13 which they would prefer to have in their room, in addition to a bed and locker or closet. The most desirable item was a small television set. The second item, which had almost an equal response, was a small refrigerator. Then followed a desk, chair and desk lamp, a throw rug or area rug, an easy chair, decorative drapes for windows, and extra storage space. The other items in the list fell below the chance level. Based on the responses of all, these choices are presented in Figure 15. The choice of furniture items is compared to a choice of building features in Figure 17 following the discussion of Question C47.

Table 25
Distribution of Responses on Time Spent in Room

Time Spent in Room	Percent of Respondents
less than 1 hour	14
about 1 hour	11
about 2 hours	17
about 3 hours	18
about 4 hours	13
about 5 hours	11
more than 5 hours	17

The small refrigerator and television were very important regardless of how the responses were broken down. The exceptions to being first or second choice were few. Those who were college graduates chose the desk, chair, and desk lamp as first and a throw rug as second. Men in 1930s barracks also found the desk, chair, and desk lamp most desirable, followed by the small television and refrigerator.

In the next two questions (C45 and C46), respondents were asked about a "central store" concept where various items of furniture and equipment for individuals rooms could be obtained or exchanged. When respondents were asked if they would *rent* equipment at low rates from the store (C45), 85 percent of the men responded positively. No significant difference occurred on any of the cross tabulations.

In the next question (C46) respondents were asked if they would use the central store if items could be obtained free of charge. Only 15 respondents from over 1600 said they definitely would not use the central store. Although race was significant on this question, differences were very minor.

Then respondents were asked to select four items from a list of 10 building features that might be provided in new barracks (C47). By far the most desirable item was all-season temperature control, followed by wall-to-wall carpeting, private bath, personal telephone, and colorful appearance. The other items in the list fell below the chance score. These results are shown in Figure 16.

Again, the choice of items was very consistent, regardless of how the men were grouped. Carpeting was the first choice of those with a grade school education or less, while all-season temperature control was fourth choice. The other exception was that carpeting was the first choice at Fort Hood.

The scores about the preference of furniture items presented in Figure 15 and building features in Figure 16 were adjusted so that the chance level for each list was identical to the other at a value of .50. The purpose of this procedure is to permit comparison of choices across the two lists, even though the men responded to each list independently. Adjusting the scores in the manner described gave each item the same probability of selection. In making inferences from the combined list of preference scores presented in Figure

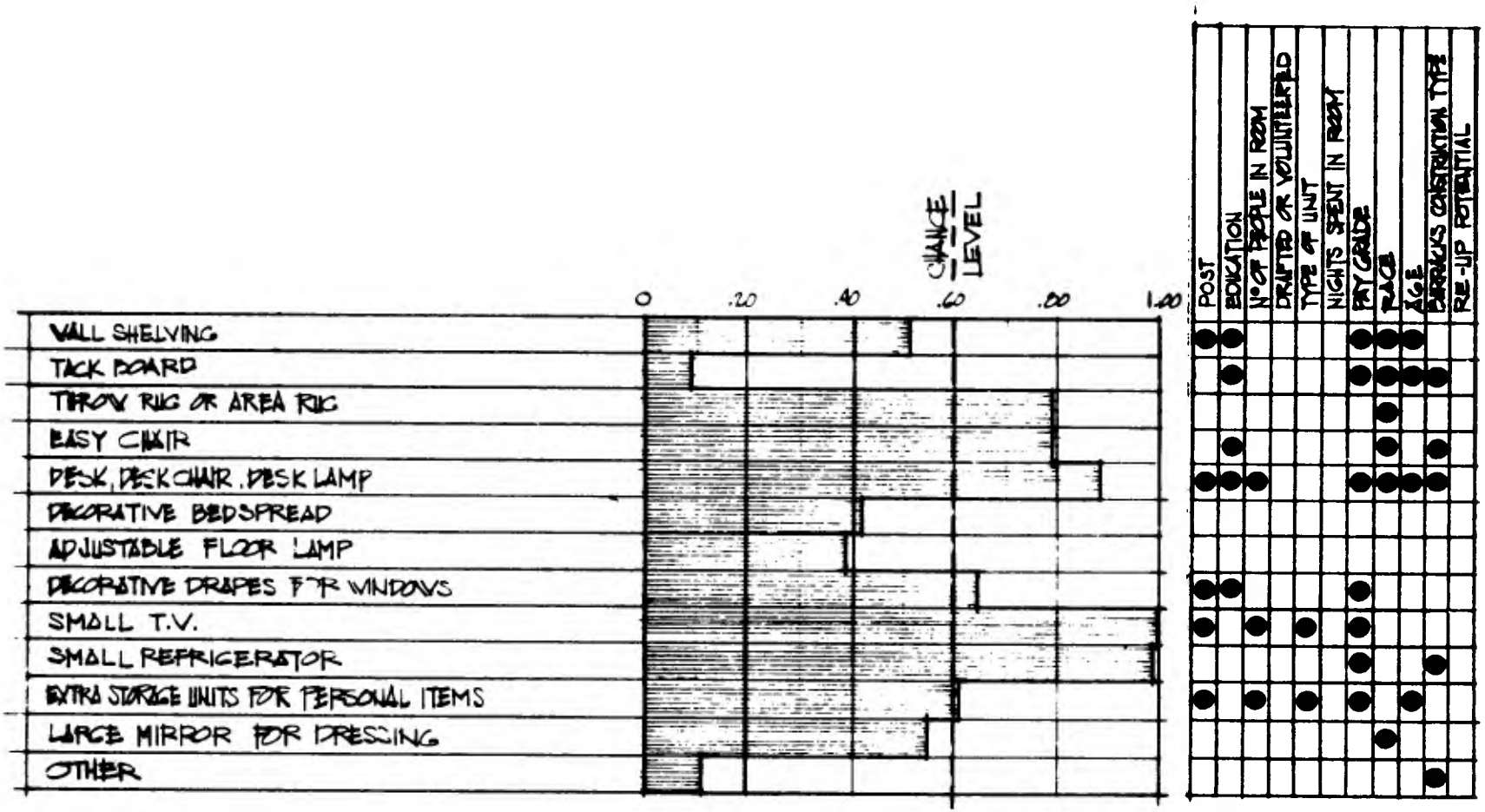

Figure 15. Most preferred items of furniture in addition to a bed and locker, question C44.

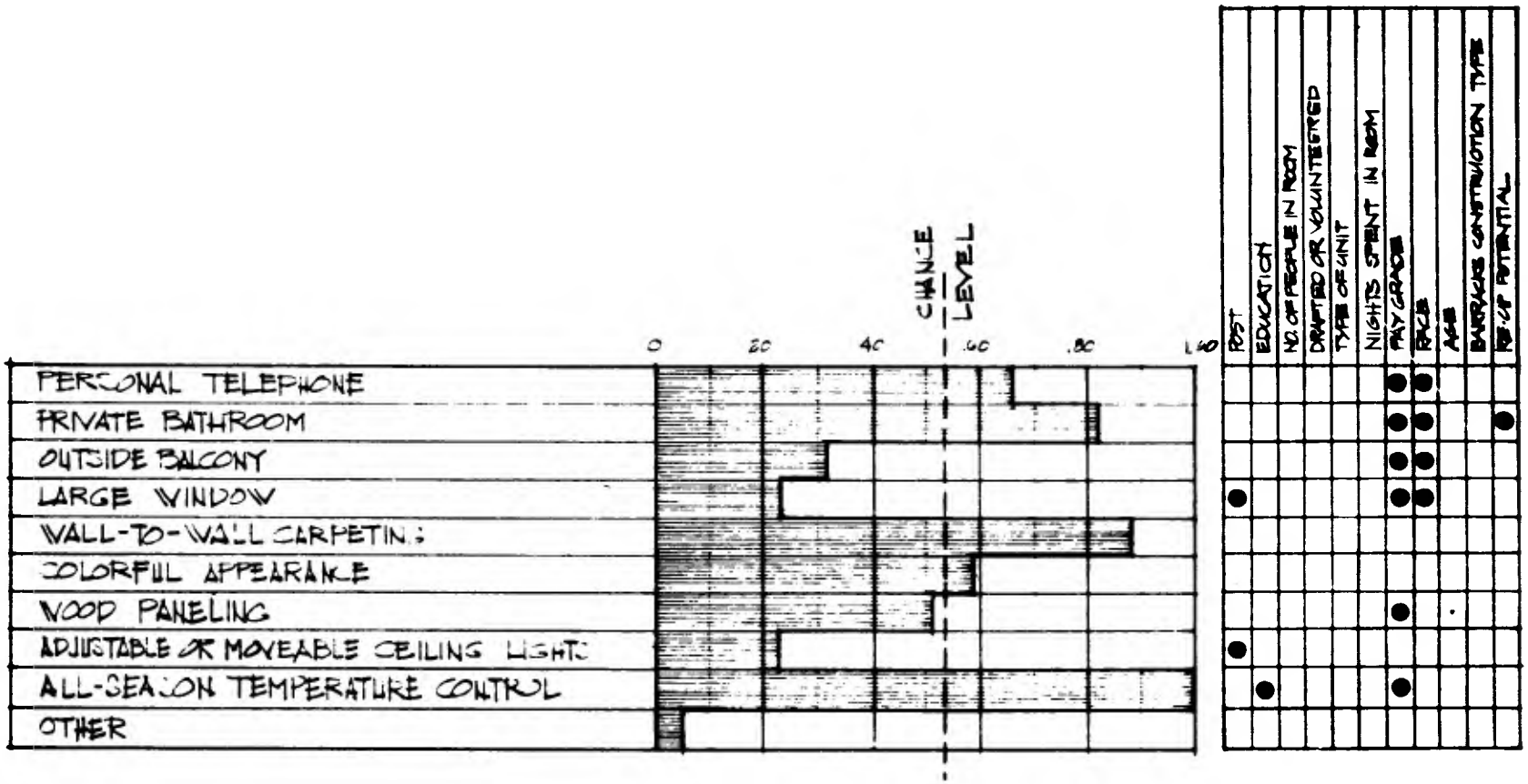

Figure 16. Choice of building features, question C47.

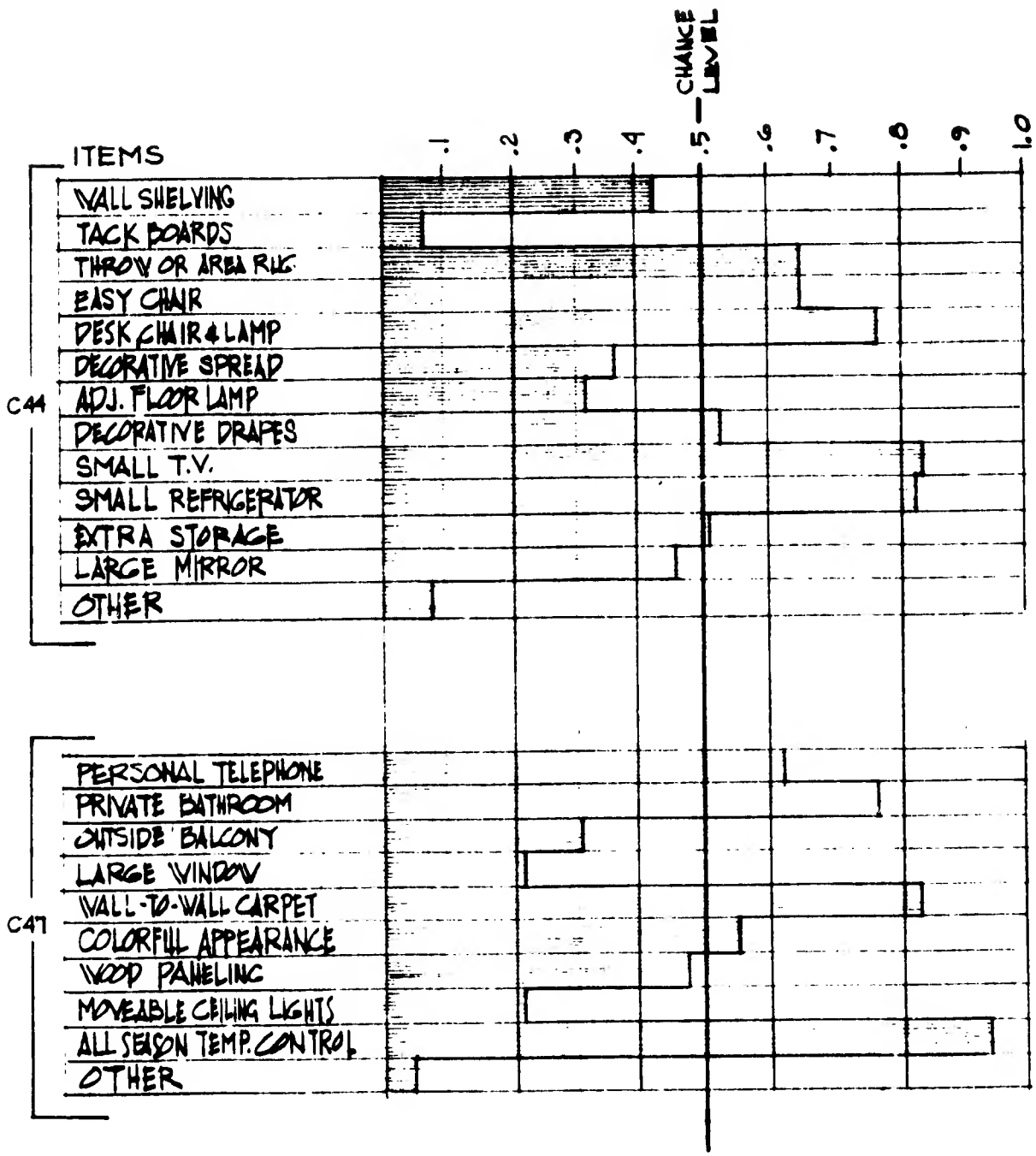

Figure 17. Choice of furnishings and building features (scores adjusted to an equal chance level of 0.50).

17, it should be kept in mind that if the men would have been asked to respond to the entire list, the exact order of preferences might have been different. However, it is assumed that the items that were most preferred on the two lists when responded to in independent questions would still be most preferred had the lists been combined into one question.

From Figure 17 it can be seen that all-season temperature control stands out as the most preferred item. The next few items which are slightly less preferable, include desk, chair and desk lamp, small television, small refrigerator, private bathroom, and wall-to-wall carpeting.

Progressing in order down the list, other items of preference included throw rug or area rug, easy chair, personal telephone, colorful appearance, decorative drapes, and extra storage space.

The men reported that the main color of their room was green (C48). The overall distribution of colors of rooms is given in Table 26.

In the next question (C49), the respondents were asked which color they would choose as the main color in their sleeping area. These results are presented in Table 27. The choice of blue as preferred room color was rather consistent regardless of what color individuals had at the time. Those who currently had blue preferred blue slightly more than those who now had any other color. The low popularity of green as a preferred color may be the result of its overuse at the present time. While the choice of green was higher for those who were older and in higher pay grades, it was still not the most preferred color by these groups. This age and pay group factor is probably the reason why 1930s barracks and World War II temporary BEQs had more of a frequency of choice for green than any other barracks construction type.

Questionnaire–Section D: Latrine and Washroom (Questions 1 to 14). Overall, the respondents felt that their latrines and washrooms were neither clean nor dirty, hard to clean, drafty, smelly, slighty noisy, had inadequate shelving at the wash basin, extremely drab, neither brightly nor dimly lighted, in poor repair, close to the sleeping area, had a low number of safety hazards, and had bad privacy. They were also quite dissatisfied with the latrines and washrooms. The ratings of latrines are presented in Figure 18.

On the clean-dirty scale (D1), four posts felt that their latrines and washrooms were slightly clean, while Forts Hood and Lee felt that their latrines were dirty. As the number of roommates increased, the latrines were rated dirtier. Those who decided not to reenlist felt that their washrooms were dirtier than those who intended to reenlist. Blacks felt that their washrooms were a little cleaner than did the whites. Washrooms were rated cleaner as age increased and as pay grade increased. As in previous sections, the World War II temporary barracks received the worst rating while 1930s construction received the best.

On easy-hard to clean (D2), the men at five posts felt that their latrines were slightly easy to clean while those at Fort Hood responded that the latrines were hard to clean. Those who intended to reenlist and had fewer people per room said it was easier to clean the washrooms than those who did not intend to reenlist. Blacks felt it was easier to clean than did whites, as did those in higher pay grades. Again, World War II temporary barracks received the worst rating and 1930s construction received the best rating.

Table 26
Distribution of Color of Rooms

Color of Room	Percent of Respondents
Red, or shades of	3
Green, or shades of	51
Blue, or shades of	10
Brown, or shades of	8
Yellow, or shades of	14
Orange, or shades of	1
Other	13

Table 27
Distribution of Preferred Room Color

Preferred Room Color	Percent of Respondents
Red, or shades of	8
Green, or shades of	5
Blue, or shades of	61
Brown, or shades of	7
Yellow, or shades of	5
Orange, or shades of	4
Other	9

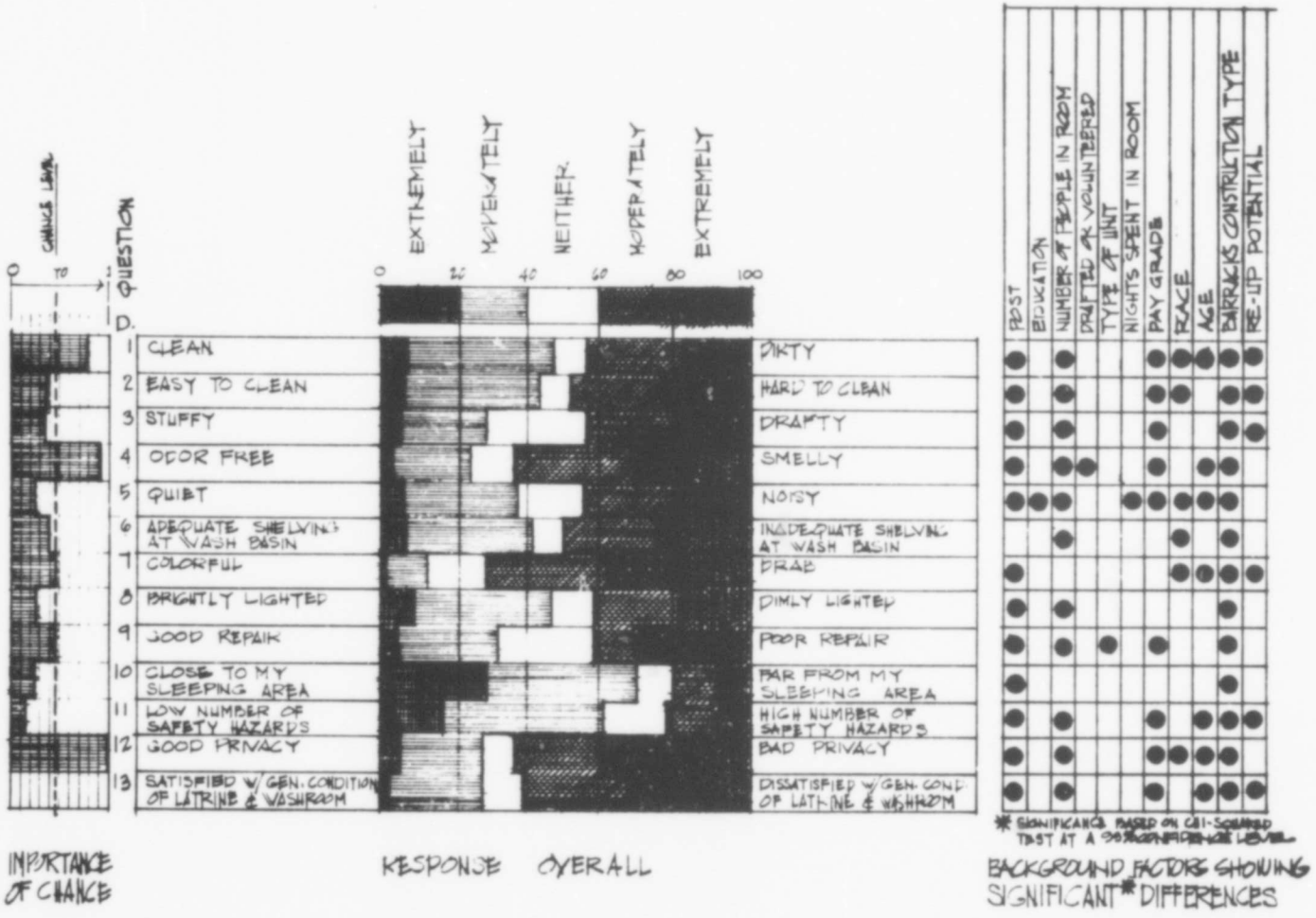

Figure 18. General conditions of latrines and washrooms.

All posts leaned toward drafty on the stuffy-drafty scale (D3). The men at Fort Hood took the strongest negative position. All other posts were approximately split on the scale. Based on reenlist potential the variation on this scale was minor, though significant. The latrines were rated stuffier as rank increased and number of people per room decreased. Again, World War II temporary barracks received the worst rating and 1930s barracks the best.

On the odor free-smelly scale (D4) all posts leaned toward "smelly" with Fort Hood responses being the most extreme. The response of those who were drafted was more negative on this scale than for those who enlisted. Latrines were rated less smelly as age and rank increased and as the number of people per room decreased. Responses by barracks construction type were distributed as in previous questions.

The responses at all posts were about evenly split on whether the latrines were quiet or noisy (D5). Fort Knox leaned toward quiet, while Forts Lee and Hood leaned toward noisy. The noisy rating increased as education and number of roommates increased. Blacks felt that the washrooms were quieter than did whites, as did those who were older and in higher pay grades. Those who spent 6 to 7 nights per week in their room felt that the washrooms were less noisy than those who spent fewer nights per week in their rooms. Again, World War II temporary barracks had the worst rating, while 1930s barracks had the best.

The respondents felt the shelving in the washroom was slightly inadequate (D6). The men at all posts gave slightly positive responses except those at Fort Hood (with a higher density of people per room) who took a more negative attitude. Blacks again felt the shelving was more adequate than did whites. World War II temporary barracks received the worst ratings.

Respondents were in general agreement that the washrooms were extremely drab (D7). The respondents of Fort Sill felt theirs were the most drab, while Fort Knox was rated the least drab, though there were only a few percentage points separating these posts. Those who intended to reenlist did not take a stronger negative position on this scale. Blacks were also less extreme in their response than whites and older respondents were less extreme than younger ones. Although all barracks types received a poor rating here, World War II barracks were the worst.

The respondents were approximately evenly split on the brightly-dimly lighted scale (D8). The only major variation was by construction type, with World War II temporary barracks again receiving the worst rating. People with more roommates found the lighting slightly more dim.

The men were in general agreement that the washrooms were in poor repair (D9), with those at Fort Hood taking the strongest negative position. The quality of repair became slightly worse as the number of roommates increased. Those who intended to reenlist felt that the washrooms were in better repair than did those who did not intend to reenlist. Also, those in higher pay grades felt that the state of repair was slightly better than did those in lower pay grades. Again, World War II temporary barracks were rated in poorest repair.

Respondents were in general agreement that the washrooms were located close to their sleeping area (D10). Slight variations occurred by post. The greatest variation occurred by construction type, with World War II temporary barracks receiving the worst ratings.

Troops agreed that there were a fairly low number of safety hazards in the washrooms (D11). The men at Forts Leonard Wood and Hood did not make quite as strong a positive response as did those at the other posts. Those who did not intend to reenlist and had more people per room took a less positive attitude on this scale than did those who did intend to reenlist and had fewer roommates. Those who were older and in higher pay grades took a more positive position.

There was good agreement at all posts that the privacy in the washrooms was bad (D12). Respondents at Fort Hood took a stronger negative position while those at all other posts were slightly less negative. Privacy decreased as the number of roommates increased and was rated worse by whites, those in the lower age bracket, those in the lower pay grade, and those living in World War II temporary barracks. However, regardless of the category the respondents generally took a strong negative position on this question.

At all installations dissatisfaction was expressed over the general conditions of the latrines and washrooms (D13). Minor variations occurred by post. Dissatisfaction was reduced as the number of roommates decreased, for those who intended to reenlist, for those who were older and in higher pay grades, as well as for those living in other than World War II temporary barracks.

Several items in this section show a moderate relationship with satisfaction. These were cleanliness (r = .56), difficulty of cleaning (r = .57), odor level (r = .56), colorfulness (r = .56), lighting level (r = .52), state of repair (r = .61), number of safety hazards (r = .51), and privacy (r = .68). All other variables in this list showed a weak relationship with satisfaction (from r = .31 to r = .49).

Cleanliness showed a moderate correlation with ease of cleaning (r = .67), odor level (r = .66), state of repair (r = .51), and number of safety hazards (r = .51). Ease of cleaning was correlated with odor level (r = .56) and with state of repair (r = .52). Lighting level also had a moderate correlation with state of repair (r = .53). All other scales showed weaker correlations (from r = .23 to r = .48).

The items which the respondents would most like to see changed (D14) were privacy in the latrines and washrooms, followed closely by odor level and by cleanliness. All other items fell below the chance level (Figure 18).

When respondents were asked to indicate how long they usually had to wait to use various washroom fixtures (D15), a large portion said they did not have to wait, as follows: shower (46 percent), wash basin (42 percent), toilet (53 percent), urinal (56 percent), electrical outlet for shaving (50 percent did not have an electric razor, an additional 30 percent did not wait). Respondents at Fort Hood said that they had to wait the longest. The length of wait increased with number of roommates and decreased with age and pay grade. The wait for washroom fixtures was the longest in World War II temporary and 1950s barracks.

Questionnaire–Section E: General Conditions of Day Room or Lounge (Questions 1 to 13). In general, the respondents felt that their day room was moderately clean, easy to clean, brightly lighted, far from their sleeping area, drafty, noisy, crowded with people, cramped, hard to use when they wanted to, a location where it was easy to talk with others, and possible to have more than one activity going on at a time. Most respondents were dissatisfied with the general conditions. These responses are presented in Figure 19. The responses on many of these scales were approximately evenly split on either extreme.

More than half the troops thought that the day room was clean (E1) though variation occurred by post. Only the men at Fort Hood had an overall response that leaned toward dirty. Building construction type was significant, with those living in World War II temporary barracks and in 1960s construction slightly less positive than those in other construction types. Cleanliness of the day room seemed to increase with pay grade and decrease with an increase in people per room.

The majority of respondents at all posts except Fort Hood thought that their day room was easy to clean (E2), while those at Fort Hood leaned toward the hard to clean side of the scale. Those who were black, in a training unit, undecided on reenlistment, in higher pay grades, and who had completed 9 to 15 years of education found the day room easier to clean than did other groups. Only day rooms in World War II temporary barracks were found difficult to clean.

The majority of respondents at all posts except Fort Hood felt that their day room was brightly lighted (E3), while a reverse trend occurred at Fort Hood. The lighting level was rated lower by those who had more education and higher rates of men per room and by those who lived in World War II temporary barracks and BEQs.

Overall, the men were approximately evenly split on whether their day room was close or far from their sleeping area (E4). However, those in Forts Sill and Hood tended to think that their day room was further from their sleeping area, while those at Fort Dix tended to think that their day room was closer to their sleeping area.

The respondents were approximately equally split on the stuffy-drafty scale (E5). A large group of respondents chose the "neither" category, which indicates that the scale extremes were not clear. It appears that those living in World War II temporary barracks and BEQs and those living in 1950s barracks felt that their barracks were slightly more drafty than did those living in other construction types. The stuffy rating was higher for those with 20 or more roommates.

Soldiers were in strong agreement that the day rooms were noisy (E6), with day rooms at Fort Hood rated the most noisy. Day rooms were rated quieter as age increased, with those in the oldest group leaning slightly toward quiet; those in the youngest group rated the conditions in the day room as very noisy. Although races were in good agreement that the day room was noisy, whites had more extreme responses

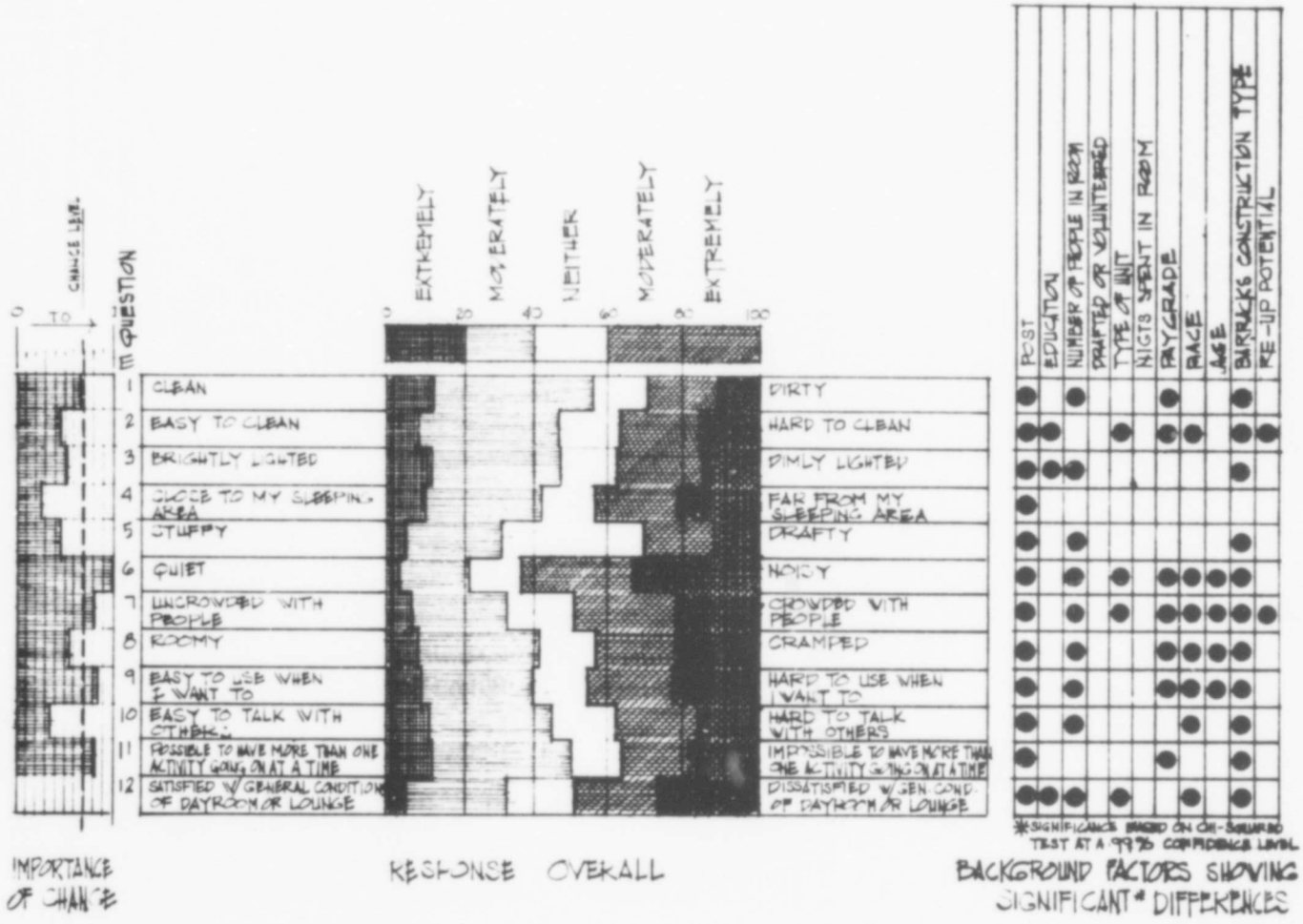

Figure 19. General conditions of day room or lounge.

than did blacks. Those who were in a training unit, those in higher pay grades, and those with fewer roommates felt that the day room was less noisy. The day rooms in the 1950s barracks and World War II temporary barracks were rated the most noisy.

The men at all posts except Fort Sill agreed that the day room was crowded (E7). Men at Fort Sill felt their day room was slightly uncrowded. The level of crowding decreased with age and pay grade and increased with the number of roommates. Those who were white who did not intend to reenlist felt that the day room was more crowded. Those living in World War II temporary BEQs felt that the day room or lounge was not crowded while the day rooms in other construction types were rated as crowded. Although type of unit was significant, differences were minor.

Respondents were approximately evenly split on the roomy-cramped scale (E8). Those at Fort Sill saw their day room as being more roomy while those at Fort Hood saw their day room as being very cramped. Those who were younger, who were white, who were in lower pay grades, and who had more roommates felt that the day rooms were more cramped. Respondents living in World War II temporary barracks and in 1960s barracks definitely felt that the day room was roomy.

Men at Forts Knox and Sill saw the day room as being somewhat easy to use when they wanted to (E9), while those at Fort Lee and especially at Fort Hood saw it as being difficult to use. As age and rank decreased and as the number of roommates increased, the day room was found harder to use when the men wanted to. Those who were black and those living in World War II temporary BEQs and in 1930s barracks felt the day room was easy to use. Those living in World War II temporary barracks, 1950s construction, and 1960s construction seemed to feel that the day room was difficult to use.

Most soldiers felt that it was easy to talk to others in the day room (E10). However, at Fort Hood, where rooms had more men, respondents felt that it was difficult to talk to others. Blacks found it easier to talk in the day room than did whites. Those living in World War II temporary BEQs and 1930s barracks strongly felt that it was easy to talk to others in the day room, while men in other construction types found it less easy.

When asked whether it was possible to have more than one activity going on at a time in the day room (E11), respondents in general felt that it was, except those at Fort Hood who found it impossible. Those in World War II temporary barracks and BEQs tended to feel that having more than one activity at a time in the day room was impossible, while respondents in other barracks construction types felt that it was possible to carry out more than one activity in the day room at the same time. Higher pay grades found it more impossible to carry on several activities in the day room.

Respondents were in general agreement that they were dissatisfied with the general conditions of the day room (E12). Differences were minor by race or type of unit. Dissatisfaction increased with the number of men per room. Those with a grade school education or less were somewhat satisfied with general conditions in the day room while those with more education were definitely dissatisfied. Only those living in 1930s barracks were satisfied with the day room, while all other construction types were dissatisfied.

The items in the list of general conditions about day rooms which showed a moderate relationship with the level of satisfaction were clean-dirty ($r = .53$), roomy-cramped ($r = .57$), easy-hard to use when I want to ($r = .58$), easy-hard to talk with others ($r = .55$), and possible-impossible to have more than one activity going on at a time ($r = .59$). The other items showed a moderate relationship with level of satisfaction (from $r = .28$ to $r = .48$).

Several items in the list showed correlations and were as follows: clean-dirty with easy-hard to keep clean ($r = .67$) and with brightly-dimly lighted ($r = .52$); easy-hard to clean with brightly-dimly lighted ($r = .53$); uncrowded-crowded with people and quiet-noisy ($r = .54$); roomy-cramped ($r = .62$); easy-hard to use when I want to ($r = .57$); easy-hard to use when I want to and roomy-cramped ($r = .59$) and easy-hard to talk with others ($r = .58$); and roomy-cramped and easy-hard to talk with others ($r = .58$); and roomy-cramped and easy-hard to talk with others ($r = .54$). All other scales showed a moderate relationship with each other ($r = .21$ to $r = .47$).

Also presented in Figure 19 are the items which respondents would most like to see changed (E13) quietness in the day room, followed by a cluster of three items: ease of use when I want to, able to have more than one activity going on at a time, and less crowding with people. All other items fell below the chance score.

Questionnaire–Section E: Appearance and Atmos-

phere of the Day Room or Lounge (Questions 14 to 21). Respondents felt that the appearance and atmosphere of the day room were moderately ugly, cluttered, drab, dreary, tense, and friendly, and they were quite dissatisfied with the appearance and atmosphere of the day room and lounge. These results are presented in Figure 20.

While the men in general felt that their day room was ugly (E14), those at Fort Knox leaned toward beautiful, while those at Fort Hood rated theirs very ugly. Whites felt that the day room was more ugly than did blacks. The day room tended to be rated more ugly as the number of roommates increased. Those living in 1930s barracks felt that the day room was beautiful. Those in 1950s and 1960s barracks leaned slightly toward the ugly side, while those in World War II temporary barracks and BEQs felt strongly that the day room was ugly. Although mode of entry (drafted or volunteered) was significant on this question, differences between groups were small.

Respondents at Forts Knox and Sill felt that their day room was uncluttered (E15), while those at Fort Hood felt strongly that their day room was cluttered. The other posts were approximately split on the scale. The day room was seen as less cluttered by blacks and as age and rank increased and number of roommates decreased. Those in World War II temporary BEQs and 1930s barracks found the day room uncluttered while those in other construction types, especially World War II temporary barracks, found the day room cluttered.

Soldiers were in general agreement that the day rooms were drab (E16), with Fort Hood, with higher rates of men per room, being most negative. Whites responded that the day room was more drab than did blacks. Those in barracks types found the day room drab except those in 1930s construction who were evenly split between colorful and drab. Although type of unit was significant on this item, differences were small and not consistent.

Respondents were also in agreement that the day room was dreary (E17), again with those at Fort Hood responding most extremely. The day room was rated more dreary by whites and those who were younger and had more roommates. Those living in 1930s barracks found the day room to be cheerful, while all other construction types were rated dreary.

Soldiers were approximately split on the relaxed-tense scale (18). Forts Knox, Sill, and Leonard Wood leaned toward the relaxed atmosphere in the day room while Forts Lee, Dix, and particularly Hood leaned more toward a tense atmosphere. Whites thought the atmosphere was more tense than did blacks. The atmosphere of the day room in 1930s barracks was rated definitely relaxed, while the day rooms in 1960s and World War II temporary barracks were rated definitely tense. Other construction types were approximately split on this scale. The day room was rated more tense as the number of men per room increased.

The men felt that the day room atmosphere was friendly (E19). Blacks felt stronger about the friendliness of the day room than did whites. The day room became less friendly as the number of men per room increased. Again 1930s barracks had the most positive rating.

In general, troops were dissatisfied with their day room (E20), except at Fort Knox where those who were satisfied slightly outnumbered those who were dissatisfied. Again Fort Hood was the most dissatisfied. Whites were slightly more dissatisfied with the day room than were blacks, though both were definitely dissatisfied. Men who had over 20 roommates were very dissatisfied with their day rooms. Respondents living in 1930s barracks were somewhat satisfied with the atmosphere of the day room; however, those living in all other construction types were dissatisfied by a large margin.

All scales in this subsection showed a moderate correlation with level of satisfaction as follows: beautiful-ugly ($r = .68$), uncluttered-cluttered ($r = .58$), colorful-drab ($r = .66$), cheerful-dreary ($r = .72$), relaxed-tense ($r = .69$), and friendly-unfriendly ($r = .65$). All scales showed a moderate intercorrelation with each other (from $r = .48$ to $r = .75$) which indicates that the scales were not totally independent or a response set existed.

Respondents most wanted to see the following items changed (E21): the beauty of the day room, followed somewhat distantly by the clutteredness and colorfulness of the day room. The other three items were below the chance score. These choices are also shown in Figure 20.

Questionnaire–Section E: Furniture and Equipment in Day Room or Lounge (Questions 22 to 29). Most respondents felt that the furniture and equipment in the day room or lounge was extremely plain and drab and of a very limited variety. The day room furniture was reported to be moderately uncomfortable and

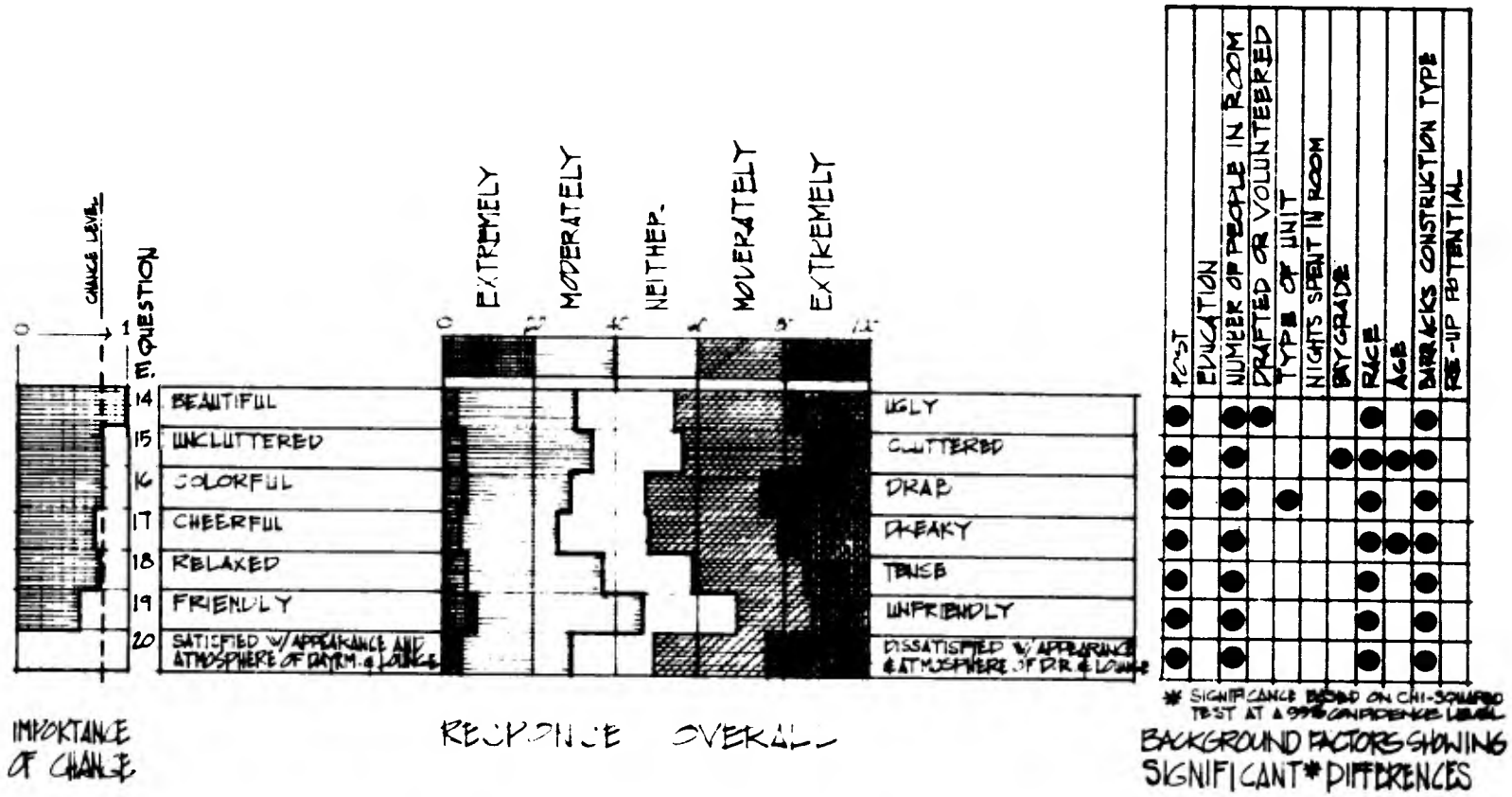

Figure 20. Appearance and atmosphere of day room or lounge.

slightly easy to damage. Overall, the respondents were quite dissatisfied with the furniture and equipment in the day room or lounge. These reults are displayed in Figure 21.

The respondents at all posts felt that the furniture and equipment in the day room was extremely plain (E22), with the respondents from Fort Hood being more extreme than those from the other posts. Blacks responded less extremely than did whites. Men living in 1930s barracks thought their barracks were not as extremely plain as those living in all other construction types. The rating of plain furniture increased with the number of men per room.

Troops at all posts also felt that the furniture and equipment in the day room was extremely drab (E23) with the strongest negative position taken by Forts Dix and Hood. The drab response was higher for those with more roommates. Again race was significant, with blacks responding only slightly less extremely than did whites. Although type of unit was significant, differences were small. Groups living in all construction types overwhelmingly felt that the day room furniture was drab, except those living in 1930s who were not quite so extreme in their response.

The men found the furniture in the day room uncomfortable (E24). However, those at Fort Knox tended to lean toward rating the furniture as being comfortable. The furniture was more uncomfortable as the number of men per room increased. Again, blacks were slightly more favorable than whites on the comfortable-uncomfortable scale. Respondents in most barracks types felt that the furniture was uncomfortable, with those living in 1930s barracks leaning toward comfortable.

On whether the furniture was sturdy or easy to damage, respondents were approximately split (E25). At Forts Knox, Lee, Sill, and Leonard Wood, the men leaned toward sturdy furniture, while those at Forts Dix and Hood definitely found the furniture easy to damage. Similarly, men with over 20 roommates found the furniture very easy to damage. Whites found the day room furniture to be slightly sturdy, and blacks found it slightly easy to damage. Respondents living in World War II temporary barracks felt that the furniture was easy to damage, while those in 1960s barracks were approximately split on the scale. All other construction types leaned towards sturdy, with men in 1930s barracks responding most favorably.

An overwhelming majority of the respondents found the day room lacking in variety of furniture (E26). This is true at all posts with Fort Hood, where the number of men per room was highest, being the most extreme case. Whites were slightly more negative than blacks. Respondents were in agreement regardless of what type of barracks that they lived in, with 1930s barracks and World War II temporary BEQs being slightly less extreme.

An overwhelming majority of the respondents agreed that the variety of the equipment was very limited (E27). This is true of all posts. A very minor difference occurred between the races and no real difference occurred by type of construction.

In general, the respondents were very dissatisfied with the furniture and equipment in the day room (E28). Although both races were overwhelmingly dissatisfied, there was a very minor difference by race. All groups were strongly dissatisfied regardless of building construction type, except for those living in 1930s barracks who were only moderately dissatisfied. The level of dissatisfaction became worse as the level of education increased.

The weakest correlation between a scale item and the level of satisfaction in this section was on the sturdy-easy to damage scale ($r = .50$). The relationships between level of satisfaction and the other scales were as follows: stylish-plain ($r = .66$), colorful-drab ($r = .67$), comfortable-uncomfortable ($r = .67$), wide-limited variety of furniture ($r = .71$), and wide-limited variety of equipment ($r = .73$).

The sturdy-easy to damage scale showed only a weak relationship with all other scales except comfortable-uncomfortable ($r = .54$). All other scales in this section showed a moderate strength of relationship (from $r = .50$ to $r = .79$).

Also shown in Figure 21 are the items which the respondents would most like to see changed (E29): the variety of equipment followed by the stylishness-plainness of the furniture, the variety of furniture, and the comfortableness of the furniture. The other two items were below the chance level.

Questionnaire-Section E: Other Questions (Questions 30 to 33). Overall, about 75 percent of the respondents had the day room located in the same building where they slept (E30). The highest rate was at Forts Knox and Lee, where about 90 percent of the men had a day room in the same building where they slept. The lowest rate occurred at Fort Leonard Wood,

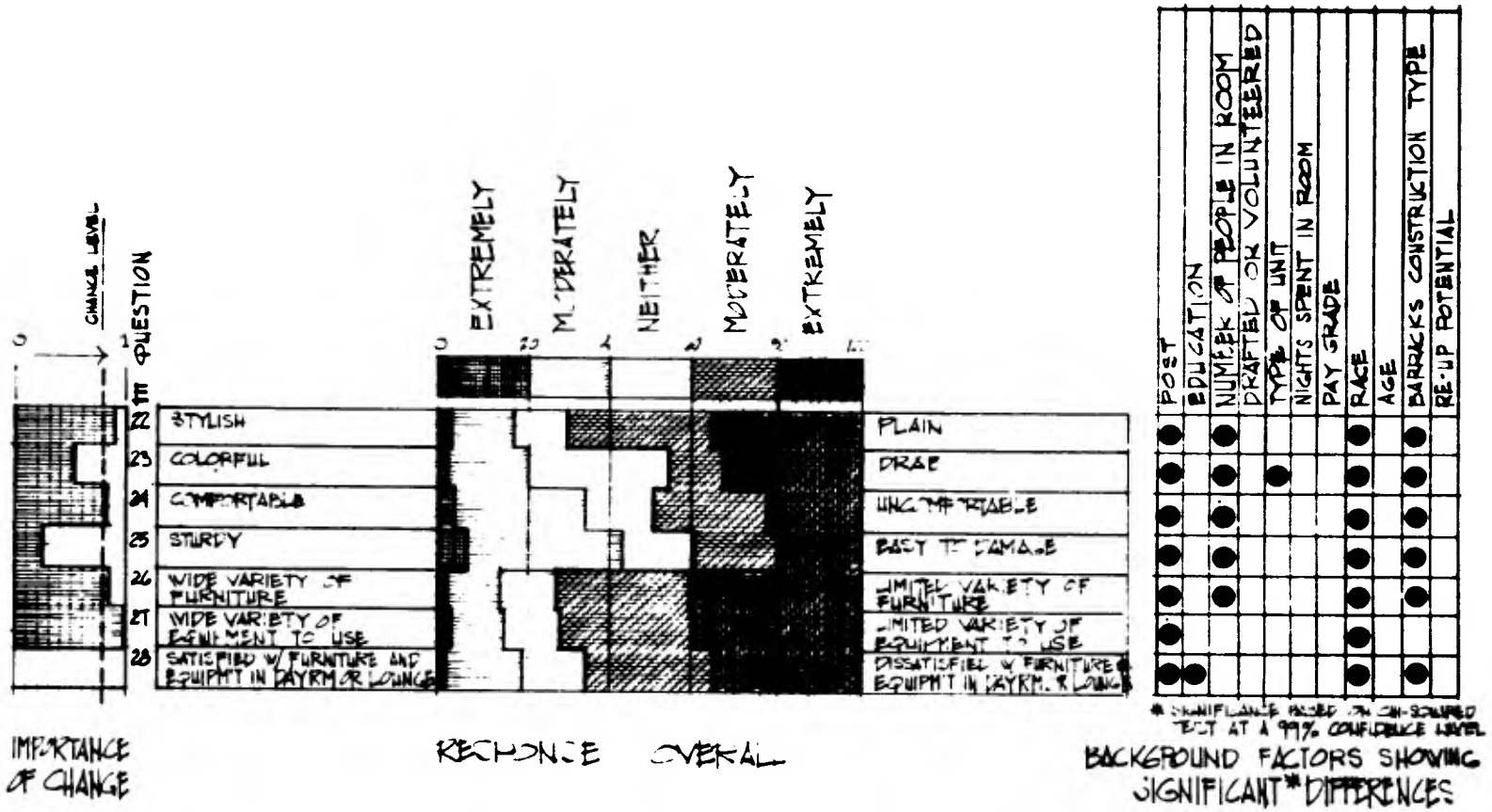

Figure 21. Furniture and equipment in day room or lounge.

where only slightly more than half the men had a day room in the same building as their sleeping room. The units which least frequently had the day room located in the same building as the sleeping area were combat support units, which were located most prevalently at Forts Leonard Wood and Hood. About 80 percent of those living in World War II temporary barracks had their day room in a different building than where they slept and only slightly more than half of those living in World War II temporary BEQs had the day room in the same building. Nearly all those who lived in other construction types had the day room in the same building as their sleeping room. In general, those respondents who had fewer roommates were more likely to have their day room located in the same building as their sleeping room.

Respondents were asked to estimate how much time they usually spent in the day room or lounge (E31). The results are shown in Table 28. The amount of time spent in the day room decreases as pay grade increases. It decreases with the number of nights slept in the room, is lower for those with either a grade school education or below or those with college education or above, and is lower for whites than blacks. Although variation in use of the day room appeared by building construction type no clear trends are apparent other than that those living in World War II temporary BEQs tend to use the day room less than those in other barracks types.

When respondents were asked how often present room conditions kept them from spending time in the day room or lounge (E32), the overall responses were as presented in Table 29. This suggests that those who spend very little or no time in the day room would probably like to and is verified when Questions E31 and E32 are cross tabulated. Most of those who never or seldom used the day room reported that conditions frequently kept them from using it.

Variations on Question E32 occurred by post by only a few percentage points, with Fort Hood respondents feeling most strongly that conditions kept them from spending time in their day room. Those who were older did not feel that day room conditions kept them from spending time there as much as did younger respondents. This was paralleled by those in higher pay grades versus lower pay grades.

When respondents were asked how they would improve their day room (E33), the most common responses were for better and more equipment such as pool tables, ping pong tables, color television; a larger area partitioned into different sections; more comfortable, more modern furniture; and better decor, carpeting, more color, better lighting, and graphics on the walls.

Questionnaire Section F: The Dinning Hall (Questions 1 and 2). Respondents were asked to indicate whether their dining hall was in the same building where they sleep (F1). The overall response was that 30 percent of the men ate in the same building where they slept, while 70 percent ate in another building. Although race was significant on this question, differences were minor. Significance based on type of unit probably reflects the unequal distribution of unit types by post. Virtually all the men in World War II temporary barracks and temporary BEQs, and 1960s barracks ate in buildings other than the ones in which they slept. This is as expected due to the type of construction. Those living in 1930s and 1950s barracks were approximately split on whether they ate in the same building as where they slept. The significance of pay grade and

Table 28
Distribution of Responses by Time Spent in Day Room

Time Spent in Day Room	Percent of Respondents
Zero	25
Less than 1 hour	31
About 1 hour	14
About 2 hours or more	31

Table 29
How Often Men Are Kept From Using Day Room Because of Conditions

Frequency	Percent of Respondents
Frequently	34
Sometimes	26
Seldom	19
Never	22

number of roommates is probably related to the type of barracks and post.

When asked how often respondents ate in their dining hall, the overall response was distributed as shown in Table 30.

Only about 20 percent of those at Fort Hood and Fort Knox seldom or never ate in the dining hall, while about 30 percent did at the other posts. As age increases, the frequency of eating at least one meal a day in the dining hall decreases, with the largest break at 30 years of age. Variation by type of unit is not clear. As the number of nights slept in the room decreases, so does the number of meals eaten in the dining hall. Those respondents who live in World War II temporary BEQs seldom eat in the dining hall while most other respondents eat at least one meal a day there. The effect of pay grade is probably caused by the unequal distribution of pay grade by barracks construction type.

Questionnaire–Section F: General Conditions of Dining Hall (Questions 3 to 19). The men felt that their dining hall was clean, brightly lighted, stuffy, noisy, sunny, crowded with people, difficult to enter and move through, far from the sleeping area, inconvenient to washroom facilities, free of bugs, had a low number of safety hazards, had a pleasant smell, was poorly designed, had an uncomfortable temperature, and was a room where it was easy to talk with others. As a group, the respondents were dissatisfied with the general conditions of the dining hall. These results are presented in Figure 22.

While the respondents agreed quite strongly that the dining halls were clean (F3), those at Forts Leonard Wood and Hood were not quite as positive in their response as those at the other posts. The rating of clean decreased slightly as the number of men per room increased. Respondents in World War II temporary barracks did not feel that their dining hall was quite as clean as did respondents living in other construction types.

General agreement was voiced on the brightly lighted (F4) quality of dining halls, with the men at Fort Hood being not quite as positive as those at the other posts. The number of men per room was significant as the result of a considerable increase in a dim rating for those with 20 or more roommates.

In general, the men found that the dining hall was slightly more stuffy than drafty (F5), while the largest number of respondents felt that it was neither. This is apparently due to the fact that the extremes on the scale were not very dichotomous. Minor variations occurred by post, race, number of men per room, and type of unit, but no distinct differences were apparent.

The respondents at all posts strongly felt that the dining hall was noisy (F6), with the responses at Forts Leonard Wood and Hood more extreme than at the other posts. As age increased the dining hall was rated less noisy. Whites felt that the dining hall was more noisy than did blacks. Those in combat supports units, in lower pay grades, and who did not intend to reenlist also found the dining hall more noisy.

On the sunny-lacking in sunlight scale (F7), only post was significant. The troops felt that the dining room was sunny rather than lacking in sunlight, particularly at Forts Knox and Leonard Wood. At Fort Sill respondents were about equally distributed on either side of the scale, while at Fort Hood respondents leaned toward lacking in sunlight.

A large majority of the men considered the dining hall to be crowded (F8). This is true at all posts with Forts Leonard Wood and Hood being the most extreme. The rating of crowdedness in the dining hall tended to decrease as age and rank increased.

Respondents tended to agree that the dining hall was difficult to enter and move through (F9), except for those at Forts Sill and Dix where responses were about evenly distributed. As age and pay grade increased, responents found the dining hall easier to enter and move through. While blacks were approximately split on this scale, whites found the dining hall difficult to enter and move through. Those who did not intend to reelist also found the dining hall difficult to enter and move through, while those who intended

Table 30
Frequency of Eating in Dining Hall

Frequency	Percent of Respondents
Never	10
Seldom	13
One meal per day	19
Two meals per day	34
Three meals per day	24

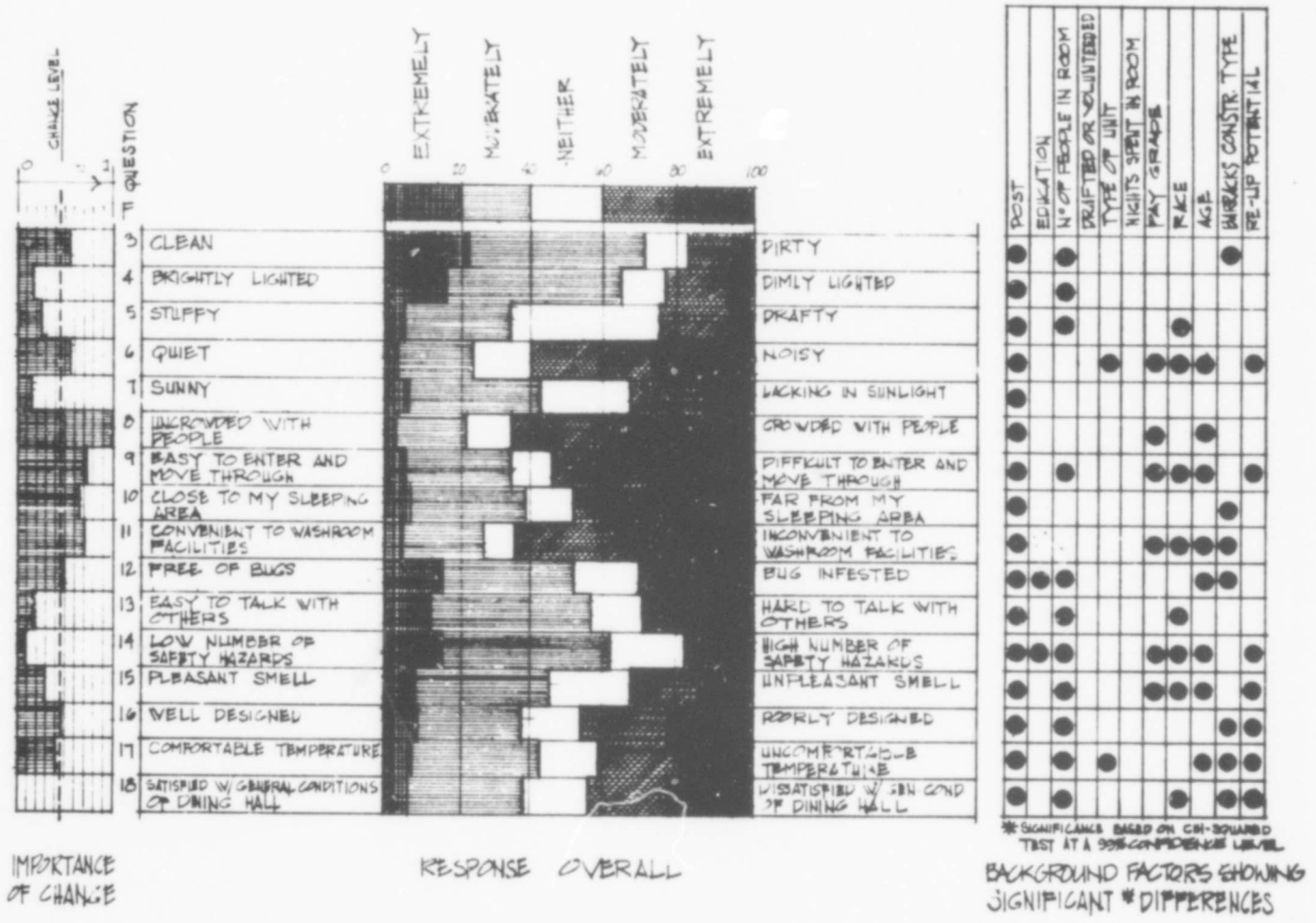

Figure 22. General conditions of dining hall.

to reenlist were approximately split on this scale. Movement through the dining hall was rated more difficult as the number of roommates increased.

On the distance of the dining hall from the sleeping area (F10), respondents tended to feel that it was slightly far from the sleeping area. The only item which was significant on this scale was building construction type. Respondents living in 1930s barracks rated the dining hall close to the sleeping area, while those in World War II temporary barracks and BEQs found the dining hall far from the sleeping area. Other construction types were approximately split on this scale.

The men were in strong agreement that washroom facilities were inconvenient to the dining hall (F11). Slight variations occurred by post. The inconvenience of the dining hall to washroom facilities became less acute as age and pay grade increased, was less acute for blacks than whites, and was more acute for those in World War II temporary barracks and BEQs.

Most respondents felt that the dining hall was free of bugs (F12). However, those at Forts Hood and Dix tended to feel that the dining hall was bug-infested. The dining halls were rated more free of bugs as age and education increased and as the number of roommates decreased. Those living in World War II barracks and BEQs were approximately split on whether the dining hall was free of bugs or bug infested. Respondents in all other construction types found the dining halls to be free of bugs.

The majority of the troops found it easy to talk to others in the dining hall (F13). This was true of all posts except Forts Leonard Wood and Hood, which were not rated quite as postively on this scale. While both races found it easy to talk with others in the dining hall, blacks found it easie than did whites. Those with 20 or more roommates found conversation slightly more difficult.

Respondents strongly agreed that there was a low number of safety hazards in the dining hall (F14); however, Fort Hood, with the highest density of men per room, rated the least positive on this scale. As age and pay grade increased, the respondents found a lower number of safety hazards; similarly, blacks and those who intended to reenlist found less hazards than others.

Overall, the soldiers felt that the smell in the dining hall was more pleasant than unpleasant (F15). This is true at all posts except Fort Hood where a definite majority found the dining hall smelly. Respondents below 21 years of age were approximately split on the odor scale, as were those in pay grades E1 to E2. Those who were older, had fewer or no roommates, and were in higher pay grades felt the odor in the dining hall was pleasant. Blacks found the dining hall to have a pleasant odor, while whites found it only slightly pleasant. Respondents who intended to reenlist found the dining hall odor to be more pleasant than did those who did not intend to reenlist.

The responses by post on the well-poorly designed scale (F16) was quite varied. Respondents at Fort Knox found the dining hall to be fairly well designed with those at Forts Sill and Leonard Wood not quite as positive. The men at Forts Lee and Dix were approximately split on this scale, while respondents at Fort Hood definitely felt that the dining hall was poorly designed. Respondents who intended to reenlist or were undecided about reenlistment found the dining hall well designed, while those who did not intend to reenlist or had many roommates found it poorly designed. 1960s barracks received the best ratings, while World War II temporary BEQs and 1930s barracks were approximately split on the scale. Respondents living in 1950s barracks found the dining hall to be poorly designed, while those living in World War II temporary barracks overwhelmingly found the dining hall to be poorly designed.

The men were about evenly divided on whether the dining hall had a comfortable or uncomfortable temperature (F17). Respondents at Forts Knox and Lee leaned toward comfortable; those at Fort Hood leaned definitely toward uncomfortable. The other posts were approximately split. Respondents above 24 years of age found the dining room temperature comfortable, while those under 20 years definitely found it uncomfortable. Those who did not intend to reenlist were approximately split, while those who did intend to reenlist or were undecided leaned toward comfortable. Men who had more than 20 roommates found the dining halls slightly less comfortable than others. Those in the combat-support unit found the dining hall to be slightly uncomfortable, while other unit types were about equally divided on the scale. Respondents living in World War II temporary barracks strongly agreed that the temperature of the dining hall was uncomfortable; those living in 1950s barracks were approximately split; and those in the other construction types leaned toward comfortable.

Overall, the troops were slightly dissatisfied with the dining hall (F18). Respondents at Forts Knox and Lee were generally satisfied with the dining hall while those at Fort Hood were definitely dissatisfied. Blacks tended to be slightly satisfied while whites were slightly dissatisfied. Respondents who intended to reenlist or who were undecided felt that the general conditions of the dining hall were satisfactory. Those who did not intend to reenlist found the conditions unsatisfactory. Satisfaction shifted to dissatisfaction as the number of men per room increased. Respondents living in 1960s barracks, 1930s barracks, and World War II temporary BEQs found the dining halls to be satisfactory; those living in World War II temporary barracks were strongly dissatisfied with the general conditions of the dining hall.

Those scales which showed a moderate relationship with the level of satisfaction with the dining hall were clean-dirty (r = .54), brightly-dimly lighted (r = .51), easy-difficult to enter and move through (r = .53), free of bugs-bug infested (r = .50), easy-hard to talk with others (r = .54), low-high number of safety hazards (r = .51), pleasant-unpleasant smell (r = .64), well-poorly designed (r = .67), and comfortable-uncomfortable temperature (r = .65). The other scales showed a weak correlation with level of satisfaction (from r = .27 to r = .49).

Several scales showed moderate correlations. The strongest of these were as follows: clean-dirty and brightly-dimly lighted (r = .67), uncrowded-crowded with people and easy-difficult to enter and move through (r = .62), low-high number of safety hazards and pleasant-unpleasant smells (r = .60), and well-poorly designed and comfortable-uncomfortable temperature (r = .65).

As shown in Figure 22, the items which the respondents would most like to see changed first are as follows: crowding of people, followed rather distantly by ease of entry and moving through, convenience to washroom facilities, distance from the sleeping area, cleanliness, noisiness, presence of bugs, and quality of design. Other items fell below the chance score.

Questionnaire–Section F: Appearance and Atmosphere of Dining Hall (Questions 20 to 29). The majority of the troops felt that their dining hall was cluttered, drab, ugly, had pleasant lighting for dining, was dreary, tense, friendly, and had an unpleasant outside view. Respondents in general were dissatisfied with the appearance and atmosphere of the dining hall. These results are presented in Figure 23.

Respondents were approximately split on the cluttered-uncluttered scale (F30). Those at Forts Knox, Lee, and Sill leaned toward uncluttered, while those at Hood felt that the dining hall was cluttered. The rating of the dining hall switched from cluttered to uncluttered as age and pay grade increased and as the number of men per room decreased. Whites were approximately split on this scale, while blacks found the dining hall uncluttered. Combat support units found the dining hall more cluttered than did other type of units. Those who did not intend to reenlist were approximately split on this scale, while other groups felt that the dining hall was uncluttered. Men living in World War II temporary barracks definitely found the dining hall cluttered, while those living in all other construction types felt that the dining hall was uncluttered.

Most of the soldiers felt that the dining hall was drab in appearance (F31). However, respondents at Forts Knox and Lee felt that the dining hall was colorful. Those who were older and in higher pay grades found the dining hall colorful; those who were younger, in lower pay grades, and had more roommates found it drab. Whites found the dining hall drab and blacks found it colorful. Those who intended to reenlist found the dining hall colorful, while those who did not found it drab. Respondents living in World War II temporary barracks and in 1930s and 1950s barracks found the dining hall drab in appearance. Those living in 1960s barracks were approximately divided on colorful or drab and those living in World War II temporary BEQs definitely found the dining hall colorful.

The men were in general agreement that the dining hall was rather ugly in appearance (F22), with those at Fort Hood taking the strongest negative position. Respondents who were 40 or older or in pay grades E7 or above felt that the dining hall was beautiful, while all other respondents felt that the dining hall was ugly in appearance. Blacks were approximately split on the scale, while whites found the dining halls to be ugly. Those who intended to reenlist were nearly evenly divided on this scale; those who did not intend to reenlist or were undecided felt that the dining hall was ugly in appearance. The rating of ugly became more definite as the number of roommates increased. Respondents living in 1950s and World War II temporary barracks generally felt that the dining hall was ugly; those in

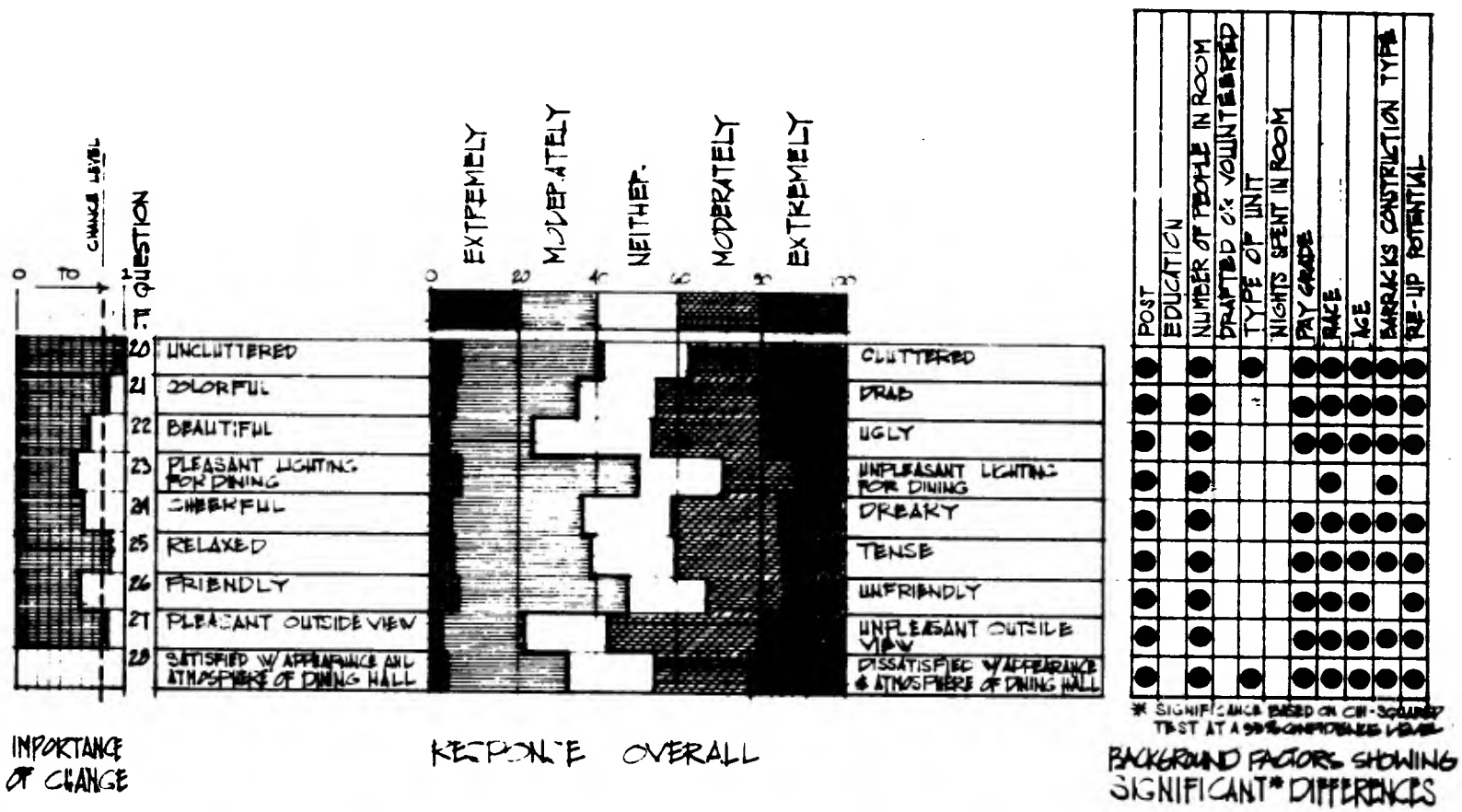

Figure 23. Appearance and atmosphere of dining hall.

1930s and 1960s barracks were not as extreme. Respondents living in World War II temporary BEQs were approximately split on this scale.

In general, the troops found the lighting for dining pleasant (F23), except for those at Fort Hood who were approximately split on this scale. The lighting shifted to unpleasant as the number of men per room increased. Blacks rated lighting more pleasant than did whites. Respondents living in World War II temporary barracks were approximately split on this scale, while those living in all other construction types felt that the dining hall had pleasant lighting.

In general, the men were approximately divided on whether the dining hall was cheerful or dreary (F24). Those at Forts Knox and Lee leaned toward cheerful, and those at Fort Hood definitely found it dreary. Respondents who were under 23 and had more than eight roommates quite definitely felt that the dining hall was dreary, while those who were 30 or older and had fewer roommates found it cheerful. This is paralleled by pay grade. Blacks found the dining hall pleasant; whites found it dreary. Those who intended to reenlist found the dining hall cheerful, while those who did not found it dreary. Respondents living in World War II temporary BEQs felt that the dining hall had a cheerful atmosphere, while those living in World War II temporary barracks strongly felt the opposite. Respondents living in other construction types were approximately split on this scale.

Again, the ratings were evenly divided on whether the atmosphere of the dining hall was relaxed or tense (F25). Those at Forts Knox and Lee found the atmosphere to be more relaxed while those at Fort Hood found it to be rather tense. Those who were younger had more roommates and were in lower pay grades, those who were white, those who did not intend to reenlist, and those living in World War II temporary barracks found the dining hall atmosphere to be tense. Their counterparts found the dining hall to be relaxed.

In general, respondents found the dining hall to be friendly (F26). However, at Fort Hood the respondents were approximately split on this scale. Those with more than 20 roommates found the dining hall unfriendly. The dining hall was found to be more friendly as age and pay grade increased. Blacks found it more friendly than did whites, as did those who intended to reenlist compared to those who did not.

The troops strongly agreed that there was a rather unpleasant outside view from the dining hall (F27). Minor variations occured by post. Respondents took a less negative position as age and pay grade increased and as the number of roommates decreased. The unpleasant view was more pronounced among whites than among blacks, among those who did not intend to reenlist compared to those who did, and among respondents living in World War II temporary barracks compared to those in all other construction types. The unpleasant view rating was more extreme among those with more roommates.

More men were dissatisfied with the appearance and atmosphere of the dining hall (F28) than were satisfied. Those at Forts Knox and Lee seemed to be a little more satisfied than others. Respondents below 30 years of age, with large numbers of roommates, and in pay grades E6 or below, tended to be dissatisfied with the dining hall, while those who were older and in higher pay grades tended to be satisfied. Whites were definitely dissatisfied and blacks were somewhat satisfied. Respondents in combat-support units were more dissatisfied than those in other types of units. Men who intended to reenlist tended to be satisfied, those who were undecided were approximately split, and those who did not intend to reenlist were dissatisfied with the appearance and atmosphere of the dining hall. The men who lived in 1950s barracks were dissatisfied, those in World War II temporary barracks were strongly dissatisfied, those in World War II temporary BEQs were definitely satisfied, and those in 1930s and 1960s barracks were approximately split on this scale.

All scales in this subsection showed a moderate correlation with the level of satisfaction as follows: uncluttered-cluttered ($r = .61$), colorful-drab ($r = .68$), beautiful-ugly ($r = .70$), pleasant-unpleasant lighting for dining ($r = .64$), cheerful-dreary ($r = .76$), relaxed-tense ($r = .72$), friendly-unfriendly ($r = .66$), and pleasant-unpleasant outside view ($r = .62$). All scales showed a moderate correlation (from $r = .50$ to $r = .77$), except pleasant-unpleasant outside view and uncluttered-cluttered, pleasant-unpleasant lighting for dining, and friendly-unfriendly which had a weak relationship with the level of satisfaction. This indicates that many of these scales were not independent.

Also shown in Figure 23 are the items which the respondents would like to see change. They are clutterness followed somewhat distantly by a group of three items: relaxedness, colorfulness, and a pleasant outside view.

Questionnaire–Section F: Furniture in Dining Hall

(Questions 30 to 36). Most respondents felt that the furniture in the dining hall was uncomfortable, drab, plain, of limited variety, and sturdy. In general, the men were dissatisfied with the furniture. The distribution of these ratings is presented in Figure 24.

Respondents at Forts Leonard Wood and Hood definitely found the furniture uncomfortable (F30), while those at the other posts were approximately divided on the scale. Comfortableness increased with age and pay grade and decreased as the number of men per room increased. Whites found the furniture more uncomfortable than did blacks. Respondents who did not intend to reenlist found the furniture uncomfortable while those who did found it comfortable. Those living in World War II temporary barracks found the furniture extremely uncomfortable as did those in 1950s barracks. Respondents living in 1960s barracks were approximately divided on the scales; those in 1930s and in World War II temporary BEQs felt that the furniture was comfortable.

Most of the troops agreed that the furniture in the dining hall was definitely drab (F31), with the men at Fort Hood taking the most extreme position. Respondents 40 years or older and in pay grades E7 or above felt that the furniture was colorful, while all others agreed that it was drab. The rating of drabness increased with the number of men per room. Whites found it more drab than did blacks. Those who intended to reenlist were approximately split on this scale while those who were undecided or did not intend to reenlist felt that the furniture was definitely drab rather than colorful.

The troops also agreed that the furniture was plain (F32), particularly those at Fort Hood. The feeling of plainness decreased somewhat as age increased and was less strong for blacks and for those who intended to reenlist. Plainness of furniture was much higher for those with many roommates.

Respondents agreed that the variety of furniture was very limited in the dining hall (F33). Again, troops at Fort Hood took the most negative position. The rating of limited variety of furniture became less extreme as age and rank increased and as the number of people per room decreased, for blacks compared to whites, and for those who intended to reenlist compared to those who did not.

The majority of men tended to feel that the furniture in the dining hall was rather sturdy (F34). However, those at Fort Leonard Wood were approximately divided on whether furniture was sturdy or easy to damage, while the men at Fort Hood felt that the furniture was easily damaged Men under 20, those with a high school education or less, and those with many roommates tended to feel that the furniture was easily damaged. Respondents living in 1960s barracks definitely found the furniture to be sturdy, as did those living in 1930s construction. Respondents living in all other types were approximately split in their response on this scale.

In general, the troops were dissatisfied with the furniture in the dining hall (F35). Again, men at Fort Hood, who had the highest density of men per room, were most dissatisfied. Respondents who were younger and in lower pay grades were more dissatisfied. Similarly, those in combat support units were also more dissatisfied compared to those in other units. Level of dissatisfaction was less negative for those living in 1960s barracks and in World War II temporary BEQs.

All scales in this section showed a moderate correlation with the level of satisfaction and were as follows: comfortable-uncomfortable ($r = .73$), colorful-drab ($r = .72$), stylish-plain ($r = .70$), wide-limited variety ($r = .61$), and sturdy-easy to damage ($r = .55$). In addition, all scales showed moderate correlations with each other, except sturdy-easy to damage which had a weak relationship with all other scales.

As indicated in Figure 24, the respondents would most like to see the comfortableness of the furniture changed, followed somewhat distantly by the style of the furniture. The other scales fell below the chance score.

Questionnaire--Section F: Food Service in Dining Hall (Questions 37 to 44). In general, respondents felt that there was a limited variety of food, the food was bad, the personnel were discourteous, the food line was slow, and the display of food was unappetizing. They were approximately divided on whether there were convenient or inconvenient hours for meals. Most respondents were dissatisfied with the food service in the dining hall. The results are shown in Figure 25.

The men agreed that the variety of food (F37) was limited, with those at Fort Hood having the worst opinion. Men below 30 and in pay grades E6 or below found a limited variety of food, while those above 30 and in pay grades E7 or above found a wide variety of food. Blacks did not think that the variety was as lim-

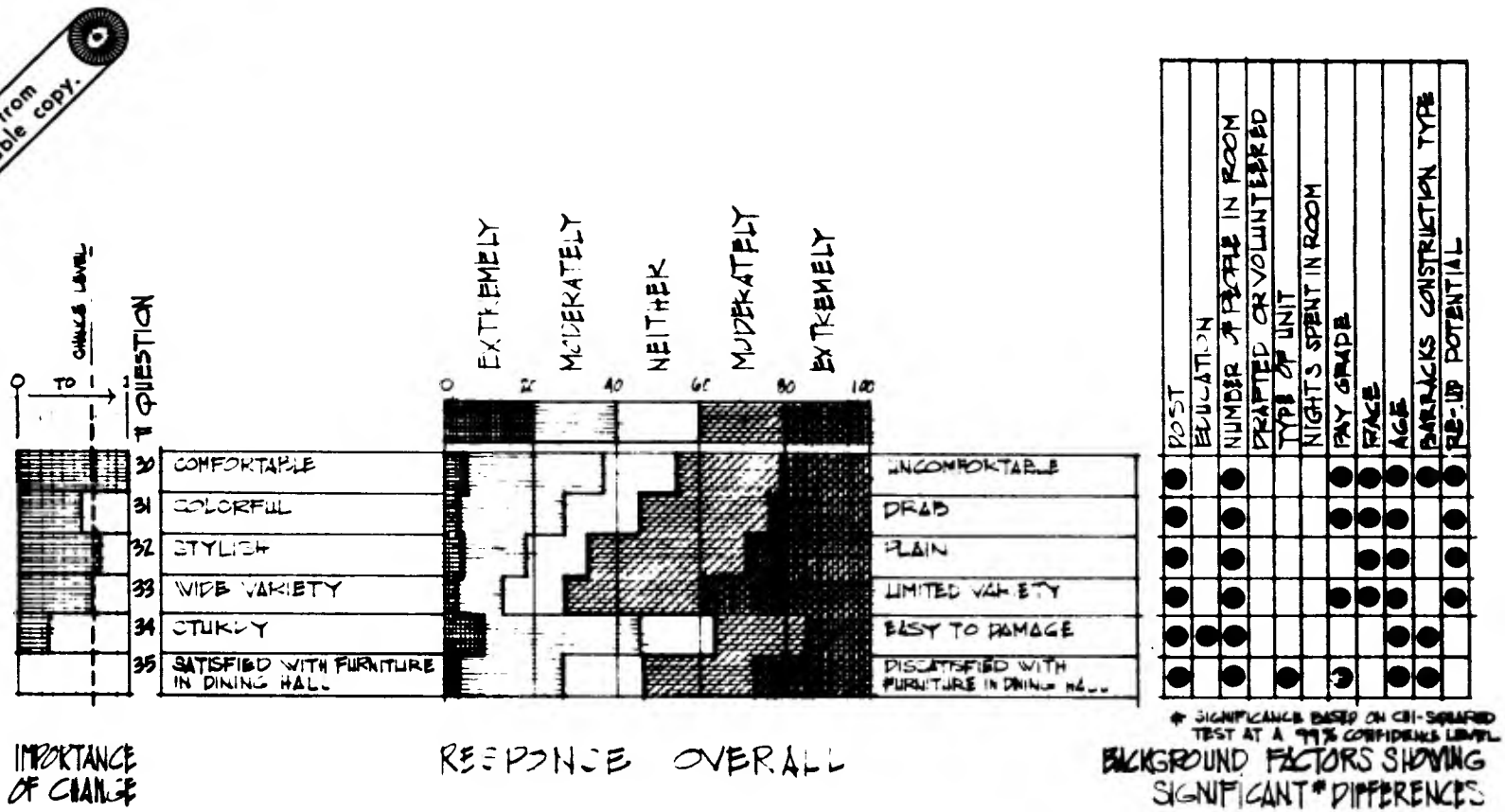

Figure 24. Furniture in dining hall.

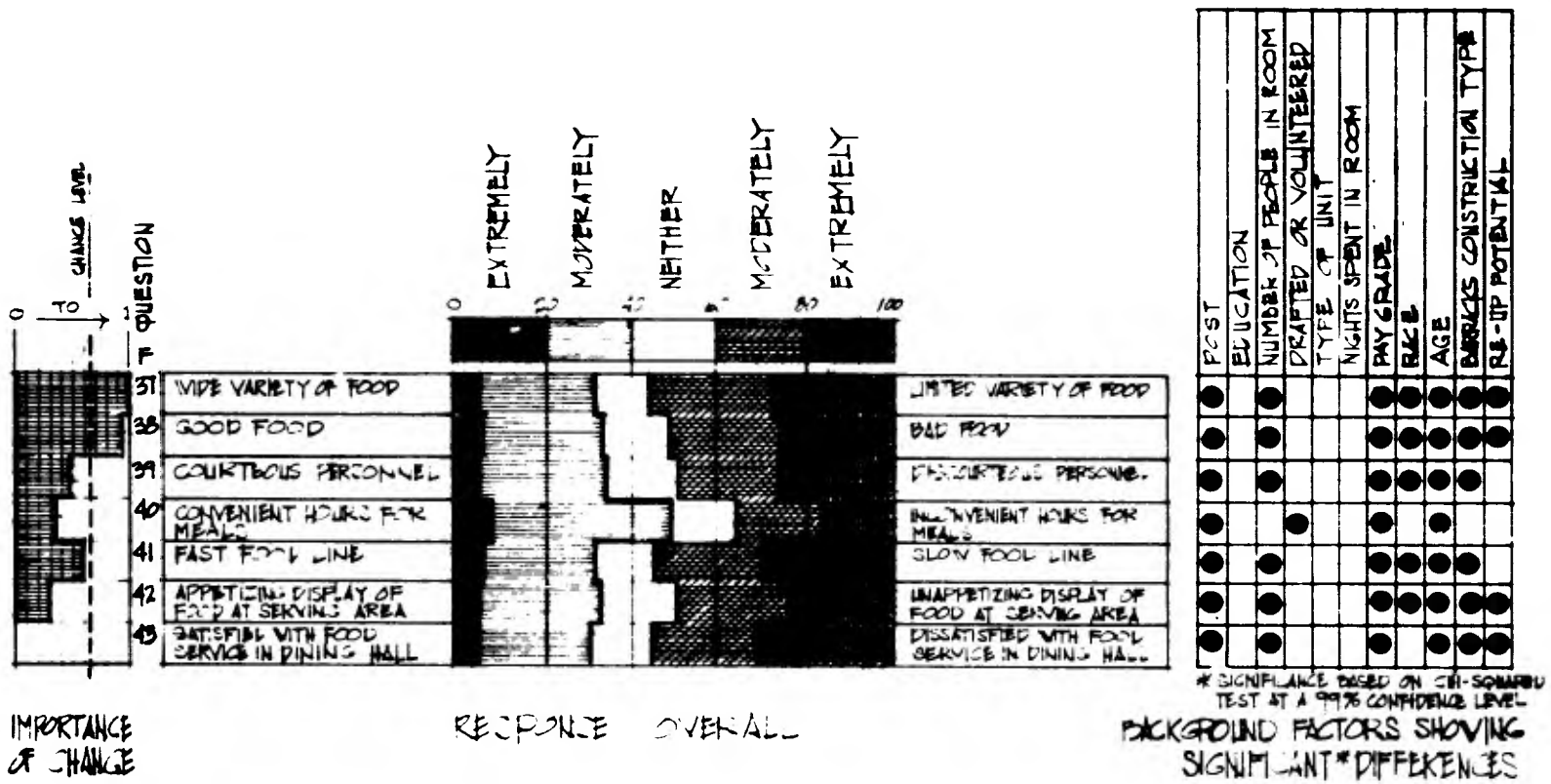

Figure 25. Food service in dining hall.

ited as did whites. Those who did not intend to reenlist or were undecided felt that the variety of food was limited, while those who intended to reenlist were approximately divided on the scale. The rating of limited variety of food became more extreme as the number of roommates increased. Men living in World War II temporary BEQs leaned toward a wide variety of food, while those in all other construction types found a limited variety of food.

Most respondents found the food to be bad (F38), with those at Fort Hood taking the most extreme position. The response on the good-bad food scale was almost identical to that on the wide-limited variety of food scale, with age, pay grade, number of roommates, race, reenlist potential, and building construction type showing the same positive and negative patterns as occurred in the previous question.

The majority of the soldiers found the dining hall personnel to be discourteous (F39). Slight variations occurred by post. Men over 30 found the personnel to be courteous. Men under 30 found the food service personnel to be discourteous, with the feeling growing stronger as age decreased and as the number of roommates increased. Blacks were about evenly divided on this scale, while whites definitely felt that the personnel were discourteous. Respondents living in 1930s, 1950s, and 1960s barracks strongly felt that the food service personnel were discourteous. World War II temporary barracks respondents were not quite as extreme. Those living in World War II temporary BEQs felt that personnel were courteous.

Most men found the food service hours fairly convenient (F40). Minor variations occurred by post. The older men and those in higher pay grades found the hours most convenient, while the lower pay grades and the younger men were approximately split on the question. Although entry into the service (drafted or volunteered) was significant on this question, differences were minor.

Most respondents felt that the food line was slow (F41), with those at Fort Hood the most extreme in their report. The speed of the food line decreased with age, pay grade, and with an increase in the number of roommates. Whites rated the food line as slower than did blacks. Respondents living in World War II temporary BEQs leaned toward fast food service, while all other construction types agreed that the food service line was slow.

Overall, the men found the display of food at the serving area to be unappetizing (F42). At best Fort Dix was approximately split on the question, while respondents at Fort Hood took the most extreme negative position. The unappetizing quality of the food display became worse as age and pay grade decreased, and as the number of roommates increased, was worse for whites than for blacks, and for those who did not intend to reenlist. All barracks construction types except World War II BEQs found the food display unappetizing.

The troops were dissatisfied with food service in the dining hall (F43). Again, men at Fort Hood were most dissatisfied. Dissatisfaction increased as age and pay grade decreased and as the number of roommates increased. Respondents who were undecided or who did not intend to reenlist were more dissatisfied than those who intended to reenlist. Men living in World War II temporary BEQs were satisfied; those living in all other construction types were dissatisfied with the food service.

All scales in this subsection showed a moderate correlation with level of satisfaction with the food service in the dining hall. These relationships with satisfaction level were as follows: wide-limited variety of food ($r = .69$), good-bad food ($r = .77$), courteous-discourteous personnel ($r = .67$), convenient-inconvenient hours for meals ($r = .50$), fast-slow food line ($r = .63$), and appetizing-unappetizing display of food at serving area ($r = .76$). All items showed a moderate relationship with each other except convenient-inconvenient hours for meals, which showed a weak relationship with all other scales.

Also presented in Figure 25 are the items which the respondents indicated that they would like to see changed. In order of importance, they are as follows: the variety of food, followed closely by the quality (good-bad) of food. All other items fell below the chance score.

Questionnaire–Section F: Other Questions (Questions 45 to 47). When asked how often respondents had to wait outside the dining hall to get in during the busiest meal (F45), the distribution of replies is as shown in Table 31. The men at Fort Hood had to wait most frequently, while those at Fort Dix least frequently. The frequency of waiting decreased as age and pay grade increased and as the number of nights spent in the room decreased. Whites said that they had to wait more often than did blacks. Those in training

units said that they had to wait less often than did those in other types of units. Those who were undecided about reenlistment or did not intend to reenlist had to wait a little more frequently than did those who did intend to reenlist. At least 50 percent of the respondents in all construction types, except World War II temporary BEQs, had to wait at least sometimes to get into the dining hall.

Respondents indicated that they usually had to wait in line to be serviced at the noon meal longer than they did in the evening (F46), and that they had to wait longer in the evening than they did for breakfast. Respondents at Fort Hood indicated that they had to wait by far the longest, followed by men at Forts Knox and Leonard Wood. The shortest waiting time was reported by those at Fort Dix. The individuals who indicated that they had to wait the longest time for meals were those with five to eight roommates, those in combat arms units, those who spent more nights per week in their room, those who were younger and in lower pay grades, those in 1960s and World War II temporary barracks, and those who were undecided or who did not intend to reenlist.

When respondents were asked how many friends they would like to eat with provided there were tables of different sizes (F47), 81 percent said that they would like to eat with four or fewer persons, with 53 percent responding that they would like to eat with three or four friends. Nineteen percent of the respondents said they would like to eat with five or more friends. Although age, number of nights slept in their room, and building construction type were significant on this question, differences were minor and no specific trends were apparent. The overall response to this question indicates that though tables with spaces for four individuals satisfy most of the respondents, there is still a large portion who would like to eat together with more than four friends. Also, those who would like to eat alone or with one other person probably have difficulty finding the privacy and intimacy they desire.

Table 31
Frequency of Waiting to Enter Dining Hall During Busiest Meal

Response	Percent of Respondents
Frequently	49
Sometimes	23
Seldom	15
Never	17

Questionnaire–Section G: Indices of Behavior (Question 1). In this question respondents were asked to provide information about their behavior. It was assumed that their behavior may have been influenced by the building in which they lived. The accuracy of such self-reporting may be in doubt, but the trends should be indicative of the problems. The results are presented in Figure 26.

Eighteen percent of the respondents indicated that they reported to a dispensary or hospital because of illness during the previous 2 weeks (G1a). Significant differences were noted by type of unit. Twenty-three percent of the men in combat arms units reported to the dispensary during the prior 2 weeks, as did 20 percent of those in combat support units, 13 percent in training units, and 15 percent in other types of units. The dispensary was visited by 17 percent of the whites, 22 percent of the blacks, and 24 percent of the other racial groups. The lower ranks visited the dispensary more frequently than did those in higher ranks: E1 to E2 26 percent at the highest, decreasing to E7 to E8 12 percent at the lowest.

Twenty-two percent of the men indicated that they had something stolen from their room or sleeping area during the previous 2 weeks (G1b). Respondents at Fort Sill showed the lowest theft rate with 16 percent and those at Fort Hood had 32 percent. Combat arms units had the highest theft rate, 28 percent; followed by combat support, 26 percent; training, 17 percent; and others, 16 percent. Those who did not intend to reenlist reported a higher theft rate than those who did intend to reenlist. Thefts occurred most frequently in World War II temporary barracks (28 percent) followed by 1960s barracks (24 percent), 1950s barracks (23 percent), temporary block (20 percent), 1930s and other barracks (14 percent), and World War II temporary BEQs (19 percent). By race, 18 percent of the blacks reported being a victim of theft, 23 percent of the whites, and 28 percent of others. Those in lower pay grades reported the highest theft rate: E1 to E2 (36 percent), E3 to E4 (28 percent), E5 to E6 (15 percent), and E7 to E9 (4 percent). The reported theft rate by rank was paralleled very closely by age.

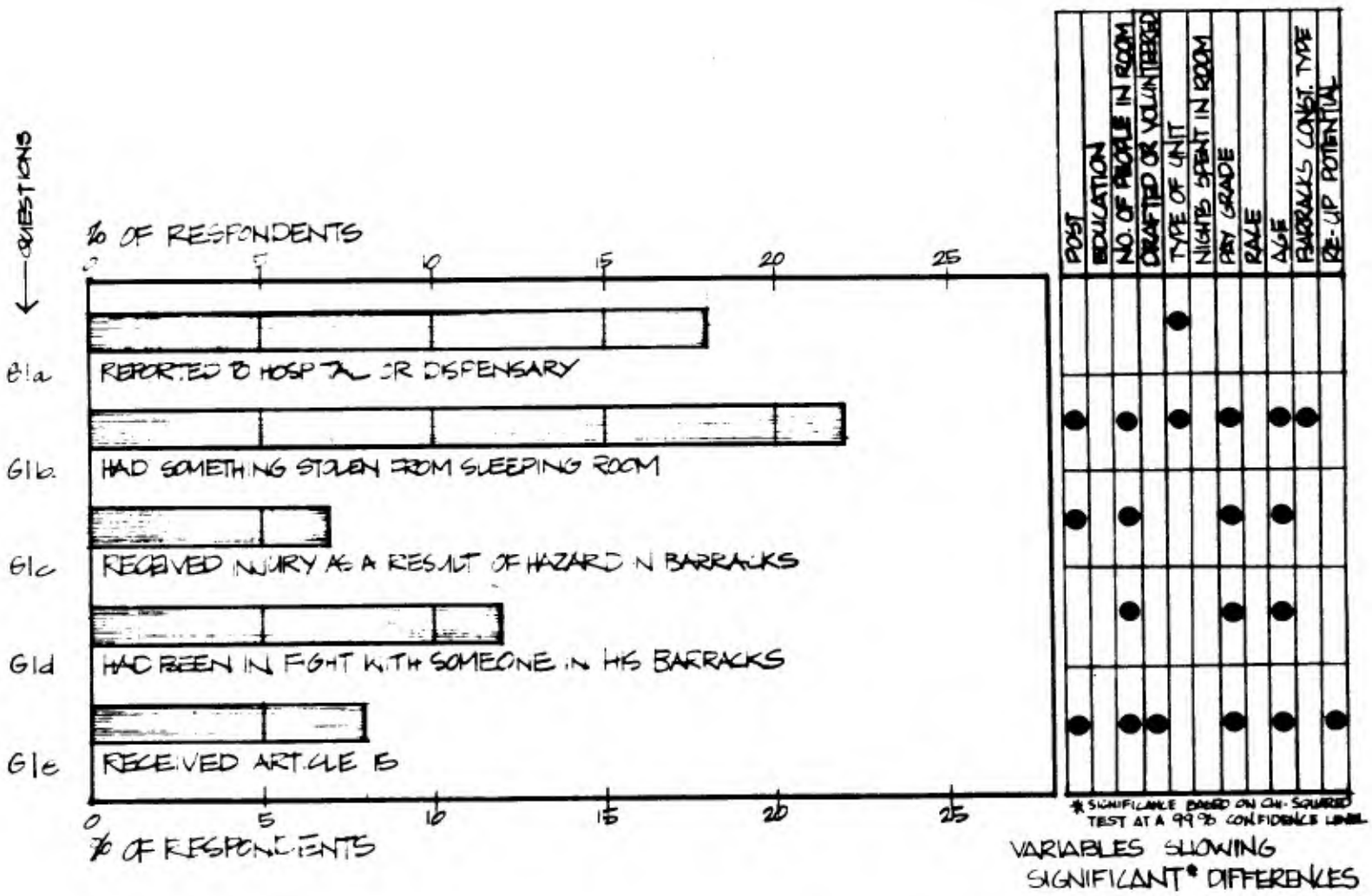

Figure 26. Percent of respondents reporting that incident occurred during prior 2 weeks.

Overall, 7 percent of the respondents said that they had received an injury (during the previous 2 weeks) as a result of a hazard condition in the building where they lived (G1c). Respondents at Forts Sill, Dix, and Hood were above average while those at the other three posts were below average, with Fort Leonard Wood the lowest at 2 percent and Fort Hood the highest at 10 percent. Those in combat arms or combat support units reported the highest injury rate. By building type the injury rates were reported as follows: other, 21 percent; World War II temporary barracks, 11 percent; 1950s barracks, 7 percent; 1960s and World War II BEQs, 6 percent; 1930s, 2 percent; and block temporary, zero percent. Very little difference occurred in the injury rates reported by whites versus blacks; however, orientals and others reported a higher injury rate. Injury rate tended to decrease as age and rank increased.

Overall, 12 percent of the men said that they had been in a fight (in the previous 2 weeks) with someone in the building in which they lived (G1d). In general, the more roommates the individuals had the more fights were reported. By race, others reported the most fights, followed closely by whites and more distantly by blacks. The rate of fights reported decreased directly as pay grade increased and as age increased.

Eight percent of all respondents reported having received an Article 15 during the prior 2 weeks (G1e).

Article 15s occurred more frequently among those who were drafted compared to those who enlisted. The rate of Article 15s decreased drastically as rank (E1-E2–2% percent; E7-E9–1 percent) and age increased.

Questionnaire – Section G: Organizational Climate (Questions 2 to 26). Twenty-five questions dealt with the respondents' attitude toward organizational climate in the Army. The attitudes in nine topic areas were assessed with two or three questions in each category. The topic areas and question numbers related to the topics are presented in Table 32 below. The responses on these questions will be discussed by topic area.

Organizational Clarity. When the troops were asked in G10 whether superiors spend too little time clarifying the lines of organization and authority, the responses were very nearly equally split on agree and disagree, as shown in Figure 27. Respondents at Fort Hood agreed the most while those at Fort Lee agreed the least. Based on the number of roommates, the trend was from those who lived alone to agree 42 percent of the time to those with more than 20 in a room who agreed 65 percent of the time. Combat support units agreed most frequently (58 percent), while training units agreed the least (45 percent). Respondents who did not intend to reenlist agreed more frequently than those who did intend to reenlist. Those in lower pay grades and in lower age brackets tended to agree more frequently than those in higher pay grades. The majority of men in World War II temporary, 1950s, and 1960s barracks agreed the most, while those in World War II temporary BEQs agreed the least.

Table 32
Organizational Climate Topical Areas, Questions and Figures Where Results are Presented

Topic Area	Section G Question Numbers	Figure Where Results are Presented
Organizational clarity	10, 23	27
Encouragement of individual responsibility	17, 19, 24	27
Friendliness and warmth of the unit	6, 11, 21	27
Support of subordinates by superiors	5, 8, 14	28
Communication downward	2, 3, 20	28
Communication upward	7, 15, 25	28
Atmosphere of trust	9, 16	29
Efficiency of work	4, 13, 26	29
Job satisfaction	12, 18, 22	29

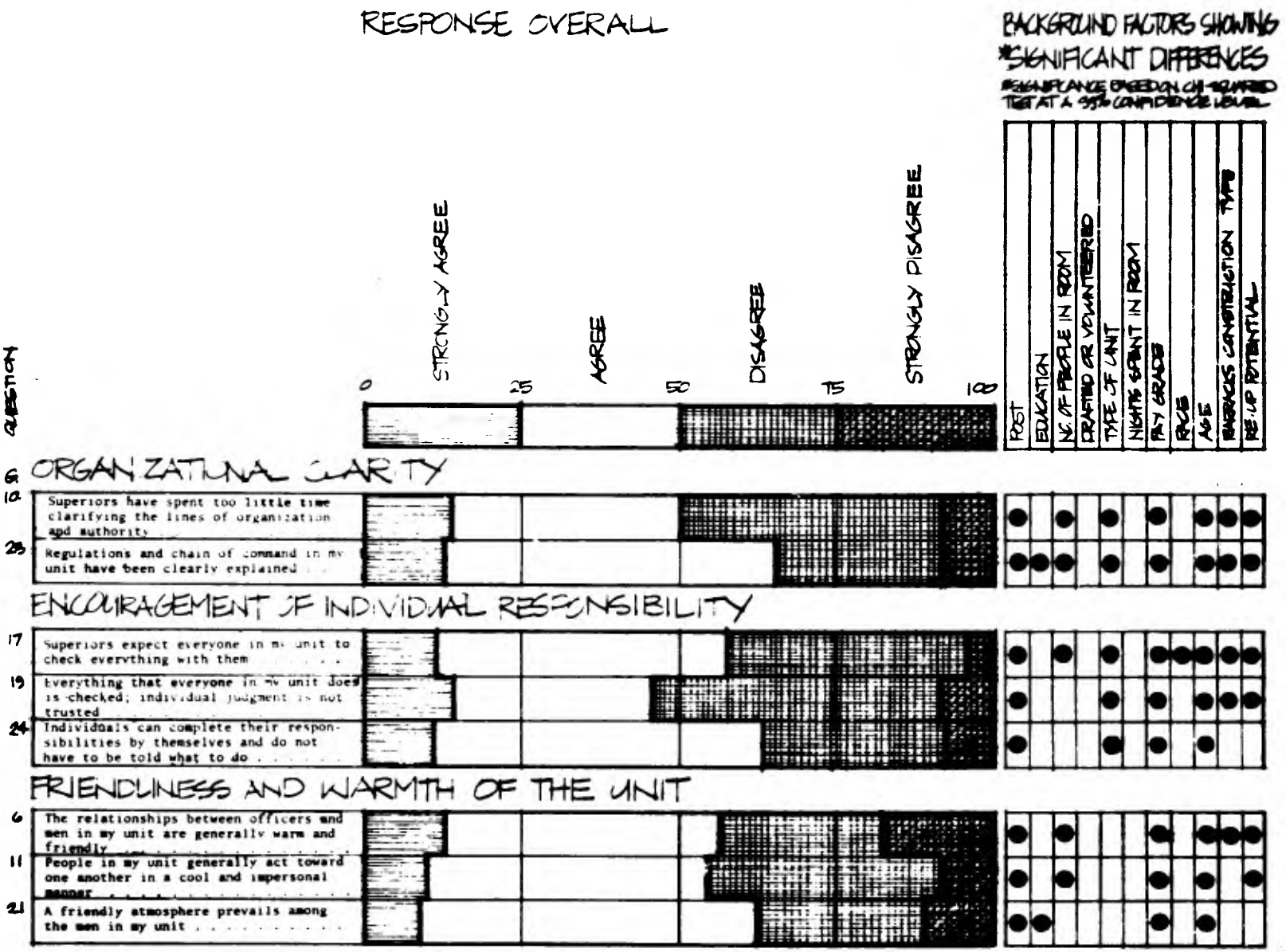

Figure 27. Organizational climate.

On question G23, "regulations and chain of command in my unit have been clearly explained," the majority of respondents agreed, as presented in Figure 27. Those at Fort Sill agreed the most frequently (72 percent), while those at Fort Hood agreed the least (57 percent). Those who lived alone agreed more frequently than those who had roommates, with agreement decreasing as the number of roommates increased. In general, those with a grade school education or less, or with a college degree or beyond seemed to feel that the regulations and chain of command are least clear. Men in training units agreed with this statement more than those in other types of units. Those who intended to reenlist agreed more frequently than those who did not. Agreement tended to increase as pay grade and age increased. Men in World War II temporary, 1950s and 1960s barracks agreed less strongly than those in other barracks types.

Encouragement of Individual Responsibility. Overall, 57 percent of the men agreed with "superiors expect everyone in my unit to check everything with them" (G17), shown in Figure 27. Men at Fort Hood agreed most frequently, while those at Lee agreed the least. Those who lived alone were approximately split on the question, while those with at least one roommate were in more general agreement. Minor variations occurred by type of unit. Those who did not intend to reenlist agreed more frequently than those who did. Blacks agreed less often than did whites and others. Agreement tended to decrease as rank and age increased. Men in World War II temporary, 1950s and 1960s barracks agreed the most, while those in World War II temporary BEQs agreed the least.

As presented in Figure 27, the responses to "everything that everyone does in my unit is checked; individual judgement is not trusted" (G19) showed that only 44 percent agreed. Fort Hood agreed most frequently, while Fort Leonard Wood agreed the least. Respondents in combat arms and combat support units were approximately split, while other types of units agreed more frequently. Agreement increased with the number of roommates. Those who did not intend to reenlist agreed more often than those who intended to reenlist. Agreement was approximately split in the lower pay grades and in the lower age brackets and decreased as pay grade and age increased.

When asked whether "individuals can complete their responsibilities by themselves and do not have to be told what to do" (G24), the overall response was that 63 percent agreed, also presented in Figure 27. Men at Fort Leonard Wood agreed the most (74 percent), while those at Fort Hood agreed the least (56 percent). Other units agreed the most (73 percent), while combat arms units agreed the least (57 percent). Variations by age, pay grade, and number of roommates were rather small and irregular. Men in World War II temporary, 1950s, and 1960s barracks agreed more frequently than did those in other barracks types.

Friendliness and Warmth of the Unit. In response to "the relationships between officers and men in my unit are generally warm and friendly" (G6), 56 percent of all respondents agreed with the statement, as shown in Figure 27. Those at Fort Hood agreed the least and those at Fort Lee agreed the most. Agreement with the statement tended to decrease slightly as the number of roommates increased. Those who intended to reenlist agreed with the statement more than those who did not. In general, agreement increased with age and pay grade. Respondents living in World War II temporary BEQs agreed the most strongly, followed by those living in World War II temporary barracks and in 1960s barracks.

In response to "people in my unit generally act toward one another in a cool and impersonal manner" (G11), 54 percent of the respondents agreed, with Fort Hood agreeing most frequently and the remainder of the posts agreeing less frequently. This is presented in Figure 27. Although the number of roommates was significant on this item, differences were irregular. Those who intended to reenlist agreed more strongly with the question than those who did not intend to reenlist. Agreement tended to decrease as age and rank increased.

On "a friendly atmosphere prevails among the men in my unit" (G21), 62 percent of the respondents agreed, with Fort Leonard Wood agreeing the most and Fort Hood the least. These results are shown in Figure 27. Although education was significant, differences were small and irregular. Respondents who were older than 30 years of age or were in pay grade E7 or above tended to agree much more frequently than did other respondents. Agreement decreased slightly as the number of roommates increased.

Support of Subordinates by Superiors. The statement "my superiors are always on my back" (G5) was agreed with by only one third of the respondents, shown in Figure 28. Agreement increased as the num-

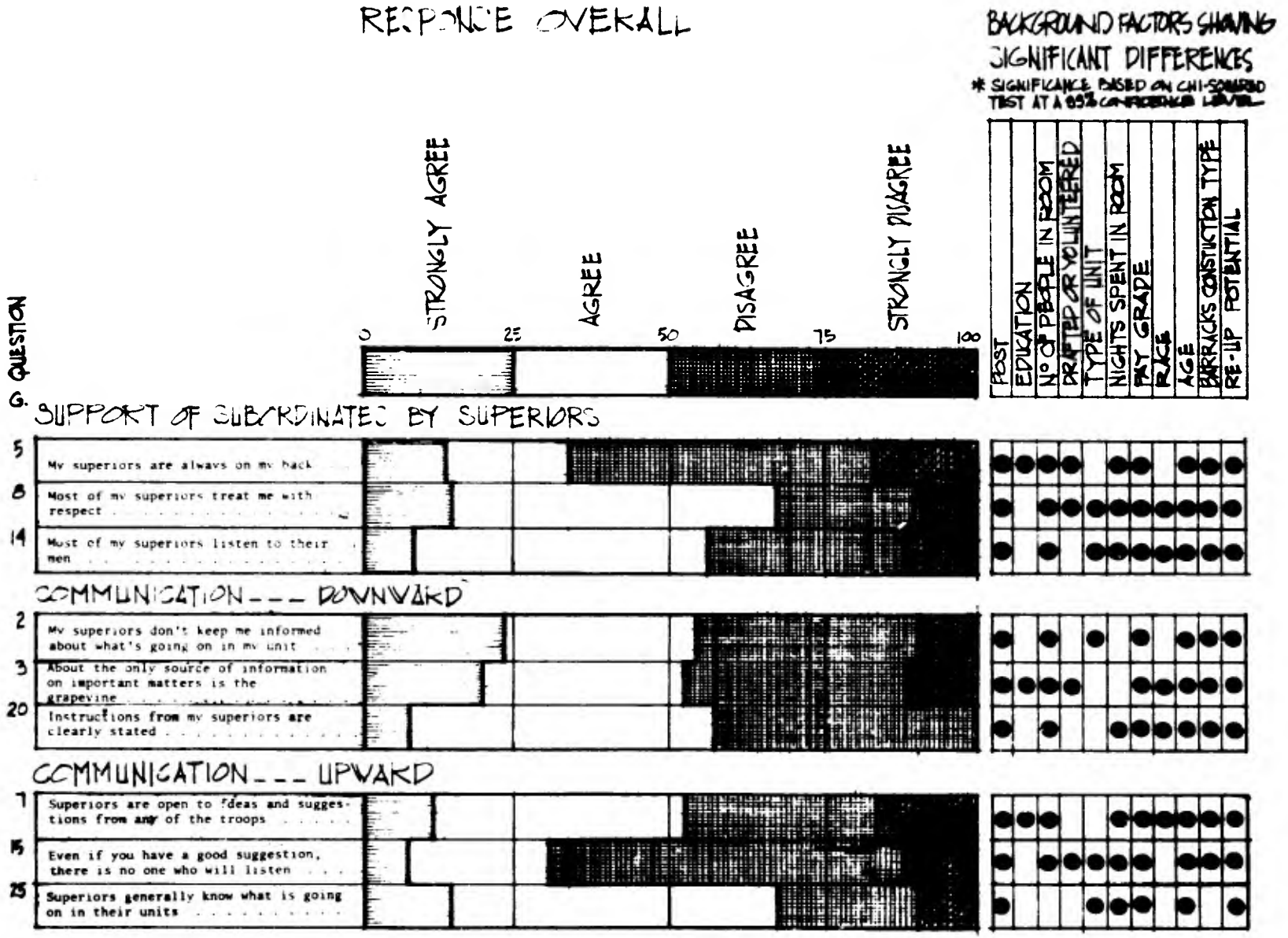

Figure 28. Organizational climate.

ber of roommates increased and as age and rank decreased, but decreased as education level increased. Those who did not intend to reenlist agreed with this statement more than those who did intend to reenlist. Although entry into the Army (drafted or volunteered) was significant on this question, differences were minor. Those who spent 1 to 2 nights per week in the room agreed more strongly than did those who spent 3 or more nights per week in the room. Respondents in World War II temporary BEQs agreed the least and the men in World War II temporary barracks agreed the most.

As shown in Figure 28, 65 percent of the respondents agreed with the statement "most of my superiors treat me with respect" (G8). Those at Fort Hood agreed the least and those at Fort Lee agreed the most. Agreement decreased as the number of roommates increased and increased with the number of nights slept in the room, and with age and pay grade. Combat arms and combat support units agreed less frequently than did other types of units. Those who intended to reenlist agreed more strongly than those who did not. Although entry into the service was significant on this item, differences were small. Blacks responded more positively than did whites and other groups. The strongest positive response was from those living in World War II temporary BEQs while those in all other construction types were less positive and very similar in response.

The statement "most of my superiors listen to their men" (G14) found 55 percent of the respondents agreeing, with men at Fort Hood agreeing the least and those at Fort Leonard Wood agreeing the most. These results are presented in Figure 28. Agreement tended to decrease as the number of roommates increased, as the number of nights spent in the room increased, and as rank and age decreased. Combat arms units agreed the least, while training units agreed the most. Those who intended to reenlist agreed more frequently than those who did not. Blacks agreed more than did whites or other groups. Again, significance by barracks type appears to be the result of the fact that those living in World War II temporary BEQs responded more positively than did all other types.

Communication Downward. In the response to "my superiors don't keep me informed about what's going on in my unit" (G2), the men were approximately evenly split on whether they agreed or disagreed, as illustrated in Figure 28. Those at Fort Hood agreed much more often than did those at the other posts. Respondents agreed more frequently as the number of roommates increased and less frequently as rank and age increased. Respondents in combat arms or combat support units agreed more frequently than did those in other types of units. Those who intended to reenlist agreed less frequently than those who did not. Again, those living in World War II temporary BEQs agreed much less frequently than did respondents in most other types of barracks.

As shown in Figure 28, the troops were almost evenly split on "about the only source of information on important matters is the grapevine" (G3). The men at Fort Hood agreed more frequently, while those at Forts Leonard Wood, Sill, and Lee agreed less frequently. Agreement tended to increase with the number of roommates, to decrease as the level of education, rank, and age increased. Those who did not intend to reenlist agreed more frequently than others, as did those who were drafted. Racial differences were minor. Although variation occurred by type of barracks construction no specific trends were apparent.

When asked whether "instructions from my superiors are clearly stated" (G20), 56 percent of the men agreed, with those at Fort Lee agreeing the most frequently and those at Fort Hood the least frequently. These results are plotted in Figure 28. Agreement tended to decrease as the number of roommates increased and to increase with rank and age. Those who intended to reenlist agreed more frequently than those who did not. Blacks also agreed more frequently than whites or others. Although the number of nights in their room was significant on this question no real differences were apparent. Respondents in World War II temporary BEQs agreed more frequently than did soldiers living in other types of barracks.

Communication Upward. The men were approximately split on "superiors are open to ideas and suggestions from any of the troops" (G7), as shown in Figure 28. The soldiers at Fort Hood agreed the least and those at Forts Lee and Leonard Wood agreed the most. Agreement decreased as the number of roommates increased and increased with the number of nights spent in the room, with pay grade, and with age. Those who intended to reenlist agreed more frequently than those who did not. Whites agreed less frequently than did blacks and other groups. Although education was significant, differences were small and irregular. Respondents in World War II temporary BEQs agreed

more frequently than did those in other construction types.

On "even if you have a good suggestion, there is no one who will listen" (G5), only 30 percent of the respondents agreed, as presented in Figure 28. The men at Fort Hood agreed most frequently and those at Fort Leonard Wood the least. Agreement increased as the number of roommates increased and decreased as the number of nights spent in the room, pay grade, and age increased. Men who were in combat arms units, those who do not intend to reenlist, those who were drafted, and those in other than World War II temporary BEQs agreed more frequently than did others.

Overall, 53 percent of the respondents agreed with "superiors generally know what is going on in their unit" (G25). These results are illustrated in Figure 28. Fort Leonard Wood respondents agreed the most, while those at Hood agreed the least. Agreement tended to increase with the number of nights spent in the room, with pay grade, and with age and decreased as the number of roommates increased. Combat arms units agreed the least, while training units agreed the most. Those who intended to reenlist agreed more frequently than those who did not.

Atmosphere of Trust. Fifty-three percent of the respondents agreed that "superiors act as though everyone must be watched or they will slack off" (G9), as shown in Figure 29. The men at Fort Hood agreed the most and those at Forts Knox, Lee, and Sill agreed the least. Respondents who intended to reenlist agreed less frequently than those who did not. Blacks agreed less frequently than did whites or others. Agreement tended to decrease as age and rank increased and as number of roommates decreased. Respondents living in World War II temporary BEQs agreed less frequently than did those living in other types of construction.

On "superiors in my unit treat their men with respect and dignity" (G16), 54 percent of the respondents agreed with men at Fort Hood agreeing the least and those at Fort Leonard Wood the most. These results are plotted in Figure 29. Agreement decreased as the number of roommates increased, and increased as the number of nights spent in the room, pay grade, and age increased. Those who intended to reenlist agreed more frequently than those who did not. Blacks agreed more frequently than others, who agreed more frequently than whites. World War II temporary BEQ respondents agreed more frequently than did other construction types.

Efficiency of Work. Referring to Figure 29, 57 percent of the respondents agreed with "there are plenty of opportunities around here for training if you want it" (G4). Men at Fort Hood agreed the least and those at Forts Knox and Sill agreed the most. Agreement decreased as the number of roommates increased, and increased as the number of nights slept in the room, pay grade, and age increased. Those who intended to reenlist agreed more frequently than those who did not.

On "most army work assignments are set up so that they involved a great deal of wasted effort" (G13), 64 percent of the respondents agreed, with the men at Fort Hood agreeing the most and those at Lee agreeing the least. These results are shown in Figure 29. Agreement increased with the number of roommates and level of education, and decreased as rank and age increased Combat support units agreed most frequently, while training units agreed least frequently. Those who intended to reenlist agreed less often than those who did not. Minor variations occurred by race. Respondents in World War II temporary BEQs and 1930s barracks agreed much less frequently than did those living in other construction types.

Respondents strongly concurred (86 percent) that "there is a great deal of paper work associated with almost all army work" (G26), as shown in Figure 29. The troops at Fort Leonard Wood agreed the most and those at Fort Hood agreed the least. Agreement tended to increase with the level of education. Although slight variations occurred by type of unit, reenlistment potential, and race, differences were small and irregular.

Job Satisfaction. Forty-seven percent of the troops agreed with "I can use the skills I learn in my work in the Army when I return to civilian life" (G12), as presented in Figure 29. Respondents in combat support and other units agreed the most, while those in combat arms agreed the least. Those who intended to reenlist agreed more frequently than those who did not. Men who were drafted agreed less frequently than those who had enlisted. Blacks agreed slightly more frequently than did whites and others. Agreement increased with rank and age. Those living in World War II temporary BEQs and in 1930s barracks agreed more frequently than did those living in other types of construction. Although the number of roommates was significant on this item, no trend was apparent.

Referring to Figure 29, on "the job I have to do in the Army is interesting" (G18), 48 percent of the re-

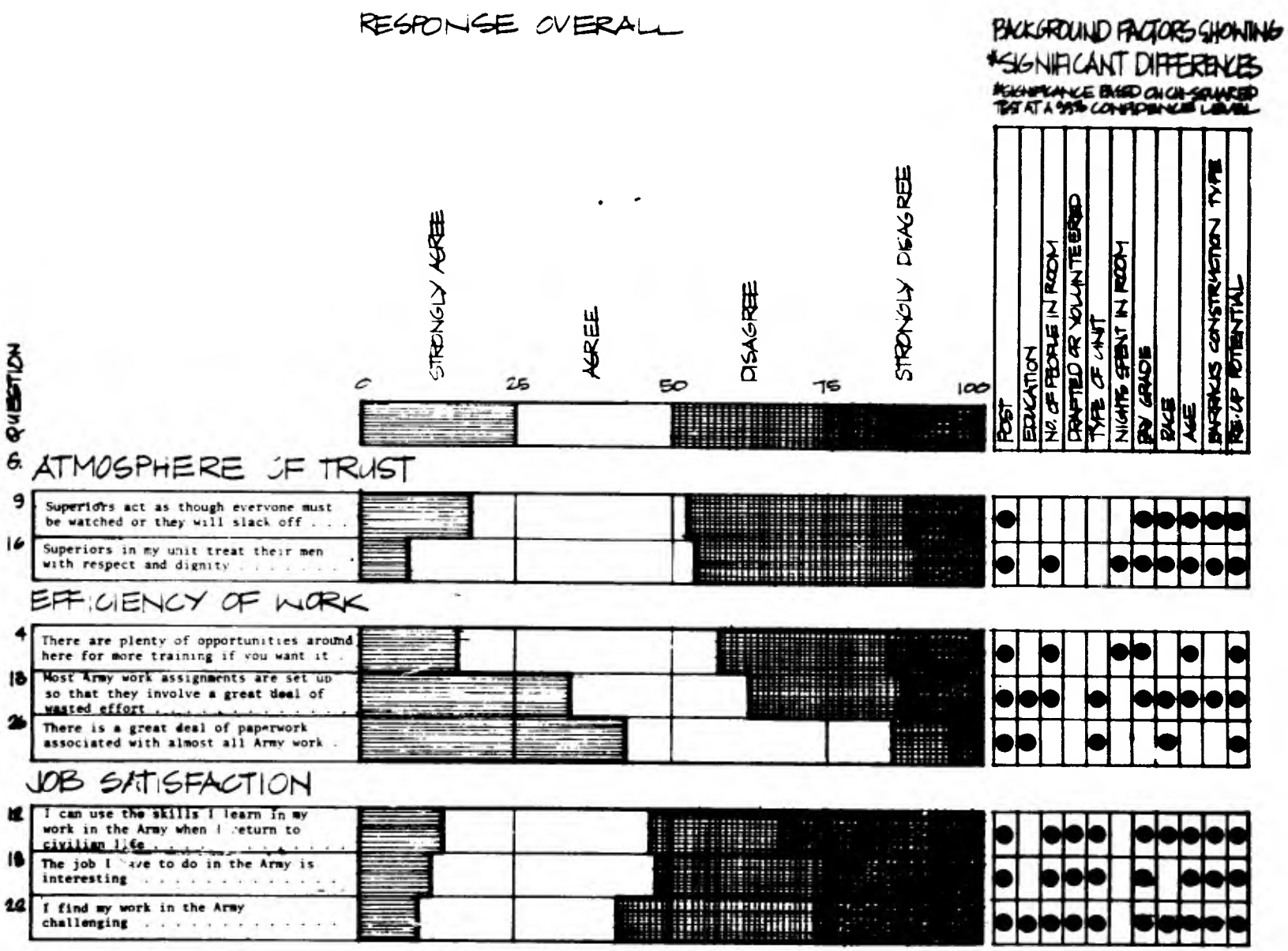

Figure 29. Organizational climate.

spondents agreed, with those at Fort Lee agreeing the most frequently and those at Fort Hood agreeing the least. Again, the number of roommates was significant, but differences were small and irregular. The men in other types of units found their jobs most interesting, while those in combat arms the least interesting. Those who intended to reenlist found their job more interesting than those who did not. Those who were drafted found their job less interesting than those who enlisted. Agreement tended to increase with rank and age. Respondents in World War II temporary BEQs agreed much more frequently than those living in other types of construction.

Only 42 percent of the men agreed with "I find my work in the Army challenging" (G22), as shown in Figure 29. Those at Fort Dix agreed the most, while those at Fort Hood agreed the least. Agreement tended to decrease as the number of roommates increased and as level of education increased, and to increase as pay grade and age increased. Men in training units found their jobs more challenging, while those in combat arms found it the least challenging. Those who intended to reenlist found their jobs more challenging than those who did not. Those who were drafted found their job less challenging than those who enlisted, and blacks found their work more challenging than did whites or others. Respondents living in World War II temporary BEQs and 1930s barracks tended to agree more frequently than those living in other types of barracks.

Questionnaire–Fill-In Questions at End of Questionnaire. Respondents were given a chance to describe any problems about the facilities where they live or which they use that were not covered in the questionnaire. About one of every four respondents made some comment. The major complaints which were aired are listed below in order of their approximate frequency.

1. Lack of privacy.
2. Unnecessary harrassment by NCOs about living area.
3. No temperature control.
4. Old buildings.
5. Lousy food service.
6. No painting or decorating allowed.
7. Noise problems.
8. Insect problems.

At Fort Leonard Wood, about every second questionnaire contained a response. There a major difference occurred with a large number of complaints from E5s and up about the lack of BEQs or BAQ-type facilities.

Respondents were also asked to make suggestions on how future barracks or BEQs should be constructed and furnished. Almost half the questionnaires contained some sort of response. The responses can be summarized as follows: Build one- or two-man rooms, equipped with modern furnishings, and allow the men to decorate their own rooms however they choose. The only discrepancy came from those who did not believe the Army would do anything anyway, so they wanted to move off-post.

Questionnaire–Response of WACs. Ninety-seven WACs completed the questionnaire. The great majority of them were 23 years old or younger, in pay grades E3 and E4; had completed high school or 1 year of college or technical school; had served 2 years or less in the Army; were undecided or did not intend to reenlist; were in training or other support units; and lived in barracks.

The responses of the WACs to Section A of the questionnaire, concerned with the post in general, were very similar to the responses of the males. The most deviant response was that the WACs were considerably dissatisfied with the general conditions of the post. The item which the WACs would like to see changed first about the post in general was the same as for the males: the dullness. However, on the items concerned with the location of the post, the WACs agreed that being close to home was most important, but their second choice was convenience to off-post recreation areas compared to the second choice of the males for a more pleasant off-post community.

On the section concerned with the barracks, the WACs ratings of the barracks were very similar to those of the males. However, the items they would like to see changed first in each subsection were somewhat different. On general conditions of the barracks, cleanliness was the most important change, while for the males it was comfortableness. On location of the barracks, the WACs wished to have their barracks more convenient to the work area, while the men wished to have their barracks more convenient to on-post facilities for off-duty activities. While "having living quarters where you are free from reminders of daily Army life" was less important to the WACs than to the men, having a place in the barracks for visiting with guests, free telephones in the barracks for making on-post calls, pay tele-

phones in the barracks for making outside calls, free washers and dryers in the barracks, and vending machines for snacks in the barracks were more important to the WACs than to the male respondents.

On the section concerned with the sleeping area, the WACs rated the sleeping area considerably more noisy than did males; however, much like the males, temperature and noise control were the most important changes. In general, WACs were less critical of the appearance and atmosphere of the sleeping area than were the males. In this subsection, they differed slightly in the item which should be changed first. For the WACs it was more important to be able to relax in the sleeping area, while the ugliness of the sleeping area was the most important change for the men. Furniture and equipment in the sleeping area were rated by the WACs in a manner very similar to that of the men. The most important change for the WACs on storage space in the sleeping room was storage for clothing, followed by security of storage space; while for the males, security was first followed by space for large personal items. The WACs did not seem to have as many people assigned to the same sleeping room as did the men; however, the two groups were very similar in their desire to have one person per room, and at most two persons per room. The WACs reported that they usually spent more time in their room each day than did the men. The items of furniture which were most desirable to the WACs were very similar to that of the males with one exception having a small television set fell considerably down the list for the WACs, while it was the most preferred item for the males. The most preferred building features by the WACs were also similar to the choices of males, except that carpet was considerably down the list for the WACs. The most preferred room color for the females was blue, as it was for the males.

The ratings about the general conditions of the latrines and washrooms for the WACs were very similar to those of the men. The items which were found most in need of change by the women were also very similar to the choices of the men. However, the WACs indicated a shorter waiting time to use washroom facilities than did the males, which is probably due to their lower density of people per room.

Compared to male respondents, WACs found the day room to be further from the sleeping area, less crowded with people, easier to use when they wanted to, and more difficult to have more than one activity going on at a time. While the WACs desired to change the difficulty of having more than one activity going on at a time in the day room as their first choice, this item was the third most important change for the men. The appearance and atmosphere of the day room were rated very much the same by both WACs and males, as were the ratings of furniture and equipment in the day rooms. A major difference between women and men was that WACs reported spending considerably less time per day in the day room or lounge because of day room conditions. Except for which factors are more important, the ways in which the WACs would improve their day room or lounge were very similar to those suggested by the men. While the men were first concerned with equipment, followed by partitioning of activities into separate areas and better furniture and better quality decorating, the order of these factors was almost reversed for the females.

On the organizational climate questions, the WACs responded very similarly to the males except on the job satisfaction question. Here the WACs indicated that their level of job satisfaction in the Army was higher than that of the average male.

Questionnaire–Response of Officers. Questionnaires were sent to a sample of unit commanders at each of the installations. Forty-four of the questionnaires were returned. The 44 officers were generally college graduates or had had some college education, had volunteered for the service, had been in for more than 5 years, intended to reenlist, were mostly in training units or other support units, generally did not live in barracks or BEQs, had an average age of about 28 years, and had a slightly greater percentage of whites than did the sample of enlisted men.

These officers rated the general conditions of the post very much as the men did, except that they found the post more pleasant and less dull. As far as the location of the post, the officers found it closer to their home, found the off-post community more pleasant, and were much more satisfied with the location of the post than were the enlisted men. While the enlisted men said being near their home was the most important change, this factor was much less important to the officers. The ratings about the appearance of the post were very similar for the officers and for the enlisted men, except that the officers consistently had a higher rating on all appearance scales.

On the general conditions of the barracks, the offi-

cers tended to respond slightly more positively than did the enlisted men, particularly that the barracks were dry and free of rodents. The item which was most important to the officers was speed of repair service, while this factor fell considerably down the list for the enlisted men. As far as the location of the barracks was concerned, the officers responded very similarly to the enlisted men. The responses on the scales related to the outside appearance of the barracks were very similar for both groups. While the officers felt that the items which should be changed first were the old-fashioned quality and poor landscaping, the landscaping factor fell quite far down the list for the enlisted men. The officers felt that living quarters should be accessible to superiors during off-duty hours, while the enlisted men felt that they should not.

The enlisted men and officers rated the general conditions of the sleeping area very similar, with the exception that the officers felt that the sleeping area was more noisy than did the enlisted men. Ratings about the appearance and atmosphere of the sleeping area were very similar for both groups also. In addition, both groups rated the furniture and equipment in the sleeping area very much alike, except that officers thought the beds were slightly more comfortable than did the enlisted men. Officers and enlisted men again rated the storage space in the sleeping room about the same, except that officers thought it was slightly easier to store items when on leave. In all these subsections on the sleeping area, both groups were in good agreement on what should be improved first. As far as which pieces of furniture would be most desirable in the rooms, the officers did not find a television as important as did the enlisted men.

In general, the officers found the latrines slightly better than did the enlisted men. The estimated waiting time to use washroom facilities was very similar for both groups.

The general conditions of the day room or lounge were found to be better by the officers than they were by the enlisted men. While the officers felt that crowding and noise should be changed first in the day room, the enlisted men felt that noise and being able to use the day room when they want to was most important. Again, officers found the appearance and atmosphere of the day room better than did the men. Also, the officers found the furniture and equipment in the day room better, particularly the variety of equipment available for use. However, both groups agreed that the variety of equipment for use in the day room should be improved first. The officers reported that their men spend less time in the day room than the men themselves reported.

On the general conditions of the dining hall, the officers found conditions to be more dirty and more dimly lighted than did the enlisted men; however, officers were more positive on all other scales and were much more satisfied with the general conditions of the dining hall. While crowding and ease of entry and movement through the dining hall was most important on the list of changes desired by the enlisted men, convenience to the washroom was most important to the officers. The atmosphere and appearance of the dining hall was rated considerably higher by the officers than by the enlisted men on all scales. Again, the officers found the furniture in the dining hall much better than did their men. In addition, they found the food service in the dining hall better than did the men by a wider margin than on any other subsection of the questionnaire. However, officers and men were in general agreement about the waiting time for meals.

On organizational climate questions, the officers found the units to be more friendly than did the enlisted men. Officers felt that there was more support of subordinates by superiors, less communication downward, more communication upward, and a better atmosphere of trust than did the enlisted men. Officers found their job more satisfactory than did the enlisted men. On other factors, the responses were similar.

Questionnaire–Responses of First Sergeants. Forty-five first sergeants returned completed questionnaires. Their average age was 38 years. They had about the same distribution by race as the enlisted men, were mostly in training units or other types of units, and were about evenly divided on whether they intended to reenlist. Most of these sergeants did not live in barracks or BEQs, had been in for more than 5 years, had enlisted, and had a high school education. Although these men were slightly less satisfied about the general conditions of the post, they consistently rated all conditions better than did the enlisted men. While the enlisted men felt that the dullness of the post should be changed first, the sergeants felt that lighting at night should be improved first. The sergeants also found the location of the post generally much better than did the men, except on convenience to off-post night spots where they responded very similarly to the enlisted

cers tended to respond slightly more positively than did the enlisted men, particularly that the barracks were dry and free of rodents. The item which was most important to the officers was speed of repair service, while this factor fell considerably down the list for the enlisted men. As far as the location of the barracks was concerned, the officers responded very similarly to the enlisted men. The responses on the scales related to the outside appearance of the barracks were very similar for both groups. While the officers felt that the items which should be changed first were the old-fashioned quality and poor landscaping, the landscaping factor fell quite far down the list for the enlisted men. The officers felt that living quarters should be accessible to superiors during off-duty hours, while the enlisted men felt that they should not.

The enlisted men and officers rated the general conditions of the sleeping area very similar, with the exception that the officers felt that the sleeping area was more noisy than did the enlisted men. Ratings about the appearance and atmosphere of the sleeping area were very similar for both groups also. In addition, both groups rated the furniture and equipment in the sleeping area very much alike, except that officers thought the beds were slightly more comfortable than did the enlisted men. Officers and enlisted men again rated the storage space in the sleeping room about the same, except that officers thought it was slightly easier to store items when on leave. In all these subsections on the sleeping area, both groups were in good agreement on what should be improved first. As far as which pieces of furniture would be most desirable in the rooms, the officers did not find a television as important as did the enlisted men.

In general, the officers found the latrines slightly better than did the enlisted men. The estimated waiting time to use washroom facilities was very similar for both groups.

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Questionnaire–Responses of First Sergeants. Forty-five first sergeants returned completed questionnaires. Their average age was 38 years. They had about the same distribution by race as the enlisted men, were mostly in training units or other types of units, and were about evenly divided on whether they intended to reenlist. Most of these sergeants did not live in barracks or BEQs, had been in for more than 5 years, had enlisted, and had a high school education. Although these men were slightly less satisfied about the general conditions of the post, they consistently rated all conditions better than did the enlisted men. While the enlisted men felt that the dullness of the post should be changed first, the sergeants felt that lighting at night should be improved first. The sergeants also found the location of the post generally much better than did the men, except on convenience to off-post night spots where they responded very similarly to the enlisted

men. The item which should be changed first, according to the sergeants, was convenience to off-post recreation areas, while the enlisted men in general felt that being nearer their home was more important. The first sergeants also found the appearance of the post much better than did the enlisted men.

On the general conditions of the barracks, except for the difficulty of keeping things repaired, the sergeants rated conditions better than did the men; however, their level of satisfaction was about the same as the men. The speed of repair service was the item the sergeants felt should be changed first, while this fell considerably down the list for the enlisted men. The first sergeants also found the location of the barracks on the post much more convenient on all scales than did the men. Similarly, the outside appearance of the barracks was rated slightly better by the first sergeants than by the troops. First sergeants found having free telephones in the barracks for making on-post calls and having a place in the barracks for visiting with guests more important than did the men. However, most other items were found slightly less important to the first sergeants, particularly having living quarters where you are not accessible to superiors during off-duty hours.

The sergeants and the enlisted men similarly rated the general conditions of the sleeping area. This was also true of the appearance and atmosphere of the sleeping area, as well as the furniture and equipment in the sleeping area, with the exception that the sergeants found the furniture slightly more sturdy and the beds slightly more comfortable than did the enlisted men. The two groups were also similar in their response about the storage space in the sleeping room, except that the sergeants found the storage space less adequate for clothing. Storage space security was a more important change to the troops, while adequate space for clothing was more important to the sergeants. Again, having a television in the room was less important for the sergeants than it was for the troops. Otherwise, furniture choices were similar.

In general, the first sergeants rated the latrines and washrooms slightly better than did the troops. They also felt that the waiting time for washroom facilities was very similar to that expressed by the troops.

For the day rooms the first sergeants found the general conditions better than did the men. Cleanliness and distance from the sleeping area were more important in the list of changes desired by the first sergeants, while noisiness and being able to use it when they wanted to were more important to the troops. The appearance and atmosphere of the day room was rated better by the first sergeants than it was by the troops, with the exception that the sergeants found the day room considerably more tense. The first sergeants found the furniture and equipment in the day room sturdier, and of a slightly wider variety. The sergeants reported spending less time in the day room and lounge per day than did the troops.

The first sergeants found the general conditions of the dining hall to be better than did the enlisted men, except that the dining hall was far from the sleeping area, that it was hard to talk with others, and that there were a high number of safety hazards in the dining hall. The most desirable change for the first sergeants was the uncomfortable temperature, while this fell far down the list for the enlisted men. The appearance and atmosphere of the dining hall, as well as the furniture and food service in the dining hall, were rated better by the enlisted men. For the first sergeants, the most desirable change in appearance and atmosphere was the unpleasant outside view and the drabness, while the clutteredness and relaxed quality were the most desired changes by the enlisted men. The first sergeants said the usual waiting time for meals was about the same as that reported by the troops.

On organizational climate, the overall response of the first sergeants was very similar to that of the officers. Encouragement of individual responsibility and communication downward were rated lower than they were by the troops, while friendliness and warmth, support of subordinates by superiors, communication upward, efficiency of work, and job satisfaction were rated higher than they were by the troops.

Questionnaire Ratings of Barracks by Architects. Two architects visited the six installations and examined several barracks facilities at each. At the six installations, the architects visited two 1930s barracks, six World War II temporary barracks, ten 1950s barracks, and five 1960s barracks. In addition, they visited one 1960s block barracks at Fort Sill. In each barracks that was visited, the architects rated conditions on virtually the same scales as were used by the respondents in the questionnaire. The ratings of the architects for each type of barracks construction were compared to the overall response of the men. On most scales, the architects rated the building much the same as did the men. The architects summarized their findings for each bar-

racks type which they visited. Their summaries together with photographs are included as Appendix F.

The architects rated the general conditions of the barracks much the same as the men did. On the outside appearance of barracks, the 1930s construction was rated much higher than all other construction types. The 1930s barracks were rated beautiful, colorful, well-landscaped and as having attractive entrances. All other barracks types fell on the negative side of the scales in approximate agreement with the response of the men. In the sleeping area, the architects were in reasonable agreement with the men except on several scales about the functional aspects. Architects perceived all barracks to be roomier than did the men. Undoubtedly, the rooms were unoccupied for the most part when inspected by the architects and the crowding as perceived by the men was not apparent. The crowding factor probably becomes much more apparent when residents are present in the space.

The architects also rated the rooms as more suitable for decorating than did the men. For the men who responded on this scale, some other factors probably came into play, such as how much decorating was permitted or encouraged within the unit and how much of a security problem an individual might have in keeping decorations up. To get at a part of the problem, the architects added an additional scale on whether decorating was encouraged or allowed. On this scale, the ratings generally fell at the extremes: either decorating was encouraged or it was not allowed at all.

The architects rated the outside view as much more pleasant than did the men. This probably had to do with the fact that the outside view has military connotations for the men who live in the buildings because when they look outside they are reminded of their daily Army life.

As far as the furniture and equipment in the sleeping room, the architects rated the suitability of the furniture for rearranging much higher than did the men. Here, again, the ratings of the men were probably influenced by how much rearranging of furniture in the sleeping area was encouraged or permitted within the unit.

With regard to the storage space within the sleeping area, architects rated the storage for clothes and large personal items as much more adequate than did the men. In addition, the architects rated the storage as easy to keep secure from others, while the men rated it difficult to keep secure. The difference in ratings here suggests that when storage space is used and found inadequate by the user, his attitude about it becomes much more negative. The architects probably did not perceive the inadequacy of the space because they did not have a chance to use the space in daily living. As far as the security of the storage is concerned, while the architects noted that most lockers were secured with a padlock or similar lock, they did not perceive that it was very inconvenient to keep everything under lock and key when the individual living in the space was gone from the space, or did not perceive that locks were often inadequate for security. During personal interviews when developing this survey, several men questioned reported they had to pack everything up in their locker and lock it when they were not in the room and even then it was not secure, because locks were frequently picked.

The architects rated the latrines as much more odor-free, easy to clean, colorful, and in good repair than did the enlisted men. The inherent unpleasantness of having to clean latrines may in part have helped to make the responses of the men more negative. In general, in all scales about latrines, the question about the state of repairs was probably not answered by the architects in the same way as it was by the men. The annoyance of having to wait for repair or the frequency of having to report malfunctions would not be apparent unless someone was a user of the facility.

The architects rated the day rooms as more quiet, roomier, and capable of having more than one activity going on at a time, while the enlisted men who used these day rooms rated these scales negatively. Again, the men who used these facilities were probably more critical of the space than were the architects who probably visited the day rooms when they were not in use and therefore did not see the problems encountered by the men. The architects also rated the furniture as more sturdy than did the men and felt that there was a considerable variety of equipment for use in the day rooms, while the men did not. Again, the men probably developed these more negative attitudes through the use of the space, while the architects did not have a chance to evaluate it in use. Other than on these functional scales, the architects rated the day rooms much as the men did.

The architects rated two functional scales in the dining hall higher than did the men who used the space. The architects thought it was easy to enter and

move through the dining hall, while the men were more negative. In addition, the architects found the furniture sturdy as they did in the day room, while the men did not. Otherwise, ratings were similar by the architects and enlisted men.

In summary, the architects were in reasonable agreement with the enlisted men on the quality of their barracks, sleeping areas, latrines, day rooms, and dining halls; however, it may be said in general that the architects tended to rate these facilities slightly higher though that is not true on all scales. Most of the scales on which the architects' ratings were considerably higher than those of the men were functional scales, where actual use of the facility uncovers new problems which are not otherwise apparent. The architects made their ratings on barracks facilities that are currently available. In their written summaries about each construction type, the architects pointed out their general feelings about the poor quality of interior design.

Summary of Importance of Change Ratings. In previous sections of the report the ratings of which things the men would most like to see changed were presented separately for each subsection of the questionnaire. In order to compare ratings on importance of change across the entire questionnaire, the scores for each item were readjusted. The adjustments were made so that the chance level of chance score for each subsection of the questionnaire was identical and equal to .50. Thus all importance of change scores can be interpreted relative to identical chance levels.

The readjusted importance of change scores are presented in Figure 30. It can be seen that in the entire questionnaire, four items have scores above 1.0. Forty items rated as the most desirable changes are ranked according to score in Table 33.

There is one limitation when interpreting the results shown in Figure 30. That is that the exact score for each item as well as the rank order of items resulting from the scores would probably turn out slightly different if respondents had been asked to choose from all items throughout the questionnaire, rather than by subsections. Nevertheless, it is safe to assume that those items which are shown here as most desirable for change, based on independent selection as it actually occurred in the questionnaire, would also have turned up as important had respondents been required to choose from all items in one list.

Slide Presentation. The slide presentation methodology was described in Section 2 -Methods. A copy of the response form is included in Appendix B.

Partitioning slide pair 1, presented in Figure 31, showed two rooms with identical furniture arrangement, except the slide on the left screen had partitioning to separate individual territories from one another and from a common central space. These illustrations were not intended to exhaust the range of possible ways of using partitioning. Seventy-one percent of the respondents chose the room with the partitioning. The adjusted choice score, which accounts for the strength of the response, i.e., by how much each respondent desired the picture he chose compared to the other one, was also computed (refer to Appendix D). This score gives the relative strength of choice of one picture compared to all others in the series, in this case a two-picture series. The choice score results for partitioning are presented in Table 34 and Figure 32.

The only cross tabulation that was significant on this slide pair was reenlistment potential. Respondents who intended to reenlist were slightly more evenly distributed on which picture they preferred, while those who were undecided or did not intend to reenlist chose the room with partitions over the room without by a greater margin.

When respondents were asked to explain why they chose the room they did in this pair, those who chose the room with partitions said it provided more privacy, while those who chose the room without partitions said there was more room and it looked easier to clean. Some respondents noted that the partitions as shown would not provide noise control.

Furniture Quantity. Slide pairs 2 through 7 and slide 8 were concerned with quantity of furniture. The illustrations and order of presentation are shown in Figure 33. The overall choice score for each slide in this series is given in Table 35 and presented in Figure 34. These scores indicate that respondents chose the maximum amount of furniture as best; second best was the bed and locker with a desk and chair; third choice was the bed and locker together with a lounge chair; the least desirable picture was the one with the least amount of furniture only a bed and locker.

The lounge chair that appeared in the illustrations probably was not chosen quite as often as it might have been if it appeared more plush or soft and comfortable. This is supported in part by the results of slide 8 where

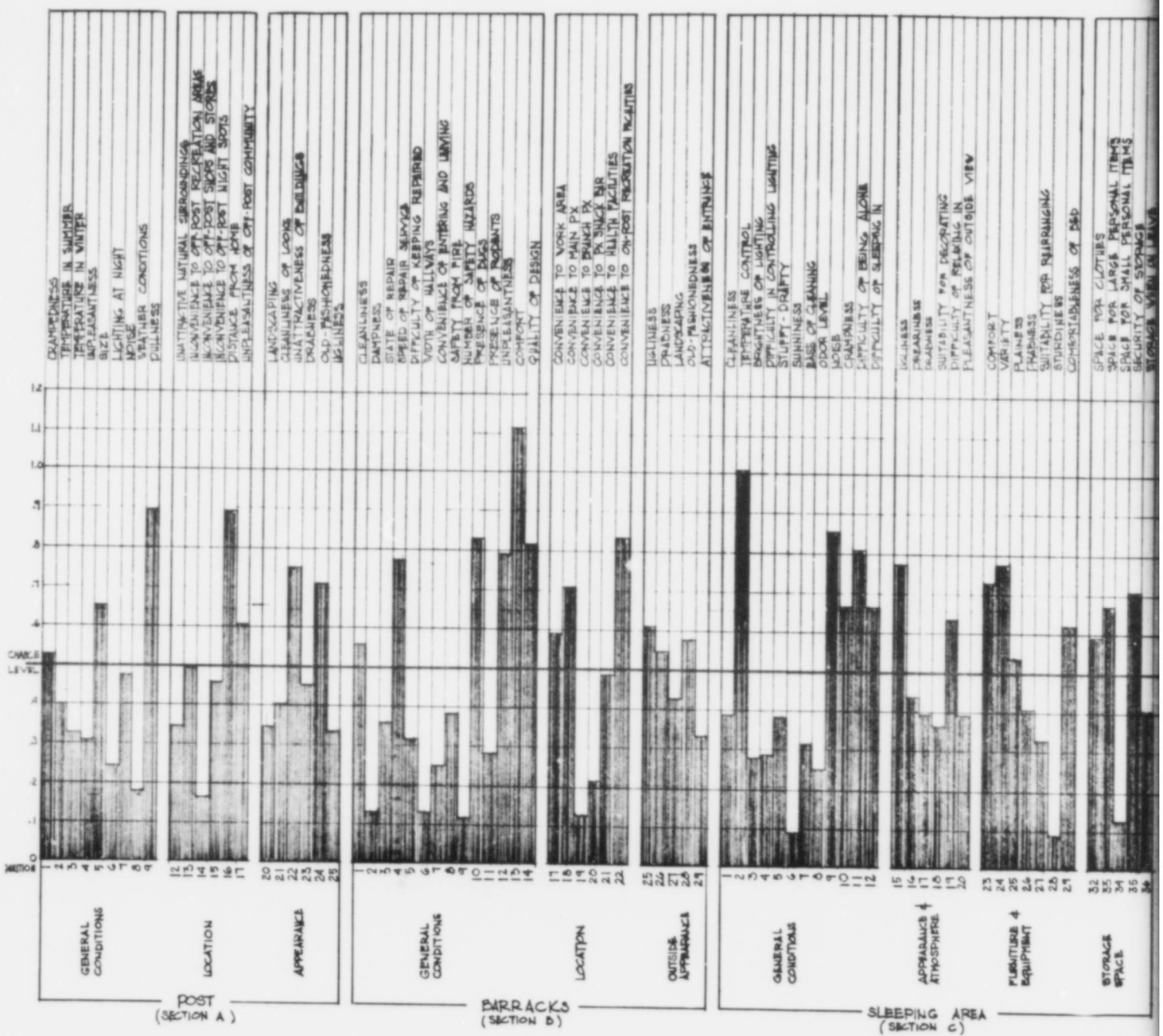


Figure 30. Importance of change scores for entire questionnaire. (All scores adjusted to an equal chance level of 0.5)

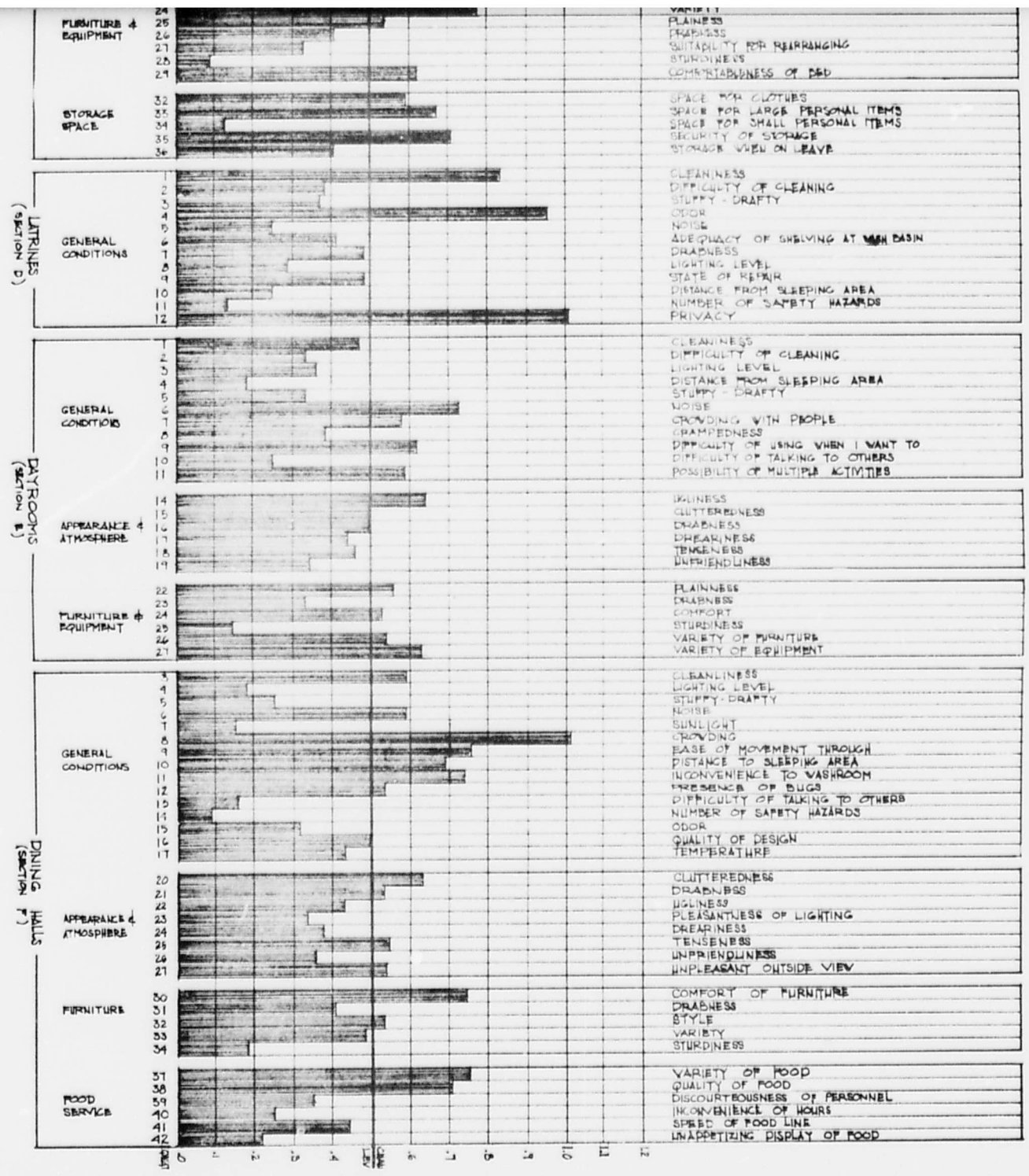

LATRINES (SECTION D)
GENERAL CONDITIONS
1 CLEANLINESS
2 DIFFICULTY OF CLEANING
3 STUFFY - DRAFTY
4 ODOR
5 NOISE
6 ADEQUACY OF SHELVING AT WASH BASIN
7 DRABNESS
8 LIGHTING LEVEL
9 STATE OF REPAIR
10 DISTANCE FROM SLEEPING AREA
11 NUMBER OF SAFETY HAZARDS
12 PRIVACY
STORAGE SPACE
32 SPACE FOR CLOTHES
33 SPACE FOR LARGE PERSONAL ITEMS
34 SPACE FOR SMALL PERSONAL ITEMS
35 SECURITY OF STORAGE
36 STORAGE WHEN ON LEAVE
FURNITURE & EQUIPMENT
24 VARIETY
25 PLAINESS
26 DRABNESS
27 SUITABILITY FOR REARRANGING
28 STURDINESS
29 COMFORTABLENESS OF BED
DAYROOMS (SECTION B)
GENERAL CONDITIONS
1 CLEANLINESS
2 DIFFICULTY OF CLEANING
3 LIGHTING LEVEL
4 DISTANCE FROM SLEEPING AREA
5 STUFFY - DRAFTY
6 NOISE
7 CROWDING WITH PEOPLE
8 CRAMPEDNESS
9 DIFFICULTY OF USING WHEN I WANT TO
10 DIFFICULTY OF TALKING TO OTHERS
11 POSSIBILITY OF MULTIPLE ACTIVITIES
APPEARANCE & ATMOSPHERE
14 UGLINESS
15 CLUTTEREDNESS
16 DRABNESS
17 DREARINESS
18 TENSENESS
19 UNFRIENDLINESS
FURNITURE & EQUIPMENT
22 PLAINNESS
23 DRABNESS
24 COMFORT
25 STURDINESS
26 VARIETY OF FURNITURE
27 VARIETY OF EQUIPMENT
DINING HALLS (SECTION F)
GENERAL CONDITIONS
1 CLEANLINESS
4 LIGHTING LEVEL
5 STUFFY - DRAFTY
6 NOISE
7 SUNLIGHT
8 CROWDING
9 EASE OF MOVEMENT THROUGH
10 DISTANCE TO SLEEPING AREA
11 INCONVENIENCE TO WASHROOM
12 PRESENCE OF BUGS
13 DIFFICULTY OF TALKING TO OTHERS
14 NUMBER OF SAFETY HAZARDS
15 ODOR
16 QUALITY OF DESIGN
17 TEMPERATURE
APPEARANCE & ATMOSPHERE
20 CLUTTEREDNESS
21 DRABNESS
22 UGLINESS
23 PLEASANTNESS OF LIGHTING
24 DREARINESS
25 TENSENESS
26 UNFRIENDLINESS
27 UNPLEASANT OUTSIDE VIEW
FURNITURE
30 COMFORT OF FURNITURE
31 DRABNESS
32 STYLE
33 VARIETY
34 STURDINESS
FOOD SERVICE
37 VARIETY OF FOOD
38 QUALITY OF FOOD
39 DISCOURTEOUSNESS OF PERSONNEL
40 INCONVENIENCE OF HOURS
41 SPEED OF FOOD LINE
42 UNAPPETIZING DISPLAY OF FOOD
LIKE
DISLIKE
0 1 2 3 4 5 6 7 8 9 10 11 12

Table 33
Questionnaire Items Found Most Desirable to Have Changes

Rank	Item	Question Number	Importance of Change Source
1	Uncomfortableness of barracks	B13	1.14
2	Temperature control in sleeping area	C2	1.06
3	Crowding in dining halls	F8	1.06
4	Privacy in latrines	D12	1.04
5	Odor in latrines	D4	.96
6	Dullness of post	A9	.90
7	Distance of post from home	A16	.89
8	Noise in sleeping area	C9	.86
9	Bugs in barracks	B10	.83
10	Inconvenience of barracks to off-duty activities on post	B22	.83
11	Cleanliness of latrine	D1	.83
12	Quality of design in barracks	B14	.82
13	Difficulty of being alone in sleeping area	C11	.81
14	Unpleasantness of barracks	B12	.80
15	Variety of furniture in sleeping area	C24	.78
16	Speed of repair service	B4	.77
17	Upliness of sleeping area	C15	.77
18	Difficulty of movement through dining hall	F9	.77
19	Unattractiveness of buildings on post	A22	.76
20	Variety of food	F37	.76
21	Uncomfortableness of dining hall furniture	F30	.75
22	Inconvenience of dining hall to washrooms	F11	.74
23	Uncomfortableness of furniture in sleeping area	C23	.73
24	Old-fashionedness of post appearance	A24	.72
25	Noise in day rooms	E6	.72
26	Inconvenience of barracks to main PX	B18	.71
27	Quality of food	F38	.71
28	Security of storage space	C35	.70
29	Distance from dining hall to sleeping area	F10	.69
30	Storage space for large personal items	C33	.68
31	Crampedness of sleeping area	C10	.67
32	Difficulty of sleeping in sleeping area	C12	.67
33	Unpleasantness of post	A4	.66
34	Ugliness of day room	E14	.64
35	Difficulty of relaxing in sleeping area	C19	.63
36	Variety of equipment in day room	E27	.63
37	Clutteredness of dining hall	F20	.63
38	Uncomfortableness of bed	C29	.62
39	Difficult to use day room when I want to	E9	.62
40	Ugliness of barracks exterior	B25	.61

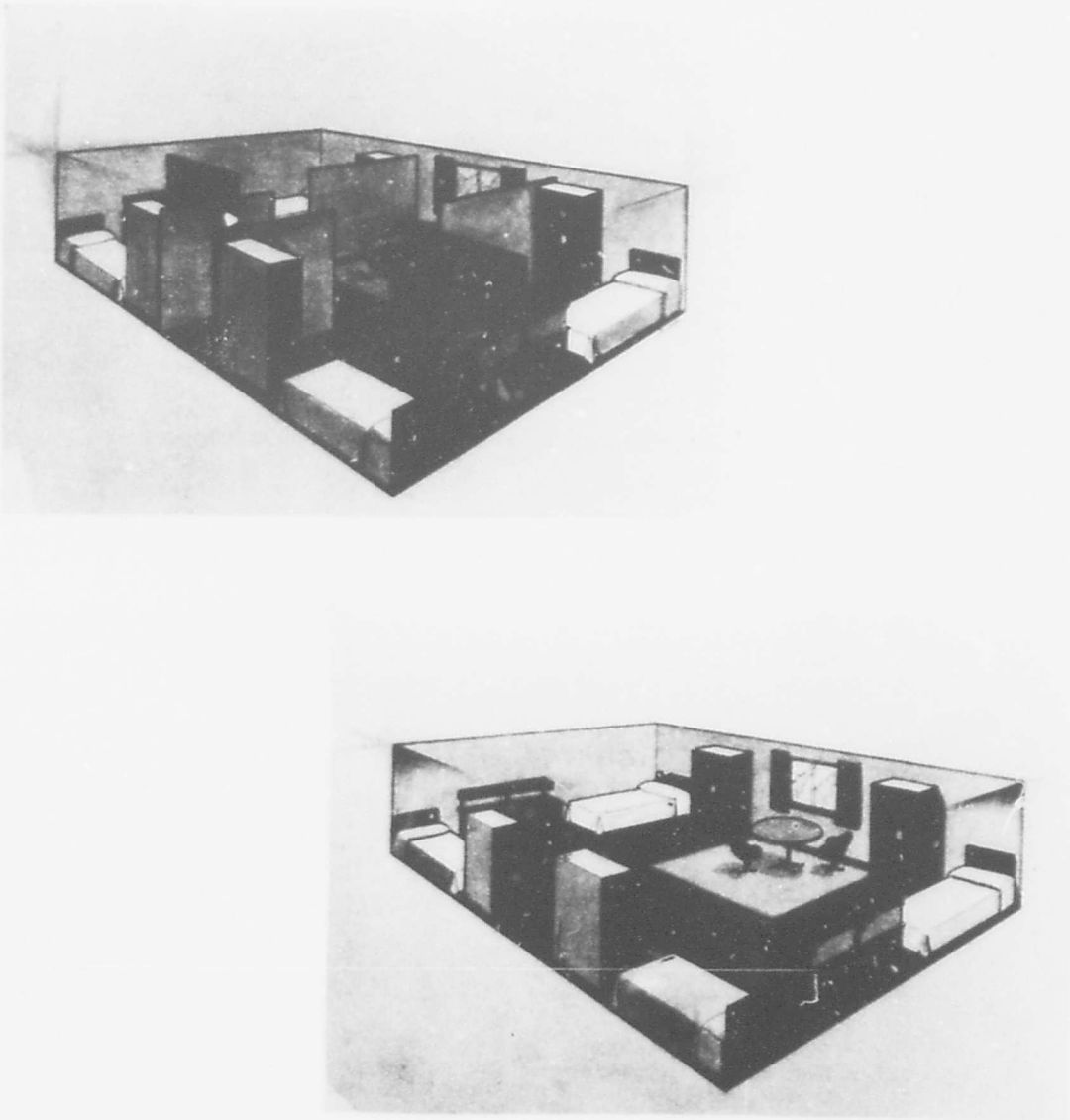
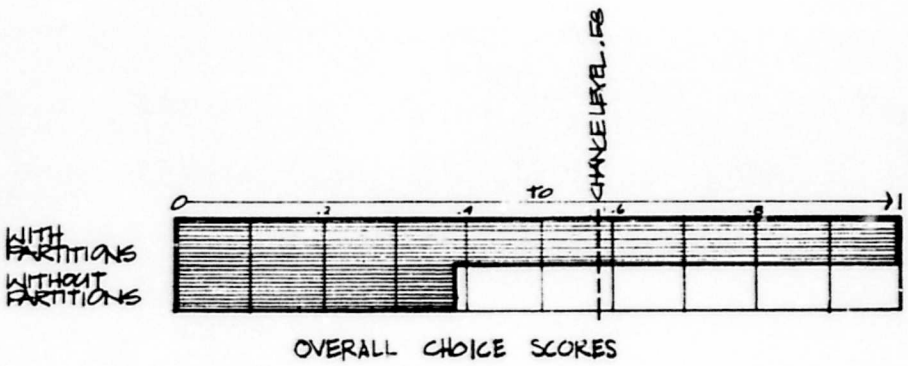


Figure 31. Slide pair concerned with partitioning.

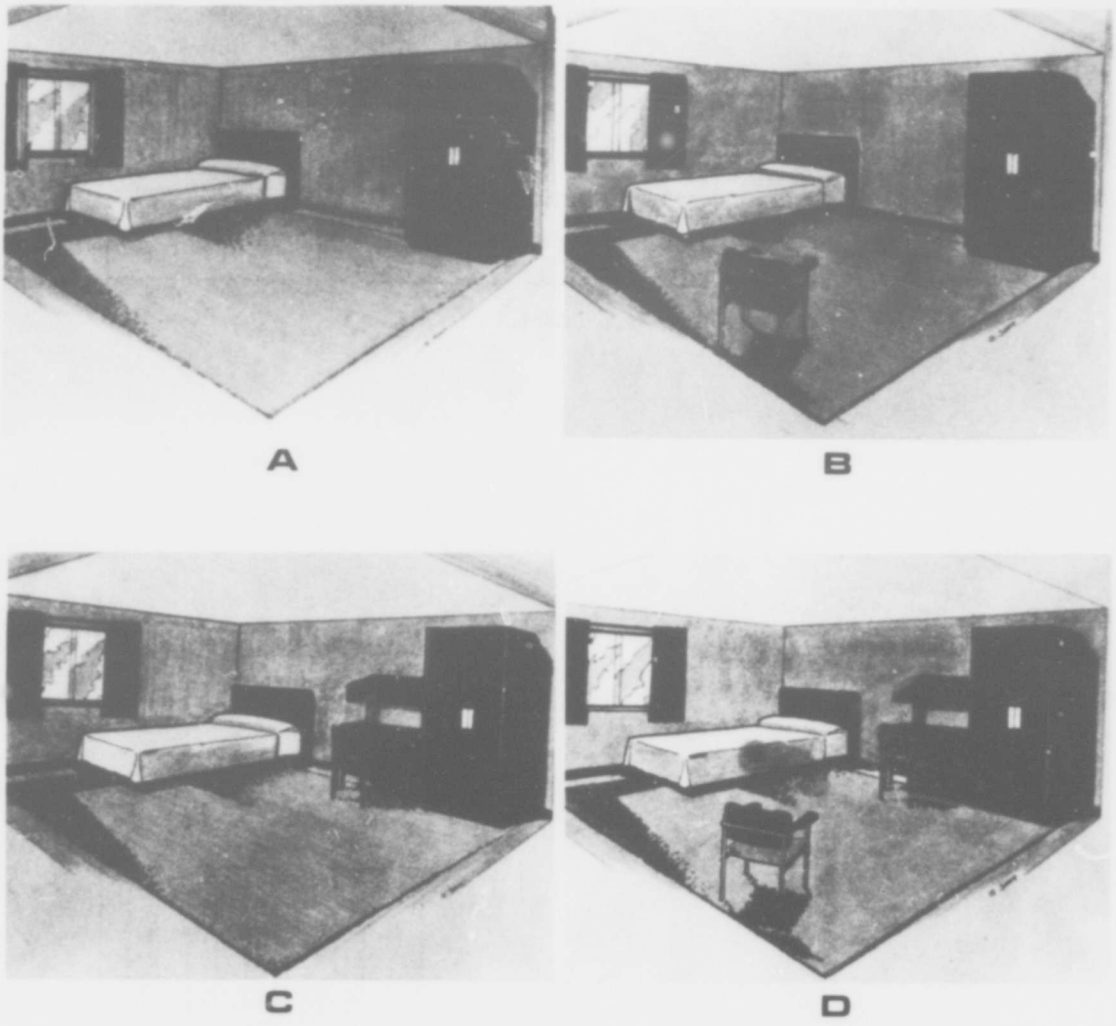


BACKGROUND FACTORS SHOWING
SIGNIFICANT* DIFFERENCES IN RESPONSE

SLIDE PAIR 1	POST	EDUCATION	NO. OF PEOPLE IN ROOM	DRAFTED OR VOLUNTEERED	TYPE OF UNIT	NIGHTS SPENT IN ROOM	PAY GRADE	RACE	AGE	BARRACKS CONSTRUCTION TYPE	RE-UP POTENTIAL
											●

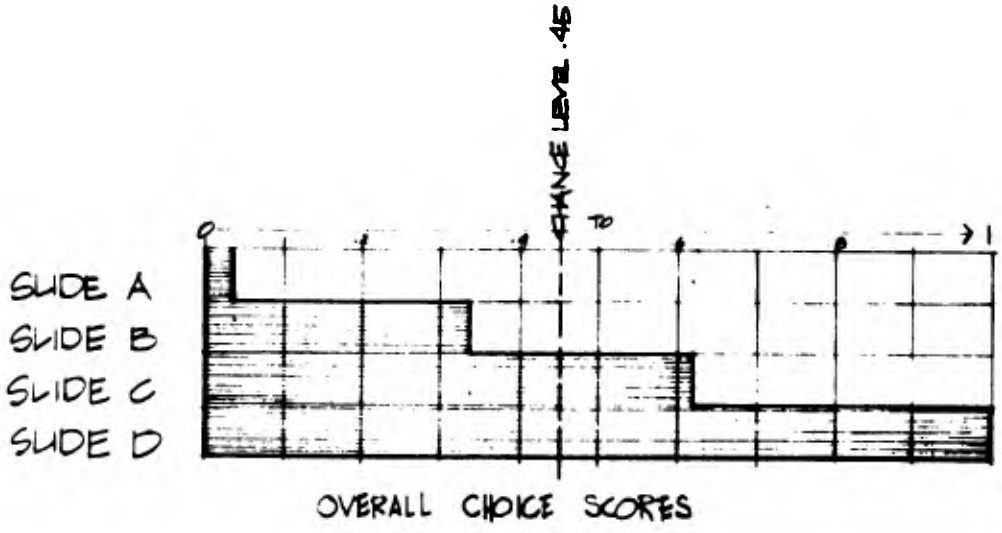
*SIGNIFICANCE BASED ON CHI-SQUARED TEST AT A 99% CONFIDENCE LEVEL

Figure 32. Partitioning: slide pair 1, choice score for each illustration.



Slide	Left Screen	Right Screen
Pair 2	A	C
Pair 3	B	D
Pair 4	C	B
Pair 5	B	A
Pair 6	A	D
Pair 7	D	C
Pair 8	D	Blank

Figure 33. Slide pairs 2–7 and slide 8 concerned with furniture quantity.



BACKGROUND FACTORS SHOWING SIGNIFICANT * DIFFERENCES IN RESPONSE

	COST	EDUCATION	NO. OF PEOPLE IN ROOM	DRAFTED OR VOLUNTEERED	TYPE OF UNIT	NIGHTS SPENT IN ROOM	PAY GRADE	RACE	AGE	BARRACKS CONSTRUCTION TYPE	RE-UP POTENTIAL
SLIDE PAIR 2				●				●	●		
SLIDE PAIR 3											
SLIDE PAIR 4				●		●					
SLIDE PAIR 5								●			
SLIDE PAIR 6						●					
SLIDE PAIR 7						●		●			

*SIGNIFICANCE BASED ON CHI-SQUARED TEST AT A 99% CONFIDENCE LEVEL

Figure 34. Furniture quantity: slide pairs 2 7, choice score for each illustration.

respondents were asked to state what items of furniture not shown in the picture they would like to have in a one-man room. Frequently, respondents indicated that a lounge chair, easy chair, or recliner was desired. The chair in the picture does not quite appear to be what most people would consider a lounge chair.

Besides a lounge chair of some type or a couch, items which respondents usually suggested in slide 8 were a television, lamp, table, refrigerator, dresser, mirror, radio-stereo, pictures, or air conditioner.

The choices for each slide pair in this series were significant when cross tabulated with some background factors. On slide pair 2, though mode of entry was significant, differences in choice were minor. However, the preference for the right slide which contained a bed, locker and desk with chair, was found more desirable by blacks and others than by whites. Similarly, the right slide of pair 2 became more desirable as age increased.

Table 34
Partitioning Choice Scores

Picture	Rank	Choice Score
Partitions	1	1.00
No partitions	2	0.38
	Chance level =	0.58

Table 35
Furniture Quantity Choice Scores

Picture	Rank	Choice Score
Bed and locker, plus desk and chair, plus lounge chair	1	1.00
Bed and locker, plus desk and chair	2	0.62
Bed and locker, plus lounge chair	3	0.34
Bed and locker	4	0.04
	Chance level =	0.45

Table 36
Furniture Style Choice Scores

Picture	Rank	Choice Score
Style C	1	1.00
Style B	2	0.87
Style A	3	0.19
	Chance level =	0.55

On slide pair 3, those who were drafted had a stronger preference for the room on the right which contained a bed and locker plus a desk with chair and a lounge chair. In addition, the choice of this room was stronger as the number of nights spent in the room increased.

Although mode of entry and rate were significant on slide pair 4, differences were small and no specific trends were apparent.

On slide pair 5, blacks were a little bit stronger in choosing the left-hand picture, which contained a lounge chair in addition to a bed and locker.

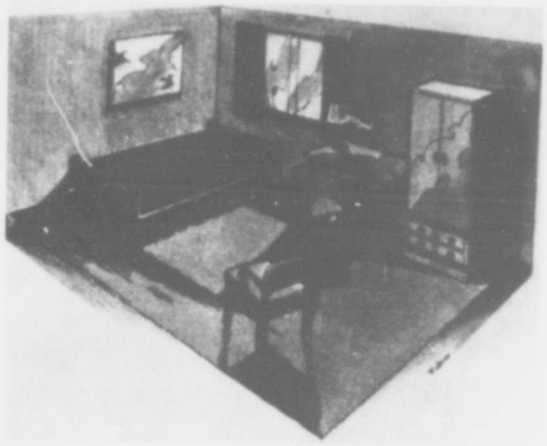
On slide pair 6, the choice of the right-hand picture, containing a bed and locker plus desk and chair and lounge chair, was greater as the number of nights spent in the room increased.

On slide pair 7, blacks were slightly stronger in choosing the room with maximum furniture. In addition, there was a slight increase in preference for the picture with maximum furniture as the number of nights spent in the room increased.

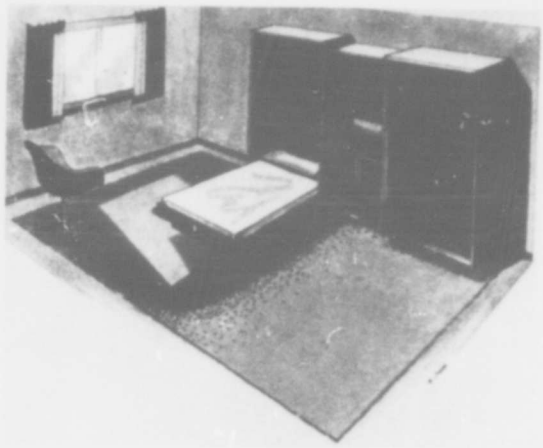
Furniture style. Slide pairs 9 to 11 were concerned with the style of furniture. Three different styles were presented. Slide A showed typical furniture that is found currently in barracks; slides B and C show furniture which is more modern and considerably different in style. These illustrations and their order of presentation are shown in Figure 35. The overall choice scores are presented in Figure 36 and Table 36. In addition to furniture style, slide B presented a slight rearrangement of the furniture, which may have had some influence on the choice of the respondents.

On slide pair 9, age and barracks construction type were significant. The older respondents tended to choose current furniture styles slightly more frequently than did younger respondents. In addition, younger respondents were more extreme in their choices. It appears that respondents living in the newer buildings tended to choose the more modern furniture slightly more than did those living in older buildings; however, this trend is not very clear.

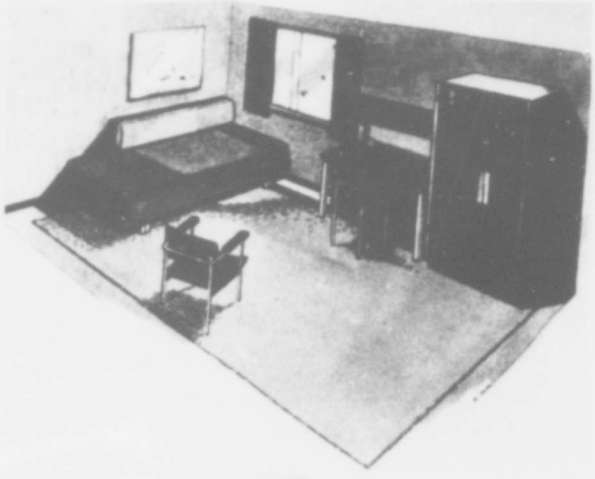
On slide 10, age, pay grade, and building construction type were significant. The effects of age and building construction type were nearly identical to that in slide pair 9, while the effect of pay grade was very similar to that of age. No significant differences occurred on the responses on slide pair 11.



A



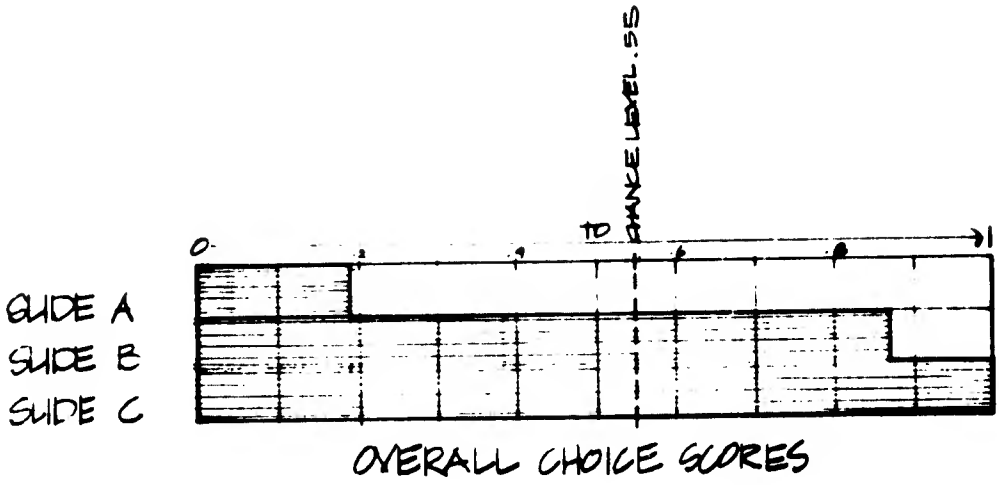
B



C

Slide	Left Screen	Screen
Pair 9	B	A
Pair 10	A	C
Pair 11	C	B

Figure 35. Slide pairs 9–11 concerned with furniture style.



BACKGROUND FACTORS SHOWING
SIGNIFICANT* DIFFERENCES IN RESPONSE

	REST	EDUCATION	NO. OF PEOPLE IN ROOM	PREFERRED OR VOLUNTEERED	TYPE OF UNIT	NIGHTS SPENT IN ROOM	PAY GRADE	RACE	AGE	BARRACKS CONSTRUCTION TYPE	RE-UP POTENTIAL
SLIDE PAIR 9									●	●	
SLIDE PAIR 10							●		●	●	
SLIDE PAIR 11											

*SIGNIFICANCE BASED ON CHI-SQUARED TEST AT A 95% CONFIDENCE LEVEL

Figure 36. Furniture style: slide pairs 9 -11, choice score for each illustration.

Respondents were asked to explain why they chose the style of furniture they did in slide pair 11. There were minor differences in the reasons for choosing style B or style C - it undoubtedly depended on the respondent's personal taste. Common reasons listed for both rooms were: more modern, roomier, more like home, and like the style of bed better. One apparent difference in choice was that those who chose the left-hand picture with style C, like the picture; and those who chose the right-hand picture with style B, thought it would be easier to keep the room clean.

Color of Room. In this series, slide pairs 12–17, a one-man room arrangement was used with a bed, locker, and desk and chair on a carpet. Four colors were used in this series. Items in the room were kept constant while a monochromatic color scheme changed from red to blue to green to brown. The illustration and the order of presentation are shown in Figure 37. The results of the color choices are presented in Table 37 and Figure 38.

On slide pair 12, post was significant; however, differences were minor and specific trends were not clear. Race was also significant, with blacks being approximately split on red and blue, while a slight majority of all respondents choose blue. Respondents who were white or of other races chose blue by a greater majority than did blacks.

No cross-tabulated items were significant on slide pairs 13 and 14. However, in slide pair 15, where the choice was between green and brown, significant variations occurred by post, number of people in a room, type of unit, pay grade, and age. The major effect of the post appears to be that respondents at Fort Hood chose green much less than average, while those at Leonard Wood chose green only slightly more frequently than average. In general, the choice of green over brown was slightly higher for those who had fewer roommates, was chosen by the majority of those in pay grades E7 and above, and by those who were 41 years or older. Green was chosen with approximately the same frequency as brown for those who were 31 to 40 years old. Green was less desirable for the younger men. Related to the age and pay grade factors was the fact that those in training units were approximately split on the choice between green and brown, while brown was chosen more prevalently by others.

On slide pair 16 where the choice was between red and green, the fact that post was significant appears to stem from Fort Hood choosing red with less frequency than the overall average. Although education was significant, differences were small. While red was chosen over green by the majority regardless of age, the older men tended to choose green more frequently than did those who were younger.

On slide pair 17 where the choice was between blue and green, the overwhelming majority regardless of category, chose blue. However, the choice of green tended to increase with age and pay grade. These age and rank effects probably carried over into post, number of people in the room, and type of unit, which though they were significant, showed no specific trends.

Although overall, one color may be more popular than another, the choice is probably influenced by personal preference and by the prevalence of its use in barracks at the present time.

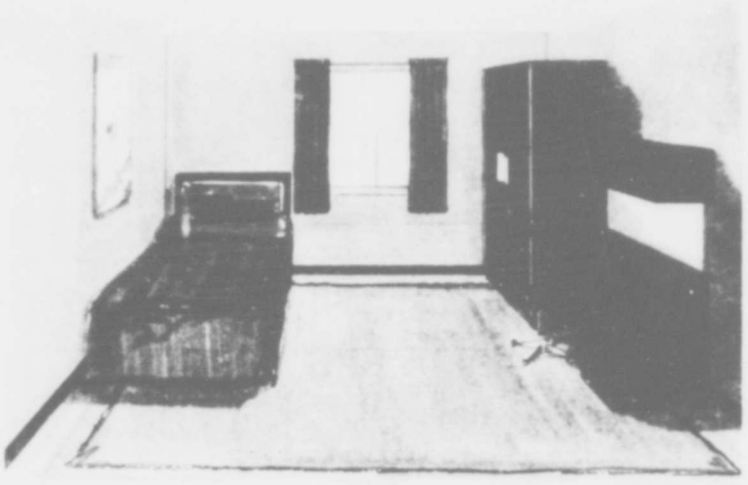
Exterior Appearance and Landscaping. In slide pairs 18 to 23, a series of slides was used to evaluate the effects of landscaping and exterior appearance of barracks. The illustrations used are presented in Figure 39 together with their sequence of presentation. The overall choice score for each picture is shown in Table

Table 37
Choice Scores for Room Colors

Color	Rank	Choice Score
Blue	1	1.00
Red	2	0.65
Brown	3	0.45
Green	4	0.27
	Chance level =	0.59

Table 38
Choice Scores for Exterior Appearance and Landscaping of Barracks

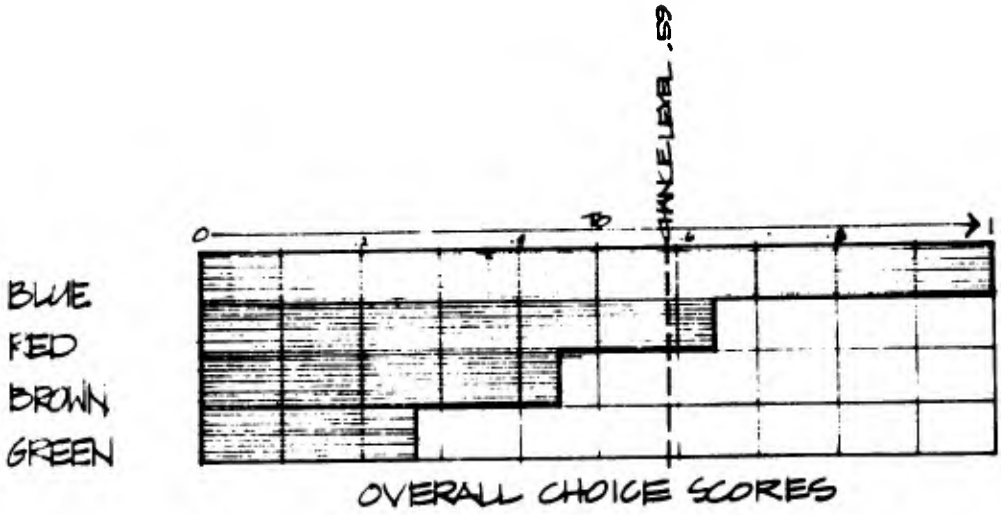
Picture	Rank	Choice Score
Barracks w/landscaping and Mansard roof	1	1.00
Barracks w/landscaping	2	0.50
Barracks w/Mansard roof	3	0.39
Plain barracks	4	0.04
	Chance level =	0.43



Slide	Left Screen*	Right Screen
Pair 12	A	B
Pair 13	B	D
Pair 14	A	D
Pair 15	D	C
Pair 16	A	C
Pair 17	B	C

* A = red, B = blue, C = green, D = brown

Figure 37. Slide pairs 12–17 concerned with room color.

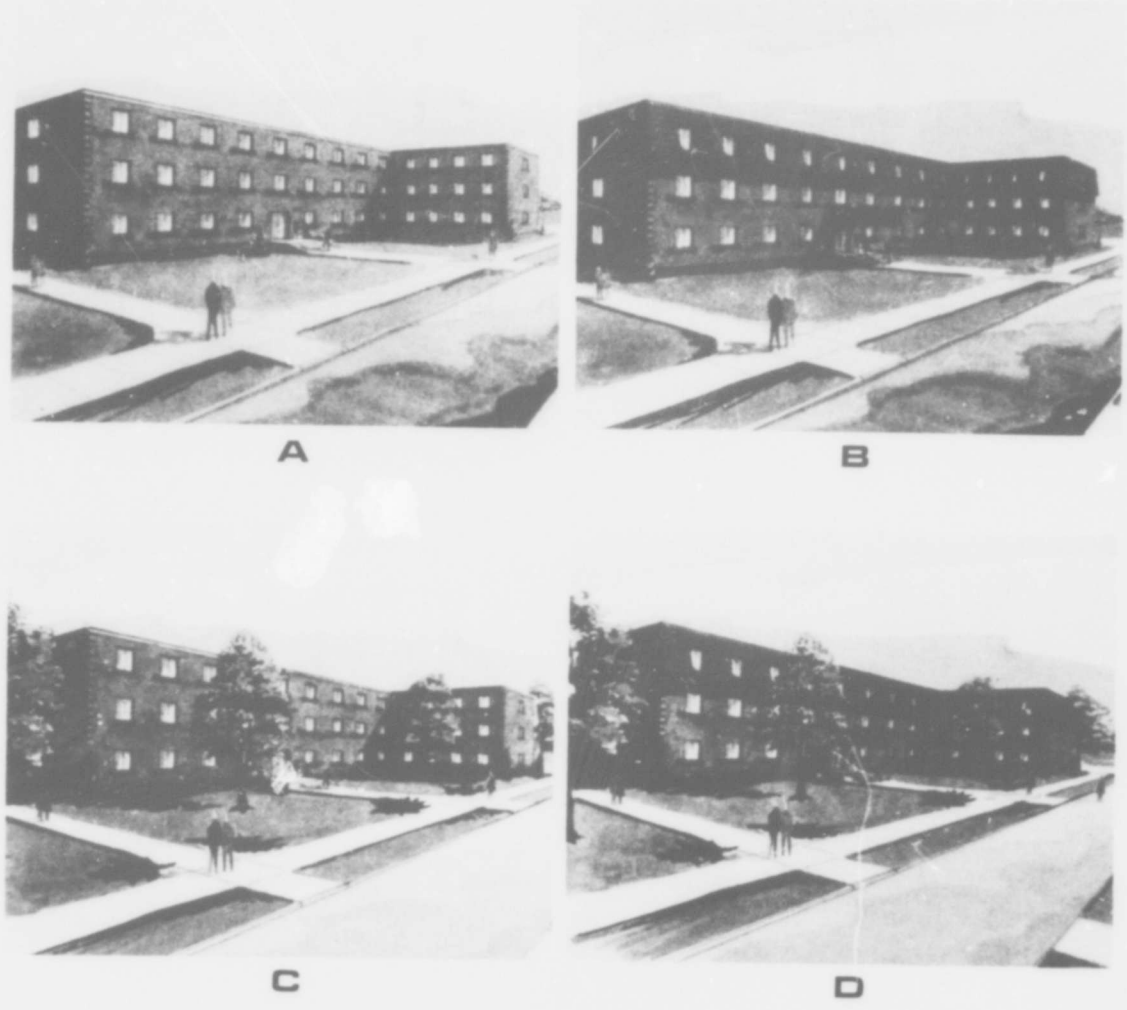


BACKGROUND FACTORS SHOWING SIGNIFICANT* DIFFERENCES IN RESPONSES

	POST	EDUCATION	NO. OF PEOPLE IN ROOM	DRAFTED OR VOLUNTEERED	TYPE OF UNIT	NIGHTS SPENT IN ROOM	PAY GRADE	RACE	AGE	BARRACKS CONSTRUCTION TYPE	RE-UP POTENTIAL
SLIDE PAIR 12	●							●			
SLIDE PAIR 13											
SLIDE PAIR 14											
SLIDE PAIR 15	●		●		●		●		●		
SLIDE PAIR 16	●	●							●		
SLIDE PAIR 17	●		●		●		●		●		

*SIGNIFICANCE BASED ON CHI-SQUARED TEST AT A 99% CONFIDENCE LEVEL

Figure 38. Room color: slide pairs 12–17, choice score for each illustration.



Slide	Screen	Screen
Pair 18	D	A
Pair 19	B	C
Pair 20	A	B
Pair 21	A	C
Pair 22	C	D
Pair 23	B	D
Pair 24	Blank	D

Figure 39. Slide pairs 18–23 and slide 24 concerned with the exterior appearance and landscaping of barracks.

38 and Figure 40. The results of this series indicate that the effects of an exterior treatment to improve the appearance of the building, in combination with landscaping, has a much stronger effect than either factor individually.

On slide pair 18, age and race were significant. In choosing the barrracks with the Mansard roof and landscaping, compared to the plain barracks, the younger respondents tended to be more extreme in their choice, while those who were above 40 years old were slightly less extreme in their choice, and in addition, had about 17 percent of the respondents choose the plain barracks compared to an overall average of 4 percent. The effect of race appears to be that the blacks chose the plain barracks just slightly more frequently than did whites or others.

On slide pair 19 in which the choice was between the barracks with Mansard roof and the barracks with landscaping only, post and the number of people in the room were significant, though little variation occurred over which picture was chosen. By post, the respondents at Fort Hood were more extreme in their choice of landscaping over the Mansard roof. Respondents with higher room densities tended to choose the barracks with landscaping slightly more frequently than did those who had fewer roommates.

Slide pairs 20, 21, and 23 had no items which were significant; however, in slide pair 22, race and age were significant. Respondents who were younger tended to be more extreme in their choice of the barracks with the Mansard roof plus landscaping compared to the barracks with landscaping only. This phenomenon appears to have carried over into race, where whites and others were slightly younger than the blacks. Older men responded in a way similar to the blacks.

In slide 24, where the barracks with the Mansard roof plus landscaping was presented alone and respondents were asked to indicate how much influence a barracks like this would have on their reenlisting, the overall response was as shown in Table 39.

On this question, mode of entry into the Army, nights spent in the room, age, and reenlistment potential were significant. Those who were drafted reported that such a barracks might have a smaller influence on their reenlistment, while those who had enlisted showed a slightly higher effect. Those in pay grades E5 or above reported that such a barracks would have slightly more influence on their reenlistment than did those in pay grades E4 and below. The effect of age was very similar to that of pay grade. Only 38 percent of those who said they would reenlist said that such a barracks would have no influence on their reenlistment, while of those who were undecided, 47 percent said that such a barracks would have no influence. Of those who did not intend to reenlist, 77 percent reported that such a barracks would have no influence.

In slide pair 25, two pictures of a recently constructed Coast Guard barracks were presented. These are shown in Figure 41. Again respondents were asked if a barracks such as this would have any influence on their reenlistment. The overall response, presented in Table 40, showed that these pictures and what the respondents saw in them would have a stronger effect on their reenlistment than the illustrated picture.

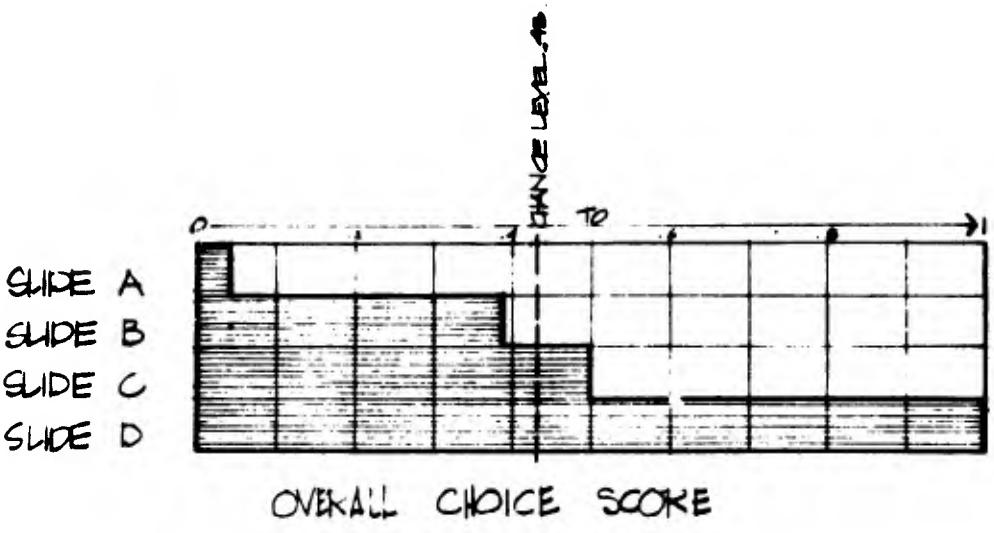
The same factors were significant on slide pair 25 as slide 24, with the addition of education. On mode of entry into the service (drafted or volunteered), pay grade, age, and reenlistment potential, the effects were very similar to those in slide 24. The percentage of respondents who said that they would not be influenced at all by the barracks shown in the picture increased as the level of education increased.

Table 39
Influence on Reenlistment of Illustrated Barracks

Influence	Percent of Respondents
Strong	7
Moderate	11
Slight	17
None	65

Table 40
Influence on Reenlistment of Modern Styled Barracks

Influence	Percent of Respondents
Strong	25
Moderate	16
Slight	17
None	42



BACKGROUND FACTORS SHOWING SIGNIFICANT* DIFFERENCES IN RESPONSE

	REST	EDUCATION	NO. OF PEOPLE IN ROOM	PRAFTED OR VOLUNTEERED	TYPE OF UNIT	NIGHTS SPENT IN ROOM	PAY GRADE	RACE	AGE	BARRACKS CONSTRUCTION TYPE	RE-UP POTENTIAL
SLIDE PAIR 18								●	●		
SLIDE PAIR 19	●		●								
SLIDE PAIR 20											
SLIDE PAIR 21											
SLIDE PAIR 22								●	●		
SLIDE PAIR 23											

*SIGNIFICANCE BASED ON CHI-SQUARED TEST AT A 99% CONFIDENCE LEVEL

Figure 40. Exterior appearance and landscaping: slide pairs 18 23, choice score for each illustration.

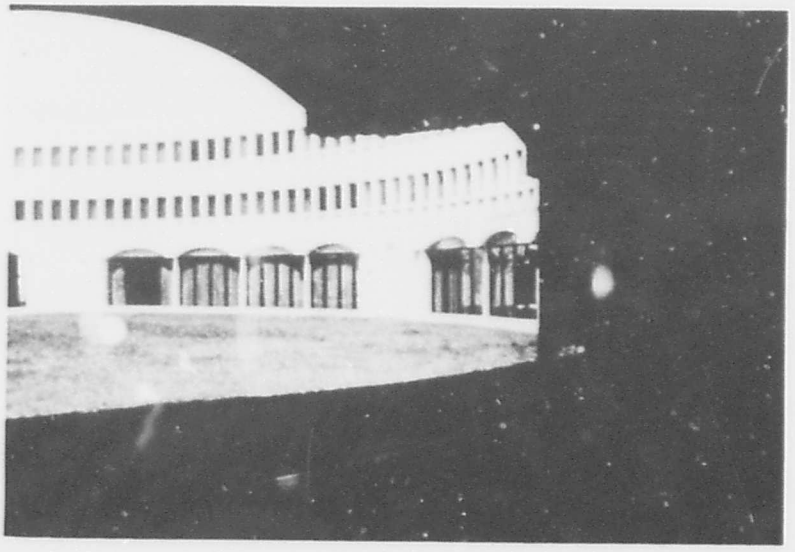


Figure 41. Slide pair 25 showing a recently constructed barracks (photographs furnished courtesy of the U.S. Coast Guard).

Following the slide presentation, two questions were put to respondents. Question 26 asked about the importance of the appearance of the grounds around the building where the respondent lived, while Question 27 asked about the appearance of the outside of the building where the respondent lived. The overall results of Question 26 are shown in Table 41. The overall responses on Question 27 are listed in Table 42.

On both questions, the number of people in the room, type of unit, pay grade, and age were significant, while on Question 27 the barracks construction type and reenlistment potential were also significant. The level of importance decreases as the number of people in a room increases and as pay grade and age decrease. The appearance of the building and grounds is more important for those in 1960s barracks and those in World War II temporary BEQs than for the others, and is greater for those who intend to reenlist. The results also show that the importance is slightly higher for those in combat support units; however, this effect is not very great.

Activity Diaries. There were two types of diaries. The results of the one concerned with how individuals spent time in the barracks are presented first, followed by the results of the diaries concerned with the use of buildings on and off the post.

Diary Concerned with Time Spent in Barracks. Responses on this diary were obtained from 388 persons. The respondents were distributed among the six posts as shown in Table 43.

The information provided by the men was broken down into nine categories. These categories are as listed in Table 44.

The combined results are shown in Table 45. This information is presented graphically in Figure 42 together with an indication of the frequency of travel between the different areas accounted for.

The data from the activity diaries were broken down by post, day of the week, pay grade, barracks construction type, level of education, mode of entry into the Army (drafted or volunteered), race, and age. However, the differences between categories were small in how they spent their time. For example, those who

Table 41
Importance of the Appearance of Grounds Around Barracks

Importance	Percent of Respondents
Very	36
Somewhat	32
Slightly	16
None at all	16

Table 42
Importance of Outside Appearance of Barracks

Importance	Percent of Respondents
Very	37
Somewhat	32
Slightly	16
None at all	15

Table 43
Distribution of Respondents on Barracks Diary

Post	Number of Respondents
Fort Knox	64
Fort Lee	53
Fort Sill	66
Fort Dix	55
Fort Leonard Wood	41
Fort Hood	113
Total	388

Table 44
Areas Where Time Was Spent in the Barracks

Area	Category
1	Sleeping area or room
2	Mess hall or dining hall
3	Lounge or day room
4	Washroom or latrine
5	Orderly room
6	Supply room
7	Arms room
8	Total time in barracks
9	Time spent sleeping

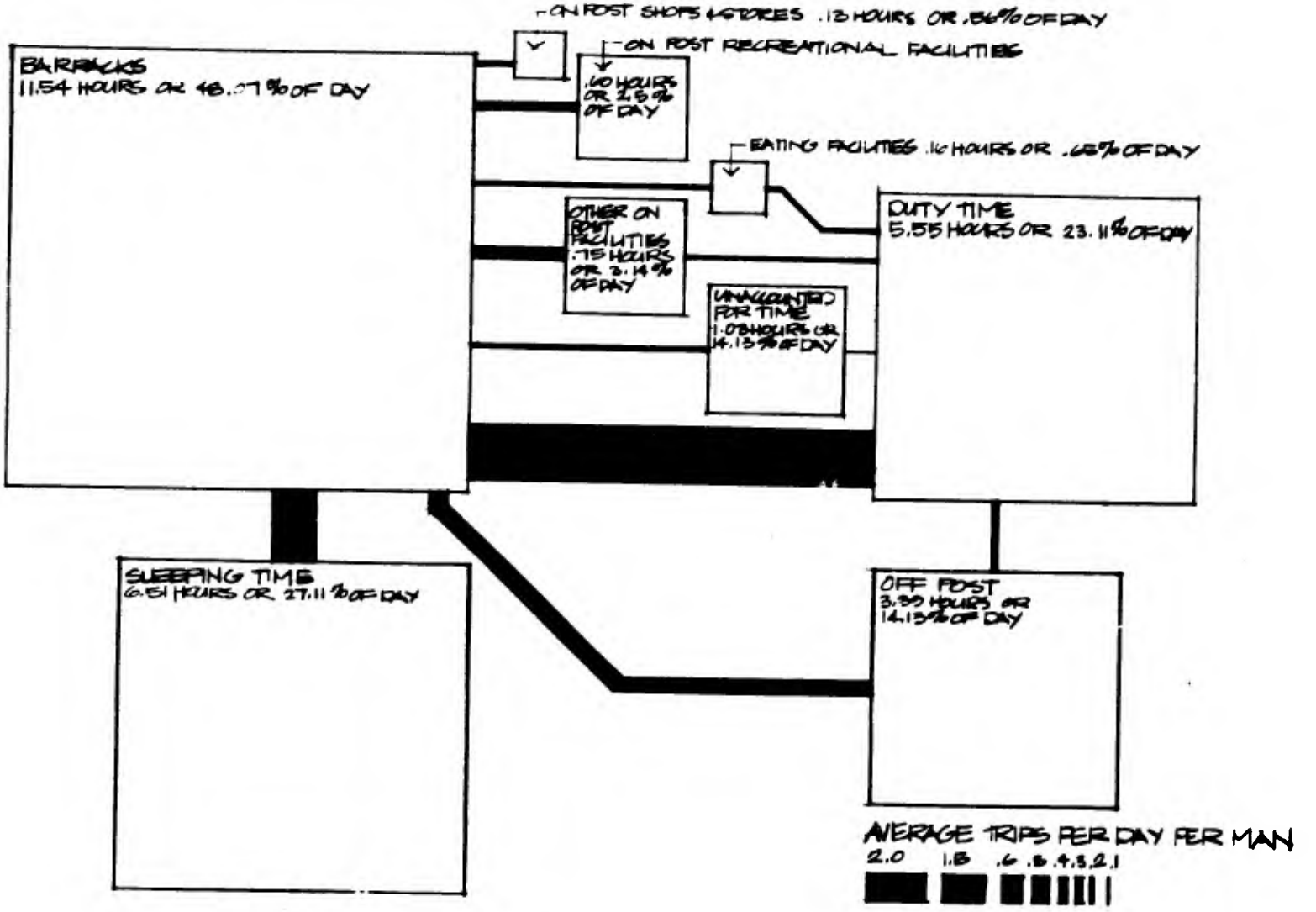


Figure 42. Use of facilities on- and off-post.

were drafted said they spent slightly less time on the average in their barracks (13.92 hours) than did those who had enlisted (14.71 hours). However, when looking at the other areas within the barracks, the variations are .1 of an hour or less and no trend appears which can account for the difference in the total time spent in the barracks. Apparently, that difference was spent outside the barracks for the most part, but when referring to the other type of activity diary, which considered the use of time when inside the barracks and outside the barracks, how the extra time outside the barracks for the draftees was used, again, cannot be differentiated.

Nevertheless, some small differences can be found. Respondents tended to spend about an extra 1-1/2 hours in their barracks on weekends compared to weekdays, and obtained about an hour more sleep on weekends. Those in the highest pay grades (E7 to E9) reported getting more sleep than did those in lower pay grades, and tended to spend slightly more time in their rooms and in the barracks. Respondents living in 1960s barracks, on the average, tended to spend slightly more time per day in the barracks in their rooms and obtained a little more sleep. Those who had a college degree tended to spend more time in the barracks in the sleeping area and obtained more sleep than did respondents with less education. Respondents 20 years of age or younger reported obtaining slightly more sleep, spending slightly more time in the barracks and in the rooms than did those who were older.

Table 45
Overall Results of Diary on Use of Barracks

	Average Hrs in Area	Standard Deviation (hrs)	Percent of Day	Number of Persons Using Area
Sleeping area	9.38	3.91	39.1	382
Dining hall	1.38	2.26	5.8	290
Day room	.81	1.83	3.4	116
Washroom or latrine	.77	.32	3.2	350
Orderly room	.68	2.13	2.8	93
Supply room	.33	1.56	1.4	39
Arms room	.12	.84	.5	19
Barracks itself	14.32	5.37	59.7	392
Sleeping	6.61	2.67	27.6	365

Sleeping comprised 70.5 percent of time in sleeping room.
Sleeping comprised 46.2 percent of time in barracks.

It might be expected that the number of people in a room would have an influence on the amount of time spent in the barracks, in the sleeping room, or asleep. However, the variations based on the number of people in a room were small and irregular, and trends were not apparent. Again, it must be emphasized that the differences reported here were rather small and often inconsistent. When the standard deviations which were reported are large, this indicates that there was a wide spread in the information provided by individual respondents.

In order to evaluate these data further, two multiple regression analyses were run using all the background factors in each analysis. The analyses considered how much of the variation in the time spent in the day room or the time spent in the sleeping area not sleeping could be accounted for by each of the background factors. The background factors included the following: post, level of education, number of people in a room, whether drafted or volunteered, type of unit, nights spent in the room, pay grade, race, age, barracks construction type, intent to reenlist, and whether the individual owned a car.

These factors accounted for only 10 percent of the variation in the time spent in the day room and only 7 percent of the variation in the time spent in the sleeping area not sleeping, very weak relationships.

An additional analysis was run for both day room and sleeping area use. The ratings of the day room and sleeping area were added with the assumption that perhaps the physical conditions of the rooms dictated their use more than did personal factors.

Again, the results of the analysis showed little relationship between physical conditions and the time spent in the space. Only 15 percent of the variation in the time spent in the day room was accounted for by the background factors and the ratings of the conditions in the day room. Thus the ratings of conditions accounted for a mere 5 percent of the variance above the background factors (15 – 10 = 5).

A similar result occurred for the time spent in the sleeping room not sleeping. Eighteen percent of the variation in that time was accounted for by both ratings of the sleeping room and personal background factors, an increase of 11 percent over the background factors alone.

Thus the activities reported in the diaries did not prove useful as a measure of the quality of the space.

Either individual behavior was not influenced by the quality of the space or by personal factors included in the analysis, or there was considerable error in the data provided by the men in the self-reporting diaries. Nevertheless, it appears that the mean distribution of times in the use of various areas of the barracks has some value.

On- and Off-Post Diary. The information on this second diary form was provided by 479 respondents who were different from those who completed the first diary form. They were from the six posts as shown in Table 46. The times reported in this activity diary were broken down into ten areas as shown in Table 47.

When the data from all respondents are pooled together, the results are as presented in Figure 43 and Table 48.

Again, when these data are broken down by the various categories, the differences are frequently small and quite variable and therefore difficult to interpret. A few items seem relatively clear. In this diary, respondents said that they spent on the average approximately 1-1/2 hours less in their barracks on Saturdays and Sundays compared to weekdays and spent on the average about 7 more hours off-post on weekends than they did on weekdays. Here, respondents reported that they got less sleep on weekends than during the week, which was contrary to what was found in the other activity diary. In addition, the duty time on weekends was several hours less than during the week.

Again, those who were in the highest pay grades, E7 to E9, reported that they received more sleep on the average than did those in the lower pay grades. Blacks reported spending slightly more time using on-post recreation facilities than did whites and others. As in the other activity diary, respondents who were 20 years old or younger reported receiving slightly more sleep than did others. Differences other than these were small and inconsistent and very difficult to interpret.

In order to evaluate these factors further, a multiple regression analysis was run on the time spent off post and on the time spent in the barracks not sleeping. Using only the background factors discussed in connection with the other diary, 29 percent of the variation in time off post was accounted for. Adding the ratings of the post from the questionnaire increased the variation accounted for to 34 percent. Similarly, the background factors accounted for 34 percent of the variation in the

Table 46
Distribution of Respondents Completing On- and Off-Post Diary

Post	Number of Respondents
Fort Knox	94
Fort Lee	57
Fort Sill	77
Fort Dix	66
Fort Leonard Wood	48
Fort Hood	137
Total	479

Table 47
Categories of Buildings for Analysis of On- and Off-Post Diary

Category	Area
1	Time in barracks or BEQ
2	Time in recreational facilities on-post (gym, pool, theater, tennis courts, etc.)
3	Time in shops and stores on-post (main PX, branch PX, barber, commissary, etc.)
4	Time at duty station or on duty (in field or in a building)
5	Time in eating facilities (snack bar, dining hall, mess hall, cafeteria, specialty houses)
6	Other time in on-post facilities (medical, religious, etc.)
7	Time spent off-post
8	Unaccounted for time
9	Sleeping time
10	Time spent traveling between facilities on-post

Table 48
Overall Results of On- and Off-Post Diary

Area	Average Time in Area	Standard Deviation (hrs)	Percent of Day	Number Who Spent Time in Area
Barracks	11.54	4.89	48.07	453
On-post recreational facilities	.60	1.28	2.50	122
On-post shops and stores	.13	.44	.56	73
Duty time	5.55	4.04	23.11	363
Eating facilities	.16	.52	.65	72
Other on-post facilities	.75	1.55	3.14	164
Off-post	3.39	5.78	14.13	231
Unaccounted for time	1.03	2.74	4.31	102
Sleeping time	6.51	2.99	27.11	434
Travel	.85	–	3.52	–

Sleeping time comprises 56.39 percent of time in barracks.

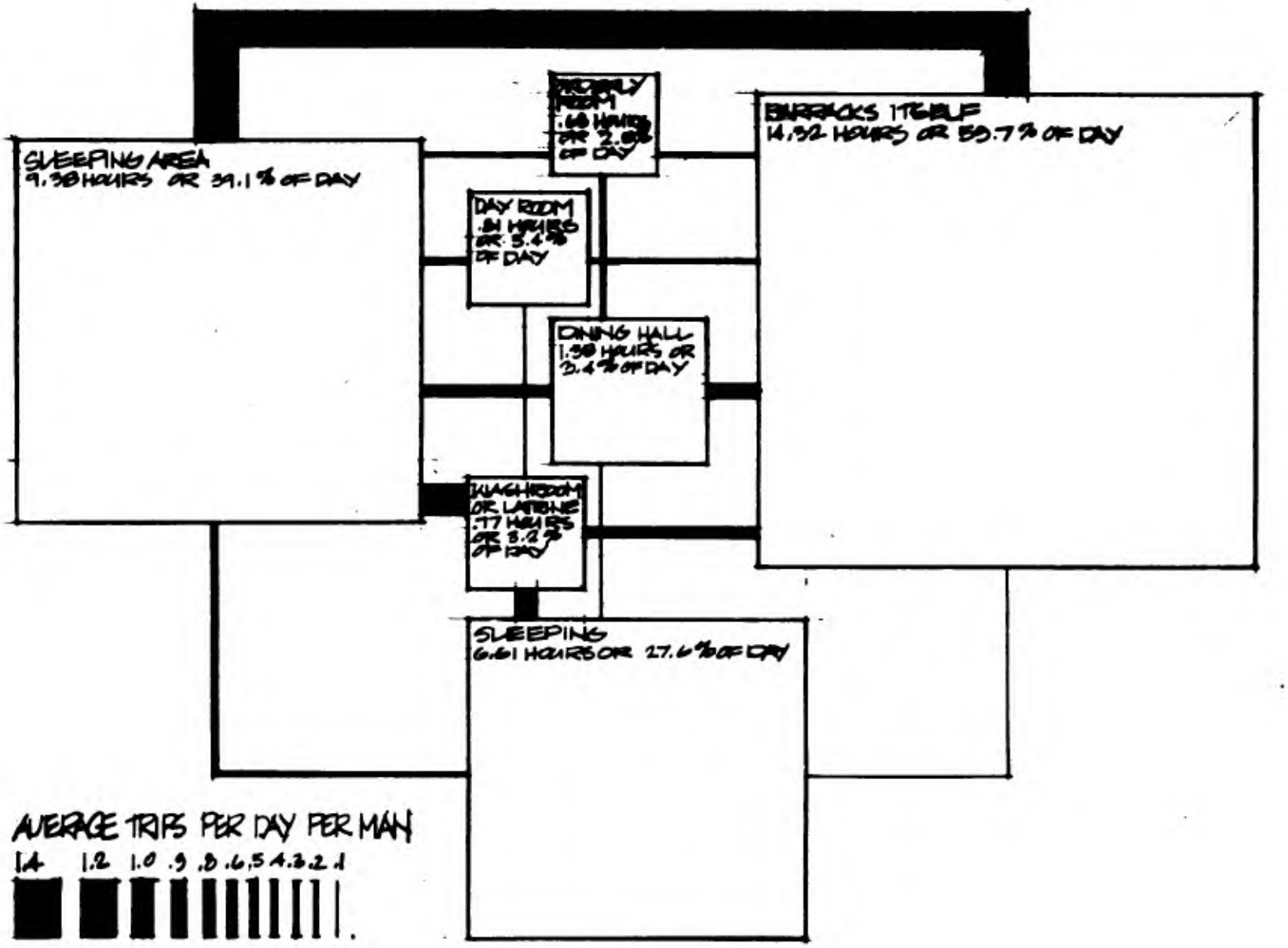


Figure 43. Use of barracks and areas within the barracks.

time spent in the barracks not sleeping. Only 5 percent more of the variation was accounted for (39 percent) when the ratings about the barracks were added to the analysis.

Although these results are better than for the other parts of the diary that were analyzed, they still are not very satisfactory. Again, the self-reported activities may not be influenced by these things to a great extent, the behavior of individuals may be rather regimented, there may be little opportunity available for variation, or there may be considerable error in the information obtained.

Personality Inventory. The personality inventory was completed by a subsample of 276 enlisted men. As noted earlier, those who completed the personality inventory had also completed the questionnaire about the facilities.

The personality inventory had 22 scales which are defined in Table 49. The infrequency scale was specifically designed to detect patterns of invalid response in individual records. The record of any respondent who answers four or more of the 20 items on this scale in the deviant direction is considered to contain errors of either scoring or responding. Of the 276 completed records, it was found that 121 contained four or more deviant responses on the infrequency scale. The remaining 155 records were used for analytical purposes; however, the records from 276 subjects were combined into a second analysis as a check on the invalidity of the 121 records which were deviant on the infrequency items. The purpose of the personality research form was to help explain the kind of individual differences in personality characteristics that influence men's attitudes toward their housing and related facilities.

Another special scale included in the personality research form is called a desirability score. In both personality and attitude surveys, the tendency of some subjects is to put themselves in a favorable or socially desirable light. When responding to questions subjects may express attitudes they perceive to be popular or desirable even though they hold other opinions on the topics covered. Twenty items in the questionnaire were significantly correlated with the desirability scale on the personality research form. In evaluating the personality characteristics and their correlation with questions on the facility survey, the relationships were evaluated in terms of these social-desirable items as a means of assessing whether subjects actually held such opinions on survey questions, or if subjects simply had a tendency to agree because items were desirable.

From the analysis of the results of the personality research form and the facility survey questionnaire, it is quite apparent that personality characteristics are definitely a factor to be considered in the evaluation of results.

Presented below is a summary of the results when personality factors were related to responses on the questionnaire. A more detailed report is included in Appendix G.

Summary of Findings from Personality Inventory. Individual differences in personality characteristics were systematically related to individual differences in both general and specific attitudes toward post facilities. Whether or not the appearance or design of a particular structure can be said to be generally satisfactory to enlisted men is very much a function of who is asked and the kind of person that individual is. In a few instances it was possible to relate the personality characteristics to attitudes toward facilities and to job satisfaction or lack of same. In other instances, it was possible to identify styles of responding associated with personality characteristics that required qualification of expressed attitudes. In still other instances the relations between personality characteristics and attitudes toward facilities were unexpected, but seemed worthy of further investigation. Taken together, these relationships suggest that mean or modal attitudes toward housing and related facilities mask subtle individual differences that should be taken into account in facility design.

The correlates and implications of high scores on ten personality characteristics may be summarized as follows:

1. Abasement: Expressed a high degree of job satisfaction with apparent indifference to physical and design characteristics of their environments. May be willing to accept almost any architectural design that does not actively prevent them from carrying out their duties.
2. Achievement: Expressed a high degree of job dissatisfaction which does not appear to be systematically related to the organizational climate in which they work. Nor does their job dissatisfaction appear to be related to any dissatisfaction with the physical or design aspects of their environments. It appears that their major source of dissatisfaction is with

Table 49
Personality Research Form Scales

Scale	Description of High Scorer	Defining Trait Adjectives
Abasement	Shows a high degree of humility, accepts blame and criticism even when not deserved, exposes himself to situations where he is in an inferior position, tends to be self-effacing.	Meek, self-accusing, self-blaming, obsequious, self-belittling, surrendering, resigned, self-critical, humble, apologizing, subservient, obedient, yielding, deferential, self-subordinating.
Achievement	Aspires to accomplish difficult tasks, maintains high standards and is willing to work toward distant goals, responds positively to competition, willing to put forth effort to attain excellence.	Striving, accomplishing, capable, purposeful, attaining, industrious, achieving, aspiring, enterprising, self-improving, productive, driving, ambitious, resourceful, competitive.
Affiliation	Enjoys being with friends and people in general, accepts people readily; makes efforts to win friendships and maintain associations with people.	Neighborly, loyal, warm, amicable, good-natured, friendly, companionable, genial, affable, cooperative, gregarious, hospitable, sociable, affiliative, good-willed.
Aggression	Enjoys combat and argument, easily annoyed, sometimes willing to hurt people to get his way, may seek to "get even" with people whom he perceives as having harmed him.	Aggressive, quarrelsome, irritable, argumentative, threatening, attacking, antagonistic, pushy, hot-tempered, easily angered, hostile, revengeful, belligerent, blunt, retaliative.
Autonomy	Tries to break away from restraints, confinement, or restrictions of any kind; enjoys being unattached, free, not tied to people, places, or obligations; may be rebellious when faced with restraints.	Unmanageable, free, self-reliant, independent, autonomous, rebellious, unconstrained, individualistic, ungovernable, self-determined, nonconforming, uncompliant, undominated, resistant, lone-wolf.
Change	Likes new and different experiences, dislikes routine and avoids it, may readily change opinions or values in different circumstances, adapts readily to changes in environment.	Inconsistent, fickle, flexible, unpredictable, wavering, mutable, adaptable, changeable, irregular, variable, capricious, innovative, flighty, vacillating, inconstant.
Cognitive Structure	Does not like ambiguity or uncertainty in information, wants all questions answered completely, desires to make decisions based on definite knowledge rather than on guesses or probabilities.	Precise, exacting, definite, seeks certainty, meticulous, perfectionistic, clarifying, explicit, accurate, rigorous, literal, avoids ambiguity, defining, rigid, needs structure.
Defendence	Readily suspects that people mean him harm or are against him, ready to defend himself at all times, takes offense easily, does not accept criticism readily.	Self-protective, justifying, denying, defensive, self-condoning, suspicious, secretive, has a "chip on the shoulder," resists inquiries, protesting, wary, self-excusing, rationalizing, guarded, touchy.

Table 49 (cont'd)
Personality Research Form Scales

Scale	Description of High Scorer	Defining Trait Adjectives
Dominance	Attempts to control his environment, and to influence or direct other people, expresses opinions forcefully, enjoys the role of leader and may assume it spontaneously.	Governing, controlling, commanding, domineering, influential, persuasive, forceful, ascendant, leading, directing, dominant, assertive, authoritative, powerful, supervising.
Endurance	Willing to work long hours; doesn't give up quickly on a problem; persevering, even in the face of great difficulty; patient and unrelenting in his work habits.	Persistent, determined, steadfast, enduring, unfaltering, persevering, unremitting, relentless, tireless, dogged, energetic, has stamina, sturdy, zealous, durable.
Exhibition	Wants to be the center of attention, enjoys having an audience, engages in behavior which wins the notice of others, may enjoy being dramatic or witty.	Colorful, entertaining, unusual, spellbinding, exhibitionistic, conspicuous, noticeable, expressive, ostentatious, immodest, demonstrative, flashy, dramatic, pretentious, showy.
Harm-Avoidance	Does not enjoy exciting activities, especially if danger is involved; avoids risk of bodily harm; seeks to maximize personal safety.	Fearful, withdraws from danger, self-protecting, pain-avoidant, careful, cautious, seeks safety, timorous, apprehensive, precautionary, unadventurous, avoids risks, attentive to danger, stays out of harm's way, vigilant.
Impulsivity	Tends to act on the "spur of the moment" and without deliberation, gives vent readily to feelings and wishes, speaks freely, may be volatile in emotional expression.	Hasty, rash, uninhibited, spontaneous reckless, irrepressible, quick-thinking, mercurial, impatient, incautious, hurried, impulsive, foolhardy, excitable, impetuous.
Nurturance	Gives sympathy and comfort; assists others whenever possible, interested in caring for children, the disabled, or the infirm; offers a "helping hand" to those in need; readily performs favors for others.	Sympathetic, paternal, helpful, benevolent, encouraging, caring, protective, comforting, maternal, supporting, aiding, ministering, consoling, charitable, assisting.
Order	Concerned with keeping personal effects and surroundings neat and organized; dislikes clutter, confusion, lack of organization; interested in developing methods for keeping materials methodically organized.	Neat, organized, tidy, systematic, well-ordered, disciplined, prompt, consistent, orderly, clean, methodical, scheduled, planful, unvarying, deliberate.
Play	Does many things "just for fun"; spends a good deal of time participating in games, sports, social activities, and other amusements; enjoys jokes and funny stories; maintains a light-hearted, easy-going attitude toward life.	Playful, jovial, jolly, pleasure-seeking, merry, laughter-loving, joking, frivolous, prankish, sportive, mirthful, fun-loving, gleeful, carefree, blithe.

Table 49 (cont'd)
Personality Research Form Scales

Scale	Description of High Scorer	Defining Trait Adjectives
Sentience	Notices smells, sounds, sights, tastes, and the way things feel; remembers these sensations and believes that they are an important part of life; is sensitive to many forms of experience; may maintain an essentially hedonistic or aesthetic view of life.	Aesthetic, enjoys physical sensations, observant, earthy, aware, notices environment, feeling, sensitive, sensuous, open to experience, perceptive, responsive, noticing, discriminating, alive to impressions.
Social Recognition	Desires to be held in high esteem by acquaintances, concerned about reputation and what other people think of him, works for the approval and recognition of others.	Approval seeking, proper, well-behaved, seeks recognition, courteous, makes good impression, seeks respectability, accommodating, socially proper, seeks admiration, obliging, agreeable, socially sensitive, desirous of credit, behaves appropriately.
Succorance	Frequently seeks the sympathy, protection, love, advice, and reassurance of other people; may feel insecure or helpless without such support; confides difficulties readily to a receptive person.	Trusting, ingratiating, dependent, entreating, appealing for help, seeks support, wants advice, helpless, confiding, needs protection. requesting, craves affection, pleading, help-seeking, defenseless.
Understanding	Wants to understand many areas of knowledge; values synthesis of ideas, verifiable generalization, logical thought, particularly when directed at satisfying intellectual curiosity.	Inquiring, curious, analytical, exploring, intellectual, reflective, incisive, investigative, probing, logical, scrutinizing, theoretical, astute, rational, inquisitive.
Desirability	Describes self in terms judged as desirable; consciously or unconsciously, accurately or inaccurately, presents favorable picture of self in responses to personality statements.	
Infrequency	Responds in implausible or pseudo-random manner, possibly due to carelessness, poor comprehension, passive noncompliance, confusion, or gross deviation.	

their specific job duties which they view as lacking challenge and interest.

3. Affiliation: Expressed an extraordinary degree of satisfaction with the organizational climate of their post, while responding only superficially to its architectural and design aspects. It may be that their physical environment provides few barriers to social interaction or that they are reluctant to express opinions that might be perceived as socially undesirable.

4. Aggression: Expressed dissatisfaction with the architectural and design characteristics of five of the six facilities covered in the survey. Did not express any more or less job satisfaction than nonaggressive subjects, but exhibited a general tendency to "bitch" or find fault. Such a negative attitude toward the physical environment may be modulated by more attention to fine points in the design and construction of post facilities, but it does not necessarily follow that such efforts would result in increased job satisfaction.

5. Cognitive Structure: Expressed a rich and profound appreciation of architectural, design, and esthetic features of their living environment as opposed to social or organizational features. Improvements in design might be keenly appreciated by such individuals.

6. Endurance: Tended to view the organizational climate in which they work favorably and to experience a relatively high degree of job satisfaction. Although not insensitive to their physical environment, they appear to derive job satisfaction from rewarded hard work, rather than from architectural or design characteristics that facilitate such work.

7. Harm Avoidance: Expressed virtually no opinions regarding the organizational climate within which they operate, but respond to their physical environment with a high degree of satisfaction with its esthetic characteristics (appearance rather than design or function). May be relatively passive observers of potentially harmful situations. Improvements in facility design may be appreciated but may not increase participation of such subjects in work or leisure activities.

8. Nurturance: Expressed an unusual amount of satisfaction with both social and physical environments. Also expressed a high degree of job satisfaction and satisfaction with their organizational climate. Equally satisfied with esthetic and functional features of almost all post facilities. May be receptive to design or administrative changes that improve the quality of Army life, but they already appear to be quite satisfied with that life.

9. Succorance: Did not express opinions regarding organizational climate, but indicated importance of certain design features. Would view favorably any design improvements that increased direct and relatively private access to supporting others (e.g., telephones and visiting areas).

10. Understanding: Other than being educated, valuing convenience in architectural design, and having a tendency to give socially desirable responses, there is nothing particularly distinctive about their attitudes and opinions. Opportunities for undisturbed reading may be among the most prominent living requirements of these subjects.

Comparison of the differing correlates and implications of high scores on these ten personality scales may be facilitated by an examination of the entries of Table 50. In that table, capsule summary statements are provided for attitudes toward jobs, social environments, and physical environments, as well as the major design implications of such attitudes, for each of the personality scales.

Summary of Results from the Entire Study. Many of the results might have been anticipated by those who already had knowledge of the major irritants in barracks housing. However, the results here not only document attitudes about conditions but also order them by importance of change and relate them to background factors and to satisfaction.

Respondents and Their Backgrounds. This study was conducted at six posts: Forts Knox, Lee, Sill, Dix, Leonard Wood, and Hood. Slightly more than half the respondents in this study were between the ages of 17 and 23. The remainder ranged from 24 to over 40 years of age. The racial distribution was nearly the same as that for the total American population. Most men had at least a high school education, but a few had completed college. Over half the men were at a pay grade level of E4 or below. About half had enlisted. A slight majority of the respondents had served in the Army for 2 years or less, while about 30 percent were in for more than 4 years. A majority had decided definitely not to reenlist. About one-third of the men were in combat-arms units, while the remainder were divided among combat support, training, or other types of units. Half the men lived in 1950s barracks, while the remainder were divided among 1960s barracks. World War II temporary barracks, with a few living in World War II temporary BEQs, 1930s, and other types of barracks.

The results were analyzed by cross tabulating them under 11 different background factors, many of which were interrelated. One of the major interrelationships occurred among rank, age, and the number of people in a room. The older men were in the higher ranks and usually had single rooms, while the younger men were in lower pay grades and were housed with many men per room. There were fewer blacks in the lower age brackets than in higher age groups. Thus, blacks tended to be older than whites, and as a result were in the higher ranks and had fewer roommates.

The effects by post were also very strong. In fact, the responses on nearly every question were significant when broken down by post. This appears to be the result of unequal distribution of the various factors in the sample at the posts, and as a result, post was a very sensitive indicator. For example, the educational level was not the same at all posts; the number of people per room was much higher at Fort Hood than at all other posts; and Fort Knox had a lower density of people per room than any other post. Training units were more prevalent at Forts Dix, Knox, and Leonard Wood, while combat-arms and combat-support units were more prevalent at Forts Sill and Hood. Respondents at Fort Hood tended to be younger than average and in lower ranks. In addition, the barracks construction types were not equally distributed at the various posts.

Questionnaire.

Section A--The Post. The majority of respondents were dissatisfied with the general conditions, location, and appearance of the post. The things they most wanted to see changed were the dullness of the post, having the post nearer their home, and having attractive buildings and modern conditions.

Section B--The Barracks. The majority of the troops were dissatisfied with the general conditions and outside appearance of the barracks, while about half reported that they were satisfied with the location of the barracks. The men were in strongest agreement about the slowness of repair service, drabness of the exterior, and unattractive entrances. However, the

Table 50
Summary of Correlates and Implications of Ten Personality Scales

Need	Job Satisfaction	Social Environment	Physical Environment	Design Implications
Abasement	High	-	Indifferent	May accept any design not interfering with execution of duties.
Achievement	Low	-	Moderately satisfied	None. Change job duties.
Affiliation	High	Highly satisfied	Positive, but socially desirable	None. Determinants of satisfaction appear social.
Aggression	-	-	Dissatisfied with comfort, appearance and atmosphere of post facilities.	Improvements may not affect job satisfaction.
Cognitive Structure	Slightly positive	-	Very high appreciation of architectural, design, and esthetic features	Improvements may be keenly appreciated.
Endurance	High	Highly satisfied	Positive, but socially desirable	Few. Derive job satisfaction from rewarded hard work.
Harm-Avoidance	-	-	Highly satisfied with esthetic features	Improvements may be appreciated but may not increase participation.
Nurturance	High	Highly satisfied	Highly satisfied with esthetic and functional features	Receptive to change, but already quite satisfied.
Succorance	-	-	Moderately satisfied	Improvements that increase direct and private access to supporting others.
Understanding	-	-	Appreciate convenience in design	Possibly more opportunities for undisturbed reading.

things that they would most like to see changed in the barracks were the comfortableness, bug problems, speed of repair service, convenience to on-post facilities for off-duty activities, and ugliness and old-fashionedness of the exterior appearance.

Section C The Sleeping Area. The men were most dissatisfied with the furniture and equipment and storage space in the sleeping area, and slightly less dissatisfied with the appearance and general conditions of the sleeping area. The things that the men would most like to see changed were temperature control, noise control, difficulty of being alone, ugliness of the sleeping area, the limited variety and uncomfortableness of the furniture, and the security of the storage space, as well as inadequate storage space for large personal items.

Section D-Latrines and Washrooms. Again, a majority of the men were dissatisfied with the general conditions of the latrines and washrooms and reported that the privacy in the latrines was poor, that they were drab and smelly, but were within a reasonable distance from their sleeping area. The most important changes in latrines were privacy, odor control, and cleanliness.

Section E-Day Room or Lounge. About half of the men were dissatisfied with the general conditions as well as the appearance and atmosphere of the day room, while a large majority were dissatisfied with the furniture and equipment in the day room. The troops were in strongest agreement about the noisiness, crowding, dreariness, and drabness of the day room as well as the limited variety of furnishings and the plainness of the furniture. The things they most wanted to see changed in their day room were the noisiness, ugliness, and limited variety of equipment available for use.

Section F-Dining Hall. About half of the men were dissatisfied with the food service in the dining hall and with the furniture in the dining hall, while slightly less were dissatisfied with the general conditions and with the appearance and atmosphere. The men were in strongest agreement about the noisiness and crowding in the dining hall, inconvenience to washroom facilities, cleanliness, bright lighting, and low number of hazards that existed there. They were also in general agreement that the furniture was plain and of limited variety. The most desirable changes were less clutteredness and crowding in the dining hall, convenience to washrooms, comfortableness of furniture, and better food with more variety.

Section G-Organizational Climate. A majority of men found that organization and chain of command were reasonably clear, people within the units were generally friendly with each other, subordinates were reasonably treated, communication upward was not the best, and there were definite inefficiencies in work. Most men were not satisfied with their work. The men were almost evenly divided on how much individual responsiblity was encouraged, how much men were trusted, and how well communication flowed downward. Major differences occurred by age, pay grade, educational level, and type of unit and post, with the younger, lower ranking, lower educated, and those in combat-arms and support units consistently negative in response and their opposite counterparts consistently positive in response. Job satisfaction items showed a stronger relationship to reenlistment potential than any other items in the entire questionnaire.

Responses of WACs. The 97 WACs who also completed questionnaires were in very close agreement with the men. However, a few items were of greater concern to the women such as cleanliness, convenience to work, having places to visit with guests, telephones, and washers and dryers. Storage space for clothing was important as well as separation of activities in the day room or lounge. The WACs concurred with the men that improved temperature control, noise control, and security were very important. As a group the WACs found more job satisfaction than did the men.

Responses of Officers. With few exceptions the responses of 44 unit commanders to the questionnaire were in general agreement with the men. Overall, they were slightly more positive in their response about conditions than were the troops. The officers found the sleeping area more noisy than the men, having a television in their room less important, and having speedy repair service more important.

Responses of First Sergeants. Forty-five first sergeants also completed the questionnaire. In general, they were more positive than both the men and the officers on most scales and saw things as being much better than the men did. However, they rated the difficulty of keeping things repaired lower than the men and found speed of repair service much more important. Security of storage space and having a television in the room were rated less important. Other, more minor differences between the groups also occurred.

Ratings of Barracks by Architects. Two architects visited all six installations and rated 24 barracks that were included in the study. Overall, they were in reasonable agreement with the men in their ratings of the barracks, except on functional items such as crowding in the sleeping area and in the day room, rearrangement of furniture and decorating, security of storage space, and crowding in the dining hall. In summarizing their visits, the architects pointed out their general impression about the poor quality of the interior design in these buildings.

Slide Presentation. The results of the slide presentation showed the importance of having privacy or personal territory. However, many respondents noted that partitioning without noise control was still unsatisfactory. The slide presentation also showed the importance of more modern furniture and decorating in the rooms. The choice of items of furniture and choice of room color corresponded fairly closely to that reported in the questionnaire, where in addition to having a bed and a locker important items included a desk and chair, or lounge chair, television, refrigerator, carpeting, and some other items. While the color preferences lean strongly toward blue, this preference is difficult to interpret because the choice of blue may have been strongly influenced by its lack of use in military facilities. The slide presentation also showed the importance of exterior appearance and landscaping of barracks. Not only were landscaping and appearance in combination strongly important, it appears from the responses that it might have a significant effect on reenlistment, undoubtedly in combination with a general improvement in the quality of barracks.

Activity Diaries. In one respect the activity diaries provided useful information in showing that the time spent in barracks and areas within the barracks comprises a major portion of the individual's day and therefore deserves major consideration as a primary point of improvement. However, when these results were analyzed by various background factors and by ratings of conditions in barracks, it appeared that the use of these buildings was not affected to a great extent by how the men saw the conditions. Either the life style offers no alternatives or the information provided by the diaries was not sufficiently accurate.

Personality Inventory. Results of the personality inventory indicate that attitudes toward housing and other facilities are related to personality characteristics of the individual respondents. For example, individuals who showed a high degree of aggression complained strongly about many conditions, but it does not appear that improvement of these conditions will increase their level of job satisfaction or make them more satisfied with their social environment. However, changes based on several other personality characteristics indicate that improvement in physical conditions would have a positive effect on job satisfaction and social environment. Another inference to be made here is that one solution to barracks housing does not provide a solution for all. Individual differences are important.

Discussion of Differences in Responses. The above items are some of the major results of this study. Because over 300 items were asked it is difficult to make generalizations about the responses. Such generalizations also neglect the importance of individual differences. When the results were broken down by various background factors, several trends seemed to occur quite frequently. Educational level, whether an individual was drafted or had volunteered, type of unit, and number of nights spent in the room did not seem to have major effects on the attitudes of the men. Differences in response between the six posts included in the study were almost always significant, as noted earlier in this summary. The post seemed to be sensitive to many of the other factors used for analysis because these other factors were not equally distributed across all posts.

The major effects appear to result from the number of people per room, age and pay grade, race, type of barracks construction, and reenlistment potential. As noted earlier several of these are interrelated. The men who are older are probably in higher pay grades and as a result have single or two-man rooms at most. In addition, many of them are housed in BEQs. When these factors are considered together in reviewing responses, it is quite apparent that those who have been in service longer and are older and in higher pay grades and have fewer people per room have a built-in, positive response about conditions. Because of the length of time they have spent in the service, their recent experience has been limited to military facilities rather than civilian ones. As a result, their expectations about facilities are limited to what the Army has provided, while those who have experienced living in civilian facilities more recently have different expectations. In addition, the men who have been in the Army longer have probably found a gradual improvement in their lot from what it was when they first entered. The facilities provided for them to live in have improved. Their

point of reference becomes what they had early in their military career.

The younger men who were in lower pay grades and had a large number of roommates had as their point of reference their recent life in the civilian community. Therefore the poor quality of barracks housing was considerably more vivid to them and as a result they rated things as being much worse than did the older men.

As far as race is concerned, it frequently turned up as one of the factors showing significant differences in responses. In almost every case where it occurred, blacks provided a more positive response than did whites. However, this difference does not seem to be totally a racial factor because the respondents in the study who were black tended to be slightly older than did the whites and because of their age, length of service, etc., responded more positively. In fact, there were very few blacks in the age bracket of 20 years old or younger, while about 10 percent of white respondents came from that age bracket. Nevertheless, in some cases it appears that the most logical interpretation is that the racial differences were truly racial and that the expectations of blacks were not as high as they were for whites. Again it is difficult to separate the true racial differences, if they exist, from the effects of age, pay grade, and density of people in a room.

There were also rather frequent differences in response based on barracks construction type. Most frequently, however, it appears that the older men who lived in BEQs had attitudes and opinions that were sufficiently different from those living in other barracks types causing statistical significance to occur. However, in the sections concerned with the barracks and sleeping area, it appears that 1930s barracks are rated considerably better by the men than other types. In fact, the architects commented that the 1930s barracks were more beautiful, colorful, well landscaped, and had more attractive entrances than the other types. The positive responses for 1930s barracks may have also been influenced by the fact that they were not as crowded as some other types.

Reenlistment potential, i.e., whether individuals had decided to reenlist or not, also showed significant differences in the response to many questions. Those who said they did not intend to reenlist were the ones who provided the most negative response, while those who said they did intend to reenlist tended to be positive in their ratings. This in fact relates to the effects of age, pay grade, and number of people in a room, where the longer an individual has been in the service the more likely he is to reenlist and the more likely he is to have positive attitudes about the conditions in which he lives. When consideration is given to whether improvement in conditions will have a positive effect on reenlistment rate, it would have to be said from the results that if an individual's attitudes about living conditions are improved by actually providing better living conditions that he would be more likely to reenlist for another tour. This was not asked directly except in the slide presentation where exterior appearance and landscaping was assessed. On such a question, when men saw pictures of a modern, newly constructed barracks, many more said that they would probably reenlist if they had such living conditions than had stated so in response to a picture of a barracks which they typically now have. The questions on job satisfaction showed the strongest relationship with reenlistment. Those who were more interested and challenged by their jobs, were more likely to reenlist.

This has been a summary of results. More detailed information is available from the approximately one million pieces of information collected.

4 CONCLUSIONS

1. One of the purposes of this study was to document the attitudes of the soldiers toward their barracks, in providing a baseline of data for comparing the effects of improvements and changes. This objective was met. From the results it can be concluded that the troops were generally dissatisfied with the conditions in which they live as evidenced by the items below.

   A. At least 70 percent of the men were dissatisfied with:

      (1) Furniture and equipment in the sleeping area (Question C30).

      (2) Storage space in the sleeping area (C37).

B. At least 60 percent of the men were dissatisfied with the items covered in the following subsections, in descending order of strength of response.

(1) Appearance and atmosphere of the sleeping area (C21).

(2) Furniture and equipment in the day room or lounge (E28).

(3) General conditions on the post (A10).

(4) General conditions of the barracks (B15).

(5) Outside appearance of the barracks (B30).

(6) General conditions of the latrines (D13).

C. The only topic area to which more respondents expressed satisfaction than dissatisfaction was the location of the barracks on the post (B23).

D. At least 80 percent of the respondents agreed with the following items:

(1) I prefer to live off post rather than on post (A28a).

(2) The post is hot in summer (A2).

(3) There is a limited variety of furniture and equipment in the sleeping area (C24).

(4) The furniture and equipment in the sleeping area is plain (C25).

(5) There is inadequate storage space for large personal items (C33).

E. At least 70 percent of the men agreed with the following:

(1) The post is cold in winter (A3).

(2) The post is dull (A9).

(3) The post is a long way from home (A16).

(4) Repair service in the barracks is slow (B4).

(5) The barracks is located conveniently to a branch PX (B19).

(6) The barracks is located conveniently to a snack bar (B20).

(7) The sleeping area is clean (C1).

(8) The latrine is drab (D7).

(9) The furniture and equipment in the day room is plain (E22).

(10) The furniture in the day room is of limited variety (E26).

(11) The equipment in the day room is of limited variety (E27).

(12) The dining hall is clean (F3).

(13) The furniture in the dining hall is of limited variety (F33).

2. Another purpose of this study was to determine what changes in barracks conditions were most desirable to the troops. This objective was met. The most desirable changes were presented for the entire study (Figure 30). The most desirable changes are also listed below in descending order of importance according to the section of the survey in which they appeared:

A. Post

(1) Dullness of post (A9).

(2) Distance from home (A16).

(3) Unattractiveness of building appearance (A22).

(4) Old-fashioned appearance (A24).

(5) Unpleasantness of post (A4).

(6) Unpleasantness of off-post community (A17).

B. Barracks

(1) Uncomfortableness (B13).

(2) Inconvenient to on-post facilities for off-duty activities (B22).

(3) Presence of bugs (B10).

(4) Quality of design (B14).

(5) Unpleasantness (B12).

(6) Speed of repair service (B4).

(7) Inconvenience to main PX (B18).

(8) Ugliness of outside appearance (B25).

C. Sleeping Area

(1) Temperature control (C2).

(2) Noise (C9).

(3) Difficulty of being alone (C11).

(4) Variety of furniture and equipment (C24).

(5) Ugliness of appearance (C15).

(6) Uncomfortableness (C23).

(7) Security of storage space (C35).

(8) Storage space for large personal items (C33).

(9) Crampedness (C10).

(10) Difficulty of sleeping in (C12).

(11) Difficulty of relaxing in (C19).

(12) Uncomfortableness of bed (C29).

D. Latrines

(1) Privacy (D12).

(2) Odor (D4).

(3) Cleanliness (D1).

E. Day Rooms

(1) Noise (E6).

(2) Ugliness (E14).

(3) Variety of equipment (E27).

(4) Difficult to use when I want to (E9).

F. Dining Halls

(1) Crowding (F8).

(2) Difficult to move through (F9).

(3) Variety of food (F37).

(4) Uncomfortableness of furniture (F30).

(5) Inconvenience to wa' ,oms (F11).

(6) Quality of food (F38).

(7) Distance to sleeping area (F10).

(8) Clutteredness (F20).

(9) Noise (F6).

(10) Cleanliness (F1).

3. The third objective of the study was to identify the background factors have some bearing on the attitudes of the troops. It can be concluded that attitudes about barracks conditions are influenced by factors other than physical conditions alone. The attitudes become more positive as the number of people per room decreases, as age and pay grade increase, and as job satisfaction increases. Those who were more positive about barracks conditions were those who were also more likely to reenlist. Differences between posts, types of units, and type of barracks construction were affected by these other factors. It appears that those who have been in the Army longer have seen improvement occur in the conditions that they had had earlier in their military career and are therefore less critical of barracks conditions that now exist. The younger men have home life prior to military service as a point of reference and are therefore more critical of conditions.

4. Privacy, as interpreted by the troops and defined by their responses, includes having a territory for one's self which has visual and sound separation from others, is very secure from others, where one can get away from his military surroundings, where he does not find interference from superiors, where he can control conditions, decorate the space, and set up equipment as he would like to, and thus have a sense of personal attachment, and where he is less responsible for the actions of others.

5. There is a hierarchy of conditions which should be improved. Moving from the top of the list downward these conditions include thermal control, noise control, privacy (as defined above), security, getting rid of the institutional atmosphere or drabness of design, function of the space, "homey" qualities, etc.

6. Individual differences are important and may be satisfied by providing variety and freedom in the management of personal space. Although a wide variety of conditions were encountered in the study (as shown in Appendix F), the variety did not always respond to the needs of the users.

5 RECOMMENDATIONS

The question that arises is how can the information gained in this study be used in making the soldier a better professional, since it is clear that attitudes toward barracks are related to attitudes toward the Army in general and to intent to reenlist? The recommendations about the results of this study fall into three general areas:

1. interim design information
2. test and evaluation of design interpretation
3. supplemental analysis of data.

Interim Design Information. Major irritants, identified earlier in this report, were ranked in two ways. The items which received the worst ratings are ranked, with the worst ratings listed first. Also, the items which the men would most like to see changed are ordered.

These results help determine a hierarchy of features that should be considered in the design of renovation projects or new construction. These listings will assist commanders in deciding priorities to request and allocate funds, and they will assist designers or A–E's in developing design solutions to better fit the preferences of the facility user.

However, the results here will not help predict the effectiveness of the design interpretations or of the changes made, either in terms of user satisfaction or in terms of cost effectiveness. The problem of effectiveness will be discussed below, under test and evaluation of design interpretation.

The background factors will provide some guidance in applying the results of this study. Differences between posts and types of units can be understood in terms of the other factors, particularly when installation commanders would like to use the results at an installation not included in the study.

Test and Evaluation of Design Interpretation. There are many changes in barracks conditions that could be made based on the results of this study. However, the results of this study do not show how effective these changes will be, because, in general, the range of conditions encountered across the study was rather limited. When a design interpretation and a change is made, the effectiveness of that change can be determined by measuring the corresponding shift in the rating scales, relative to the impact on user satisfaction levels. When several changes are made and the cost of each is known, the cost effectiveness of such changes can be determined by comparing the cost of the change to the impact on user satisfaction. When this is done systematically for a period of time, at different locations and with different user groups, the cost effectiveness of the design interpretation relative to development of new or improved criteria can be reliably predicted.

The results of this study indicate five areas which warrant discussion with respect to developing design tests and evaluations. These areas are listed below.

Comfort Control (with Sleeping Area). Good temperature control, which is seasonally adjusted as well as being locally accessible across all areas of the barracks, was identified at least twice in the survey results as a very important improvement. In conjunction with the improvements in thermal control systems currently being planned and provided in barracks at several installations, experiments could be conducted to determine the effectiveness of these improvements in relation to user satisfaction, cost, and efficiency of performance. This would be of great value in determining which design solutions were more effective in alleviating the irritant toward the development of guidance for future projects.

Privacy. The results of this study have shown that privacy in barracks has a wide variety of meanings. These include fewer people per room, individual light control, better temperature control, better definition of personal space, noise control, security, freedom to decorate and arrange personal space and equipment, and being able to get away from group responsibilities and command interference during off-duty hours.

Significant renovation programs have been implemented to solve some of these conditions. New barracks designs will make additional improvements. But the elements of the improvements should be documented and evaluations made, or new interpretations made to accommodate the elements of privacy identified by this study, and experiments established to determine which designs are most effective in relation to user satisfaction and cost.

Variety and Choice (of Furniture and Equipment). The results of this study indicate that variety and choice are big factors affecting the attitude of the facility user. This is demonstrated by the results throughout and supported by the personality inventory. A typical example is that of room color preference. Most respondents preferred a color other than

the one they currently had. Most rooms within a building were painted the same color. Variety could be offered by having varying color schemes for different areas, and by providing brighter colors in some areas.

Improving the variety of furniture was intentionally investigated in the survey based on a solution currently under consideration at several universities. The idea suggested to the respondents was the availability of a central store where furniture items beyond a basic allotment could be obtained for a minimal rental charge or for free. Modular components would permit individual room arrangements and interchangeability from time to time. The idea received support from at least 85 percent of the respondents. It is important to note that this is only one way of providing variety to satisfy individual taste, and that it, or other appropriate design interpretations, should be experimented with and evaluated for impact on attitudes before incorporating such a system into future building programs or renovations.

Supplemental Analysis of Data. Undoubtedly, data were collected that are of value to others. Further analysis of the data could probably assist in resolving specific issues of importance to other groups. However, further analysis is only warranted when specific issues are defined.

Crowding (in Dining Halls). Another important factor affecting attitudes is crowding in the dining halls. From current CERL research on dining facilities, this appears to be a common perception among the users of military dining halls. However, these studies indicate that crowding does not appear to be directly related to table spacing, but that it is largely a matter of the number of people perceived to be in line or moving about in the space.

Various solutions to the crowding problem are being studied through experimentation and evaluation in conjunction with controlled renovation projects. Partitions that visually separate lines of people from table areas and subdivide the dining area are being evaluated relative to perceived crowding. If these relatively economical changes effectively reduce the irritation of crowding in the test cases as anticipated, then such design interpretations could be advanced in the form of criteria for broader application.

Since there is current work being done in the area, this discussion is used to provide one example of the importance of test and evaluation in translating survey results about attitudes into design solutions and criteria development.

Allocation of Space Within the Barracks. A concept that is worthy of further investigation is that of space allocation within the barracks. Many spaces in the barracks are frequently common to several individuals: latrines, sleeping area, and day rooms. Perhaps what the men partly mean by privacy is having as few people in a space as possible, and perhaps equally important, having the "living" and bathroom functions included within the same personal area as the sleeping space.

This is supported in part by responses in the study such as a strong perference for private latrines, small refrigerators, televisions, lounge chairs, etc. The "ideal" barracks room on a post is usually considered to be one in which the individual or individuals have been able to combine such features into a room that can be secured from others as desired. One advantage of such a room is that the soldier does not have to leave the barracks to minimize conflicts with others. Other advantages include greater personal pride, greater pride in one's personal space, and possibly less expense during off-duty hours. The consideration of a suite concept of some type may yield a major improvement for the users.

APPENDIX A: QUESTIONNAIRE

FACILITY SURVEY

One of the primary concerns of the Modern Volunteer Army is to make major improvements in bachelor housing. Programs are underway to modernize and attractively furnish these facilities. Other programs are planned for the very near future, but your help is needed now.

You have been selected along with other men to help improve barracks housing and other facilities in the Army by giving us your confidential opinions about these facilities. Here is an opportunity to say exactly how you feel. Here is a chance to tell the people who are going to make changes how barracks and other facilities should be improved, what should be added, what is good or bad about these facilities, and how new ones should be constructed. Individuals like you, who live in and use the facilities on post, are one of our best sources of information.

The information requested in this survey will be used for research purposes only and all responses will be held in strictest confidence. Your name will not be linked with your answers, which will be used only for statistical summaries of the data.

Your assistance is greatly appreciated.

U.S. Army Corps of Engineers
Construction Engineering Research Laboratory
P.O. Box 4005
Champaign, Illinois 61820

April-May, 1972

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The following is an example of the first type of question that you will be answering. We will explain to you how it should be filled out.

EXAMPLE 1.

For each pair of items below, please rate your HOMETOWN by circling the number which comes closest to telling how you feel about your hometown.

		Extremely	Moderately	Neither	Moderately	Extremely	
		GENERAL CONDITIONS OF HOMETOWN					
1.	Large	1	2	3	(4)	5	Small
2.	Pleasant	(1)	2	3	4	5	Unpleasant
3.	Cool in the summer	1	2	3	(4)	5	Hot in the summer
4.	Warm in the winter	1	2	3	4	(5)	Cold in the winter
5.	Exciting	1	2	3	(4)	5	Dull
6.	Clean	1	(2)	3	4	5	Dirty
7.	Satisfied with general conditions of my hometown	1	(2)	3	4	5	Dissatisfied with general conditions of my hometown

8. Of the items above (1-6) on general conditions, which three would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important 5

Second most important 1

Third most important 6

OFFICE USE ONLY	
Quest. No.	_____
Type	3
Study No.	121

A. POST IN GENERAL

For each pair of items below, please rate your POST IN GENERAL by circling the number which comes closest to telling how you feel about your post in general.

		Extremely	Moderately	Neither	Moderately	Extremely	
	GENERAL CONDITIONS ON POST						
1.	Roomy	1	2	3	4	5	Cramped
2.	Cool in the summer	1	2	3	4	5	Hot in the summer
3.	Warm in the winter	1	2	3	4	5	Cold in the winter
4.	Pleasant	1	2	3	4	5	Unpleasant
5.	Large	1	2	3	4	5	Small
6.	Well lighted at night	1	2	3	4	5	Poorly lighted at night
7.	Quiet	1	2	3	4	5	Noisy
8.	Sunny weather	1	2	3	4	5	Gloomy weather
9.	Exciting	1	2	3	4	5	Dull
10.	Satisfied with general conditions on this post	1	2	3	4	5	Dissatisfied with general conditions on this post

11. Of the items above (1-9) on general conditions, which three would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

A. POST IN GENERAL--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
		LOCATION OF POST					
12.	Attractive natural surroundings	1	2	3	4	5	Unattractive natural surroundings
13.	Convenient to off-post recreation areas	1	2	3	4	5	Inconvenient to off-post recreation areas
14.	Convenient to off-post shops and stores	1	2	3	4	5	Inconvenient to off-post shops and stores
15.	Convenient to off-post night spots	1	2	3	4	5	Inconvenient to off-post night spots
16.	Near my home	1	2	3	4	5	Long way from my home
17.	Pleasant off-post community	1	2	3	4	5	Unpleasant off-post community
18.	Satisfied with location of this post	1	2	3	4	5	Dissatisfied with location of this post

19. Of the items above (12-17) on location, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

A. POST IN GENERAL--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
		APPEARANCE OF POST					
20.	Well landscaped (use of trees, shrubs, and grass)	1	2	3	4	5	Poorly landscaped
21.	Clean looking	1	2	3	4	5	Dirty looking
22.	Attractive buildings	1	2	3	4	5	Unattractive buildings
23.	Colorful	1	2	3	4	5	Drab
24.	Modern	1	2	3	4	5	Old-fashioned
25.	Beautiful	1	2	3	4	5	Ugly
26.	Satisfied with appearance of this post	1	2	3	4	5	Dissatisfied with appearance of this post

27. Of the items above (20-25) on appearance, which three would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

The following is an example of the second type of question that you will be answering in this questionnaire.

EXAMPLE 2. My favorite football team is . . . *(Circle one.)*

Colts 1
Jets . . . . . (2)
Rams 3
Bears 4

In this example, you would have circled 2 if your favorite football team is the Jets. If your favorite team is not the Jets, you would have circled a different number.

A. POST IN GENERAL--Continued

28a. If you had your choice, where would you live? *(Circle one.)*

On post 1

Off post . . . 2

b. Please explain the reasons for your choice. _____

_____

_____

29. What existing facilities on post should be expanded?

a. _____

b. _____

c. _____

d. _____

30. What new facilities should be added on post?

a. _____

b. _____

c. _____

d. _____

31. Below, list up to five activities you like to do during your off-duty hours.

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

B. YOUR BARRACKS (OR BEQ)

For each pair of items below, please rate your BARRACKS (OR BEQ) by circling the number which comes closest to telling how you feel about your barracks (or BEQ).

		Extremely	Moderately	Neither	Moderately	Extremely	
	GENERAL CONDITIONS OF BARRACKS						
1.	Clean	1	2	3	4	5	Dirty
2.	Dry	1	2	3	4	5	Damp
3.	Good repair	1	2	3	4	5	Poor repair
4.	Fast repair service	1	2	3	4	5	Slow repair service
5.	Easy to keep repaired	1	2	3	4	5	Hard to keep repaired
6.	Wide hallways and stairways	1	2	3	4	5	Narrow hallways and stairways
7.	Convenient to enter and leave	1	2	3	4	5	Inconvenient to enter and leave
8.	Safe from fire	1	2	3	4	5	Unsafe from fire
9.	Low number of safety hazards	1	2	3	4	5	High number of safety hazards
10.	Free of bugs	1	2	3	4	5	Bug infested
11.	Free of rodents	1	2	3	4	5	Rodent infested
12.	Pleasant	1	2	3	4	5	Unpleasant
13.	Comfortable	1	2	3	4	5	Uncomfortable
14.	Well designed	1	2	3	4	5	Poorly designed
15.	Satisfied with general conditions of my barracks (or BEQ)	1	2	3	4	5	Dissatisfied with general conditions of my barracks (or BEQ)

16. Of the items above (1-14) on general conditions, which three would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

B. YOUR BARRACKS (OR BEQ)--Continued

LOCATION OF BARRACKS

		Extremely	Moderately	Neither	Moderately	Extremely	
17.	Convenient to my work area	1	2	3	4	5	Inconvenient to my work area
18.	Convenient to main PX	1	2	3	4	5	Inconvenient to main PX
19.	Convenient to a branch PX	1	2	3	4	5	Inconvenient to a branch PX
20.	Convenient to a PX snack bar	1	2	3	4	5	Inconvenient to a PX snack bar
21.	Convenient to on-post health facilities	1	2	3	4	5	Inconvenient to on-post health facilities
22.	Convenient to on-post facilities for off-duty activities	1	2	3	4	5	Inconvenient to on-post facilities for off-duty activities
23.	Satisfied with location of my barracks (or BEQ)	1	2	3	4	5	Dissatisfied with location of my barracks (or BEQ)

24. Of the items above (17-22) on location, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

B. YOUR BARRACKS (OR BEQ)--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
	OUTSIDE APPEARANCE OF BARRACKS						
25.	Beautiful	1	2	3	4	5	Ugly
26.	Colorful	1	2	3	4	5	Drab
27.	Well landscaped	1	2	3	4	5	Poorly landscaped
28.	Modern	1	2	3	4	5	Old-fashioned
29.	Attractive entrance	1	2	3	4	5	Unattractive entrance
30.	Satisfied with outside appearance of my barracks (or BEQ)	1	2	3	4	5	Dissatisfied with outside appearance of my barracks (or BEQ)

31. Of the items above (25-29) on outside appearance, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

B. YOUR BARRACKS (OR BEQ)--Continued

32. What color is the outside of the building where you live? *(Circle one.)*

White 1

Light brown or sand color . . 2

Green or shades of green . . 3

Grey 4

Red or shades of red 5

Other *(Specify)* _____ 6

33. How would you rate your barracks (or BEQ) compared to others on post? *(Circle one.)*

Much worse 1

Somewhat worse 2

About the same 3

Somewhat better 4

Much better 5

b. Why do you say that? _____

_____

_____

34. Is parking for your car near your barracks (or BEQ) adequate or inadequate? *(Circle one.)*

Adequate 1

Inadequate 2

I don't have a car on post . 0

35. On the average, how many nights per week do you sleep in the quarters to which you are assigned? *(Write number.)*

_____ nights per week

B. YOUR BARRACKS (OR BEQ)--Continued

36. Please indicate how important each of the following items is to you. *(Circle one number for each item.)*

	Very important	Somewhat important	Not too important	Not at all important
a. Having living quarters where you are free from reminders of daily Army life	1	2	3	4
b. Having living quarters where you are not accessible to superiors during off-duty hours . . .	1	2	3	4
c. Having living quarters where you are not responsible for group actions	1	2	3	4
d. Having a place in your barracks for visiting with guests (family, friends, dates)	1	2	3	4
e. Having a game room	1	2	3	4
f. Having a reading or study room . . .	1	2	3	4
g. Having free telephones in your barracks for making on-post calls . .	1	2	3	4
h. Having pay telephones in your barracks for making outside calls . .	1	2	3	4
i. Having free washers and dryers in your barracks	1	2	3	4
j. Having vending machines for snacks in your barracks	1	2	3	4

C. YOUR SLEEPING AREA

For each pair of items below, please rate your SLEEPING AREA by circling the number which comes closest to telling how you feel about your sleeping area.

		Extremely	Moderately	Neither	Moderately	Extremely	
	GENERAL CONDITIONS OF SLEEPING AREA						
1.	Clean	1	2	3	4	5	Dirty
2.	Easy to control temperature	1	2	3	4	5	Hard to control temperature
3.	Brightly lighted	1	2	3	4	5	Dimly lighted
4.	Easy to control lighting	1	2	3	4	5	Hard to control lighting
5.	Stuffy	1	2	3	4	5	Drafty
6.	Sunny	1	2	3	4	5	Dark
7.	Easy to clean	1	2	3	4	5	Difficult to clean
8.	Odor free	1	2	3	4	5	Smelly
9.	Quiet	1	2	3	4	5	Noisy
10.	Roomy	1	2	3	4	5	Cramped
11.	Easy to be alone	1	2	3	4	5	Hard to be alone
12.	Easy to sleep in	1	2	3	4	5	Hard to sleep in
13.	Satisfied with general conditions of my sleeping area	1	2	3	4	5	Dissatisfied with general conditions of my sleeping area

14. Of the items above (1-12) on general conditions, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

C. YOUR SLEEPING AREA--Continued

APPEARANCE AND ATMOSPHERE OF SLEEPING AREA

		Extremely	Moderately	Neither	Moderately	Extremely	
15.	Beautiful	1	2	3	4	5	Ugly
16.	Cheerful	1	2	3	4	5	Dreary
17.	Colorful	1	2	3	4	5	Drab
18.	Suitable for decorating	1	2	3	4	5	Unsuitable for decorating
19.	Easy to relax in	1	2	3	4	5	Hard to relax in
20.	Pleasant outside view	1	2	3	4	5	Unpleasant outside view
21.	Satisfied with appearance and atmosphere of my sleeping area	1	2	3	4	5	Dissatisfied with appearance and atmosphere of my sleeping area

22. Of the items above (15-20) on appearance and atmosphere, which <u>three</u> would it be most important to you to have changed? On the lines below, <u>write</u> the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

C. YOUR SLEEPING AREA--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
	FURNITURE AND EQUIPMENT IN SLEEPING AREA						
23.	Comfortable	1	2	3	4	5	Uncomfortable
24.	Wide variety	1	2	3	4	5	Limited variety
25.	Stylish	1	2	3	4	5	Plain
26.	Colorful	1	2	3	4	5	Drab
27.	Suitable for rearranging	1	2	3	4	5	Unsuitable for rearranging
28.	Sturdy	1	2	3	4	5	Easy to damage
29.	Comfortable bed	1	2	3	4	5	Uncomfortable bed
30.	Satisfied with furniture and equipment in my sleeping area	1	2	3	4	5	Dissatisfied with furniture and equipment in my sleeping area

31. Of the items above (23-29) on furniture and equipment, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

C. YOUR SLEEPING AREA--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
	STORAGE SPACE IN SLEEPING ROOM						
32.	Adequate for clothes	1	2	3	4	5	Inadequate for clothes
33.	Adequate for large personal items (skis, suitcases, etc.)	1	2	3	4	5	Inadequate for large personal items
34.	Adequate for small personal items	1	2	3	4	5	Inadequate for small personal items
35.	Easy to keep secure from others	1	2	3	4	5	Hard to keep secure from others
36.	Easy to store items when I go on leave	1	2	3	4	5	Hard to store items when I go on leave
37.	Satisfied with storage space in my sleeping room	1	2	3	4	5	Dissatisfied with storage space in my sleeping room

38. Of the items above (32-36) on storage space, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

39. <u>Including yourself</u>, how many people are <u>now</u> assigned to sleep in the same room as you do? *(Write number.)*

_____ people

40. <u>Including yourself</u>, how many people would you <u>like</u> to have sleep in the same room as you do? *(Write number. If prefer a room to yourself, write 1.)*

_____ people

C. YOUR SLEEPING AREA--Continued

41. For your sleeping area, what does "having privacy" mean to you?

_____

_____

_____

42. Other than for sleeping, about how many hours do you usually spend in your room each day? *(Circle one.)*

Less than 1 hour 1
About 1 hour 2
About 2 hours 3
About 3 hours 4
About 4 hours 5
About 5 hours 6
More than 5 hours . . . 7

43. How often do present room conditions keep you from spending time in your room? *(Circle one.)*

Frequently 1
Sometimes 2
Seldom 3
Never 4

C. YOUR SLEEPING AREA--Continued

44. From the list below, circle the numbers after the six items which you would most like to have in addition to a bed and closet or locker if you lived in a one- or two-man room.

Wall shelving	1
Tack boards	2
Throw rug or area rug	3
Easy chair	4
Desk, desk chair, and desk lamp	5
Decorative bedspread	6
Adjustable floor lamp	7
Decorative drapes for windows	8
Small TV	1
Small refrigerator	2
Extra storage units for personal items	3
Large mirror for dressing	4
Other *(Specify)* _____	5

45. Suppose there were a "central store" near your barracks where you could obtain or exchange different kinds of storage units, chairs, and accessories--in addition to your basic furniture--in order to furnish your room as you want. If items could be rented at low rates, would you use the store? *(Circle one.)*

Definitely would	1
Possibly would	2
Possibly would not	3
Definitely would not	4

46. If items from the central store could be obtained free of charge, would you use the store? *(Circle one.)*

Definitely would	1
Possibly would	2
Possibly would not	3
Definitely would not	4

C. YOUR SLEEPING AREA--Continued

47. Below is a list of building features which might be included in a room. Circle the numbers after the four items that you would most like to have in your room.

Personal telephone	1
Private bathroom	2
Outside balcony	3
Large window	4
Wall-to-wall carpet	5
Colorful appearance	6
Wood paneling	7
Adjustable or movable ceiling lights	8
All-season temperature control	1
Other *(Specify)* _____	2

48. What is the main color of your sleeping area? *(Circle one.)*

Red or shades of red	1
Green or shades of green	2
Blue or shades of blue	3
Brown or shades of brown	4
Yellow or shades of yellow	5
Orange or shades of orange	6
Other *(Specify)* _____	7

49. If you were painting your sleeping area, what would you choose as the main color? *(Circle one.)*

Red or shades of red	1
Green or shades of green	2
Blue or shades of blue	3
Brown or shades of brown	4
Yellow or shades of yellow	5
Orange or shades of orange	6
Other *(Specify)* _____	7

D. YOUR LATRINE AND WASHROOM

For each pair of items below, please rate your LATRINE AND WASHROOM by circling the number which comes closest to telling how you feel about your latrine and washroom.

		Extremely	Moderately	Neither	Moderately	Extremely	
	GENERAL CONDITIONS OF LATRINE AND WASHROOM						
1.	Clean	1	2	3	4	5	Dirty
2.	Easy to clean	1	2	3	4	5	Hard to clean
3.	Stuffy	1	2	3	4	5	Drafty
4.	Odor free	1	2	3	4	5	Smelly
5.	Quiet	1	2	3	4	5	Noisy
6.	Adequate shelving at wash basin	1	2	3	4	5	Inadequate shelving at wash basin
7.	Colorful	1	2	3	4	5	Drab
8.	Brightly lighted	1	2	3	4	5	Dimly lighted
9.	Good repair	1	2	3	4	5	Poor repair
10.	Close to my sleeping area	1	2	3	4	5	Far from my sleeping area
11.	Low number of safety hazards	1	2	3	4	5	High number of safety hazards
12.	Good privacy	1	2	3	4	5	Bad privacy
13.	Satisfied with general conditions of latrine and washroom	1	2	3	4	5	Dissatisfied with general conditions of latrine and washroom

14. Of the items above (1-12) on general conditions, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

D. YOUR LATRINE AND WASHROOM--Continued

15. During times of heavy use, how long do you usually have to wait to use the following facilities? *(Circle one number for each item.)*

	Do not wait	Wait less than a minute	Wait 1 - 3 minutes	Wait more than 3 minutes
a. Shower	1	2	3	4
b. Wash basin	1	2	3	4
c. Toilet	1	2	3	4
d. Urinal	1	2	3	4
e. Electrical outlet for shaving	1	2	3	4
Do not use electric shaver				0

E. YOUR DAYROOM OR LOUNGE

For each pair of items below, please rate your DAYROOM OR LOUNGE by circling the number which comes closest to telling how you feel about your dayroom or lounge.

		Extremely	Moderately	Neither	Moderately	Extremely	
	GENERAL CONDITIONS OF DAYROOM OR LOUNGE						
1.	Clean	1	2	3	4	5	Dirty
2.	Easy to clean	1	2	3	4	5	Hard to clean
3.	Brightly lighted	1	2	3	4	5	Dimly lighted
4.	Close to my sleeping area	1	2	3	4	5	Far from my sleeping area
5.	Stuffy	1	2	3	4	5	Drafty
6.	Quiet	1	2	3	4	5	Noisy
7.	Uncrowded with people	1	2	3	4	5	Crowded with people
8.	Roomy	1	2	3	4	5	Cramped
9.	Easy to use when I want to	1	2	3	4	5	Hard to use when I want to
10.	Easy to talk with others	1	2	3	4	5	Hard to talk with others
11.	Possible to have more than one activity going on at a time	1	2	3	4	5	Impossible to have more than one activity going on at a time
12.	Satisfied with general conditions of dayroom or lounge	1	2	3	4	5	Dissatisfied with general conditions of dayroom or lounge

13. Of the items above (1-11) on general conditions, which three would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

E. YOUR DAYROOM OR LOUNGE--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
	APPEARANCE AND ATMOSPHERE OF DAYROOM OR LOUNGE						
14.	Beautiful	1	2	3	4	5	Ugly
15.	Uncluttered	1	2	3	4	5	Cluttered
16.	Colorful	1	2	3	4	5	Drab
17.	Cheerful	1	2	3	4	5	Dreary
18.	Relaxed	1	2	3	4	5	Tense
19.	Friendly	1	2	3	4	5	Unfriendly
20.	Satisfied with appearance and atmosphere of dayroom and lounge	1	2	3	4	5	Dissatisfied with appearance and atmosphere of dayroom and lounge

21. Of the items above (14-19) on appearance and atmosphere, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

E. YOUR DAYROOM OR LOUNGE--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
	FURNITURE AND EQUIPMENT IN DAYROOM OR LOUNGE						
22.	Stylish	1	2	3	4	5	Plain
23.	Colorful	1	2	3	4	5	Drab
24.	Comfortable	1	2	3	4	5	Uncomfortable
25.	Sturdy	1	2	3	4	5	Easy to damage
26.	Wide variety of furniture	1	2	3	4	5	Limited variety of furniture
27.	Wide variety of equipment to use	1	2	3	4	5	Limited variety of equipment to use
28.	Satisfied with furniture and equipment in dayroom or lounge	1	2	3	4	5	Dissatisfied with furniture and equipment in dayroom or lounge

29. Of the items above (22-27) on furniture and equipment, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

E. YOUR DAYROOM OR LOUNGE--Continued

30. Is the dayroom or lounge located in the same building where you sleep? *(Circle one.)*

Yes	1
No	2

31. How many hours do you usually spend in your dayroom or lounge each day? *(Circle one.)*

None	0
Less than 1 hour	1
About 1 hour	2
About 2 hours	3
About 3 hours	4
About 4 hours	5
About 5 hours	6
More than 5 hours	7

32. How often do present room conditions keep you from spending time in your dayroom or lounge? *(Circle one.)*

Frequently	1
Sometimes	2
Seldom	3
Never	4

33. How would you improve your dayroom or lounge? (Think of things such as equipment, appearance, etc.)

_____

_____

_____

_____

F. YOUR DINING HALL

1. Is your dining hall in the same building where you sleep? *(Circle one.)*

Yes 1
No 2

2. How often do you eat in the dining hall? *(Circle one.)*

Never *(Go to Section G on p.31)* . . 1
Seldom (less than once a day) . . . 2
One meal per day 3
Two meals per day 4
Three meals per day 5

GO TO NEXT PAGE

F. YOUR DINING HALL--Continued

For each pair of items below, please rate your DINING HALL by circling the number which comes closest to telling how you feel about your dining hall.

		Extremely	Moderately	Neither	Moderately	Extremely	
	GENERAL CONDITIONS OF DINING HALL						
3.	Clean	1	2	3	4	5	Dirty
4.	Brightly lighted	1	2	3	4	5	Dimly lighted
5.	Stuffy	1	2	3	4	5	Drafty
6.	Quiet	1	2	3	4	5	Noisy
7.	Sunny	1	2	3	4	5	Lacking in sunlight
8.	Uncrowded with people	1	2	3	4	5	Crowded with people
9.	Easy to enter and move through	1	2	3	4	5	Difficult to enter and move through
10.	Close to my sleeping area	1	2	3	4	5	Far from my sleeping area
11.	Convenient to washroom facilities	1	2	3	4	5	Inconvenient to washroom facilities
12.	Free of bugs	1	2	3	4	5	Bug infested
13.	Easy to talk with others	1	2	3	4	5	Hard to talk with others
14.	Low number of safety hazards	1	2	3	4	5	High number of safety hazards
15.	Pleasant smell	1	2	3	4	5	Unpleasant smell
16.	Well designed	1	2	3	4	5	Poorly designed
17.	Comfortable temperature	1	2	3	4	5	Uncomfortable temperature
18.	Satisfied with general conditions of dining hall	1	2	3	4	5	Dissatisfied with general conditions of dining hall

19. Of the items above (3-17) on general conditions, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

F. YOUR DINING HALL--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
	APPEARANCE AND ATMOSPHERE OF DINING HALL						
20.	Uncluttered	1	2	3	4	5	Cluttered
21.	Colorful	1	2	3	4	5	Drab
22.	Beautiful	1	2	3	4	5	Ugly
23.	Pleasant lighting for dining	1	2	3	4	5	Unpleasant lighting for dining
24.	Cheerful	1	2	3	4	5	Dreary
25.	Relaxed	1	2	3	4	5	Tense
26.	Friendly	1	2	3	4	5	Unfriendly
27.	Pleasant outside view	1	2	3	4	5	Unpleasant outside view
28.	Satisfied with appearance and atmosphere of dining hall	1	2	3	4	5	Dissatisfied with appearance and atmosphere of dining hall

29. Of the items above (20-27) on appearance and atmosphere, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

F. YOUR DINING HALL--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
		FURNITURE IN DINING HALL					
30.	Comfortable	1	2	3	4	5	Uncomfortable
31.	Colorful	1	2	3	4	5	Drab
32.	Stylish	1	2	3	4	5	Plain
33.	Wide variety	1	2	3	4	5	Limited variety
34.	Sturdy	1	2	3	4	5	Easy to damage
35.	Satisfied with furniture in dining hall	1	2	3	4	5	Dissatisfied with furniture in dining hall

36. Of the items above (30-34) on furniture, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

F. YOUR DINING HALL--Continued

		Extremely	Moderately	Neither	Moderately	Extremely	
	FOOD SERVICE IN DINING HALL						
37.	Wide variety of food	1	2	3	4	5	Limited variety of food
38.	Good food	1	2	3	4	5	Bad food
39.	Courteous personnel	1	2	3	4	5	Discourteous personnel
40.	Convenient hours for meals	1	2	3	4	5	Inconvenient hours for meals
41.	Fast food line	1	2	3	4	5	Slow food line
42.	Appetizing display of food at serving area	1	2	3	4	5	Unappetizing display of food at serving area
43.	Satisfied with food service in dining hall	1	2	3	4	5	Dissatisfied with food service in dining hall

44. Of the items above (37-42) on food service, which <u>three</u> would it be most important to you to have changed? On the lines below, write the question numbers for your first, second, and third choices.

First most important _____

Second most important _____

Third most important _____

F. YOUR DINING HALL--Continued

45. At the busiest meal, how often do you have to wait outside the dining hall tc get in? *(Circle one.)*

Frequently 1

Sometimes 2

Seldom 3

Never 4

46. How long do you usually have to wait in line to be served at each meal?

a. Breakfast *(Circle one.)*

Less than 2 minutes . . . 1

2 - 5 minutes 2

6 - 10 minutes 3

More than 10 minutes . . 4

b. Noon meal *(Circle one.)*

Less than 2 minutes . . . 1

2 - 5 minutes 2

6 - 10 minutes 3

More than 10 minutes . . 4

c. Evening meal *(Circle one.)*

Less than 2 minutes . . . 1

2 - 5 minutes 2

6 - 10 minutes 3

More than 10 minutes . . 4

47. How many friends would you like to eat with if there were tables of different sizes? *(Circle one.)*

0 (Eat alone) 1

1 - 2 2

3 - 4 3

5 - 6 4

More than 6 5

G. GENERAL TOPICS

1. Did any of the following happen to you during the past two weeks? Did you . . . *(Circle one number on each line.)*

	Yes	No
a. Report to a dispensary or hospital because of any illness	1	2
b. Have anything stolen from your room or sleeping area	1	2
c. Receive any injury as a result of a hazardous condition in the building where you live	1	2
d. Get in a fight with anyone in the building where you live	1	2
e. Receive an Article 15	1	2

G. GENERAL TOPICS--Continued

In the series of questions below, please indicate how much you agree or disagree with each statement. (Circle one number for each statement.)

	Strongly agree	Agree	Disagree	Strongly disagree
2. My superiors don't keep me informed about what's going on in my unit . . .	1	2	3	4
3. About the only source of information on important matters is the grapevine	1	2	3	4
4. There are plenty of opportunities around here for more training if you want it .	1	2	3	4
5. My superiors are always on my back . .	1	2	3	4
6. The relationships between officers and men in my unit are generally warm and friendly	1	2	3	4
7. Superiors are open to ideas and suggestions from any of the troops	1	2	3	4
8. Most of my superiors treat me with respect	1	2	3	4
9. Superiors act as though everyone must be watched or they will slack off . . .	1	2	3	4
10. Superiors have spent too little time clarifying the lines of organization and authority	1	2	3	4
11. People in my unit generally act toward one another in a cool and impersonal manner	1	2	3	4
12. I can use the skills I learn in my work in the Army when I return to civilian life	1	2	3	4
13. Most Army work assignments are set up so that they involve a great deal of wasted effort	1	2	3	4

G. GENERAL TOPICS--Continued

	Strongly agree	Agree	Disagree	Strongly disagree
14. Most of my superiors listen to their men	1	2	3	4
15. Even if you have a good suggestion, there is no one who will listen . . .	1	2	3	4
16. Superiors in my unit treat their men with respect and dignity	1	2	3	4
17. Superiors expect everyone in my unit to check everything with them	1	2	3	4
18. The job I have to do in the Army is interesting	1	2	3	4
19. Everything that everyone in my unit does is checked; individual judgment is not trusted	1	2	3	4
20. Instructions from my superiors are clearly stated	1	2	3	4
21. A friendly atmosphere prevails among the men in my unit	1	2	3	4
22. I find my work in the Army challenging	1	2	3	4
23. Regulations and chain of command in my unit have been clearly explained . . .	1	2	3	4
24. Individuals can complete their responsibilities by themselves and do not have to be told what to do	1	2	3	4
25. Superiors generally know what is going on in their units	1	2	3	4
26. There is a great deal of paperwork associated with almost all Army work .	1	2	3	4

H. YOUR BACKGROUND

1. In what year were you born? *(Write year.)* 19 _____

2. What is your marital status? *(Circle one.)*

Married	1
Other (divorced, separated, widowed)	2
Never married	3

3. What is your racial background? *(Circle one.)*

White	1
Black	2
Spanish-American	3
Oriental	4
Other *(Specify)* _____	5

4. What is the highest grade of school you have completed or its GED equivalent? *(Circle one number below.)*

Grade school	01	02	03	04	05	06	07	08
High school	09	10	11	12				
College or technical school	13	14	15	16				
Beyond college	17							

5. What is your pay grade? *(Circle one.)*

PVT E1	01
PVT E2	02
PFC E3	03
CPL E4	04
SPEC E4	05
SGT E5	06
SPEC E5	07
SSG E6	08
SPEC E6	09
Other *(Specify)* _____	10

H. YOUR BACKGROUND--Continued

6. How did you come into the Army? *(Circle one.)*

I was drafted 1
I volunteered for the draft 2
I enlisted 3
Other *(Specify)* _____ 4

_____

7. How long have you been in the Army on active duty? *(Circle one.)*

Less than one year 1
1 - 2 years 2
3 years 3
4 years 4
More than 4 years 5

8. How long do you have until the end of your present commitment? *(Circle one.)*

6 months or less 1
7 - 11 months 2
1 - 2 years 3
More than 2 years 4

9. At the end of your present commitment, do you intend to re-enlist for another tour of duty? *(Circle one.)*

Yes 1
Undecided 2
No 3

10. How many months have you been on this post?
(Write number. If less than one month, write 0.) _____ months

11. Prior to coming to this post, where were you stationed?

_____ _____
(Post) *(State or country)*

Please describe any problems about the facilities you now live in and use which have not been covered in this questionnaire.

Please make any suggestions you might have on how future barracks or BEQ's should be constructed and furnished. If you need more space, please continue on the reverse side.

THANK YOU.

APPENDIX B:
SLIDE PRESENTATION RESPONSE FORM

Army Construction Engineering Research Laboratory

OFFICE USE ONLY
Quest. No. ____
Type _____
Study No. 121

SLIDE PRESENTATION

In the next few minutes you will be shown some slides of barracks rooms and buildings. Most of them are pairs from which you are to choose the one slide that you like the best. You must choose one over the other and indicate how much you like it over the other one, even though you may not like either one.

EXAMPLE SLIDE

On the LEFT is shown one type of barracks, while on the RIGHT is shown a second type of barracks. Choose which one of the two buildings you would like to live in. Then indicate how much more you would prefer to live in that building compared to the other building. Circle one of the numbers between 1 and 6.

I would like to live in the . . .

LEFT building			RIGHT building		
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other building.

SLIDE PAIR 1

Here are two pictures of a four-man room. Indicate which of the two rooms you would like to live in and whether you would like it a lot more, somewhat more, or a little more than living in the other room.

I would like to live in the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more		A little more	Somewhat more	A lot more
1	2	3		4	5	6

than the other room.

Briefly explain why you chose the room you did in this pair of slides.

The next six pairs of slides will show pairs of one-man rooms.

From each pair, choose the room you like more and show how much more you like it compared to the other room.

SLIDE PAIR 2

I like the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other room.

SLIDE PAIR 3

I like the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other room.

SLIDE PAIR 4

I like the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other room.

SLIDE PAIR 5

I like the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other room.

SLIDE PAIR 6

I like the . . .

LEFT room				RIGHT room		
A lot more	Somewhat more	A little more		A little more	Somewhat more	A lot more
1	2	3		4	5	6

than the other room.

SLIDE PAIR 7

I like the . . .

LEFT room				RIGHT room		
A lot more	Somewhat more	A little more		A little more	Somewhat more	A lot more
1	2	3		4	5	6

than the other room.

SLIDE 8

For this slide, what items of furniture, not shown in the picture, would you like to have in a one-man room?

1. _____

2. _____

3. _____

4. _____

The next three pairs of slides will also show one-man rooms.

From each pair choose the room you like more and show how much more you like it compared to the other room.

SLIDE PAIR 9

I like the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more		A little more	Somewhat more	A lot more
1	2	3		4	5	6

than the other room.

SLIDE PAIR 10

I like the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more		A little more	Somewhat more	A lot more
1	2	3		4	5	6

than the other room.

SLIDE PAIR 11

I like the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more		A little more	Somewhat more	A lot more
1	2	3		4	5	6

than the other room.

Briefly explain why you chose the room you did in the last pair of slides.

The next six pairs of slides will show one-man rooms that are identical except they are done in different colors. For each pair, choose the color you would prefer in your room and how much more you like it compared to the other color.

SLIDE PAIR 12

I like the color of the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the color of the other room.

SLIDE PAIR 13

I like the color of the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the color of the other room.

SLIDE PAIR 14

I like the color of the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the color of the other room.

SLIDE PAIR 15

I like the color of the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the color of the other room.

SLIDE PAIR 16

I like the color of the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the color of the other room.

SLIDE PAIR 17

I like the color of the . . .

LEFT room				RIGHT room	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the color of the other room.

The next six pairs of slides will show the outsides of barracks.

From each pair of slides, choose the barracks you would like to live in more and show how much more you like it compared to the other barracks.

SLIDE PAIR 18

I would like to live in the . . .

LEFT barracks				RIGHT barracks	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other barracks.

SLIDE PAIR 19

I would like to live in the . . .

LEFT barracks				RIGHT barracks	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other barracks.

SLIDE PAIR 20

I would like to live in the . . .

LEFT barracks				RIGHT barracks	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other barracks.

SLIDE PAIR 21

I would like to live in the . . .

LEFT barracks				RIGHT barracks	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other barracks.

SLIDE PAIR 22

I would like to live in the . . .

LEFT barracks				RIGHT barracks	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other barracks.

SLIDE PAIR 23

I would like to live in the . . .

LEFT barracks				RIGHT barracks	
A lot more	Somewhat more	A little more	A little more	Somewhat more	A lot more
1	2	3	4	5	6

than the other barracks.

SLIDE 24

Here is a view of a barracks. If the Army provided barracks like this one, how much influence would it have on your signing up for another tour of duty? *(Circle one.)*

A strong influence 1
A moderate influence . . . 2
A slight influence 3
No influence at all . . . 4

SLIDE PAIR 25

The two views shown here are the same barracks. If the Army provided barracks like this one, how much of an influence would it have on your signing up for another tour of duty? *(Circle one.)*

A strong influence 1
A moderate influence . . . 2
A slight influence 3
No influence at all . . . 4

(There are no slides for the following two questions.)

26. The appearance of the grounds around the building where I live is . . .

Very important to me 1
Somewhat important to me . . 2
Slightly important to me . . 3
Not important at all to me . 4

27. The appearance of the outside of the building where I live is . . .

Very important to me 1
Somewhat important to me . . 2
Slightly important to me . . 3
Not important at all to me . 4

THANK YOU

APPENDIX C:
DIARY FORMS

WITHIN BARRACKS ACTIVITY LOG

DIRECTIONS

We want to know how much time is spent in various areas of your barracks complex. We are not interested in what you do in these areas, only how frequently you go there and how much time you spend there. Together with a form which you are to fill in, you have an example form which may be used as a guide.

ALL RESPONSES WILL BE KEPT CONFIDENTIAL. IN NO WAY WILL THEY BE RELATED TO YOU PERSONALLY.

1. Enter the name of your post, your barracks number or name, and the date when the activities you describe occurred. Answer the questions about your dining room and dayroom.

2. Indicate when you enter or leave your barracks by drawing a line from the time scale to the right and state "enter barracks" or "leave barracks".

3. In the same way indicate what time you went to bed and what time you got up, if you slept in your barracks.

4. Indicate what time you entered each of the areas in your barracks listed below:

   a. Sleeping area.

   b. Mess hall.

   c. Lounge or day room.

   d. Washroom or latrine.

   e. Orderly room.

   f. Supply room.

   g. Arms room.

If any of these areas are located in a building outside your barracks or BEQ, indicate also what time you left that area as well as what time you entered it.

5. We are interested in your activities in your barracks complex only. If there are any unusual circumstances that affect how you spend your time in the barracks, explain only as you feel it is necessary.

ACTIVITY LOG

WITHIN BARRACKS

POST:

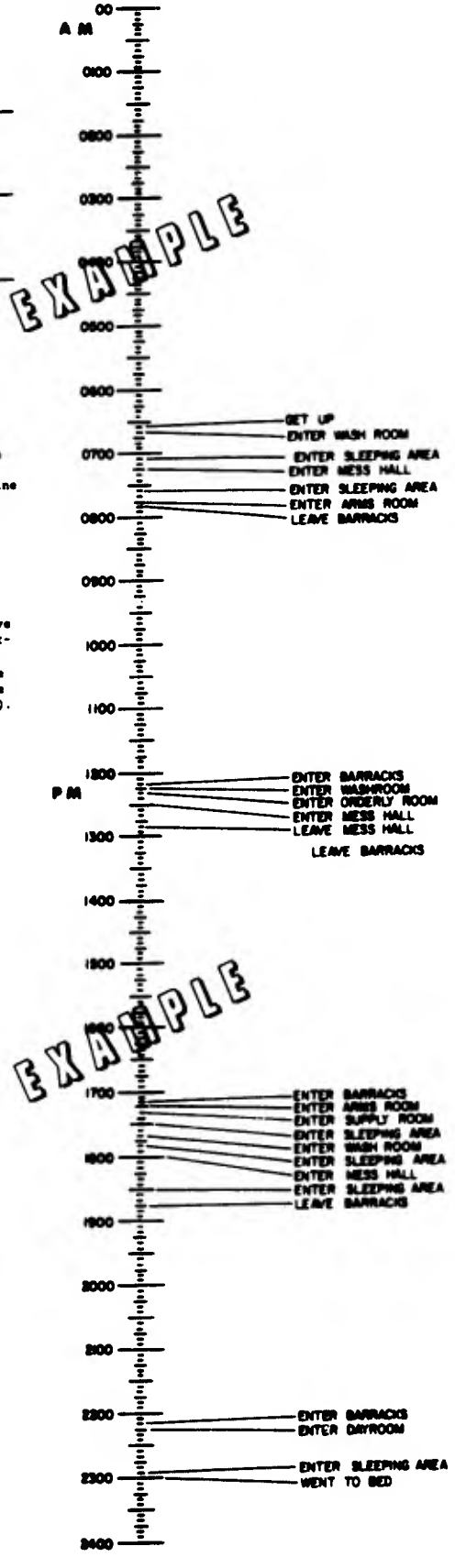
BARRACKS:

DATE OF ACTIVITY:

AREAS

1. Sleeping area
2. Mess hall
3. Dayroom or Lounge
4. Washroom or Latrine
5. Orderly room
6. Supply room
7. Arms room

If any of the above areas are located outside your barracks, please indicate those areas by circling the appropriate number(s).



ACTIVITY LOG

WITHIN BARRACKS

POST:

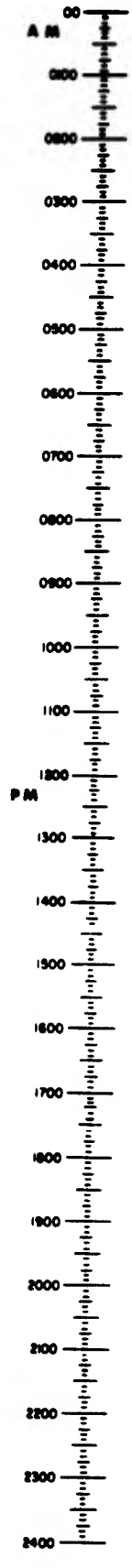
BARRACKS:

DATE OF ACTIVITY

AREAS

1. Sleeping area
2. Mess hall
3. Dayroom or Lounge
4. Washroom or Latrine
5. Orderly room
6. Supply room
7. Arms room

If any of the above areas are located outside your barracks, please indicate those areas by circling the appropriate number(s).



ENTIRE POST AND OFF POST ACTIVITIES LOG

DIRECTIONS

We want to know how much time is spent in various buildings and how much time is spent off post. We are not interested in what you do in these buildings, only how frequently you go there and how much time you spend there. Together with a form which you are to fill in, you have an example form which may be used as a guide.

ALL RESPONSES WILL BE KEPT CONFIDENTIAL. IN NO WAY WILL THEY BE RELATED TO YOU PERSONALLY.

1. Enter the name of your post, your barracks number or name, and the date when the activities you describe occurred.

2. Indicate what time you

   (a) entered and

   (b) left each building on post by drawing a line from the time scale to the right side of the page. Write in the name of the building entered and left or the building number, whichever is commonly used. Be precise.

3. If you leave the post, draw a line from the time scale to the right indicating the time you left and write "left post". Similarly, indicate the time you return to post and write "returned to post".

Along the right side of the page, write the names of buildings (stores, bars, etc.) you visited while off the base. Do not enter what times you entered or left buildings off post, merely indicate which ones they were while you were off post. If you were off the base for the <u>entire</u> day (for example on a weekend day), merely write "off post all day".

4. Enter the time you went to bed and the time you got up.

5. If there are any unusual circumstances affecting how you spend your time, explain only as you feel it is necessary. However, indicate the amount of time used.

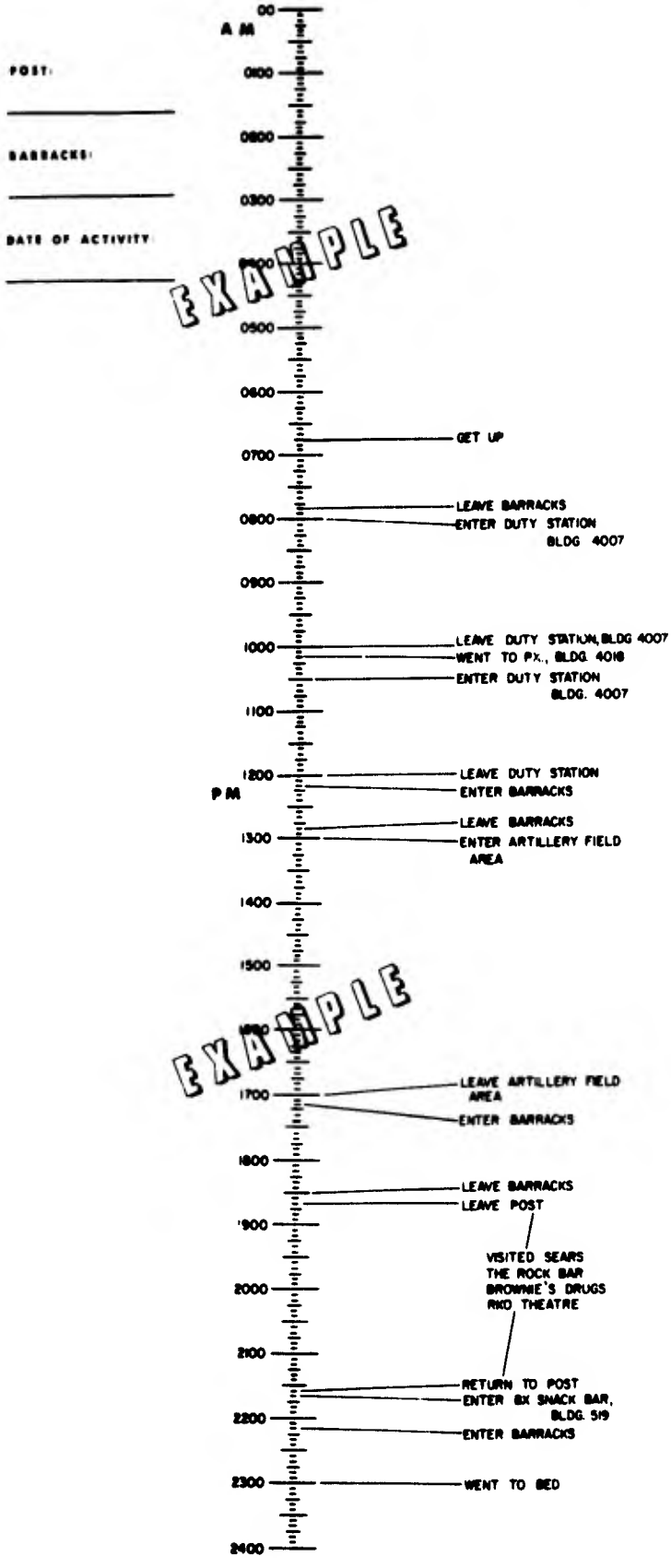
ACTIVITY LOG

ENTIRE POST

POST:

BARRACKS:

DATE OF ACTIVITY:



ACTIVITY LOG

ENTIRE POST

POST

_____

BARRACKS

_____

DATE OF ACTIVITY

_____

Record the time you got up and the time you went to bed.

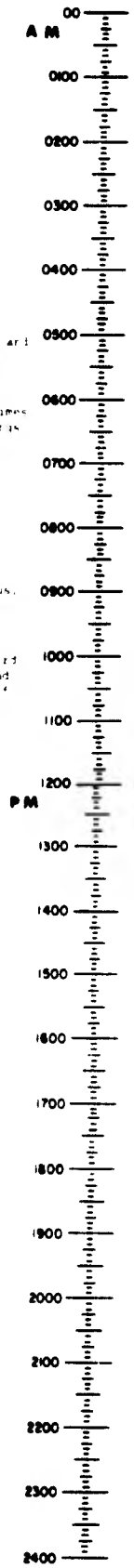
ON-POST

Record entry and leaving times for these important buildings and areas

1. Barracks or BQ
2. Recreational Facilities (Indoor and outdoor including bars
3. Shops and stores
4. Places to Eat
5. Duty station or work location
6. Other (Medical, Religious, etc.)

OFF-POST

If you leave the post, record the times when you leave and return and list the types of buildings visited if any



APPENDIX D:

COMPUTATION OF IMPORTANCE OF CHANGE SCORES AND CHOICE SCORES

The importance of change scores in the questionnaire and slide presentation choice scores were computed in the same manner by first computing a mean rank score which accounted for the degree of preference, the number of items to choose from, the number of choices, and the number of respondents. Then, the mean rank scores were adjusted to a range of zero to 1.0, with the highest score in each group being set equal to 1.0.

The general formula for computing the mean rank of an item, MR_i, is

$$MR_i = \frac{(a_1)F_{1i} + (a_2)F_{2i} + (a_3)F_{3i}}{\Sigma F_{ji}}$$

where

MR_i = mean rank for item i

a_i = highest weighting value (for 1st choice, for example)

a_2 = second highest weighting value (for 2nd choice, for example)

a_3 = third highest weighting value (for 3rd choice, for example)

F_{1i} = frequency with which the item was selected as first choice

F_{2i} = frequency with which the item was selected as second choice

F_{3i} = frequency with which the item was selected as third choice

F_{1i} = total number of 1st choice votes cast for all items in the list of concern, or the number of people who responded to the question.

The importance of change score or choice score, C_i, is

$$C_i = \frac{MR_i}{MR_{max}}$$

where

C_i = importance of change score or choice score for item i

MR_{max} = highest mean rank score in the list of concern.

A chance level was also computed for each list. The chance level assumes that if all responses were equally divided or randomly distributed among all possible choices, each item would have the same importance as the choice score. The chance level, CL, is computed

$$CL = \frac{\Sigma MR_i}{N \times MR_{max}} = \frac{\Sigma C_i}{N}$$

where

N = the number of items in the list.

APPENDIX E:

INTERPRETATION OF PEARSON PRODUCT-MOMENT CORRELATION COEFFICIENT (r)

Correlation is a measure of the degree to which variables vary together or a measure of the intensity of association. The linear correlation coefficient or Pearson product-moment correlation coefficient, r, assumes that a linear relation exists between the variables. The correlation coefficient is a dimensionless quantity and can range from +1.0 to −1.0. When linear correlation is small, r is near zero, and when the correlation is as large, r is near +1.0 or −1.0. A perfect correlation, r = ±1.0, indicates that a unit increase in one variable implies a similar increase in the second variable. A correlation of r = 0.0 implies that regardless of how much the first variable increases or decreases, the second variable will not change.

The scatter in a variable, that is, how much it varies along a scale from one response to the next, is computed from the square of the deviation of each response from the mean response. The sum of these deviations is called the sum of squares. If the sum of squares were zero, there would be no deviations, that is, all responses would be equal to the mean. The sum of squares gets larger as the responses become more scattered. The amount of scatter is called the variance.

If it is assumed that two variables are related, that is, an increase in one implies a corresponding increase or decrease in the other, then the strength of this relationship in reference to the scatter of responses is often referred to as the portion or percent of the variance in one variable accounted for by the second. For example, if the weight and height of people were being considered, and it was found that 50 percent of the variance in weight was accounted for by height, it would be useful to infer that other factors besides height accounted for the remaining 40 percent of the variance. Such factors as diet or rate of exercise might be expected to account for much of the remaining variance.

The proportion or percent of the variance accounted for in one variable by a second variable can be computed from the correlation coefficient, r, relating the two variables. The percent of the variance accounted for in one variable by a second is equal to $r^2 \times 100$, where r^2 is also called the coefficient of determination. Hence, in the example of height and weight of people, r would have to equal to 0.775 in order for r^2 to equal 0.60.

APPENDIX F:

ARCHITECT SUMMARIES BY BARRACKS CONSTRUCTION TYPE*

BARRACKS DESCRIPTION

TYPE: 1930s

EXAMPLES: Ft. Knox: Bldg. #204
Ft. Sill: Bldg. #1603

OUTSIDE APPEARANCE OF BARRACKS

Examples of the 1930s barracks series were seen on two of the six posts visited: Ft. Knox and Ft. Sill. In general the buildings of this series are large, spacious structures 2 or 3 stories in height, and designed in a style compatible with the region of the country in which the post is located.

As an example, Bldg. #204 at Ft. Knox is a 2-story red brick building in the Georgian style (Slide 1.1). The overall plan is H-shaped with entrance, day rooms, NCO rooms and latrines forming the cross member and open sleeping bays forming the legs of the H. There are numerous dormer windows in the red clay tile-covered hip roof; however, the attic has not been finished into sleeping space. Windows are wood double-hung divided into small panes and painted white along with the other building trim. The entrance is central and is attractively framed by a portico of Doric columns (Slide 1.2).

As a contrast Bldg. #1603 at Ft. Sill is a 3-story stuccoed structure in the Spanish Mission style (Slide 1.3). The overall plan is U-shaped with entrance, offices, NCO rooms, and latrines forming the cross member and day rooms on the first floor and open sleeping bays on the upper two floors occupying the legs of the U. The rather flat hip roof is covered by red clay mission tile, and the stucco as well as the wood double-hung windows and other trim have been painted a light sand color. Typical of the Spanish style, the central arched entrance with its paneled doors has been handsomely detailed in a composition incorporating a balconied second-story window (Slide 1.4).

Both buildings are nicely landscaped with many trees and abundant foundation planting. In both cases the overall appearance of this series is attractive and very comparable to college dormitories constructed in this period.

GENERAL CONDITIONS OF BARRACKS

Both 1930s building appear clean and dry and in reasonably good repair from the exterior. The interiors, however, are in need of maintenance. Stairways and hallways are comparatively wide but are dimly lighted by bare incandescent bulbs. These buildings by virtue of their concrete one-way beam and slab construction and masonry exterior walls (brick at Ft. Knox, stucco over clay tile at Ft. Sill) are inherently fireproof. Fire extinguishers appear to be located for easy accessibility, and cleaning gear and other flammables appear to be stored properly. Safety hazards are not apparent; however, stairs in both cases need safety treads.

Heating in both buildings is by hot water radiation with radiators and exposed piping throughout. There is no central air conditioning or mechanical ventilation systems. Air movement is provided by floor fans and natural cross ventilation through open windows.

SLEEPING BAYS

Typical sleeping areas in the 1930s series barracks are large open bays, rectangular in plan and arranged perpendicular to the central circulation and service element, thus permitting windows on all sides. In addition, the sleeping bays have direct access to a large, open porch at the rear of the buildings (Slide 1.1). Current sleeping conditions in these open bays vary widely from building to building and from bay to bay. The first floor bay of Bldg. #204 at Fort Knox represents an example of one end of the spectrum (Slides 1.5 6). This bay is very drab in color, spartan in furnishings and totally lacking in individual audio or visual privacy. The beds are free-standing in two continuous rows separated by gray metal lockers running the length of the room on either side of a central aisle. The regimented rows of bunks are the only furnishings in this colorless room. Security is a definite problem with a locker with hasp and lock providing the only means to protect personal belongings. The overhead fluorescent lights are controlled by a single switch at the

* This appendix was prepared by J. Crouch, D. Brotherson, and H. Spies of the Small Homes Council Building Research Council at the University of Illinois at Urbana-Champaign.

room's entrance, further pointing out the fact that the individual has little or no control over his own sleeping space. What little pleasant and cheerful quality that does exist lies in the fact that this is a high-ceilinged, spacious, sunny room with a generally pleasant view of trees, grass and shrubs. There are no wall decorations or posters, and individual decorating is not allowed.

This sleeping bay can be compared to a second floor bay of Bldg. #1603 at Ft. Sill (Slides 1.7 8). Here individual privacy has been greatly improved and there has been an attempt to provide a more pleasant and colorful sleeping environment. Gray metal lockers have been arranged to divide the space into one, two, or three man cubicles. Bright, colorful metal desks and chairs, desk lamps and large area rugs have been issued, and the walls have been painted pale yellow with light blue trim. There is a definite aesthetic unevenness and makeshift quality to the selection of colors and furnishing; however, the livability has been greatly increased. Again security is provided only by lockers with hasp and lock, and the overhead fluorescent lights are controlled by a single switch at the room's entrance. Like the sleeping bays in Bldg. #204, this is a high-ceilinged, spacious room with a generally pleasant view. Wall decorations and posters are largely military in nature, and individual decorating does not appear to be encouraged.

NCO ROOMS

The NCO rooms in both buildings are very similar, being located in the central portion of the structure on the upper floors. The rooms are fairly large and spacious with door and continuous transom on the corridor side (Slide 1.9). The NCO rooms seem reasonably comfortable with many additional items such as television, stereo, and fans being provided individually by the men (Slides 1.10 11). In both buildings the floor and ceiling finishes are similar to those in the sleeping areas, and while comfortable the overall appearance remains drab and depressing. The most common complaint concerns a lack of sufficient electrical outlets.

LATRINES

Latrines in both buildings are very similar (Slides 1.12 13). While adequate there is little or no privacy: water closets are open stalls and there is one large open shower room. Lavatories are located on a cast iron frame island within the room. Shelving appears inadequate. In general the lighting is dim and there seems to be some safety problems due to exposed pipes and numerous level changes within the room. The overall appearance seems reasonably clean and pleasant with sand colored ceramic tile floors and walls.

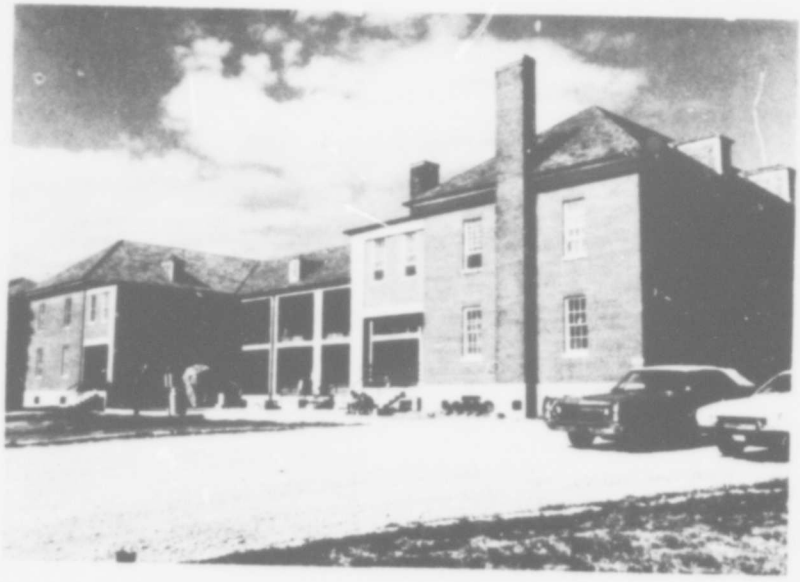
DAY ROOMS

Day rooms vary widely from building to building. The main day room of Bldg. #204 at Ft. Knox is located on the first floor and is divided into two areas by a plywood floor to ceiling display cabinet (Slide 1.14). One section is a TV room with wooden, hunting-lodge type lounge furniture and color television. The room is carpeted in a durable, neutral gray carpeting. One wall is painted a medium yellow, another a dark red. On the yellow wall is a rather dark photo mural beneath which is an artificial fireplace constructed of wood.

The other half of the room is used as a game room (Slide 1.14). There are numerous magazines and newspapers available. Adjoining the game area is a vending room complete with candy, cigarette, soft drink and beer machines. The lighting is very dim and the wall colors are dark so that in spite of the many colors used the day room is not as cheerful as it could be.

The main day room is supplemented by a basement poolroom (Slide 1.15). This room has three pool tables plus a ping-pong table and is paneled in the wood from ammunition boxes stained walnut. Lighting is by overhead fluorescent fixtures.

Bldg. #1603 at Ft. Sill has a variety of day rooms, all of which are located on the first floor. The main day room area consists of the TV room and adjoining poolroom. The TV room is paneled and is furnished with comfortable lounge furniture and color television. There is wall to wall carpeting, drapes and venetian blinds. The poolroom has two pool tables and is also paneled. These rooms, in spite of their appointments, are somewhat drab and uninviting. These two rooms are supplemented by the former dining hall which has been converted into a reading room/classroom. There is a variety of old lounge furniture, chairs, and tables. The floor is light brown tile and the walls are painted cream above a wainscot of light green. Although spacious and sunny, this room has a definite makeshift quality about its furnishings and decor.



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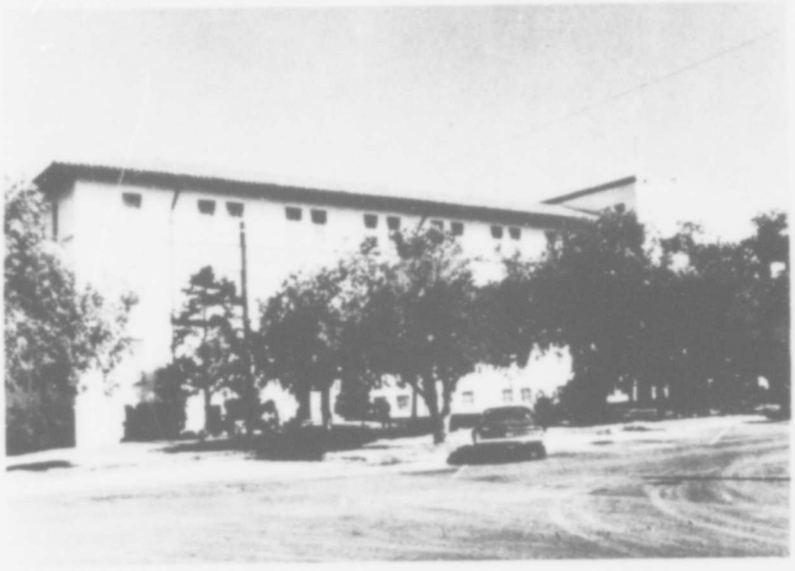

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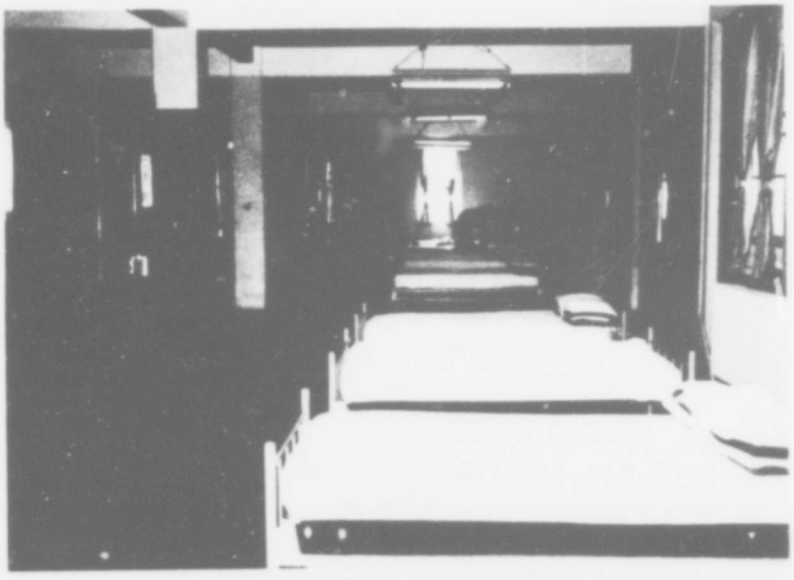

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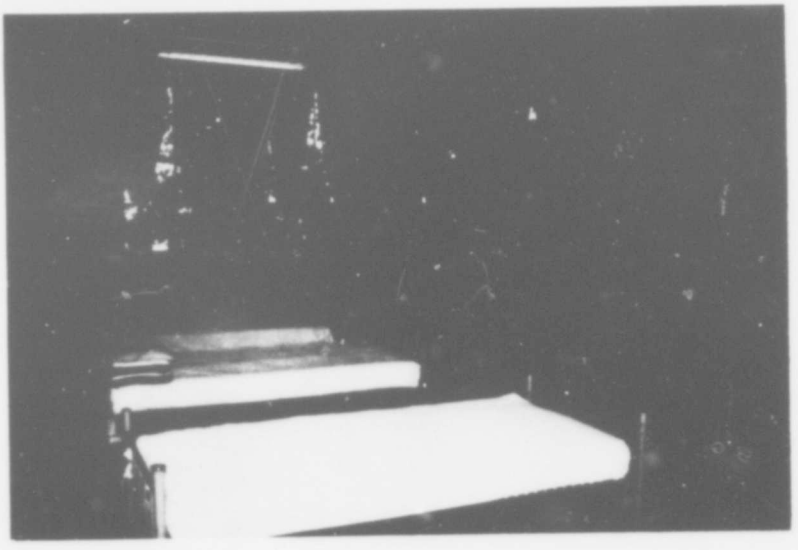

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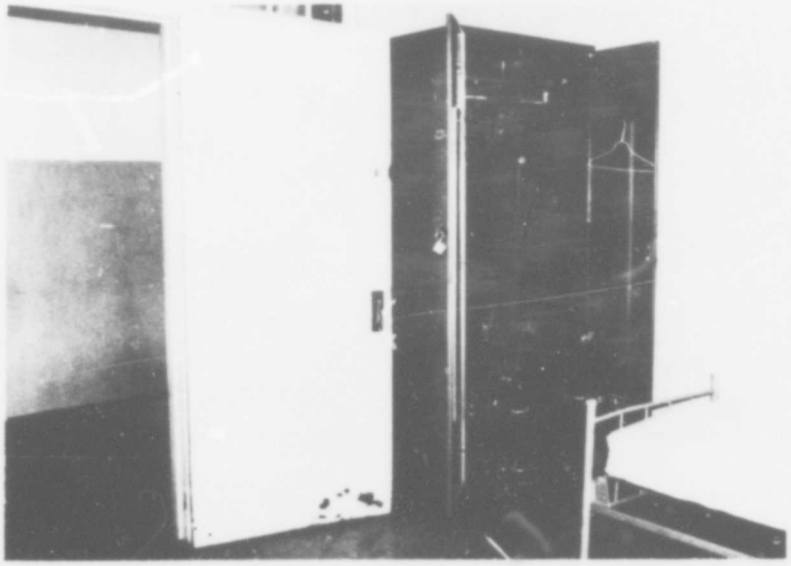

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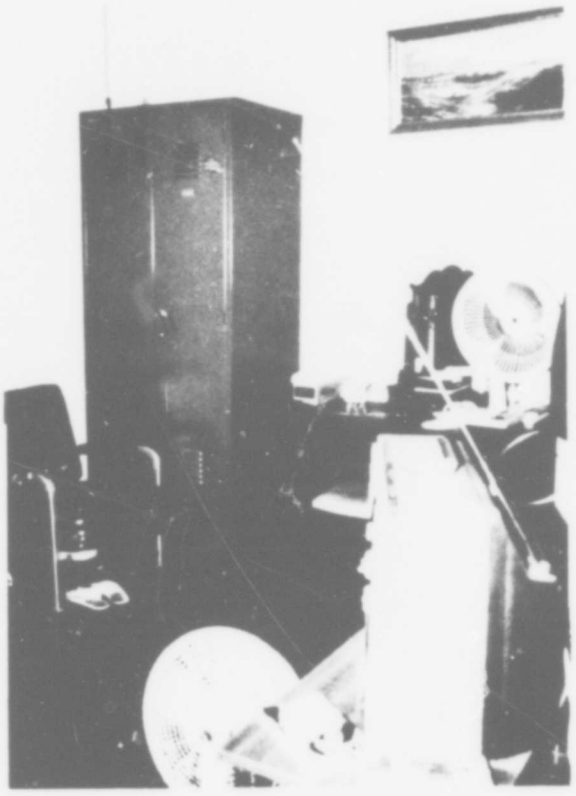

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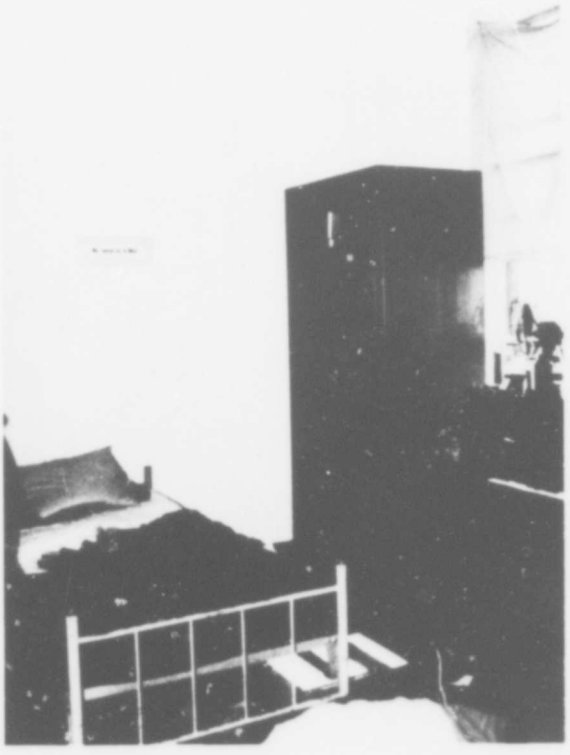

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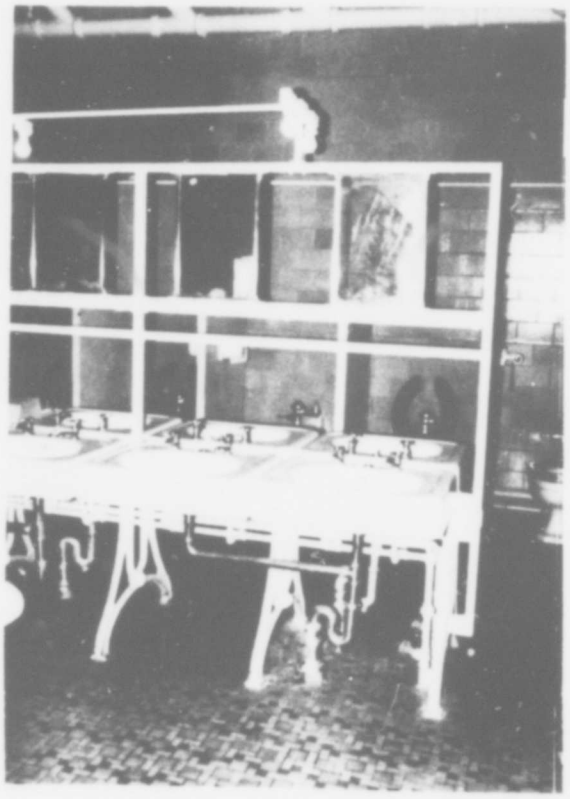

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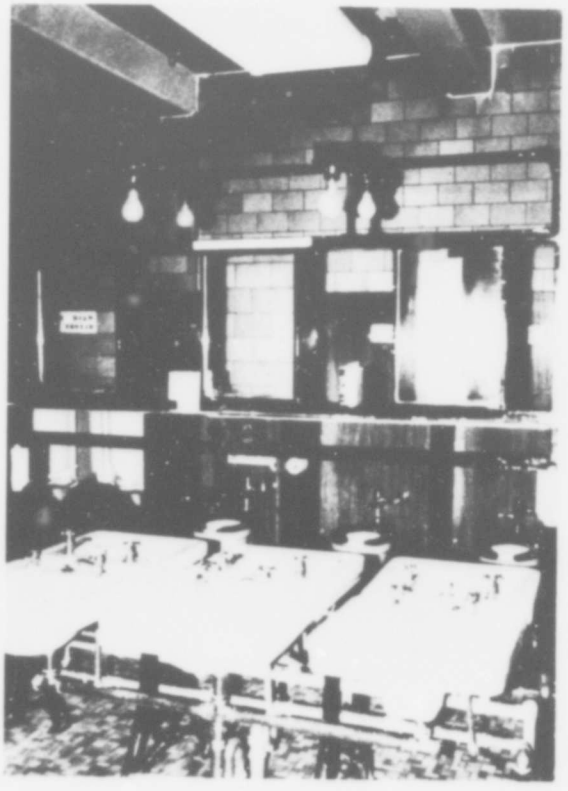

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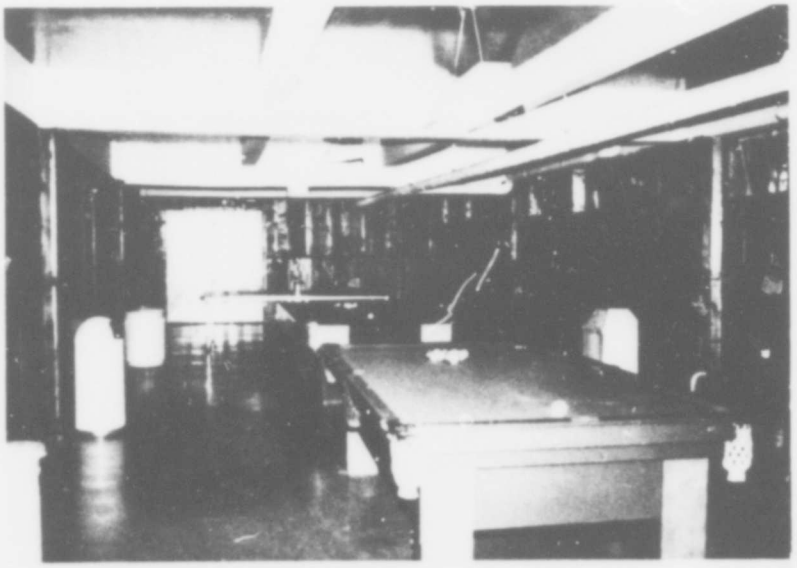

1.15

BARRACKS DESCRIPTION

TYPE:	World War II Wood		
EXAMPLES:	Ft. Lee:	Bldg.:	#11–118
	Ft. Dix:	Bldg.:	#5527
	Ft. Leonard Wood:	Bldgs.:	#1664, #1954
	Ft. Sill:	Bldgs.:	#2539, #4324

OUTSIDE APPEARANCE

Examples of World War II wood barracks were surveyed on four of the six posts visited. In general the buildings of this series are 2-story rectangular wood frame structures, relatively small in size, residential in character, and temporary in appearance although still in use some 30 years after their construction (Slide 2.1). Support for the structures at the ground plane is provided by concrete piers spaced at approximately 10 ft on center. In most cases the crawl space is open, thus greatly increasing the appearance of impermanence (Slide 2.2).

Consistent with the wood frame construction and residential character, the roof form in all cases is gable, covered with asphalt shingles. Typical exterior finish is horizontal wood siding, painted either pale yellow, sand, or white. An exception is Bldg. #11–118 at Ft. Lee which has pale yellow cement asbestos shingles as its exterior material (Slide 2.3).

Windows are double hung and in most cases are fully screened. They are shaded at the second floor by a generous roof overhang and at the first floor and the gable end of the second floor by a continuous attached sun shade similar in appearance to the roof overhang (Slides 2.1–3). Entrances typically occur at one end and along one side near the opposite end. They are direct but architecturally undistinguished (Slides 2.4–5).

In most cases each barracks is part of a complex of similar structures with day rooms and dining halls located in separate buildings (Slide 2.6). Landscaping ranges from nonexistent (Bldg. #1763 at Ft. Leonard Wood) to very lush (Bldg. #1954 at Ft. Leonard Wood where the complex is set among large deciduous trees), (Slides 2.7–10). One's attitude toward the World War II series is certainly influenced by the degree of landscaping present. The observer is immediately struck by the pleasantness of the latter complex at Ft. Leonard Wood and its desirability as a living environment. This feeling is reversed when similar barracks such as the former complex are observed in a denuded state. Unfortunately the landscaping around most of the World War II barracks surveyed tends to be minimal.

GENERAL CONDITIONS OF BARRACKS

The World War II wood barracks vary widely with regard to cleanliness and level of repair. Bldg. #5527 at Ft. Dix is in particular need of paint and Bldg. #11–118 at Ft. Lee needs attention with regard to its cement asbestos siding (Slides 2.11–12). Otherwise the barracks surveyed appear in reasonably good repair both on the exterior and interior. Cleanliness ranges from spotless in Bldg. #5527 at Ft. Dix to somewhat dirty in Bldg. #1664 at Ft. Leonard Wood.

Because of their wood construction, the barracks of this series will burn rapidly if a fire is started. However, due to their small size and direct access to the exterior, evacuation time is very short thus minimizes the danger to human life. In addition, fire extinguishers appear to be located for easy accessibility and cleaning gear and other flammables appear to be stored properly.

In general, heating is by forced air with each barracks having its own furnace. Ducts are overhead and run down the center of the sleeping bays. Bldg. #1954 at Ft. Leonard Wood, however, has hot water radiation for its heating system with baseboard type radiators (Slide 2.13). Air movement is provided by natural cross ventilation and floor fans.

SLEEPING BAYS

Typical sleeping areas in the World War II series barracks are open bays, rectangular in plan with windows on two sides providing cross ventilation and adequate natural light. In most cases sleeping bays are identical on both the first and second floors.

Current sleeping conditions vary considerably from building to building. The sleeping bays of Bldg. #5527 at Ft. Dix represent one extreme (Slide 2.14). As this barracks is occupied by men in basic training, the furnishings consist solely of metal double bunks and gray metal lockers. There is no individual visual or audio privacy. In addition, there are no wall decorations or posters, and individual decorating is not allowed. However, the bay is spotlessly clean and in excellent repair.

This can be contrasted with the sleeping bays of Bldg. #11–118 at Ft. Lee. Here there has been an attempt to achieve a degree of privacy by using move-

able partitions and gray metal lockers to form 2-man cubicles (Slides 2.15–17). Individual decorating is allowed and in some cubicles there are numerous posters and wall decorations (Slide 2.18). This barrack, however, is an example of the World War II series in its roughest form. Walls are not insulated and the exposed studs have never been covered with an interior wall surface. In addition, floor joists are exposed (Slide 2.17).

An example of an improved World War II barrack is Bldg. #2539 at Ft. Sill. Instead of the typical strip battleship linoleum flooring, asphalt tile in a checkerboard pattern has been used. Drywall painted a light green has been applied to the studs as an interior wall surface and attractive wood storage units have been installed (Slides 2.10–20). Overall a very pleasant sleeping space has been created.

A new direction in the renovation of the World War II series barracks was seen in Bldg. #1763 at Ft. Leonard Wood. Here, prefinished, vinyl clad floor to ceiling panels are being used to partition the sleeping bays into two-man rooms. The rooms created are very residential in character and quite comparable to college dormitory rooms (Slides 2.21–23). Bldg. #1664 at Ft. Leonard Wood also is divided into two-man rooms. A great deal of individuality was seen in these rooms with such items as a refrigerator, color television, and sofa added by the men (Slides 2.24–25).

NCO ROOMS

Typically there are two NCO rooms per barracks. These are one-man rooms, rather small in size, and similar in wall and floor finishes to the sleeping bays. Furnishings generally include a bed, locker, and desk and chair (Slide 2.26). In most cases individual decorations and posters are allowed and additional items such as fans and radios have been provided by the men to increase the livability of the space (Slide 2.27).

LATRINES

Latrines vary widely from building to building. Typically there is one latrine per building and it is located at one end of the first floor. The latrine in Bldg. #11–118 at Ft. Lee represents a typical latrine in its unimproved state. Privacy is non-existent. There are trough urinals, water closets with no privacy screens, and large group showers (Slide 2.28). In addition, comfort is minimal. The floor is bare concrete and the walls are painted wood (dark green below, white above). Lavatories are wall mounted, however, they are very closely spaced with inadequate lighting and shelving. There are numerous exposed pipes and it is quite certain this room would be very drafty and difficult to heat in the winter. Similar, yet improved slightly, is the latrine in Bldg. #5527 at Ft. Dix where privacy screens have been added between the water closets (Slide 2.29).

The most improved latrines were seen in Bldg. #1954 at Ft. Leonard Wood and Bldg. #2539 at Ft. Sill (Slides 2.30–33). Here the walls have been covered by a formica-type material and privacy screens for the water closets have been added. Lavatories appear to have adequate lighting and shelving and the rooms have been made more weather tight to control drafts and make winter heating more even. Numerous exposed pipes and a bare concrete floor still present potential safety hazards in the latrine of Bldg. #1954 (Slide 2.30). This situation has been corrected in Bldg. #2539 where the pipes have been concealed and a ceramic tile floor has been added (Slide 2.33).

The latrine in Bldg. #1664 at Ft. Leonard Wood is somewhat different in arrangement from the other latrines of this series, though it is very similar in appearance. It is centrally located on the first floor and is reached by descending four steps. Privacy is much improved with privacy screens with doors for the water closets and individual shower stalls. The floor, however, is still bare concrete and the walls are painted wood. There are many exposed pipes and the lighting seems inadequate (Slide 2.34–35).

Bldg. #4324 at Ft. Sill was the only World War II barracks surveyed that did not have a latrine located in the same building. The latrine is located in a separate building serving several surrounding barracks. Supergraphics have been used on the building's exterior to identify it as the latrine (Slides 2.36–37). In the interior there is a long row of wall mounted lavoratories with adequate lighting and shelving (Slide 2.38). Water closets have privacy screens with doors, and there is one large shower room which would appear to be very drafty in winter (Slide 2.39). In addition, it was reported that in winter water freezes on the floor.

DAY ROOMS

Day rooms in all cases are located in separate buildings. Perhaps the most pleasant day room visited was the one serving Bldg. #1954 at Ft. Leonard Wood. Although the exterior is in need of paint and maintenance attention, the interior is in excellent repair (Slide

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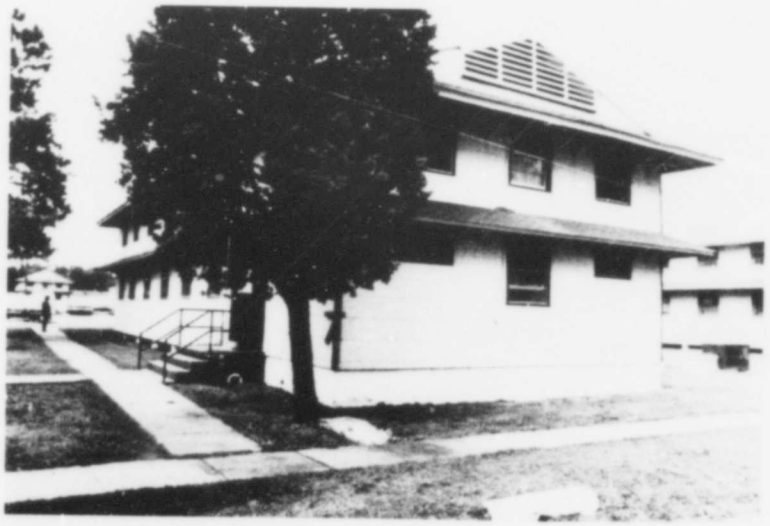

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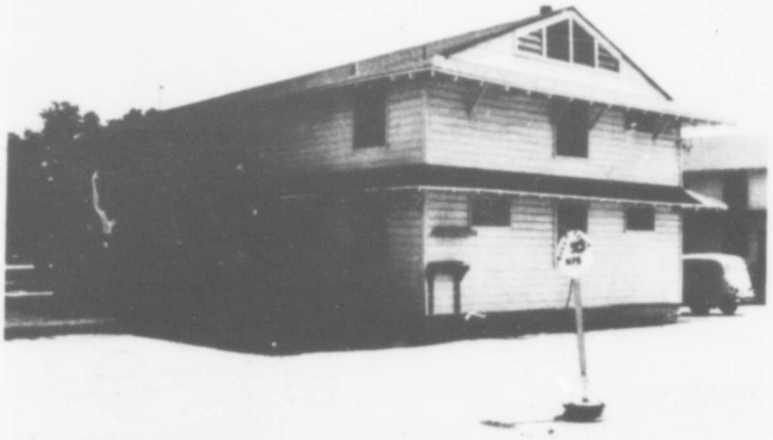

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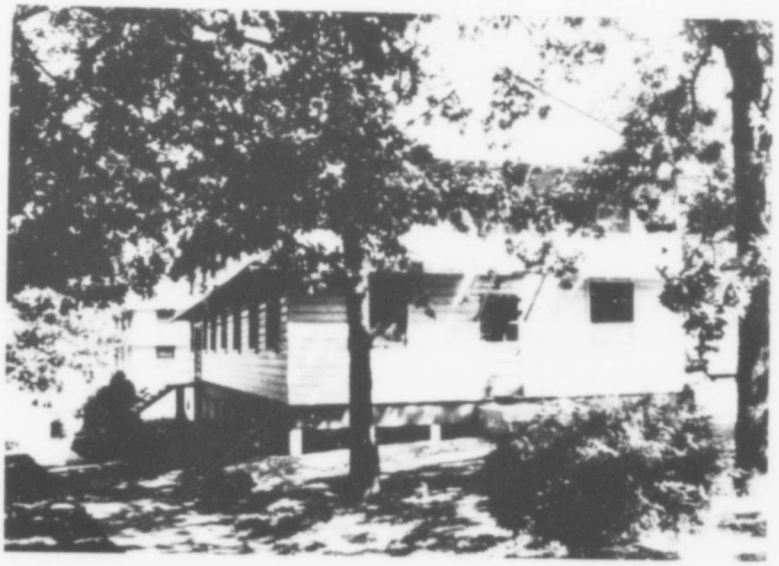

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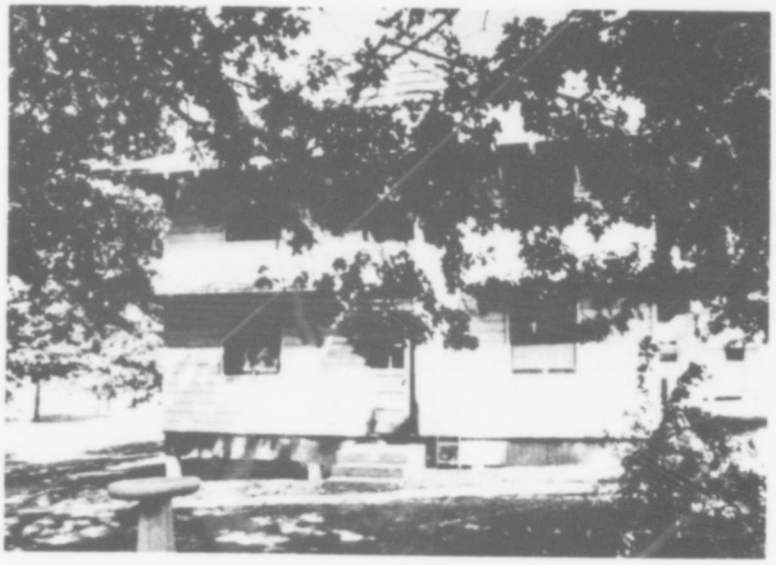

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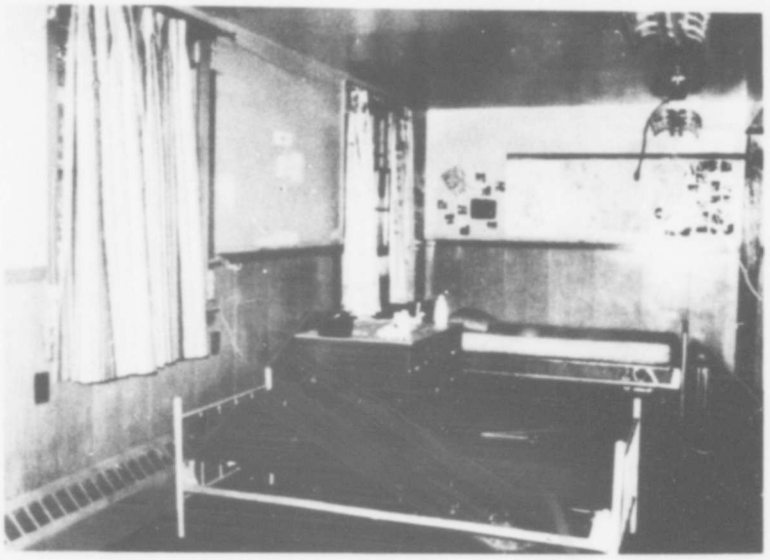

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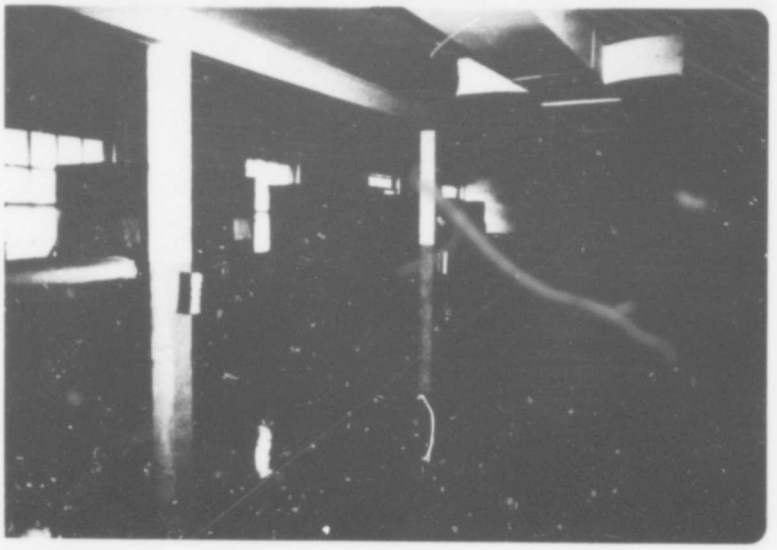

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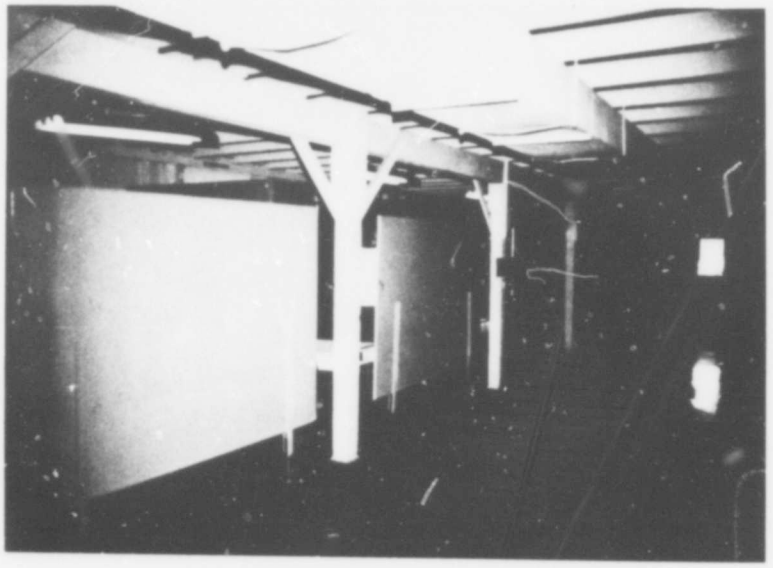

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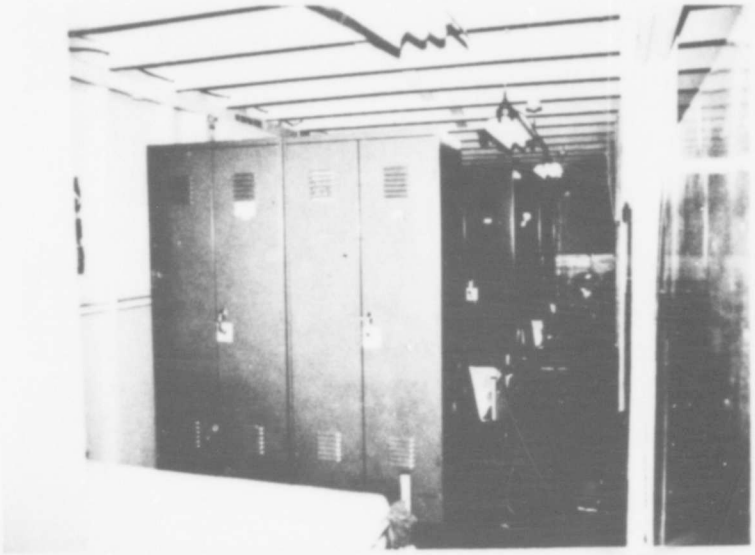

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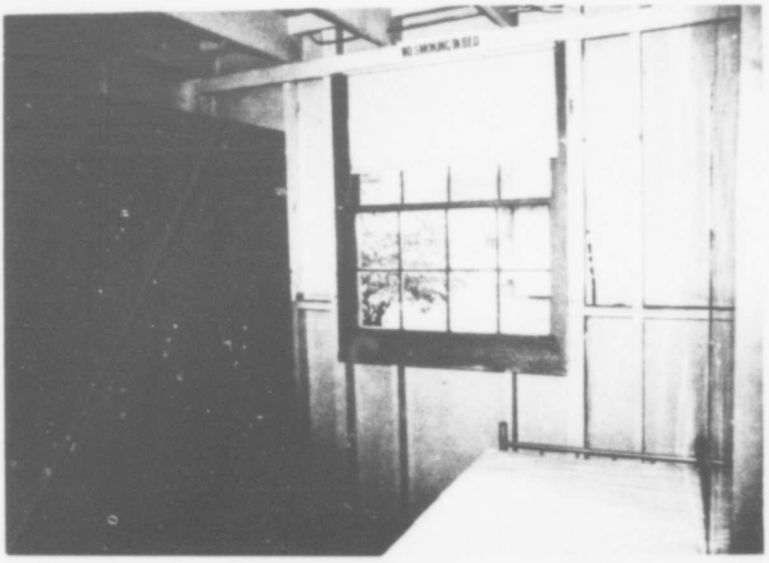

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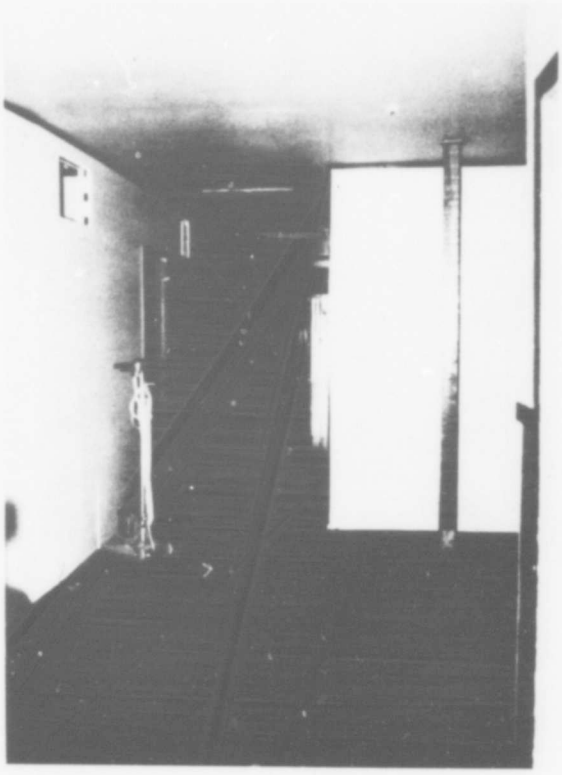

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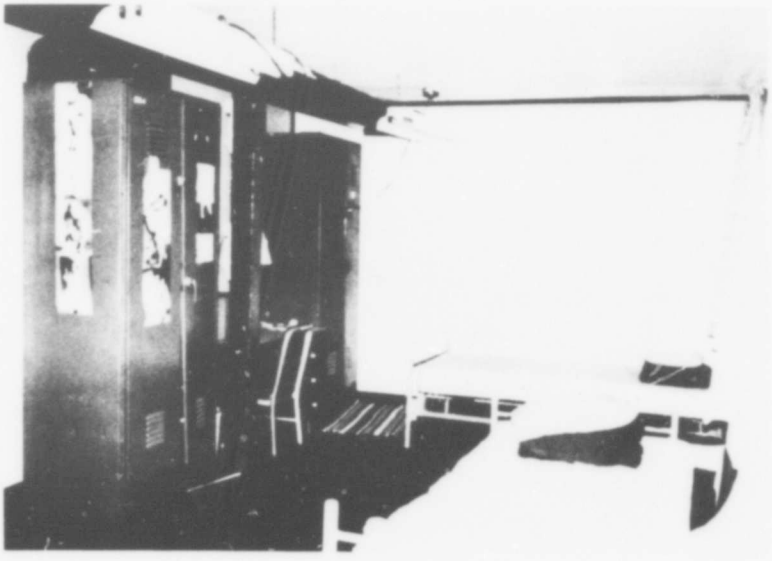

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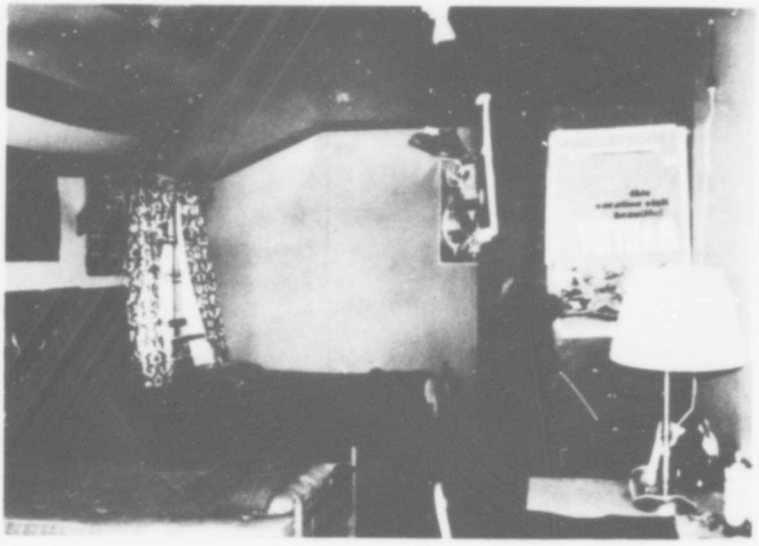

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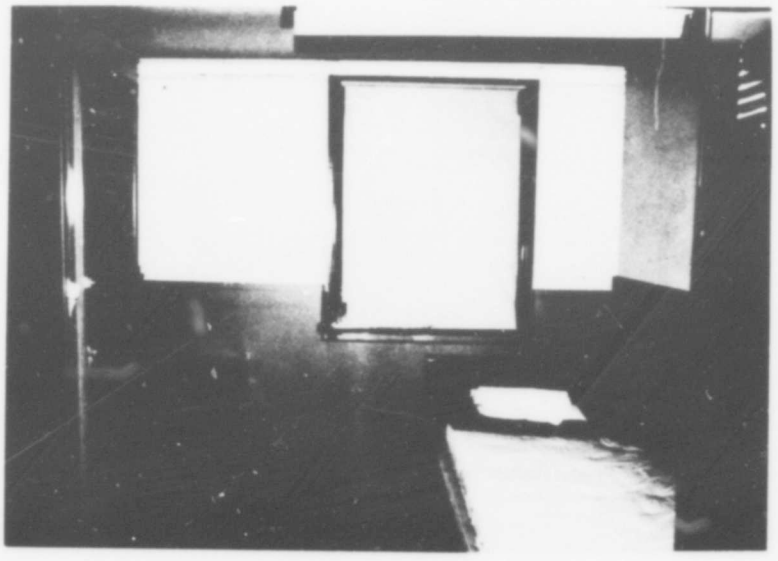

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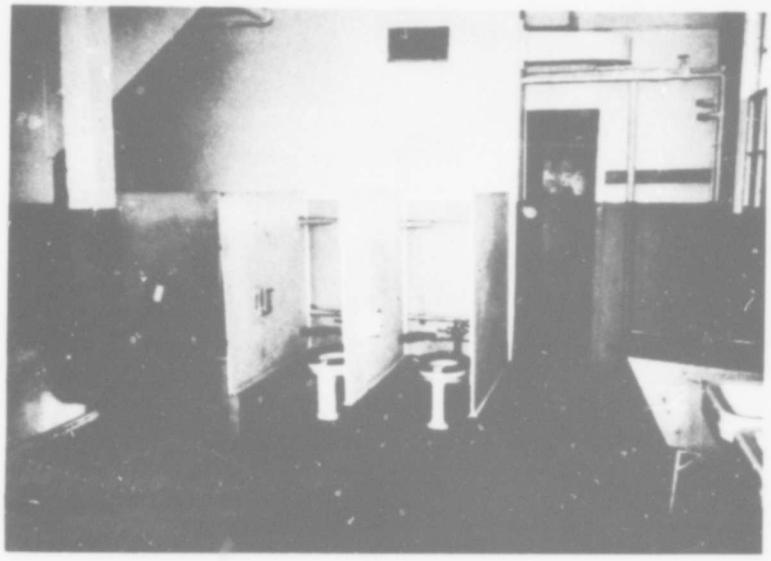

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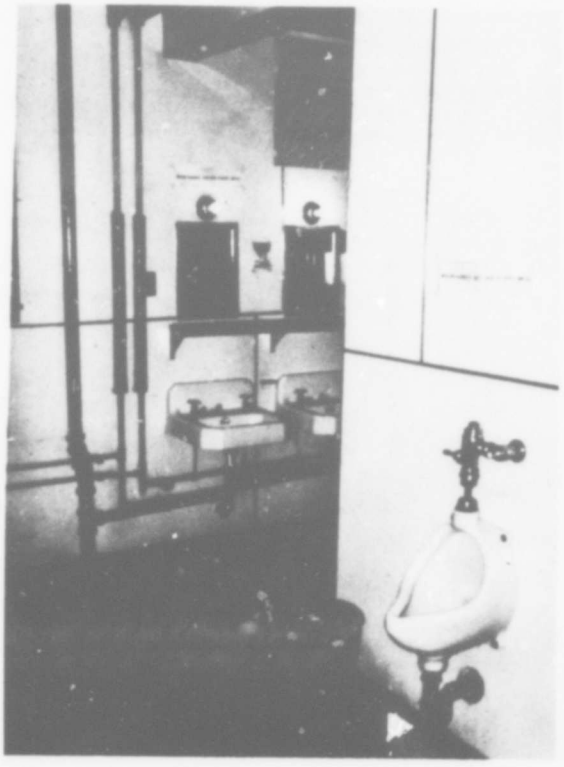

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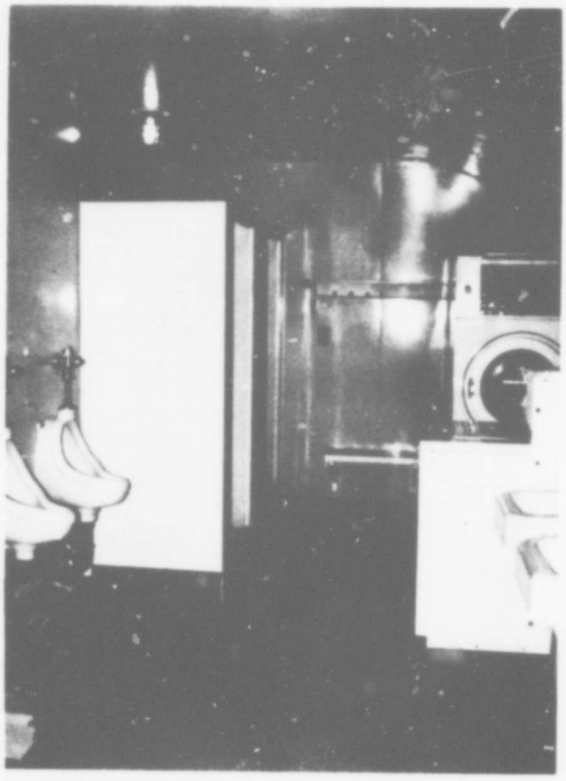

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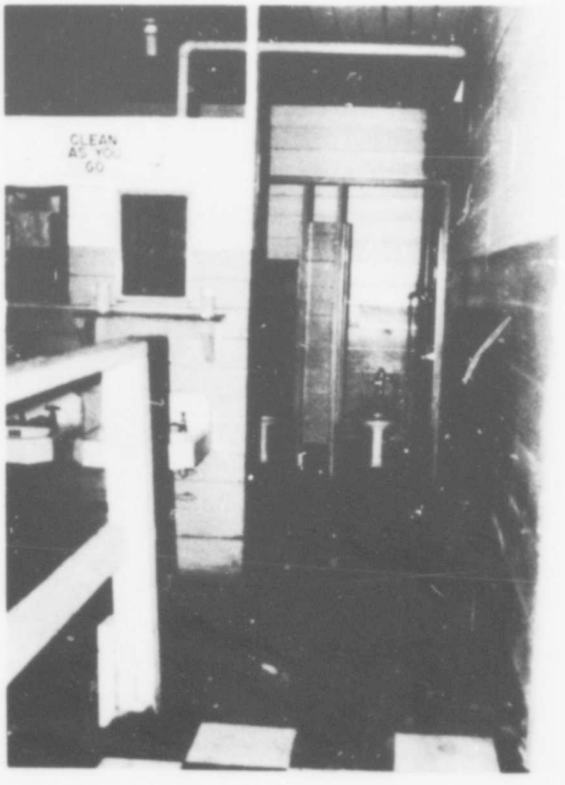

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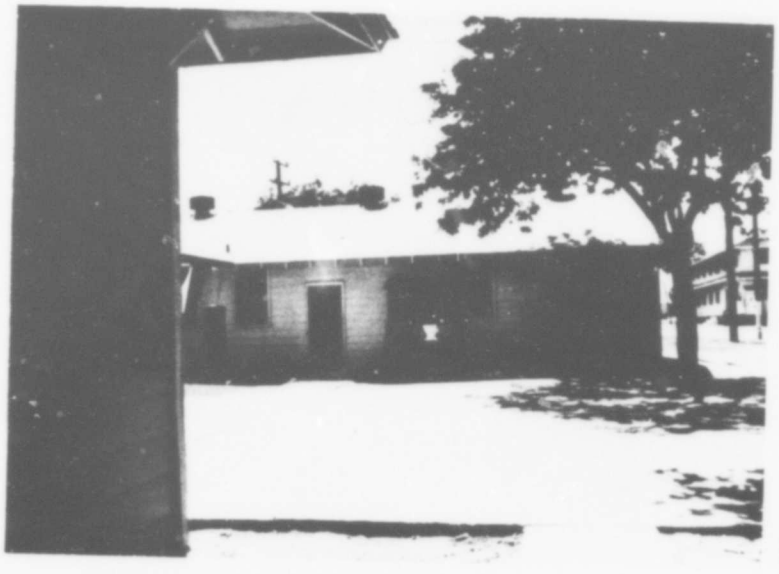

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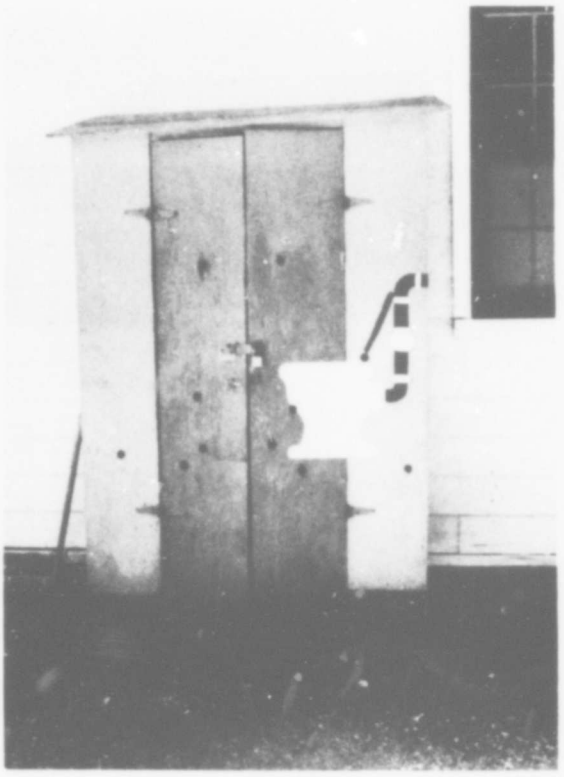

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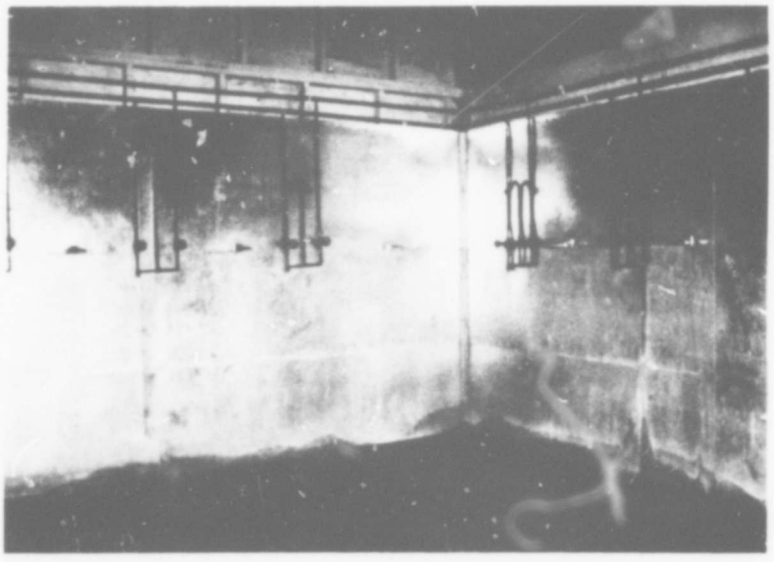

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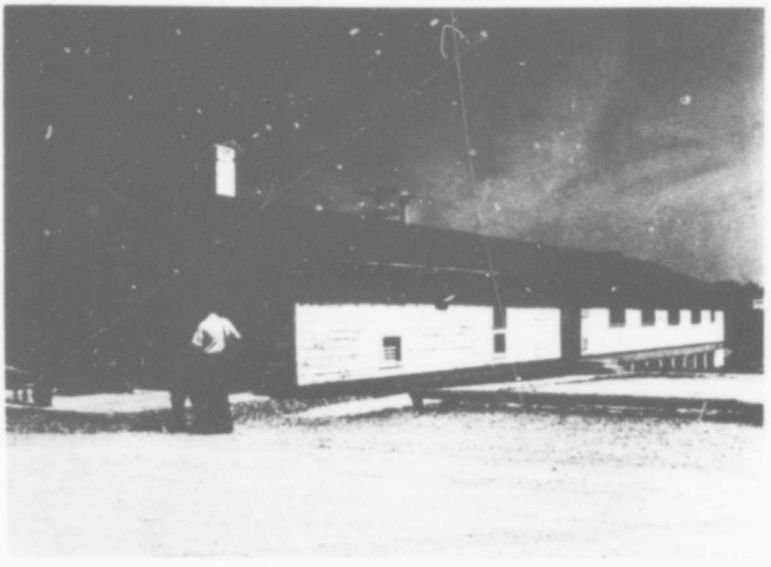

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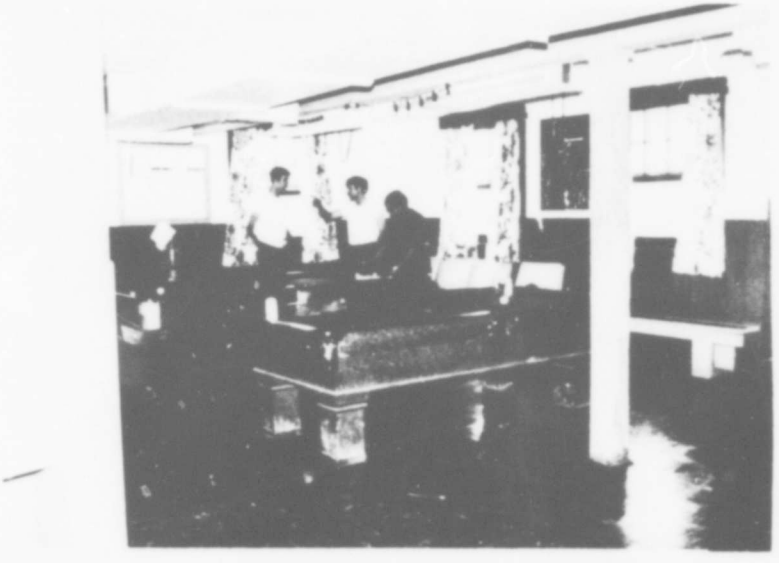

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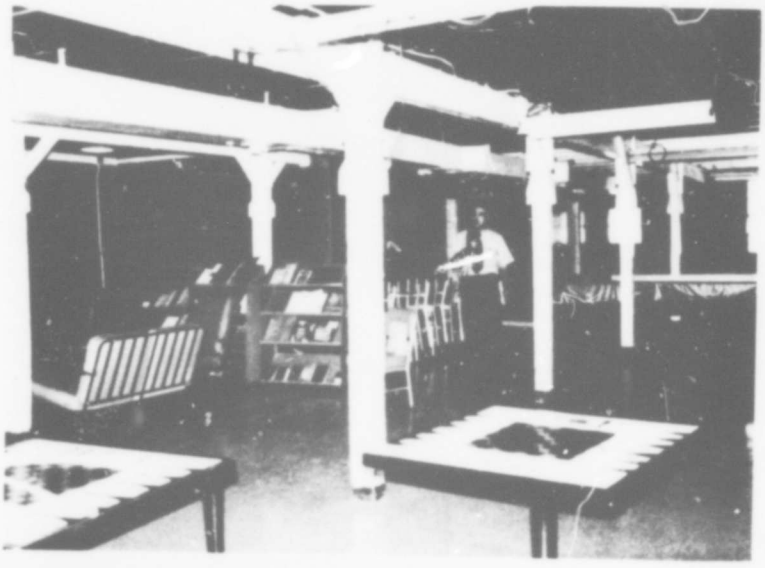

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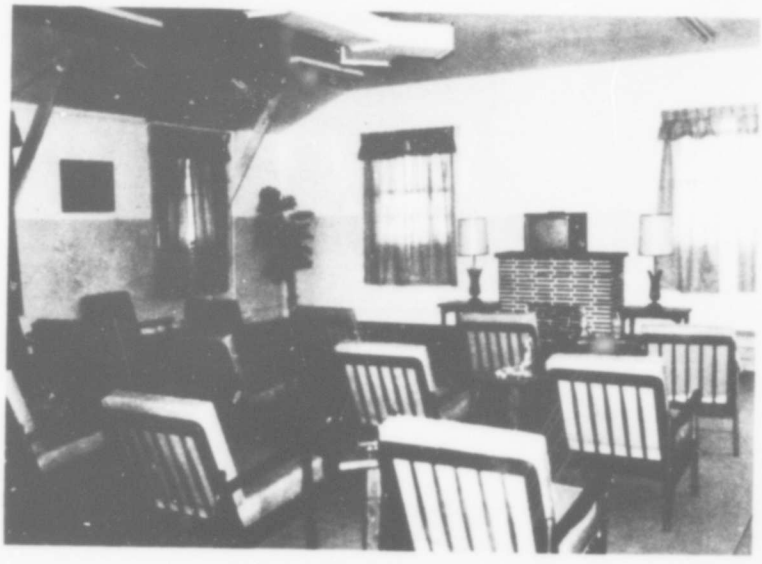

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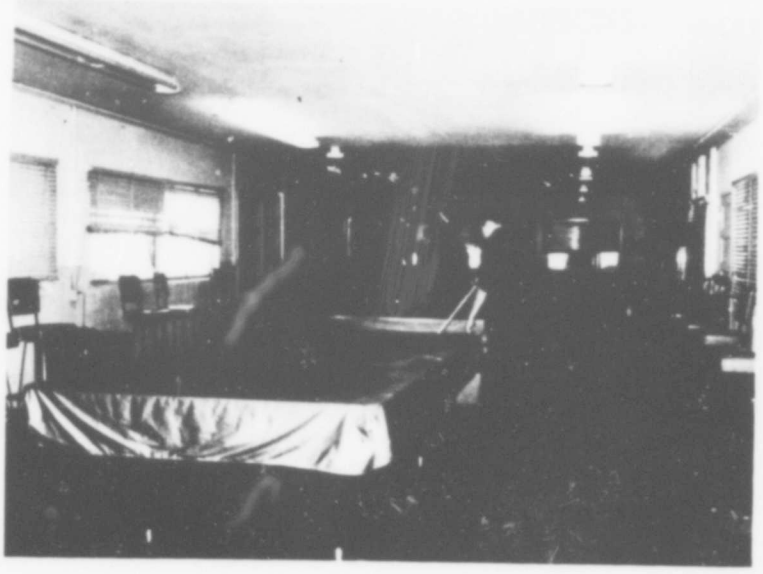

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2.40). There are two pool tables, a ping pong table, additional game tables, and lounge furniture in the major area (Slide 2.41). At one end a planter divider has been used to create a separate reading room/game area. Along the end wall is a large magazine display rack plus a trophy case (Slide 2.42). At the opposite end a TV room has been created by the addition of a wood paneled partition. There are windows on both sides of the day room providing cross ventilation and an abundance of sunlight adds greatly to the cheerfulness of the space.

Similar corresponding day rooms were seen at the other barracks of this series (Slides 2.43–47). The day rooms serving Bldg. #2539 at Ft. Sill are located in two separate buildings. A handsomely decorated TV room with gold carpeting and gold vinyl lounge furniture is in one building, while pool tables and other game tables are located in a separate building (Slides 2.48–49).

BARRACKS DESCRIPTION

TYPE:	1950s		
EXAMPLES:	Ft. Knox:	Bldgs.	#2379, #6581
	Ft. Lee:	Bldgs.	#3024, #3700, #8400, #9305
	Ft. Dix:	Bldg.	#5406
	Ft. Hood:	Bldgs.	#10006, #14020
	Ft. Sill:	Bldg.	#2470

OUTSIDE APPEARANCE

Examples of the 1950s barracks series were seen on five of the six posts visited. In general the buildings of this series are 3-story exposed concrete frame structures with masonry infill (Slide 3.1). The roof appears flat but is slightly sloped for perimeter drainage. The most common building plan is H-shaped (six of the ten visited); however, two are rectangular, one T-shaped and one U-shaped (Slides 3.2–3).

The buildings of this series seem very industrial in character due in large part to the choice of the masonry infill and window arrangement and treatment. Infill in nine of the ten buildings is concrete block and in seven of these nine buildings the frame and block have been painted a monotone sand color (Slides 3.1–3). In the other two the frame has been painted a dark gray-green with the block infill a lighter gray-green giving these buildings a particularly drab appearance (Slides 3.4–5). A pleasant contrast to this is Bldg. #3024 at Ft. Lee where red brick has been used as the infill material. As this building is also nicely landscaped, it is considerably more attractive than any of the other 1950s series barracks surveyed (Slide 3.6).

Window arrangement and treatment vary somewhat from building to building. Four of the ten barracks have projecting sash windows arranged in continuous rows, thus greatly increasing the industrial character (Slide 3.7). A variation on the continuous row scheme is Bldg. #3700 at Ft. Lee where double hung windows have been used instead of projecting sash (Slide 3.8). This coupled with the addition of a brise soliel, a projecting concrete sun shade over the windows, results in a considerably more attractive building. A similar projecting concrete sun shade had also been used on Bldg. #3024 at Ft. Lee (Slide 3.9). The other five barracks have individual windows (four have double hung, one has projecting sash). While less industrial in character, the spotty appearance hardly increases the attractiveness of these barracks.

Entrances typically occur near the reintrant corners of the H-shaped barracks or at third points along the facade of the others (Slide 3.9–13). In all cases the entrances are architecturally undistinguished. In general the landscaping tends to be rather sparse with what foundation planting there is being concentrated at the entrances (Slides 3.14–15). Trees are few in number and moderate in size.

GENERAL CONDITIONS OF BARRACKS

In most cases the 1950s series barracks appear clean, dry, and in reasonably good repair. Some, however, are in need of attention with regard to painting, window repair, and general maintenance. Stairways are adequate; however, corridors in general are narrow, low-ceilinged and dimly lighted.

By virtue of their concrete flat plate or one-way joist construction and masonry exterior and interior walls, these buildings are inherently fireproof. Fire extinguishers appear to be located for easy accessibility (standpipes are available in two of the ten buildings), and cleaning gear and other flammables appear to be stored properly. Safety hazards are not apparent.

Heating in eight of the ten barracks surveyed is by hot water radiation with linear baseboard radiators. In most cases exposed piping is minimal. In the other two barracks (Bldgs. #3024 and #9305 at Ft. Lee) heating is by hot air delivered through exposed overhead ducts.

There are no central air conditioning systems in any of the barracks. In most cases air movement is provided by floor fans and natural cross ventilation through open windows; however, both Bldg. #14020 at Ft. Hood and Bldg. #2470 at Ft. Sill have mechanical ventilation provided by large roof mounted units (Slide 3.16).

SLEEPING BAYS

Typical sleeping areas in the 1950s series barracks are large open bays, rectangular in plan, with windows on two sides providing cross ventilation and adequate natural light. Current sleeping conditions vary widely from building to building; however, like the 1930s series the typical bay is drab in color, spartan in furnishings, and totally lacking in individual audio or visual privacy.

The sleeping bays of Bldg. #3024 at Ft. Lee represent one extreme. Here there are three rows of alternating metal double bunks and gray metal lockers running the entire length of the room (Slides 3.17–3.18). The regimented rows of bunks are the only furnishings in this colorless and dimly lighted room. There are no wall decorations or posters, and individual decorating is not allowed. Privacy and control of personal space is non-existent. The sleeping bays of Bldg. #6581 are very similar; however, instead of 36 men in 18 double bunks there are 24 single bunks, and bright orange metal desks and chair have been issued for each three beds (Slides 3.19–20).

Somewhat more pleasant and spacious yet still lacking in privacy and control of personal space are the sleeping bays of Bldgs. #10006 and #14020 at Ft. Hood (Slides 3.21–24). As is the case in all sleeping bays of this series, security is a definite problem with a locker with hasp and lock providing the only means to protect personal belongings. Further complicating the security problem as well as the storage problem in the sleeping bays of Bldgs. #10006 and #14020 is the fact that the lockers have no drawers or shelves, thus requiring foot lockers to be issued for the storage of small personal belongings (Slide 3.22). In addition, sleeping bays in both buildings lack any means to control natural light (Slides 3.21, 23). On the positive side, the sleeping bays of Bldg. #14020 have been issued small area rugs which add a degree of comfort to the sleeping space (Slide 3.23). Again there are no wall decorations as individual decorating is not allowed.

These conditions can be contrasted to those of the remaining 1950s barracks surveyed. Here there have been attempts to improve individual privacy and provide a more pleasant and colorful sleeping environment. Instead of free standing bunks, two to four man cubicles have been formed by a variety of means. These range from merely using the gray metal lockers as partitions as in Bldgs. #3700 and #8400 at Ft. Lee (Slides 3.25–3.26) to the use of moveable partitions as in Bldg. #2379 at Ft. Knox (Slide 3.27), Bldg. #9305 at Ft. Lee (Slide 3.28), and Bldg. #5406 at Ft. Dix (Slide 3.29). In addition, in most cases bright, colorful metal desks and chairs, desk lamps and area rugs have been issued, and individual decoration is encouraged (Slides 3.30–33). However, just as in the 1930s series a definite aesthetic unevenness and makeshift quality in the selection of colors and furnishings is prevalent, and individual privacy has yet to be achieved.

NCO ROOMS

NCO rooms in all barracks surveyed are very similar. Typically they are moderately sized two-man rooms with floor, wall, and ceiling finishes identical to those in the sleeping bays. An exception in size is the NCO room visited in Bldg. #5406 at Ft. Dix which had formerly been a TV room (Slide 3.34).

Typical furnishings include beds, lockers, and desk and chairs with many of the rooms having chests, bookcases, lounge chairs, and area rugs. Some have such additional items as television, stereo, and fans or air conditioning provided individually by the men (Slides 3.35–39). While comfortable and semi-private, the overall appearance of most of the NCO rooms remains drab and depressing and not a particularly pleasant or desirable personal living space.

LATRINES

Latrines in all buildings of this series are almost identical in plan and material selection. Lavatories and urinals are mounted on either side of tile-covered partial partition, the top of which provides adequate shelving (Slides 3.40–42). Other lavatories are wall-hung with narrow, metal wall hung shelving (Slide 3.43). Lighting in most cases in dim and inadequate. Privacy is good: water closets in all cases have privacy screens and doors, and there are individual shower stalls in four of the ten barracks surveyed (Slide 3.44). In the other six, showers are located in one large shower room (Slide 3.45).

The overall appearance in most cases seems reasonably clean and pleasant with sand colored ceramic tile

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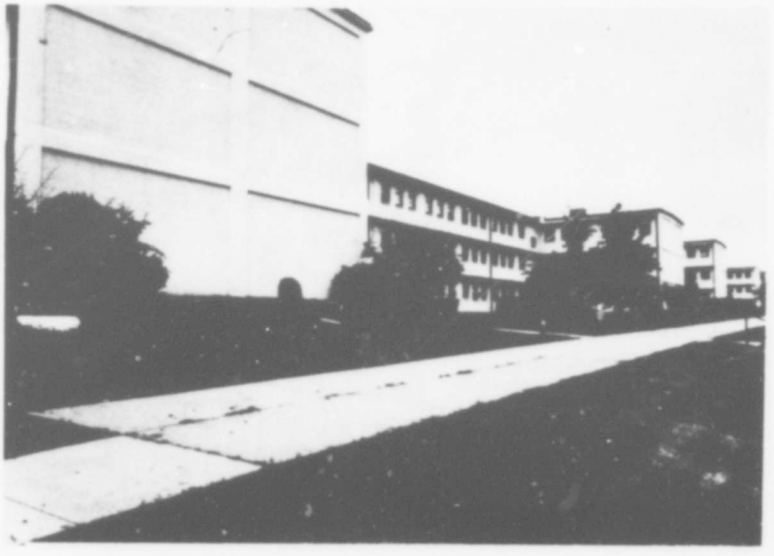

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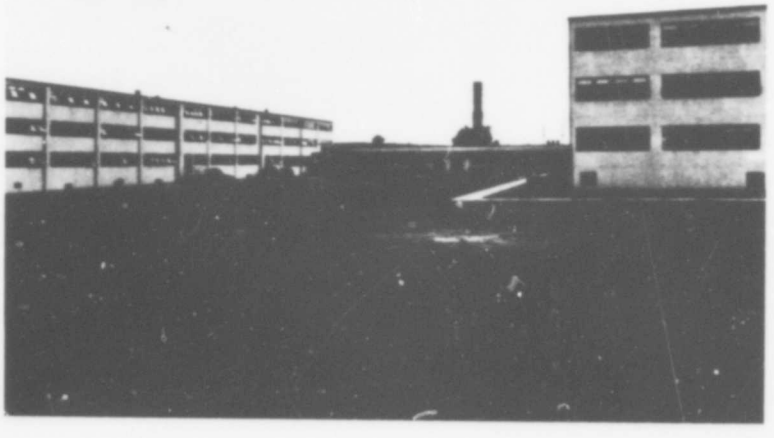

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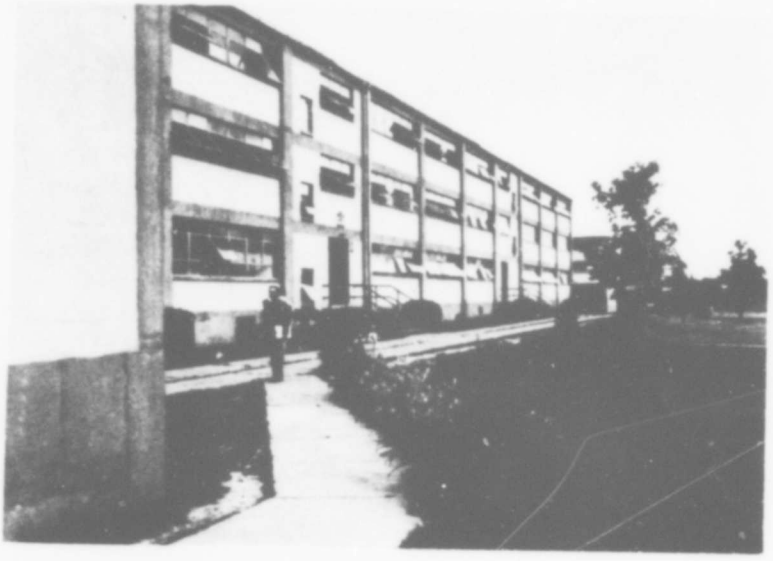

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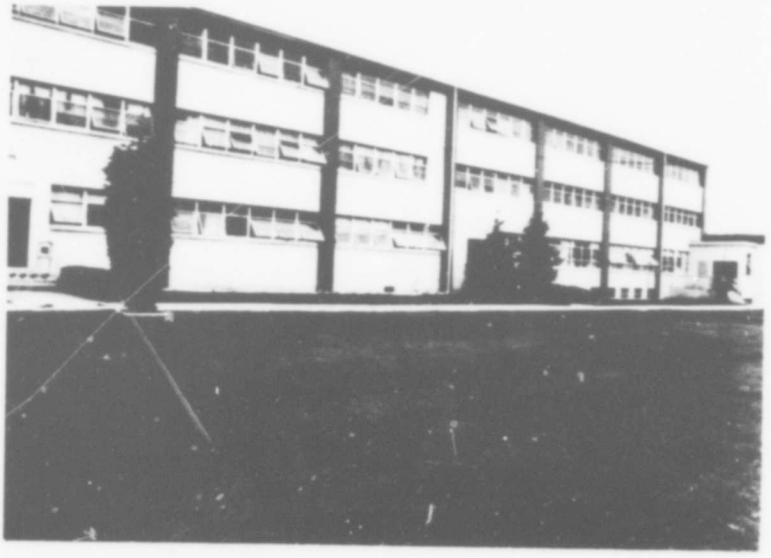

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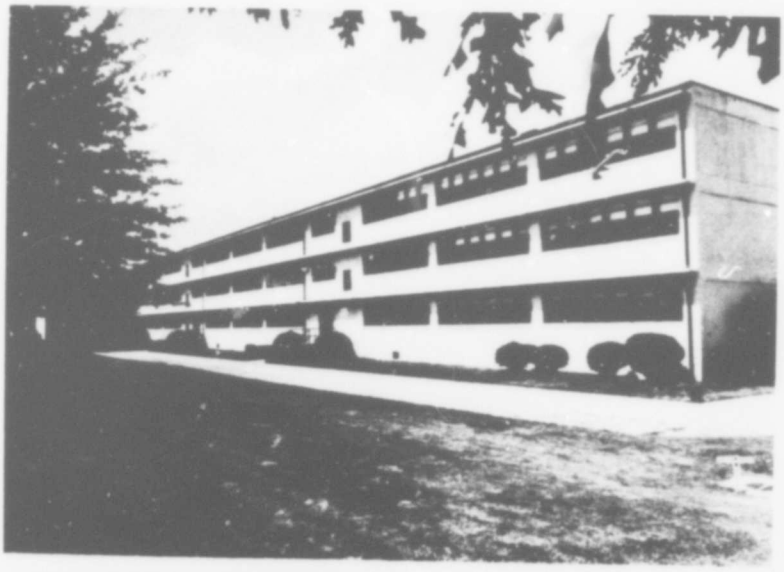

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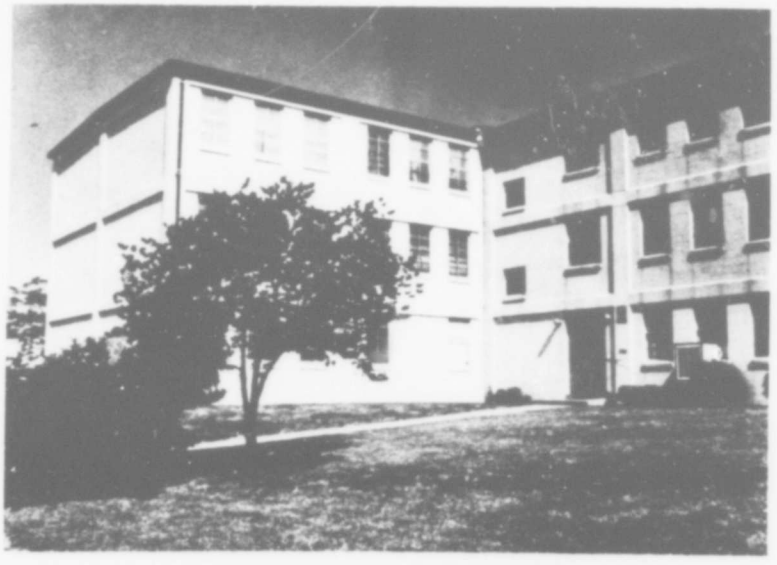

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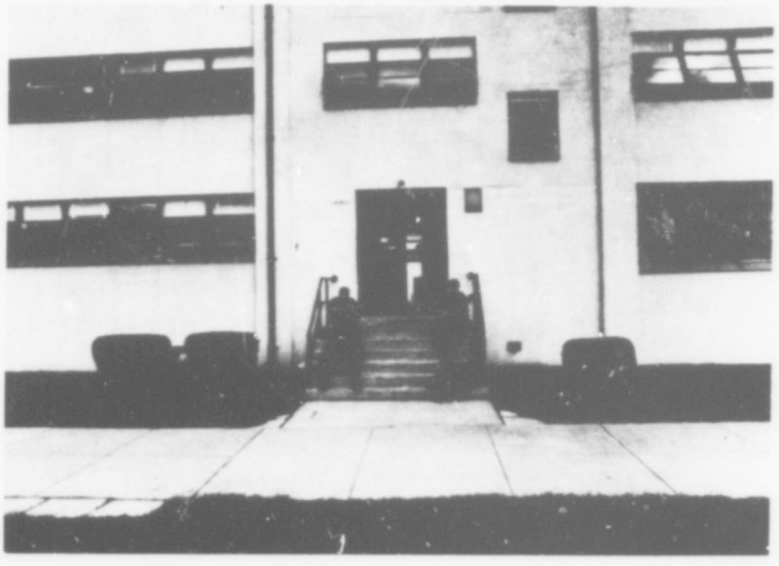

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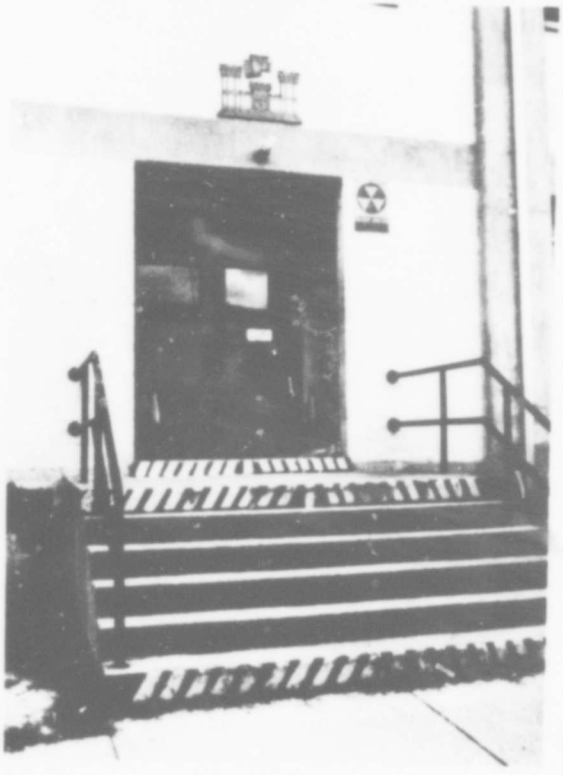

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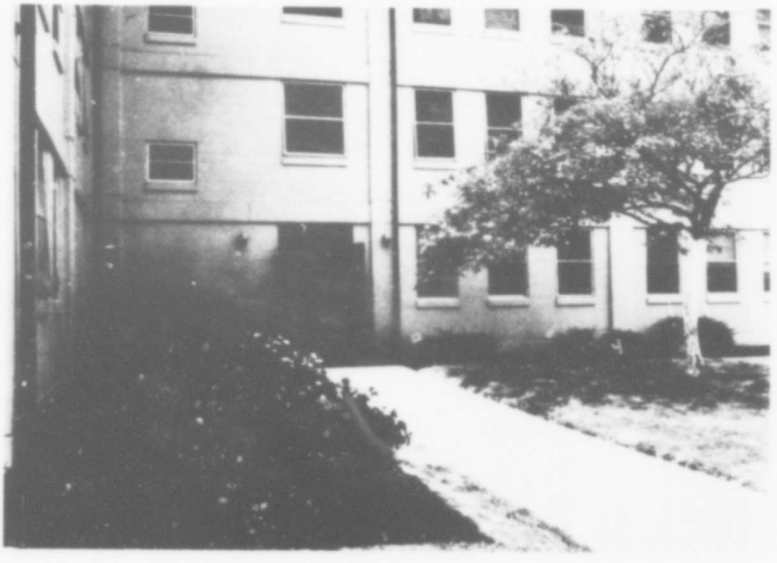

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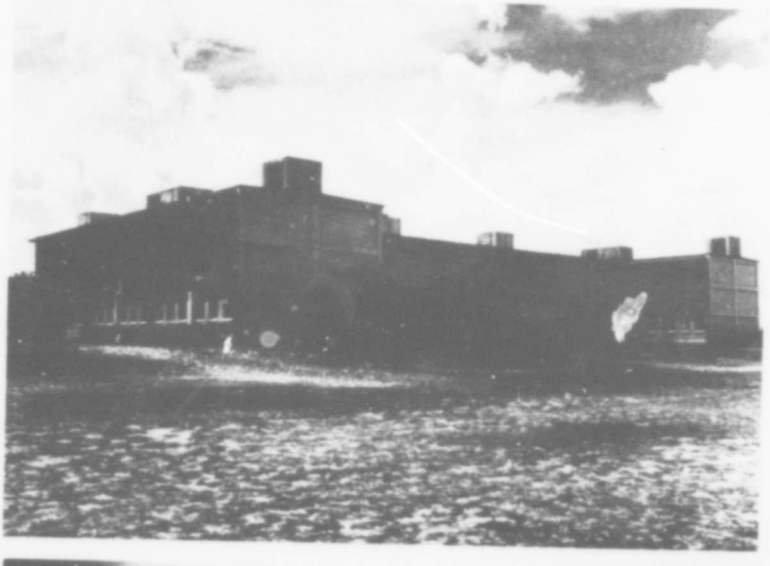

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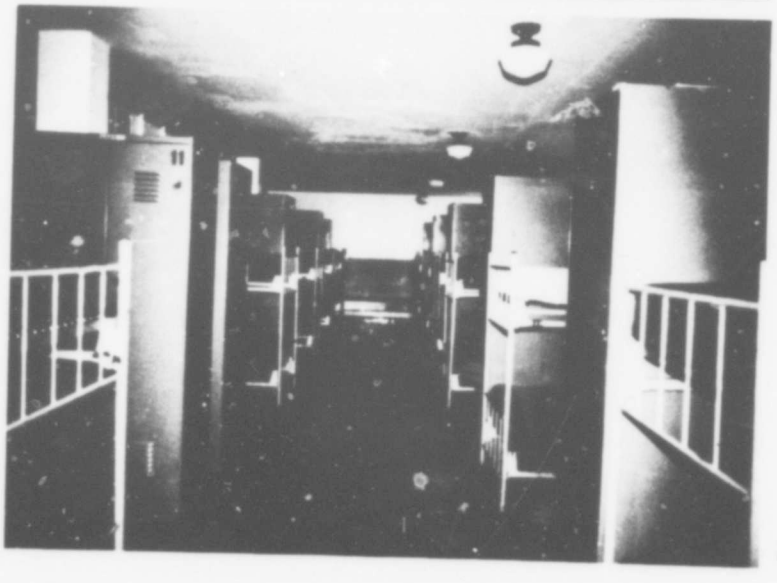

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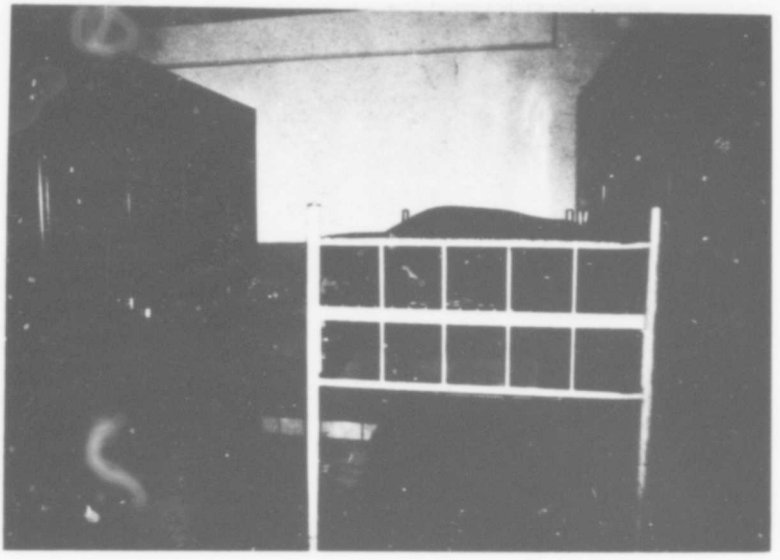

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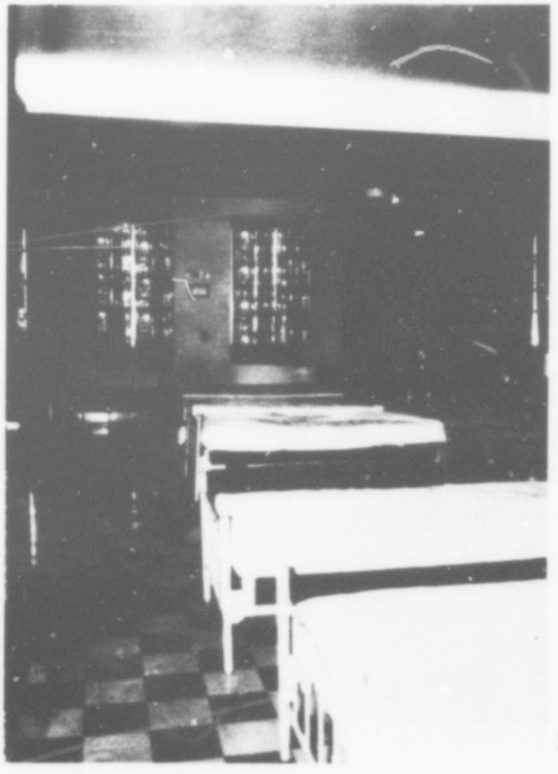

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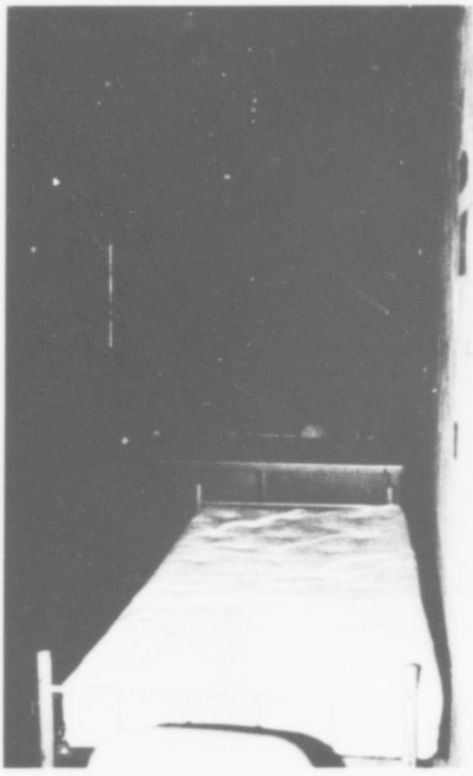

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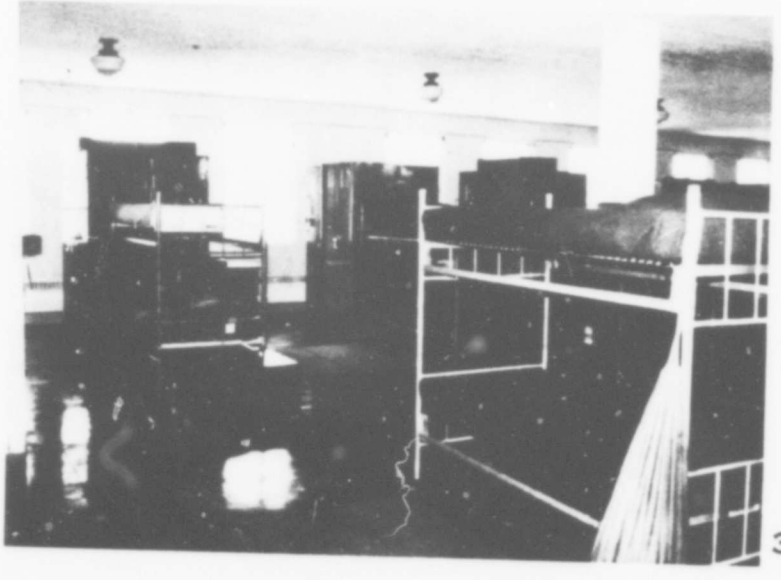

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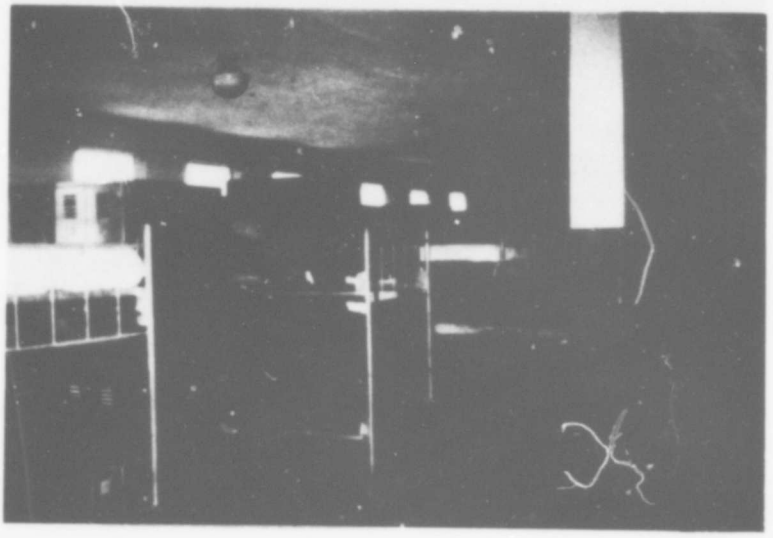

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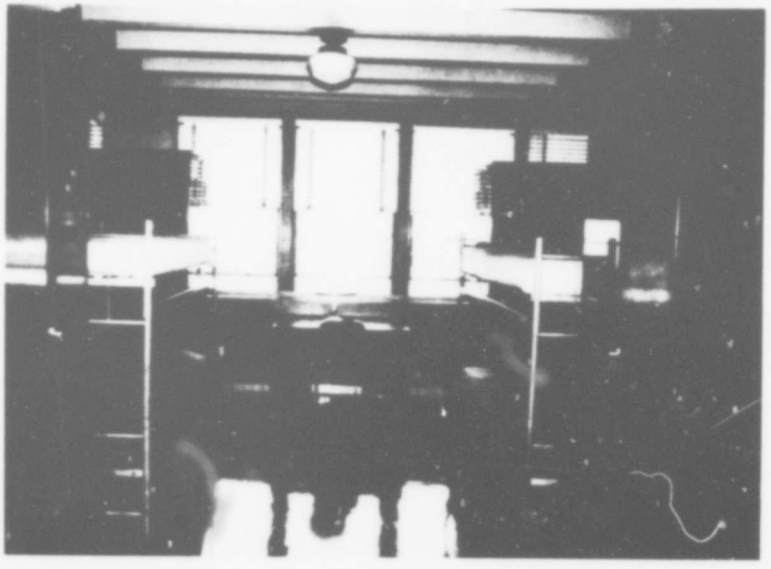

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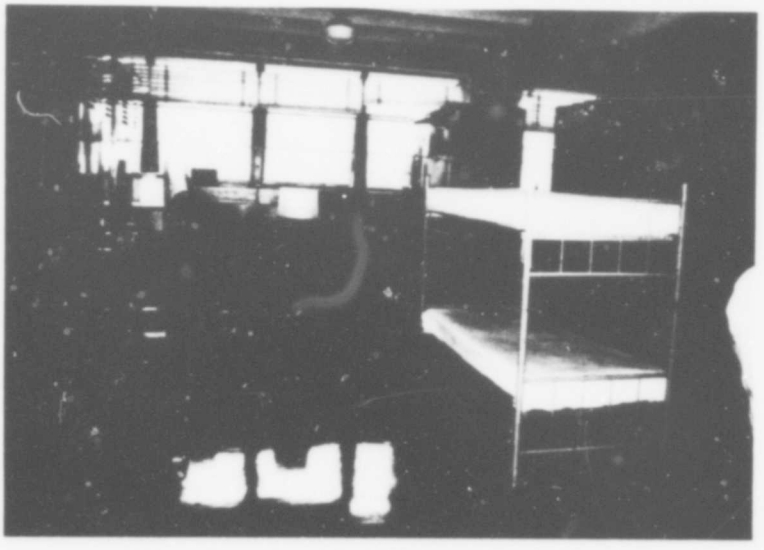

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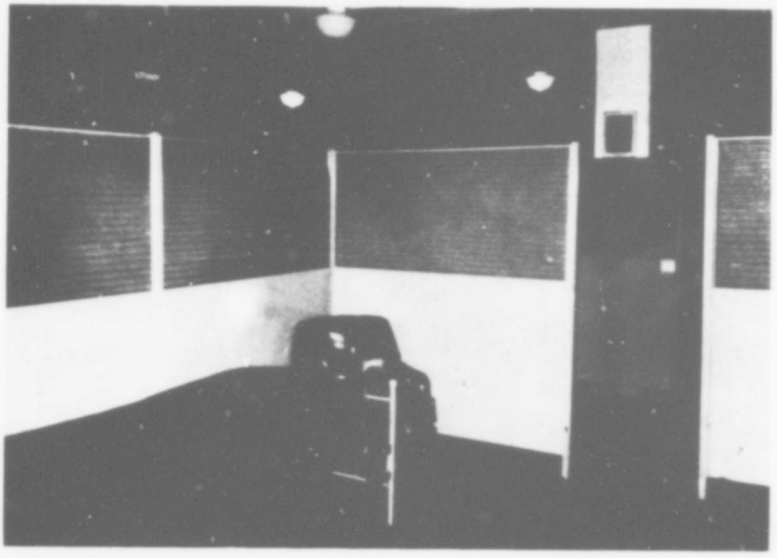

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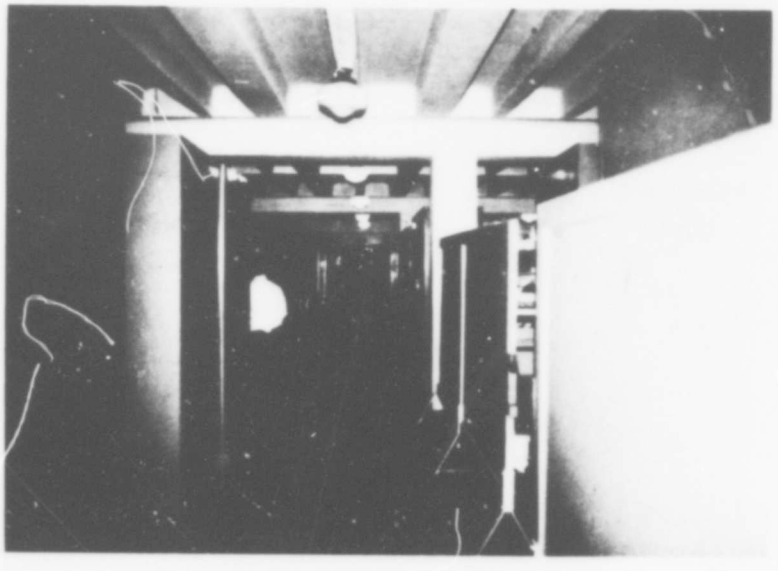

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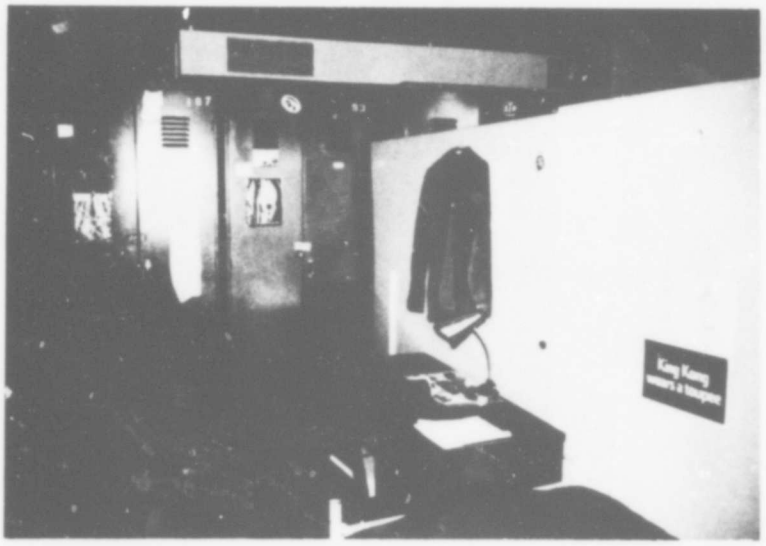

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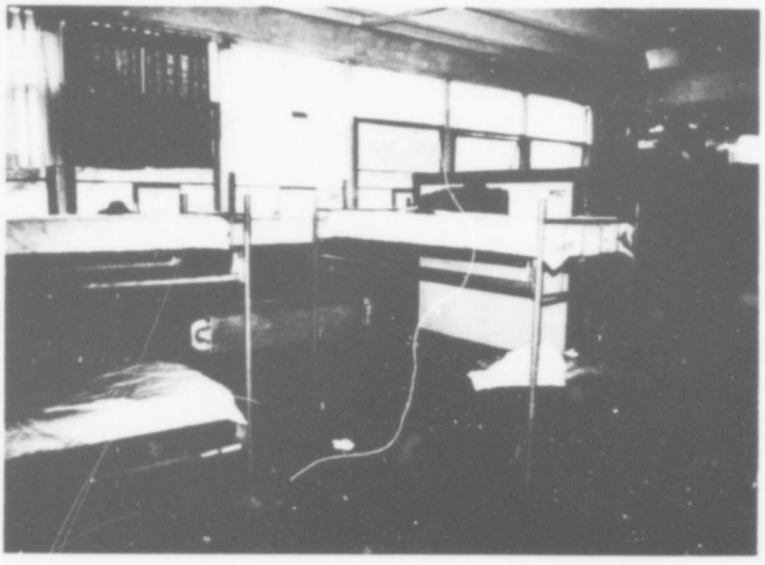

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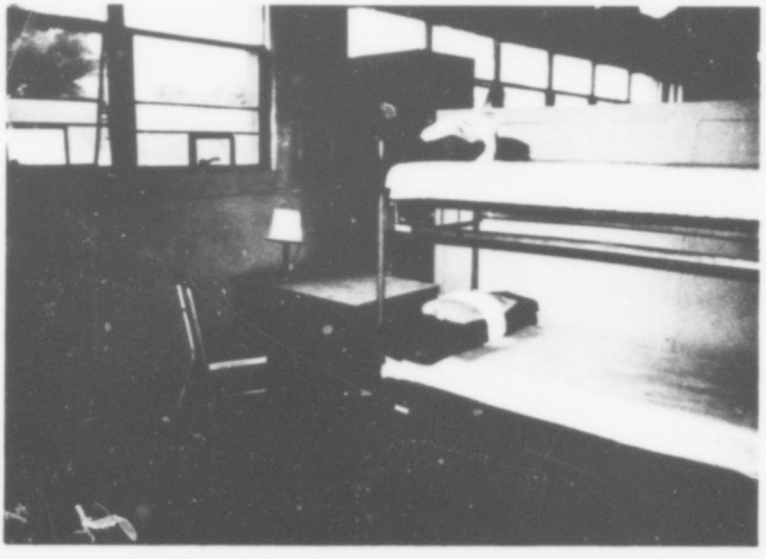

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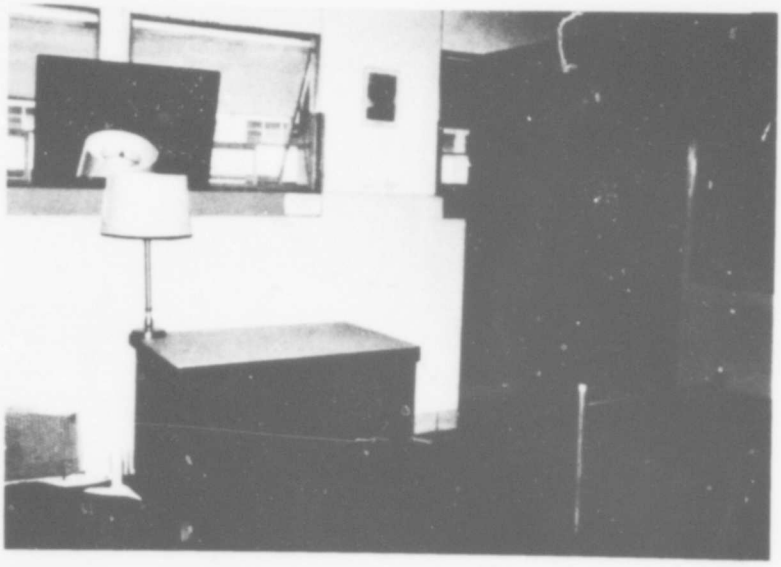

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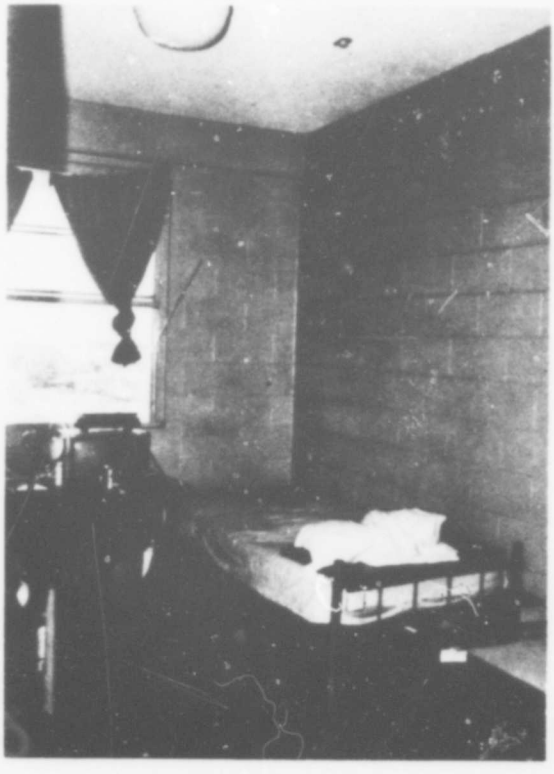

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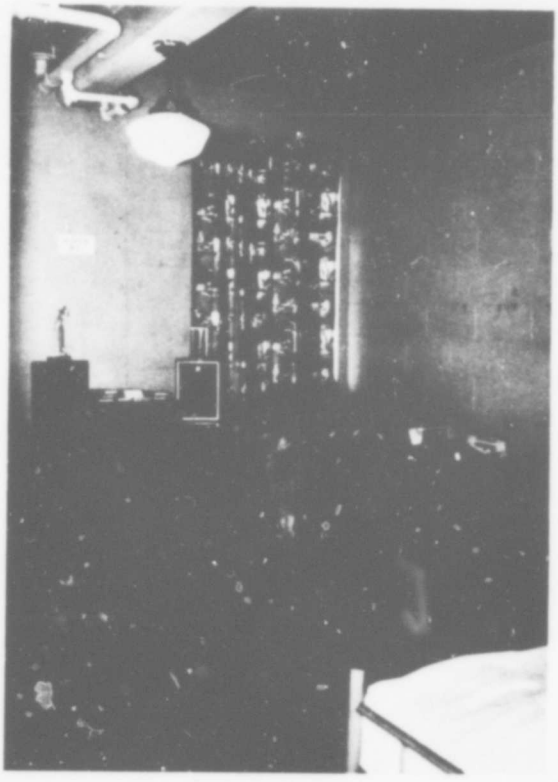

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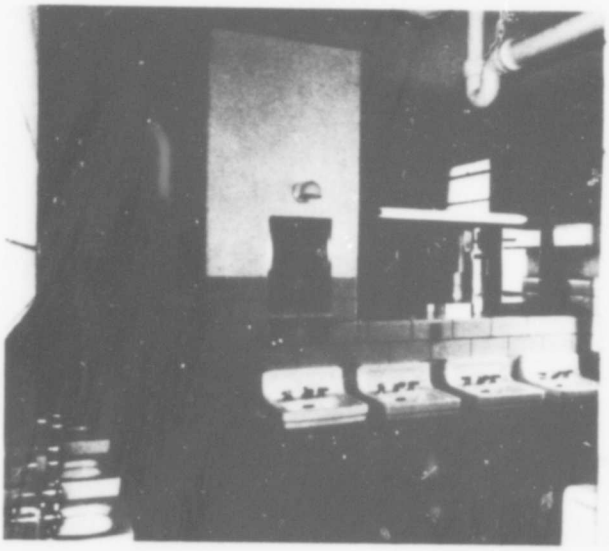

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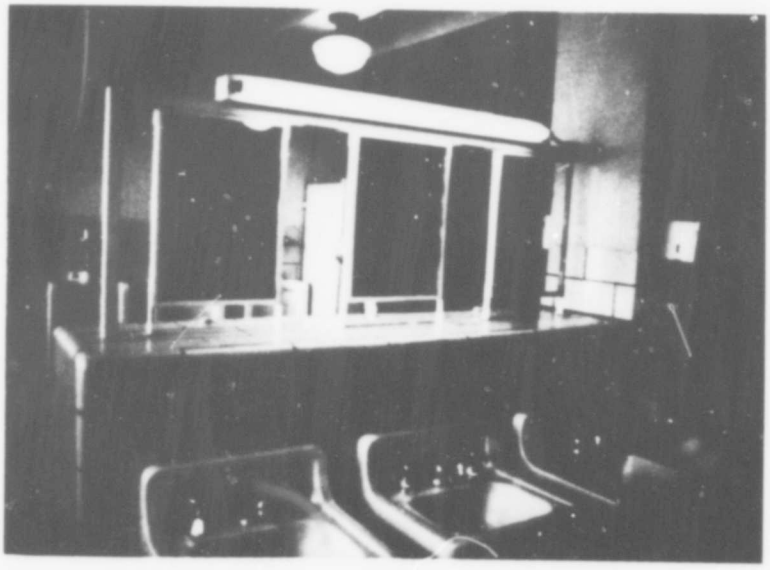

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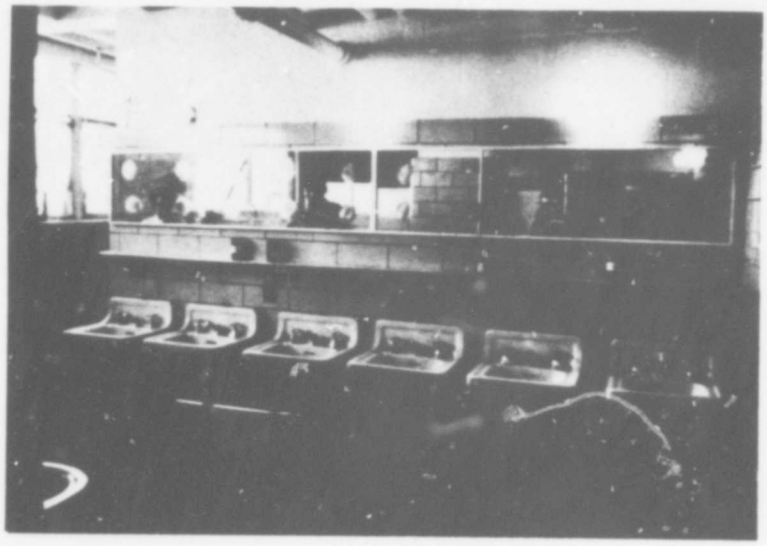

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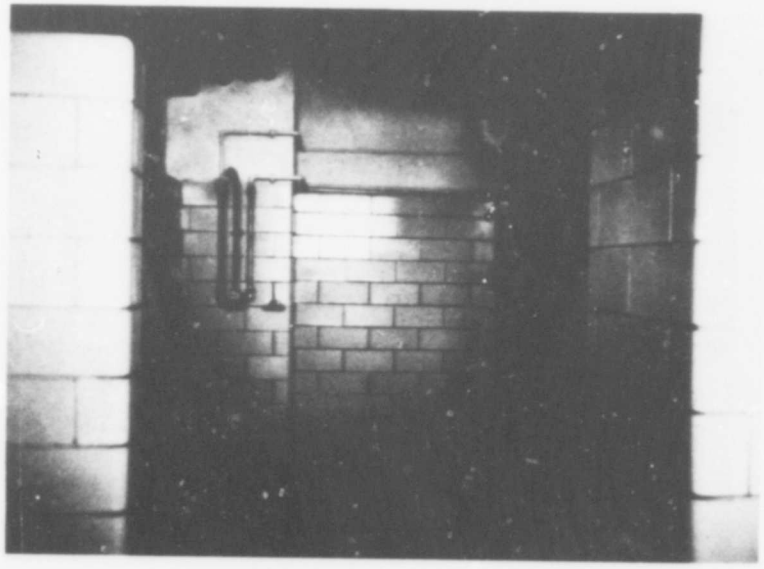

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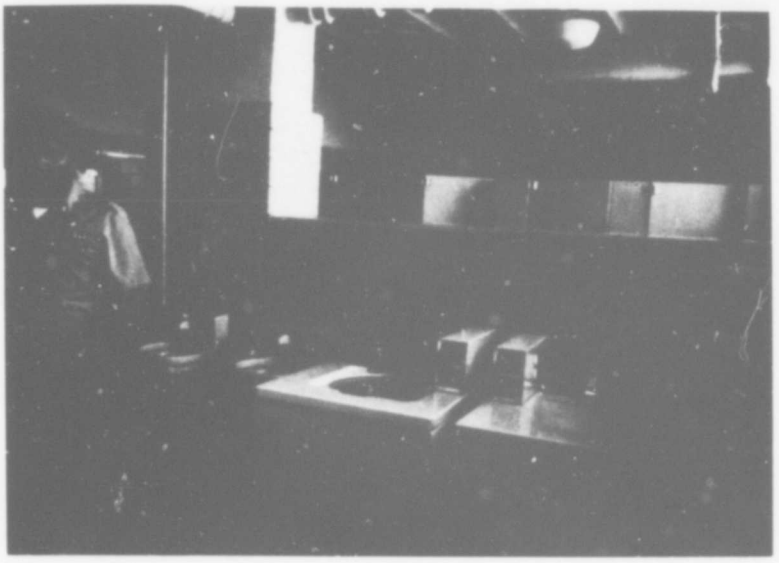

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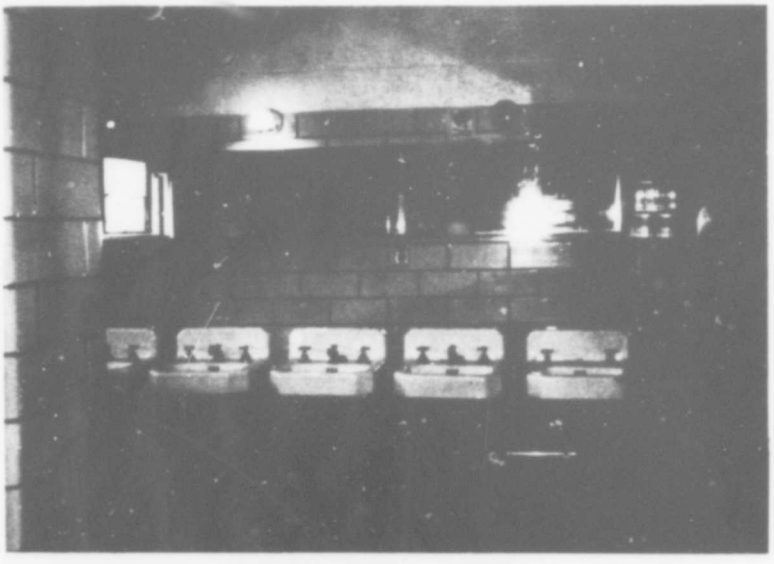

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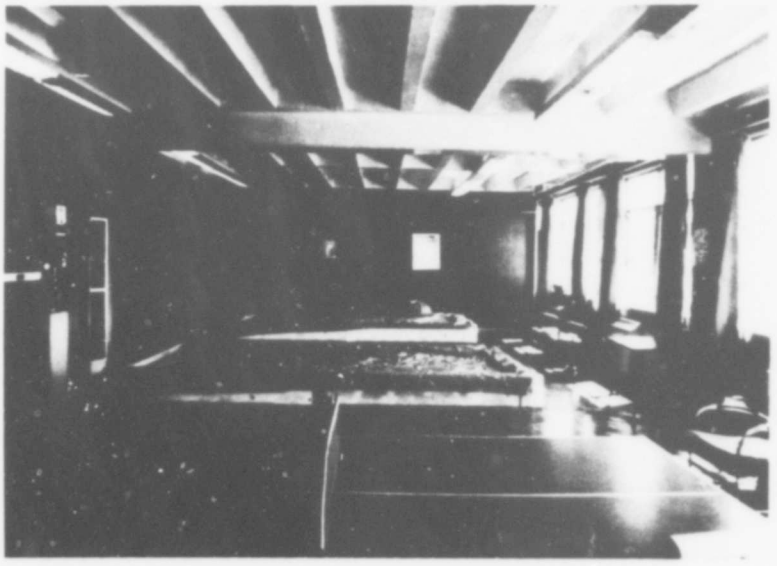

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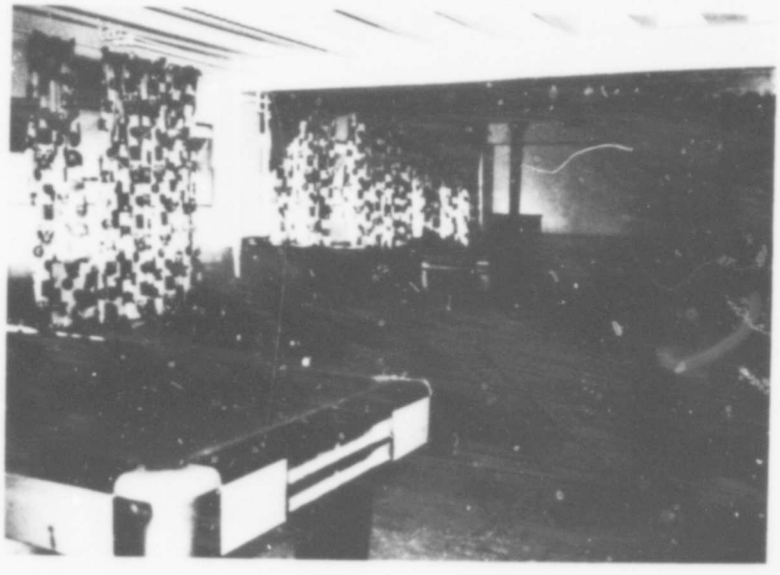

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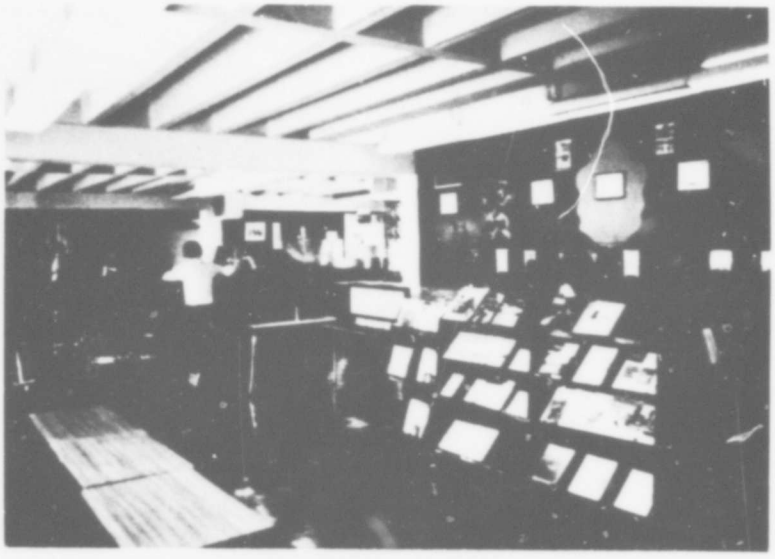

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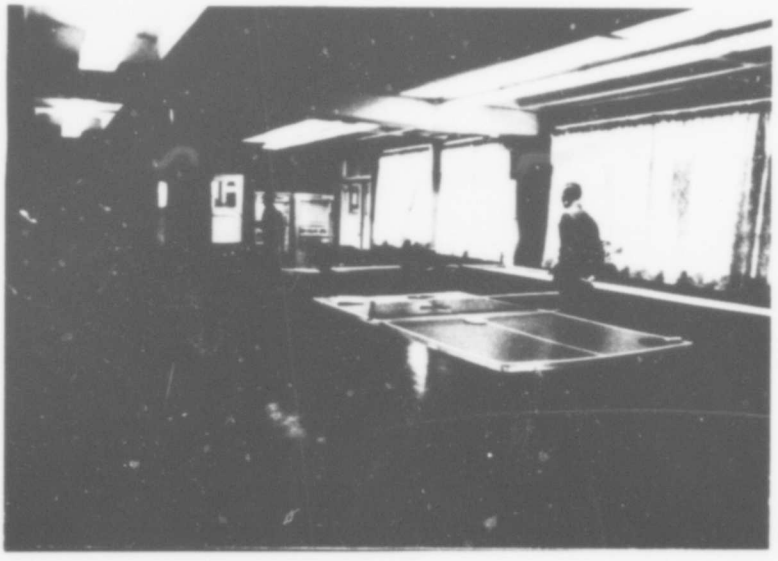

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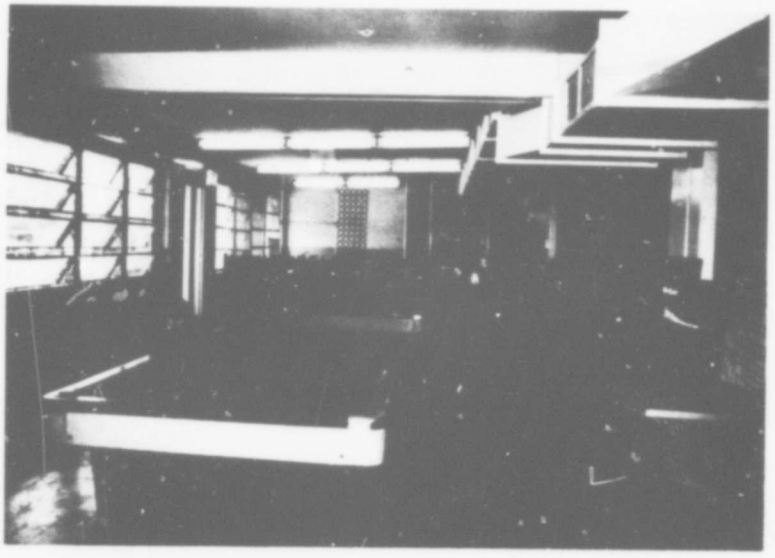

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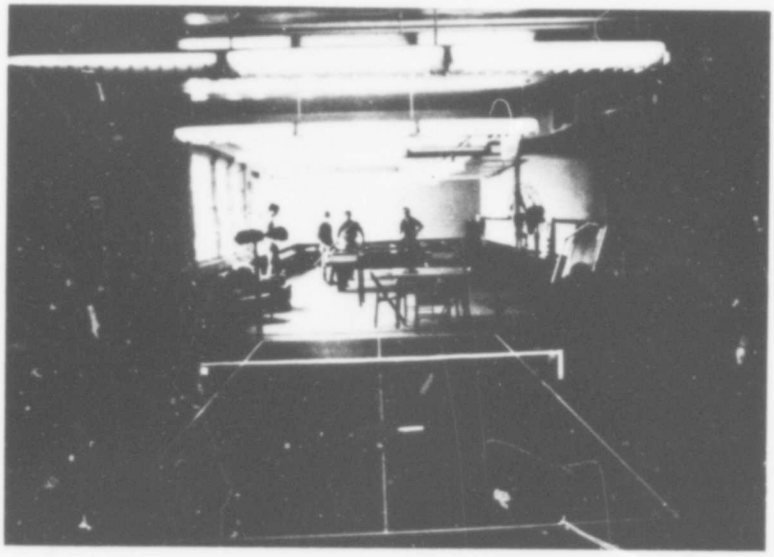

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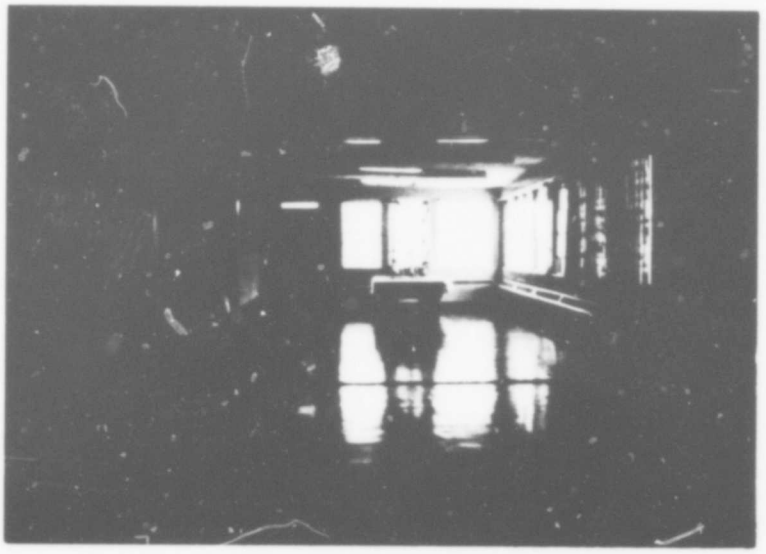

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floors and wainscoted walls (Slide 3.40). The concrete block above the wainscot has been painted cream or yellow in all cases. Safety problems in general are not apparent, though some problems could result from exposed pipes. Washers and dryers have recently been added to the latrines in Bldgs. #3700, #8400, and #2470 (Slide 3.46). In these cases the dryers have been placed in the drying-off area of the shower rooms presenting potential safety hazards. Most latrines are in good repair; however, the latrine in Bldg. #2379 at Ft. Knox is in particularly poor repair with missing light fixtures and shelving (Slide 3.47).

DAY ROOMS

Of the eight day rooms available for inspection, four are located on the first floor and four on the second floor. The day rooms of Bldg. #8400 at Ft. Lee are typical of those barracks with first floor day rooms. Here the large available space has been divided by paneled partitions into smaller rooms including: 1) a large pool room with three pool tables and one ping-pong table (Slide 3.48), 2) a game room (Slide 3.49), 3) a trophy room, 4) a vending room, and 5) a TV room (Slide 3.50). Similar day rooms are found in Bldg. #2379 at Ft. Knox, Bldg. #3700 at Ft. Lee and Bldg. #5406 at Ft. Dix (Slides 3.51–54). While comfortable, spacious and basically cheerful, these day rooms have a definite haphazard aesthetic quality that diminishes the attractiveness of these spaces. This is due in a large part to a lack of coordination with respect to color, material and furnishing selections.

Second floor day rooms are very similar: 1) a large area with several pool tables (Slide 3.55), 2) a small game area partitioned off from the pool room by a low divider (Slide 3.55), and 3) a separate small chapel (Slide 3.56). Opening off the pool room is a small roof terrace, a particularly handsome feature of the second floor day rooms.

Similar day rooms were seen in Bldg. #9305 at Ft. Lee, Bldg. #6581 at Ft. Knox, and Bldg. #14020 at Ft. Hood (Slides 3.57–60). In Bldg. #6581 the chapel has been converted to a music room with black walls and black lights, psychedelic murals, and floor pillows. In the other two day rooms the chapel serves as a store room.

Of particular interest as far as color scheme is the day room of Bldg. #9305. Here the floor has been carpeted in a handsome yellow-orange carpeting and the walls have been painted-off-white with an end accent wall of yellow-orange (Slide 3.57).

BARRACKS DESCRIPTION

TYPE:	1960s		
EXAMPLES:	Ft. Knox:	Bldg.:	#5941
	Ft. Dix:	Bldg.:	#5852
	Ft. Leonard Wood:	Bldgs.:	#315, #1012
	Ft. Hood:	Bldg.:	#41008

OUTSIDE APPEARANCE

Examples of the 1960s barracks series were seen on four of the six posts visited. In general the buildings of this series are 3-story concrete frame structures with brick masonry exterior walls (Slide 4.1). The roof appears flat but is slightly sloped for perimeter drainage. The typical plan is rectangular with a widened central section containing the larger eight-man sleeping bays. In general, the barracks of this series form part of a large complex arranged campus style with separate dining halls serving several barracks (Slide 4.2).

The buildings of this series seem very institutional and bland in character. Red brick has been used on four of the five barracks surveyed while a light sand colored brick has been used on Bldg. #41000 at Ft. Hood (Slides 4.3–6). Windows are double hung and arranged predominately in groups of three and four. In addition, barracks both at Ft. Leonard Wood and Ft. Hood have projecting concrete sun shades over the windows that are quite effective in providing window shading (Slides 4.4–6). Landscaping at all buildings is almost non-existent.

Entrances occur at either end of the widened central section. They are architecturally undistinguished and in most cases uninviting with steep concrete stoops and unattractive pipe hand railing (Slide 4.7). In an attempt to personalize the entrances, plaques identifying the occupying company have been added both to Bldg. #41008 at Ft. Hood and Bldg. #5941 at Ft. Knox (Slides 4.8–10).

GENERAL CONDITIONS OF BARRACKS

In most cases the 1960s series barracks appear clean, dry and in excellent repair. In general, safety hazards are not apparent. Entrance corridors are handsome with sand colored quarry tile floors (Slide 4.11). Stairways are adequate; however, typical corridors are long and narrow with low ceilings in most cases. In general, the lighting is sufficient (Slide 4.12).

These buildings by virtue of their concrete flat plate construction and masonry exterior and interior

walls are inherently fireproof. Fire extinguishers appear to be located for easy accessibility, and cleaning gear and other flammables appear to be stored properly. As an example of inventiveness in calling attention to the fire fighting equipment, graphics in a humorous yet appropriate vein have been painted around the extinguishers and fire alarms in Bldg. #5852 at Ft. Dix. For example, an old-fashioned fire hydrant has been painted on the wall behind one of the fire extinguishers (Slide 4.13).

Heating in all cases is hot water radiation. In addition, three of the five barracks visited have air conditioning. These include Bldgs. #315 and #1012 at Ft. Leonard Wood and Bldg. #41008 at Ft. Hood. Bldg. #5941 at Ft. Knox and Bldg. #5852 at Ft. Dix rely solely on natural ventilation for air movement.

SLEEPING BAYS

Typical sleeping areas in the 1960s series barracks are eight-man rooms divided into two four-man cubicles by a low drywall partition (Slide 4.14). Each bed has a built-in book case at the headboard with an adjacent wooden built-in floor to ceiling locker (Slide 4.15). Only in Bldg. #5852 at Ft. Dix have metal lockers been used (Slide 4.16). Security is provided by a hasp and lock on each locker in addition to the room's door lock.

Audio and visual privacy is actually quite limited with this sleeping arrangement; however, since there are only eight men occupying a room and since the arrangement of the bed, bookcase, and locker clearly defines each man's personal space, a fairly strong sense of privacy exists. This sense is further emphasized in Bldg. #315 at Ft. Leonard Wood and Bldg. #41008 at Ft. Hood where the men have been given considerable freedom in decorating their own space (Slides 4.17–18). Furthermore, the importance of color selection and individual decoration in increasing the cheerfulness and pleasantness of living/sleeping area can be seen by comparing the colorful eight-man room of Bldg. #41008 (Slide 4.18) with its drab counterpart in Bldg. #5852 (Slide 4.19).

The eight-man sleeping arrangement was seen in four of the five 1960s series barracks surveyed. These relatively small rooms contrast sharply with the large, open sleeping bays observed in Bldg. #1012 at Ft. Leonard Wood. Here there are four rows of alternating metal double bunks and gray metal lockers running the entire length of the room (Slides 4.20–22). A total of 48 men occupy this colorless, drab room. There are no wall decorations or posters, and individual decorating is not allowed. Privacy and control of personal space is nonexistent.

NCO ROOMS

NCO rooms in the five barracks surveyed are almost identical. Typically they are moderately sized two-man rooms with floor, wall and ceiling finishes similar to those in the sleeping bays (Slides 4.23–24).

Typical furnishing include beds and built-in wooden lockers. Several of the rooms have bright colored metal desk and chairs, chests, and area rugs. Some have additional items such as television and stereo provided individually by the men. Particularly attractive is a rug added by the occupant of one of the NCO rooms in Bldg. #1012 at Ft. Leonard Wood (Slide 4.25). In general, the NCO rooms in the 1960s series tend to have less furnishings than those seen in the 1930s and 1950s series, and while comfortable, the overall appearance remains somewhat drab and depressing (Slide 4.26).

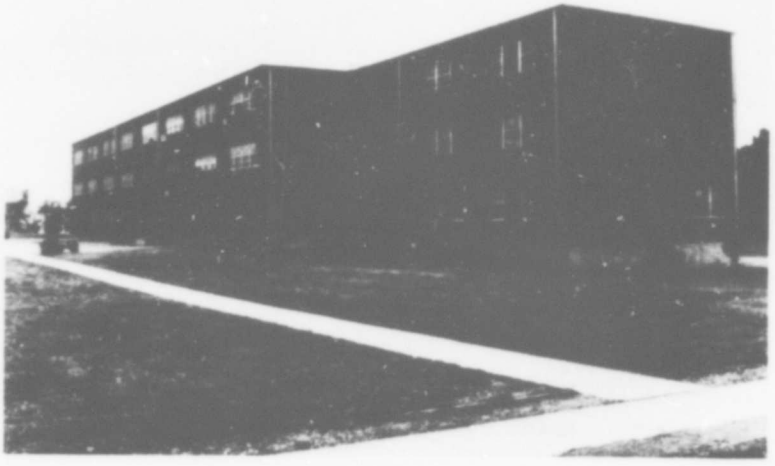
LATRINES

Latrines in all buildings of this series are almost identical in plan. Although they vary slightly in material selection, lavatories are wall mounted with narrow, metal wall hung shelving (Slide 4.27). Privacy is very good: water closets in all cases have privacy screens and door, and there are individual shower stalls in three of the five barracks surveyed (Slides 4.28–29). In the other two, showers are located in one large shower room.

The overall appearance in all cases is reasonably clean and attractive. The latrines of Bldgs. #315 and #1012 at Ft. Leonard Wood are particularly attractive with small dark red rectangular floor tiles, off-white ceramic tile walls, and off-white toilet partitions accented with terra cotta privacy doors (Slide 4.28). Latrines in the other barracks exhibit similar attractive color combinations. Safety problems, in general, are not apparent. Most latrines are in reasonably good repair although ceiling paint is peeling in several of the latrines. In general lighting is adequate.

DAY ROOMS

Day rooms in the 1960s series barracks are fairly small and are largely undistinguished in appearance. Typical is the day room of Bldg. #1012 at Ft. Leonard Wood. Located on the first floor, the day room is one large space divided by a woven wood partial partition



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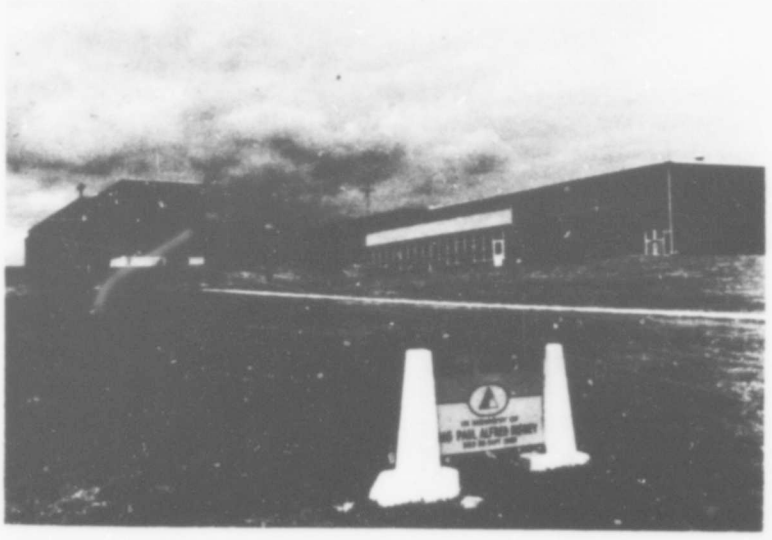

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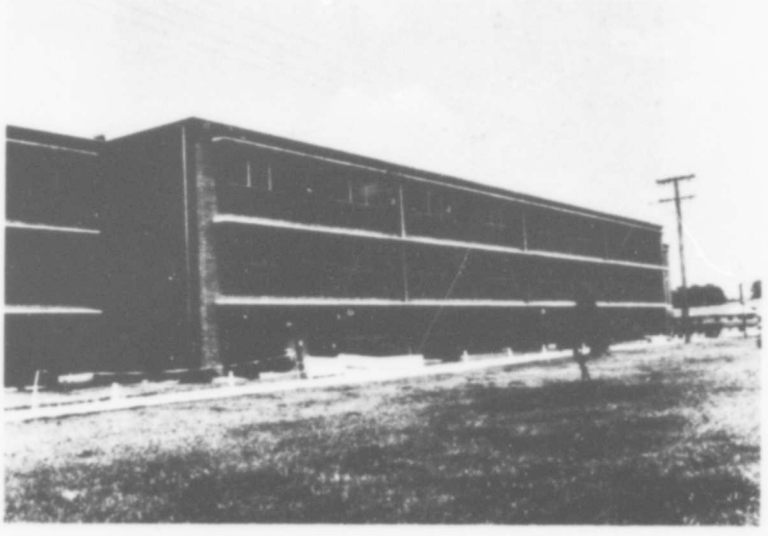

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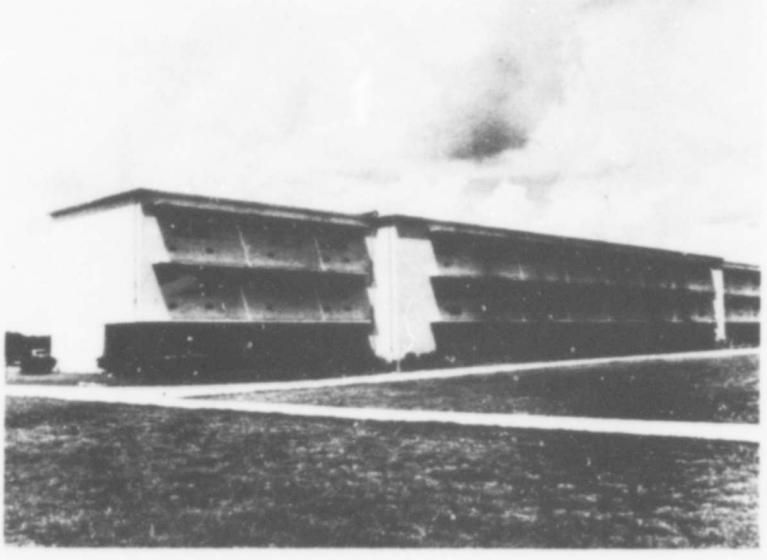

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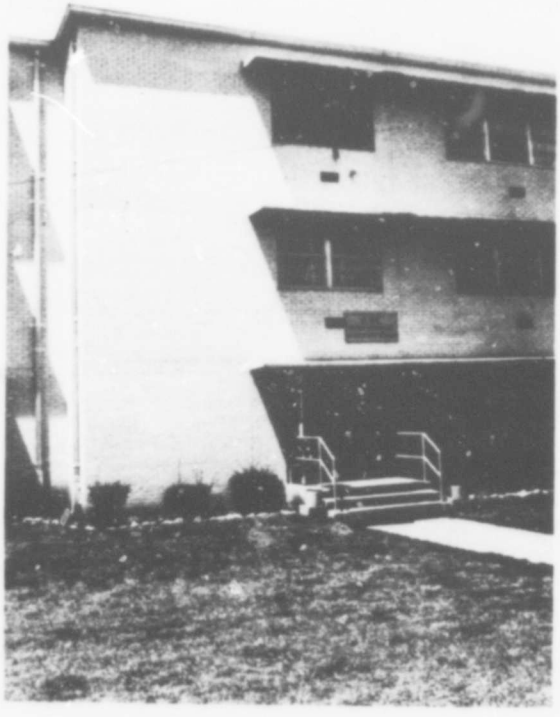

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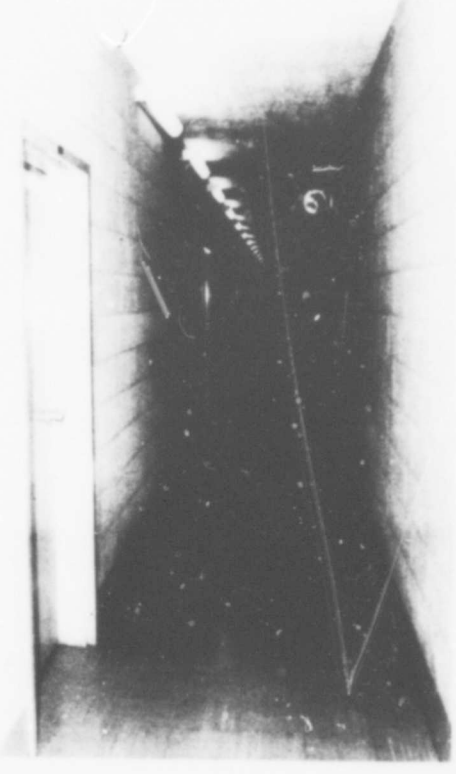

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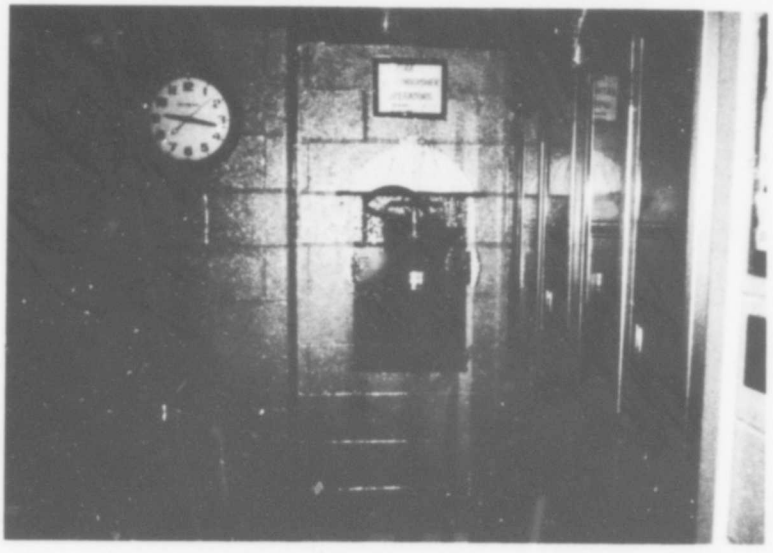

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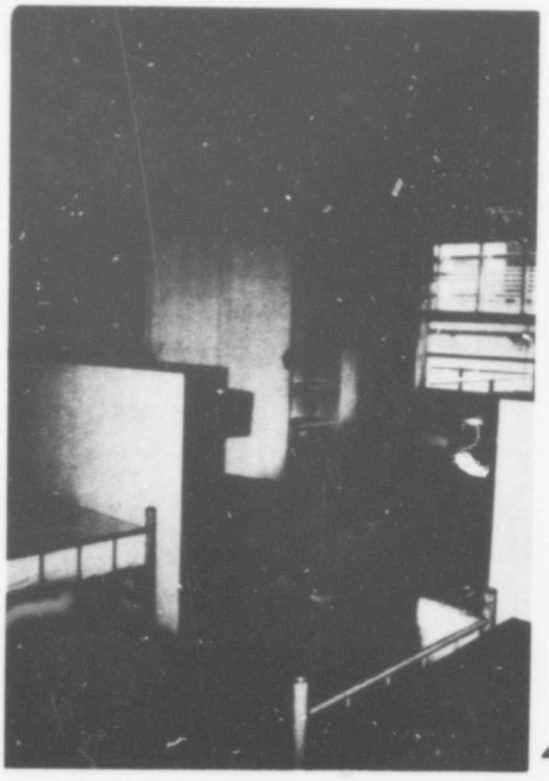

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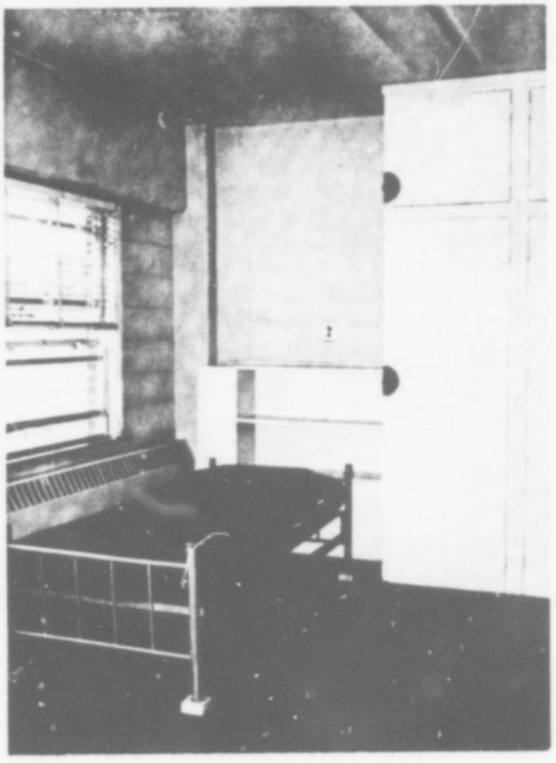

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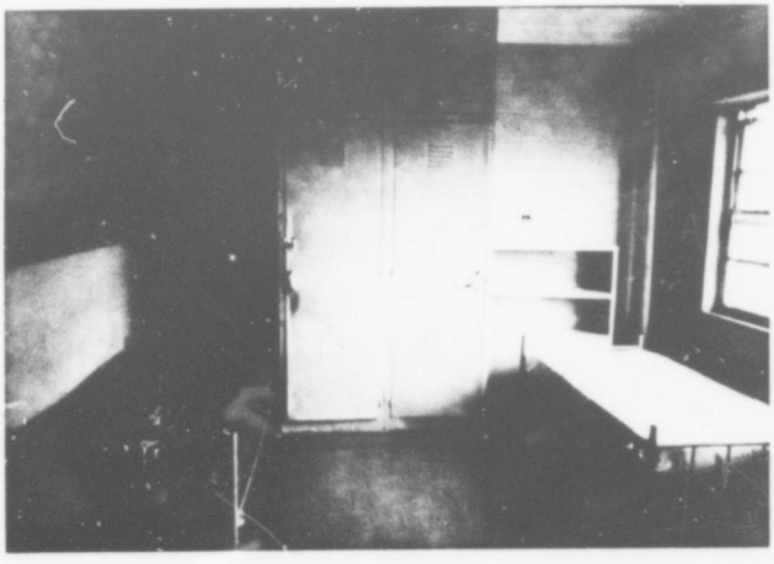

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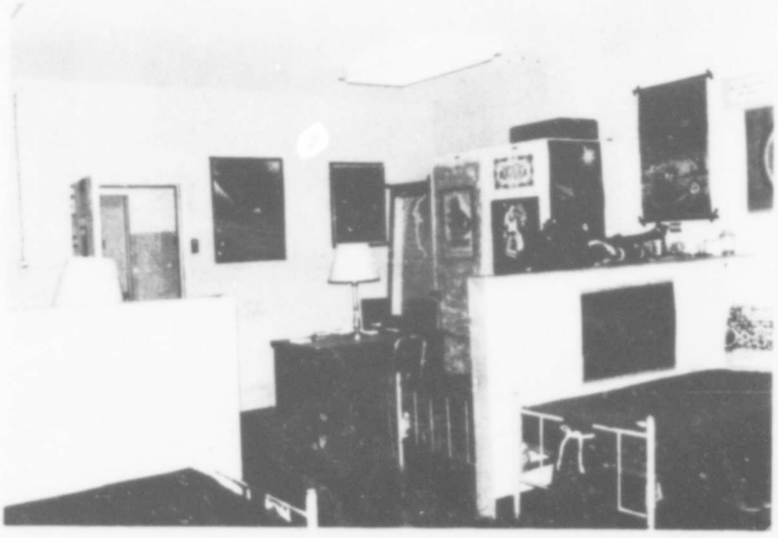

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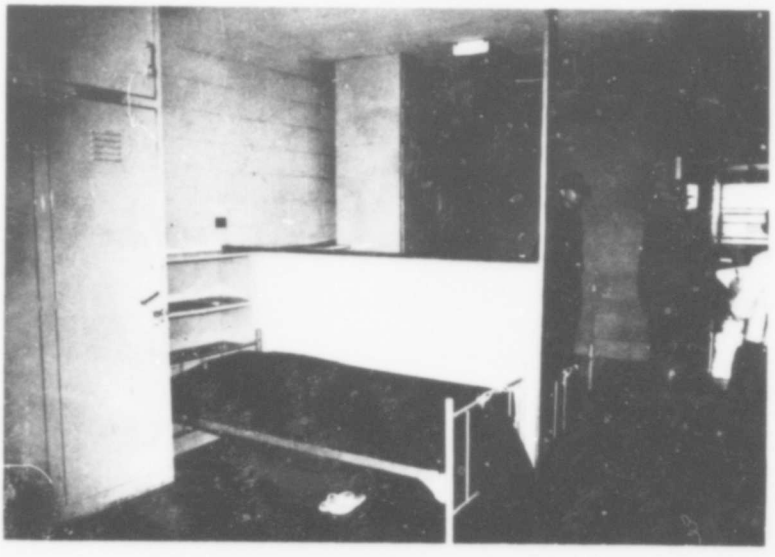

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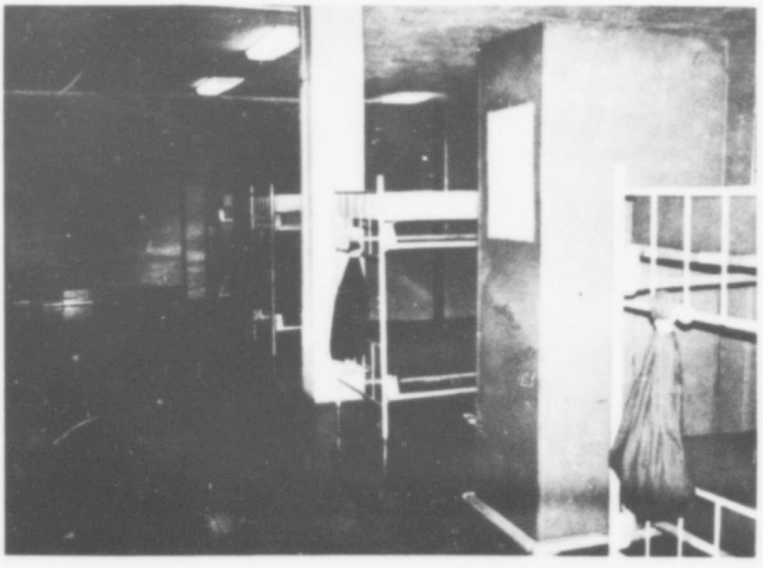

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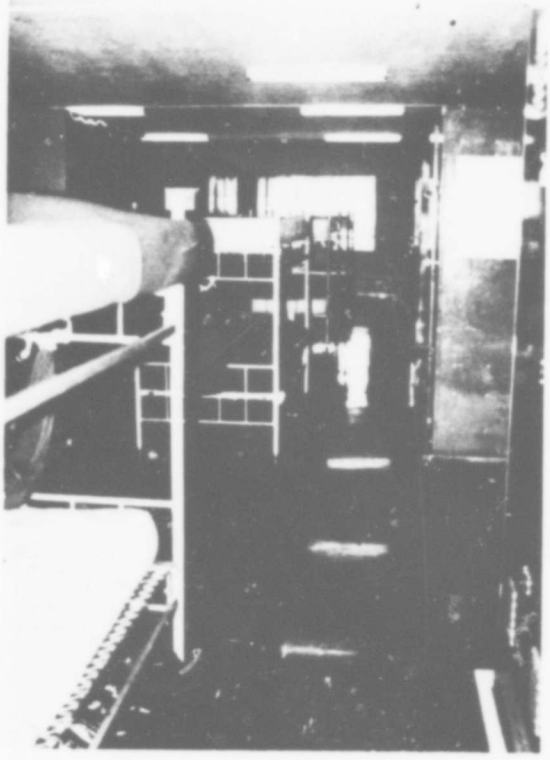

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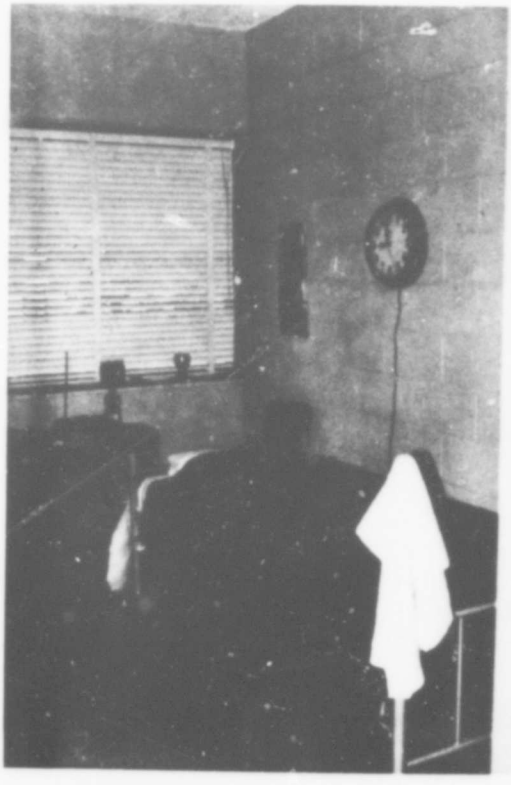

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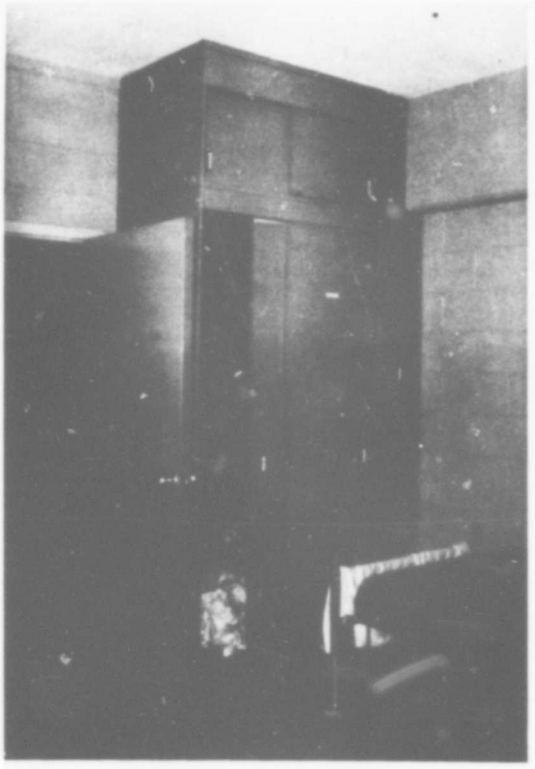

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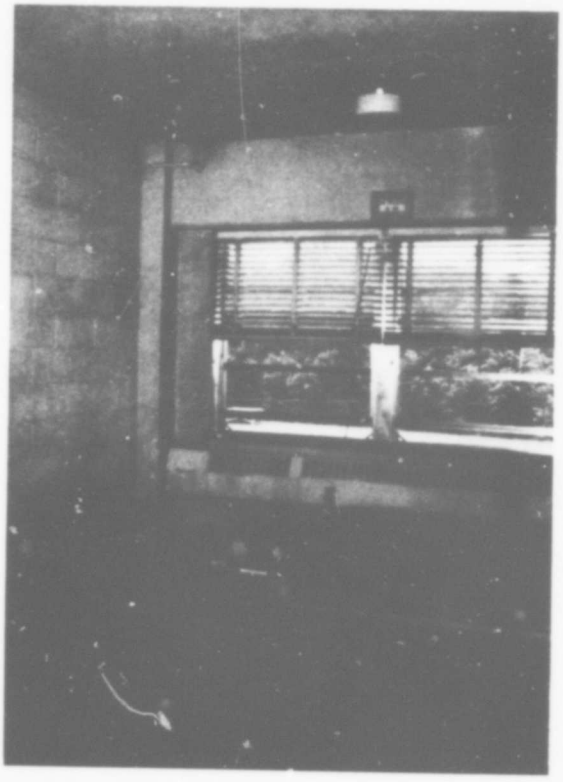

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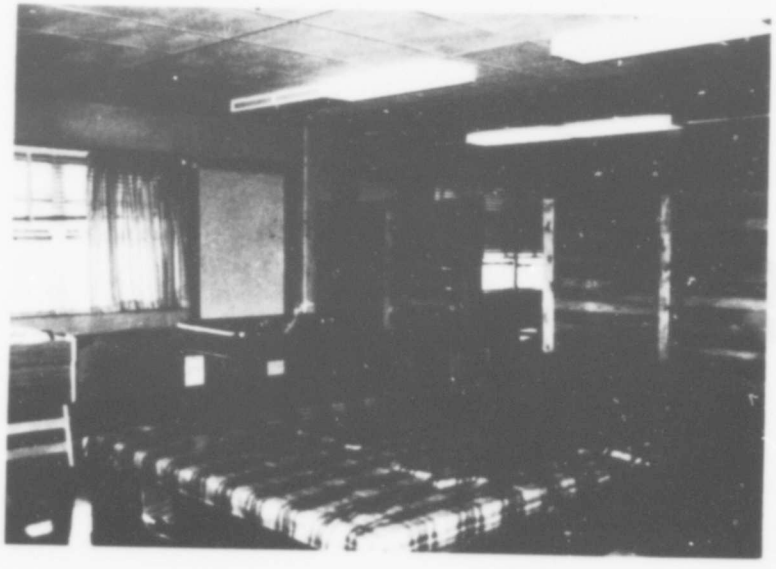

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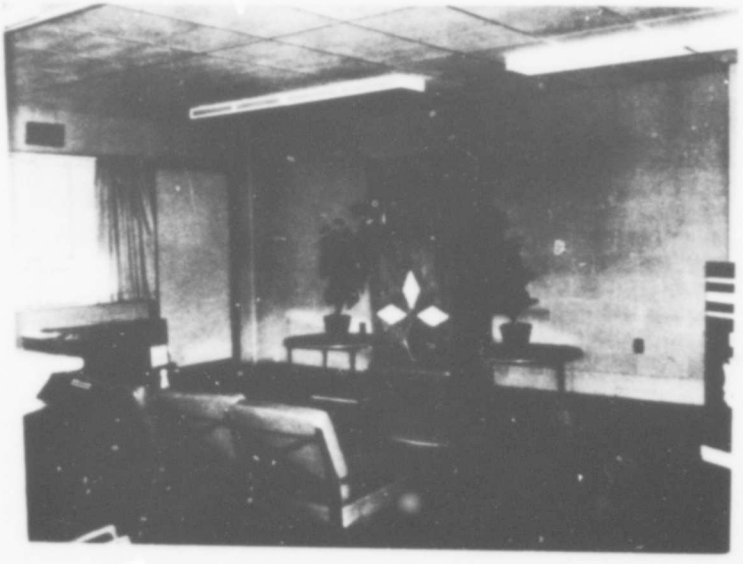

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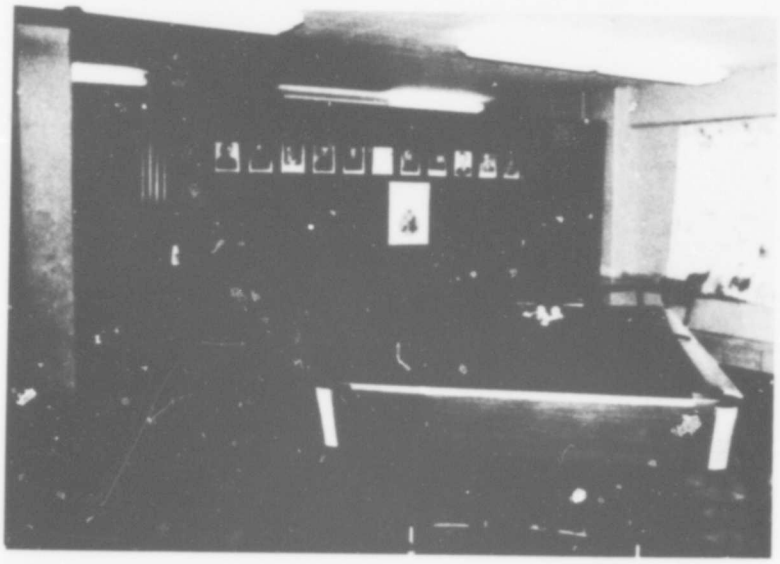

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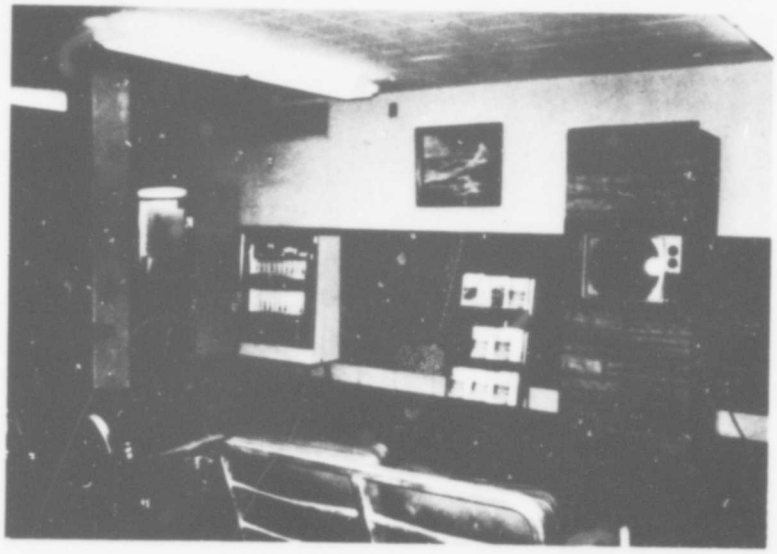

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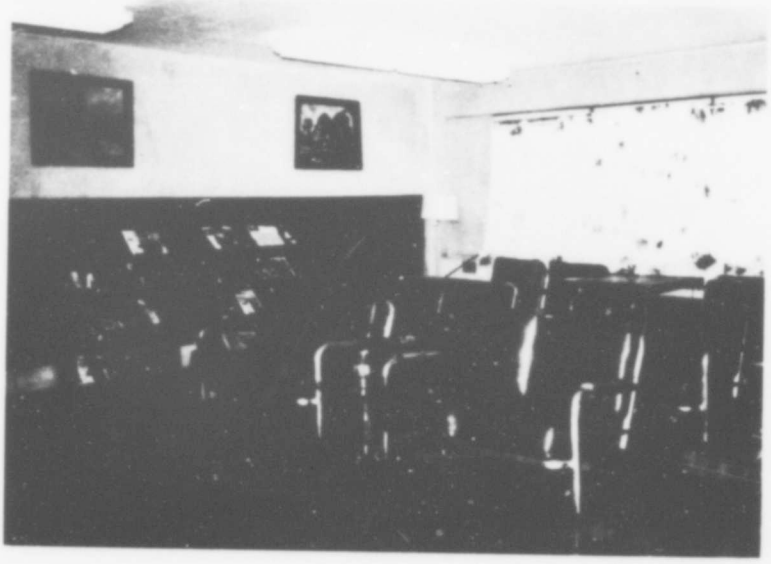

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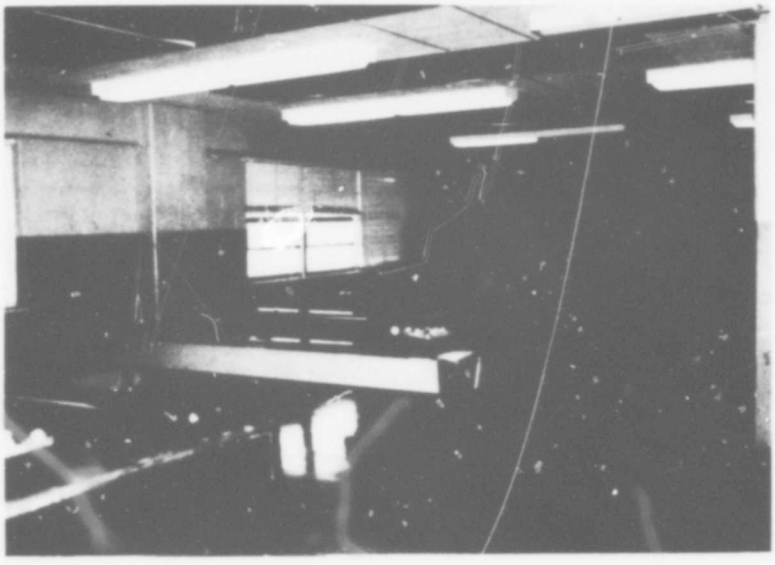

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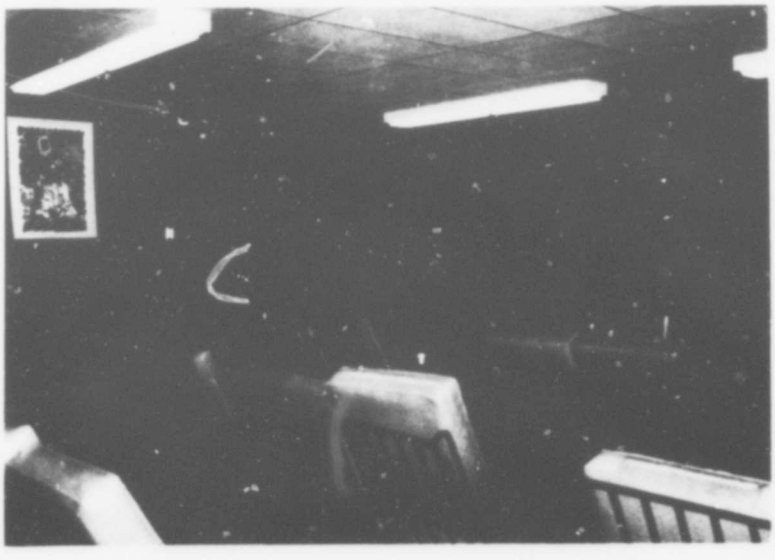

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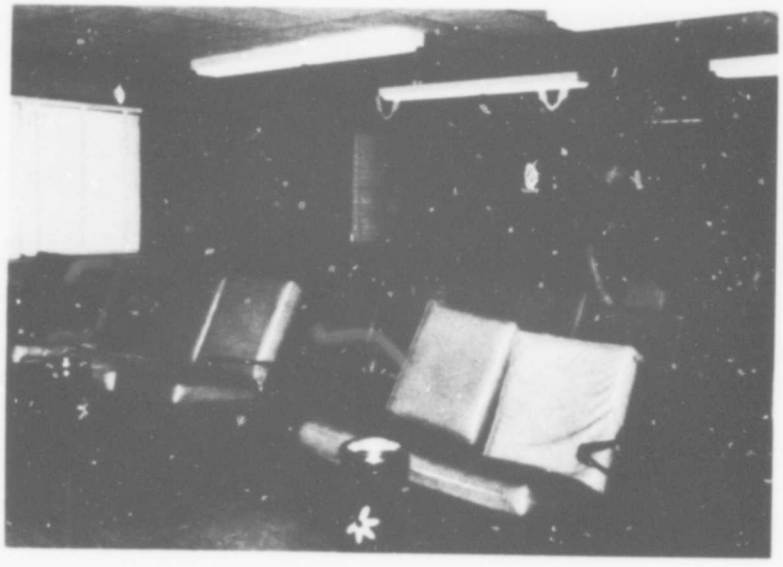

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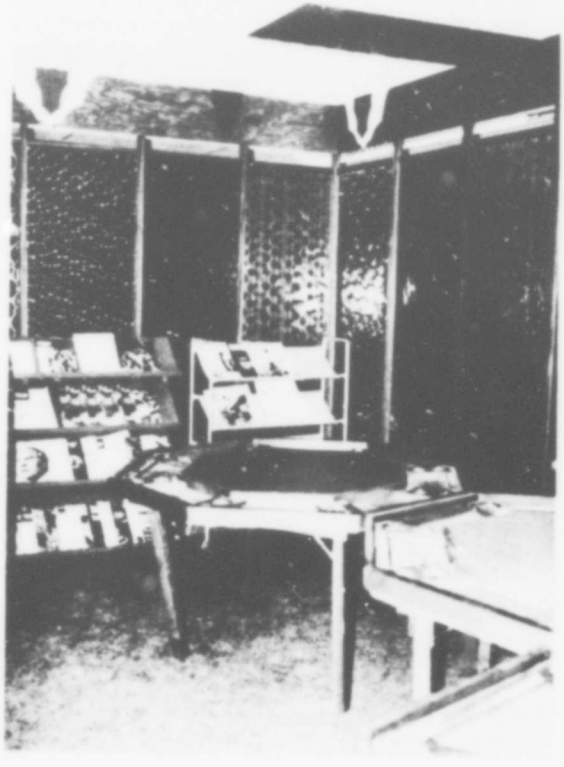

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into two areas: a television room and a pool room (Slides 4.30–32). Similar day rooms were seen in the other barracks (Slides 4.33–37).

Somewhat more comfortable are the day rooms of Bldg. #315 at Ft. Leonard Wood. Here the pool room is separate from the TV room, thus providing audio privacy. In addition, the TV room has a small carpeted game area partitioned off by a decorative screen (Slides 4.38–41).

Day rooms appear in reasonably good repair except for the fact that the suspended acoustical tile ceilings used in all the day rooms have been damaged by pool cues in the area of the pool tables.

BARRACKS DESCRIPTION

TYPE: Late 1960s Block

EXAMPLE: Ft. Sill: Bldg. #2844

OUTSIDE APPEARANCE

The only examples of this series were seen at Ft. Sill. In general the buildings of this series are 2-story concrete block bearing wall structures with cast-in-place first and second floor slabs. The roof structure is wood trusses producing a gabled roof form which has been covered with white asphalt shingles (Slide 5.1). The typical plan is H-shaped with latrines forming the cross member and open sleeping bays forming the legs of the H. Barracks of this series have been arranged campus style around a quadrangle with separate dining halls and day rooms (Slide 5.2).

Residential in character, the exterior concrete block walls have been painted a light sand color. Windows are double hung and have been arranged in pairs. Entrances occur at the ends of the legs of the H, and have been distinguished by a small covered porch (Slides 5.3–4). Landscaping is attractive though not abundant (Slide 5.1–4).

GENERAL CONDITIONS OF BARRACKS

The barracks of this series appear clean, dry, and in excellent repair. In general, safety hazards are not apparent.

These buildings by virtue of their concrete block bearing wall construction and concrete floor slabs are basically fireproof. Wood roof trusses have been protected to achieve an appropriate fire rating. Fire extinguishers appear to be located for easy accessibility, and cleaning gear and other flammables appear to be stored properly.

Heating is by forced air with an overhead central duct. Windows on either side of the sleeping bays provide natural cross ventilation.

SLEEPING BAYS

Typical sleeping areas are long, open bays that have been divided into one or two-man cubicles by 6 ft high wood partitions (Slide 5.5). Partitions between cubicles do not extend to the floor. Two gray metal lockers have been used to provide additional closure as well as to provide clothes storage (Slide 5.6). Hooks, clothes rod, and shelves on the cubicle partitions provide additional storage.

Furnishings in each cubicle include a bed, colorful metal desk and chair, and a desk lamp plus a large area rug. Many additional items such as radios and books are on open display indicating a lack of a security problem. Windows have shades and in some cubicles drapes have been added by the men. Floors are polished concrete, walls are concrete block painted light blue, and the ceiling is exposed concrete painted white. Adding color to the sleeping bays, the wood partitions have been painted terra cotta. Although these barracks are very inexpensively constructed, the sleeping areas are comfortable and pleasant and there is a strong sense of personal space.

NCO ROOMS

NCO rooms are located on the second floor directly above the sleeping bays. They are two-man rooms formed by partitions that stop 1 ft short of the ceiling. Unfortunately the NCO rooms were not available for inspection.

LATRINES

Latrines are located between sleeping bays in the cross member of the H-shaped plan. Due to the extreme economy exercised in constructing these barracks more expensive materials such as ceramic tile have not been used. Floors are polished concrete, walls are concrete block painted white and the ceiling is exposed concrete painted white. Lavatories are wall mounted with narrow metal shelving. Privacy is poor with open water closet stalls and a large group shower. Lighting is dim and the bare concrete floor offers a potential safety problem when wet.

DAY ROOMS

The day room for this barracks complex is located in a separate building adjacent to the barracks surveyed. Although comparatively small, it is quite comfortable and attractive. Several separate areas including a lounge area, TV area, and game area have been created by low moveable partitions (Slide 5.7).

Walls are concrete block painted light green, and the floor is beige vinyl tile with large red area rugs in each of the areas. Furniture in the lounge and TV areas is ranch oak with black vinyl cushions (Slide 5.8). There are gold drapes at the windows and a large artificial potted plant has been used in the lounge area to all a touch of greenery and to soften the space.

The game area, too small for a full sized pool table, has a bumper pool table. There are also vending machines and some game tables in the area. All in all, the day room is pleasant and handsomely furnished, though it does not appear to be used to any great degree.

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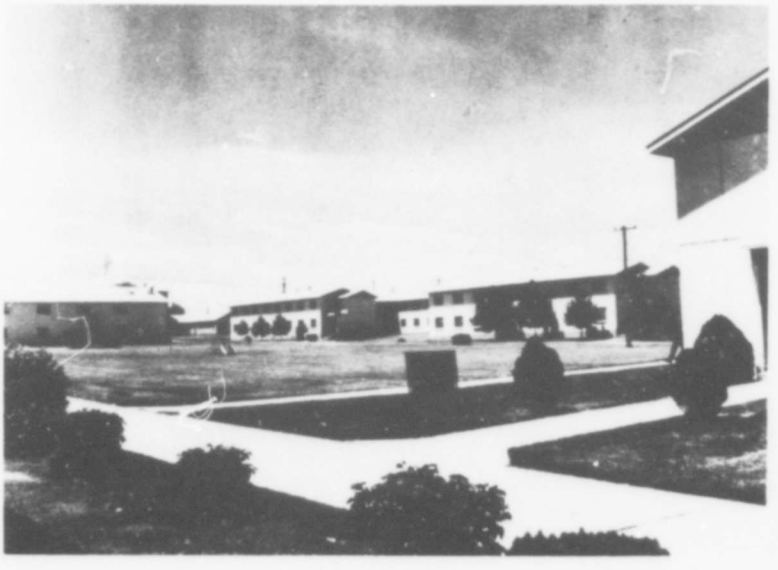

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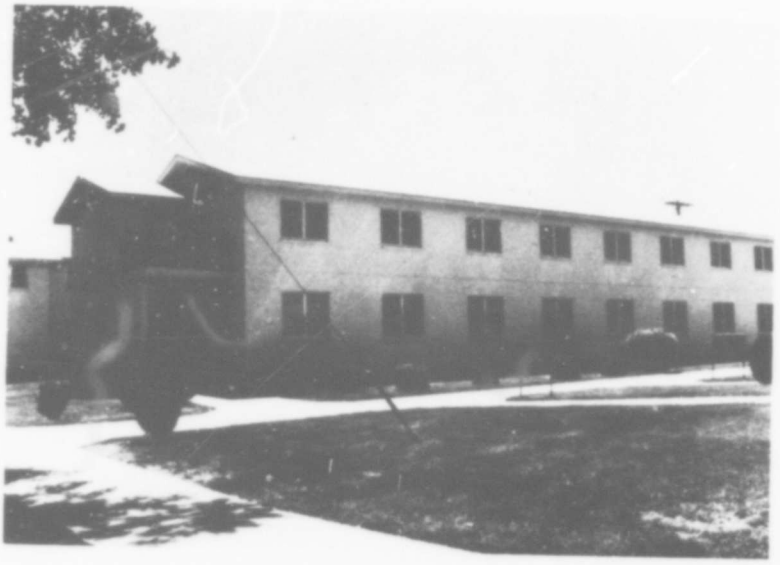

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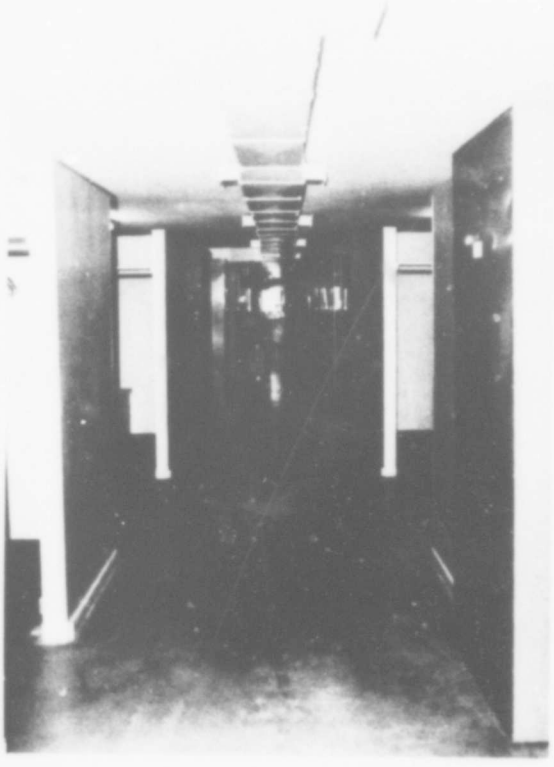

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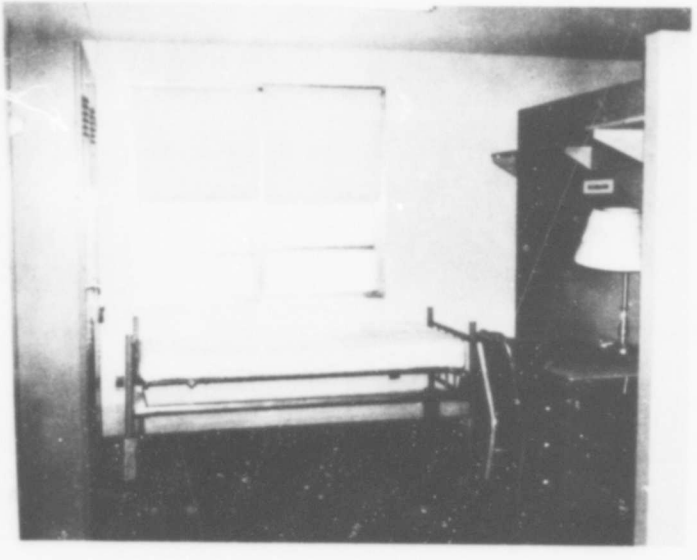

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APPENDIX G:

RELATIONSHIP BETWEEN PERSONALITY CHARACTERISTICS AND ATTITUDES TOWARD HOUSING AND RELATED FACILITIES IN SIX ARMY POSTS*

The present study is part of a larger research project designed to assess the manner in which the quality of Army life might be improved through architectural and facility design innovations at Army posts. The larger research project is predicated on the assumption that the appearance and design of housing and related facilities may have a direct influence on the morale, efficiency, and job satisfaction of the men who reside in such facilities. Toward this end, studies were conducted at six Army posts to determine the manner in which present facilities are used, the way in which such facilities are viewed by their residents, and the opinions and preferences of the residents regarding alternative structures and designs. At each post, a facility survey was adminstered to assess the attitudes and opinions of enlisted men regarding their current housing and related facilities. The personality research form[1] was also administered to subsamples of the same enlisted men who completed the facility survey. The present report is concerned with the relationship between personality characteristics, as measured by the personality research form, and attitudes toward housing and related facilities, as measured by the facility survey.

The relationship between "personality" and architectural design is a currently fashionable topic, stemming in part from an increased ecological emphasis in psychology and from an increased humanistic emphasis in architecture. Because this relationship is frequently discussed in an amorphous and expansive manner, it seem appropriate to clarify, at the outset, the specific focus of the present investigation. The present study is not concerned with man's behavior in different ecological settings, but rather with his attitudes and opinions regarding such settings. The facility survey would seem to be an appropriate instrument for assessing such attitudes, particularly if the attitudes are eventually related to behavioral measures within different settings and to socially-important attitudes, such as job satisfaction.

The results of any attitude survey may be summarized by computing mean or modal reactions to specific items which result in such generalizations as "Enlisted men appear to be generally satisfied with their dining hall facilities." Any such generalization obscures individual differences among respondents; some men are satisfied, others are dissatisfied. Personality characteristics become important when questions are raised as to *why* some men are satisfied and others are dissatisfied. If, for example, it was found that men with a need for affiliation were generally satisfied with facilities, that men with a need for aggression were generally dissatisfied with facilities, and that men with a need for self-abasement were generally indifferent to facilities, the *reasons* for individual differences in attitudes toward a specific facility would start to become apparent. Whether or not men can be said to be generally satisfied with a given facility depends on whom you ask and what kind of person that individual is.

The present study is directed toward explicating the kinds of individual differences in personality characteristics that influence men's attitudes toward their housing and related facilities. Such an enterprise provides a more fine-grained analysis of the relationship between attitudinal and environmental factors than is provided by the facility survey alone. More generally, the present research raises the question of whether or not it is worth considering individual differences in personality characteristics when evaluating the results of a housing or facility survey.

OVERALL DESIGN OF STUDY

Subjects. The subjects in the larger study, of which the present is a part, were enlisted men who were tested at their posts at Forts Knox, Lee, Sill, Dix, Leonard Wood, and Hood. Within this larger sample, there were 276 enlisted men who completed both the facility survey and the personality research form. The selection of

* This appendix was prepared by J.S. Wiggins, Department of Psychology, University of Illinois at Urbana-Champaign.

[1] D.N. Jackson, *Personality Research Form Manual* (Research Psychologists Press, 1967).

men for this subsample was determined more by considerations of administrative convenience than by considerations of random sampling. Nevertheless, there is no obvious reason to believe that the sample of 276 men employed in the present study is unrepresentative of enlisted men generally.

Facility Survey. The facility survey was designed to assess both general and specific attitudes and opinions regarding housing and related facilities on Army posts. Not all of the approximately 300 items covered by the survey were appropriate or scorable for the present analysis. The facilities covered and the number of items relating to each (in parentheses) were: post in general (25), barracks (40), sleeping area (50), latrine and washroom (18), day room or lounge (29), and dining hall (45).

The facility survey also included a set of 25 items relating to attitudes toward the organizational climate that existed at each post. These items had been previously classified as following into nine general categories, represented by two or three items each and covering: organizational clarity, encouragement of individual responsibility, friendliness and warmth of the unit, support of subordinates by superiors, communication-downward, communication-upward, atmosphere of trust, efficiency of work, and job satisfaction. These items were particularly useful in providing indices of attitudes toward the psychological and social characteristics of the living environment, as well as an index of job satisfaction. In addition, the survey included five items relating to illness, discipline, and theft, and five background items of a demographic nature. The majority of items appeared in a five-place bipolar Likert-type format.

Personality Research Form. The personality inventory employed was Jackson's 440-item Personality Research Form. This instrument was considered especially appropriate for the present study because it is based on Murray's[2] taxonomy of human needs, a system which seems obviously related to studies of human personality characteristics and their design implications. The procedures whereby this instrument was developed are too complex to be treated here, but they have been described elsewhere by the test author[3] and they are summarized in a standard personality assessment text[4]. Twenty personality needs from Murray's system are each represented by 20-item scales. The needs are: (1) abasement, (2) achievement, (3) affiliation, (4) aggression, (5) autonomy, (6) change, (7) cognitive structure, (8) defendence, (9) dominance, (10) endurance, (11) exhibition, (12) harm-avoidance, (13) impulsivity, (14) nurturance, (15) order, (16) play, (17) sentience, (18) social recognition, (19) succorance, and (20) understanding.

Although a relatively new instrument, the PRF has been well-received by test experts[5] and is considered to be among the most methodologically sophisticated personality instruments available today. One of the strong points of the test is its inclusion of two additional scales designed to evaluate important aspects of test-taking behavior. These scales are the infrequency scale, which is useful in detecting random responding, and the desirability scale, which is useful in detecting response patterns that appear to reflect tendencies for subjects to place themselves in a favorable light. Both of these scales played an important role in the analysis of results from the present study.

METHODS OF ANALYSIS

Detection of Invalid Records. Large-scale surveys of the present kind are vulnerable to a number of sources of invalidity. One of the most troublesome sources of invalidity is that involving nonpurposeful or random responding to survey or questionnaire items. Such responding can arise for a number of reasons, all of which would tend to invalidate the self-report of subjects. Some subjects may have such a low level of literacy that they are unable to comprehend the questions being asked, and their responses to such questions would therefore be of little value. Other subjects may

[2] H.A. Murray, *Explorations in Personality* (Oxford University Press, 1938).

[3] D.N. Jackson, *Personality Research Form Manual* (Research Psychologists Press, 1967); D.N. Jackson, "A Sequential System for Personality Scale Development," *Current Topics in Clinical and Community Psychology*, Vol 2 (Academic Press, 1970), pp 61–96; D.N. Jackson, "The Dynamics of Structured Personality Tests," *Psychological Review*, Vol 78 (1971), pp 229–248.

[4] J.S. Wiggins, *Personality and Prediction: Principles of Personality* Assessment (Addison-Wesley Publishing Co., 1973), pp 409–415.

[5] A. Anastasi, "Personality Research Form," *The Seventh Mental Measurements Yearbook*, Vol 1 (Gryphon Press, 1972), pp 296–298; E.L. Kelly, "Personality Research Form," *The Seventh Mental Measurements Yearbook*, pp 298–301; J.S. Wiggins, "Personality Research Form," *The Seventh Mental Measurements Yearbook*, pp 301–303.

be careless in recording their responses and, as a consequence, such responses cannot be viewed as legitimate answers to the questions asked. In recording his responses on an answer sheet, a subject may omit one or two items and fill in the remaining items in the wrong numbered spaces. But perhaps the greatest source of invalidity is that of "random responding" by subjects who have been forced to cooperate but who are not aware of the purpose or value of the research project. Thus, it is possible that a substantial number of subjects may have attempted to sabotage the research project or may have otherwise expressed their resentment by recording their responses in a more or less random, or at best, careless pattern.

The infrequency scale of the personality research form was specifically designed to detect patterns of invalid response in individual records. The scale consists of 20 items to which the modal response is so likely that any other answers are presumptive evidence of invalid responding: "I was born over 90 years ago" (T), "I am able to read English" (F), "I can run a mile in less than four minutes" (T), "I could easily count from one to twenty-five" (F). The record of any respondent who answers four or more of these items in the deviant direction is considered to contain errors of either scoring or responding.[6]

When the infrequency scale was scored in the present sample of 276 completed PRF records, it was found that 121 of these records contained four or more deviant responses to infrequency items. Although invalid records are expected in large-scale surveys of the present kind, it is an unusual circumstance for 47 percent of the completed protocols to be so clearly invalid. At the very least, this finding casts doubt on the motivation and circumstances of administration surrounding the personality research form. At worst, it casts doubt on the validity of the entire enterprise. For purposes of analysis the present subjects were divided into a presumably "valid" sample of 155 subjects and a total sample of 276 subjects that was known to contain at least 121 invalid PRFs.

The Problem of Social Desirability. In both personality and attitude surveys, the tendency of subjects to put themselves in a favorable or socially desirable light has been considered a vexing problem.[7] In personality surveys, it is likely that many subjects respond to items in such a way as to put themselves in a favorable light rather than by answering the items truthfully. Similarly, in attitude surveys, it is likely that many subjects will express attitudes they perceive to be popular or desirable, even when they may hold nonconforming opinions on the topics covered. One of the many virtues of the personality research form is that it was constructed in such a manner as to circumvent the problem of social desirability in self-report. Briefly, a desirability scale was constructed which consisted of items of heterogeneous content that had in common high social desirability values. In developing items for each of the personality scales, only those were selected which had high correlations with their appropriate personality scale and low correlations with the desirability scale.[8] As a consequence, the personality scales of the PRF are relatively high in "content saturation" and relatively low in "desirability saturation."

No such control for social desirability was exercised in the development of the facility survey employed in the present study. As a consequence, it is difficult to evaluate the extent to which a respondent's attitudes, opinions, and preferences are determined by considerations of social desirability. For example, a subject may agree that "My sleeping area is easy to clean" because he genuinely feels this to be the case, or he may do so because he perceives such an opinion to be a socially-desirable one that will gain him acceptance and reward. Should this particular item be correlated with a given personality scale, its interpretation would be qualified if it were known that the item was heavily saturated with social desirability. Should most or all of the attitudinal items correlated with a personality scale be highly socially desirable, the interpretation placed on that scale would be similarly qualified. For these reasons it was deemed appropriate to determine which, if any, of the items in the facility survey tended to have high "desirability saturation" for the present sample of subjects.

Scores on the desirability scale of the personality research form were correlated with each of the 242 variables of the facility survey in the "valid" sample of 155 subjects. The 20 survey items that were significantly correlated with the desirability scale are listed below in Table G-1. The first column of Table G-1 contains

[6] D.N. Jackson, *Personality Research Form Manual* Research Psychologists Press, 1967).

[7] A.L. Edwards, *The Social Desirability Variable in Personality Assessment and Research* (Dryden Press, 1957).

[8] D.N. Jackson, "A Sequential System for Personality Scale Development," *Current Topics in Clinical and Community Psychology*, Vol 2 (Academic Press, 1970), pp 61–96.

the Pearson product-moment correlations between the survey items and the desirability scale. Correlations followed by an asterisk are significantly different from zero at the $p < .001$ level. All other correlations are significant at the $p < .01$ level. The second column contains the weights which were assigned to each item, based on the magnitude of correlation obtained. Correlations significant at $p < .001$ were assigned a weight of 9; correlations significant at $p < .002$ were assigned a weight of 8; those significant at $p < .003$ were assigned a weight of 7, etc. This admittedly arbitrary weighting procedure has the effect of scaling each significant item on a nine-place social desirability scale. Items assigned a weight of 1 were moderately, but significantly correlated with the desirability scale of the PRF. Items assigned a weight of 9 were substantially correlated with the desirability scale.

Although the content of the items listed in Table G-1 appears to be generally desirable, it is unlikely that many of them would be singled out as being especially desirable on an a priori basis. The item "The latrine and washroom are stuffy" appears to reflect a social desirability response set. For this particular item, the respondent was forced to choose between the options of "stuffy" and "drafty," neither of which is desirable, nor nessarily descriptive of the latrine and washroom. However, the "stuffy" option appeared on the left-hand side of the page which contained the obviously desirable poles of other items. Tendencies to check the desirable side of that page are apparently picked up by

Table G-1
Survey Item Correlates of the Desirability Scale

DESIRABILITY: Describes self in terms judged as desirable; consciously or unconsciously, accurately or inaccurately, presents favorable picture of self in responses to personality statements.

Correlation	Desirability Weight	Survey Item
.305*	9	My sleeping area is easy to clean
.292*	9	My barracks is free of rodents
.278*	9	I have not been in a fight with anyone in the building where I live during the past two weeks
.267*	9	Numbers of years of education
.259*	9	My sleeping area is odor free
.246*	9	My day room or lounge is located in the same building where I sleep
.241	8	I usually do not have to wait in line to be served at the noon meal
.240	8	My dining hall is free of bugs
.237	8	I do not agree that superiors act as though everyone must be watched or they will slack off
.224	7	I find my work in the Army challenging
.211	5	I usually do not have to wait in line to be served at the evening meal
.208	5	The latrine and washroom are stuffy
.205	4	My barracks are dry
.204	4	Not everything that everyone in my unit does is checked; individual judgment is trusted
.202	3	I can use the skills I learn in my work in the Army when I return to civilian life
.197	3	I usually do not have to wait in line to be served at breakfast
.197	3	My sleeping area is easy to sleep in
.206	2	The furniture in my dining hall is sturdy
.194	1	The general conditions on my post are pleasant
−.192	1	Number of friends I would like to eat with if there were tables of different sizes

this rather subtle desirability item. The other items in Table G-1 are less mysterious and provide interesting insights into what is considered desirable in the context of Army life. In future studies it might prove worthwhile to employ the 20 items listed in Table G-1 as a desirability scale specifically designed for use with the facility survey in an Army context.

For purposes of the present study, the social desirability weights displayed in Table G-1 were used to assess the extent of operation of the social desirability variable in determining the correlations of survey items and personality scales. For example if scores on the affiliation scale of the PRF were found to be correlated with responses to a large number of survey items, it could legitimately be asked if affiliative subjects actually held such opinions or if affiliative subjects simply had a tendency to agree to socially desirable statements. If the former, then the attitudes and opinions of affiliative subjects could be interpreted as stemming in part from their personality characteristics. If the latter, then the attitudes and opinions of affiliative subjects would have to be viewed as largely determined by tendencies to respond in a desirable manner.

All survey items found to be significantly correlated with a personality scale were examined in light of the above considerations. As an example, scores on the affiliation scales were found to be significantly ($p < .01$) correlated with responses to 13 items from the facility survey. Of these 13 survey items, seven were among those appearing in Table G-1. Each of these items was assigned the desirability weight indicated in Table G-1, and a desirability index was computed by dividing the sum of these weights by the number of significant item correlates. In this particular example, the sum of the desirability weight was 55 which, when divided by the number of significant item correlates (13) yielded an overall desirability index of 4.23. The desirability index for the affiliation scale was the highest of any scale employed in the present study, and the results involving this variable were qualified accordingly.

The desirability index of each of the 21 personality research form variables employed in the present study is listed in the third column of Table G-2. The number of significant item correlates of each scale is also given in that table. The final column of Table G-2

Table G-2
Desirability Indices of Personality Research Form Scales

Scale	Number of Correlated Items	Desirability Index	Desirability of PRF Items
Desirability	20	5.80	6.83
Affiliation	13	4.23	6.64
Sentience	6	3.83	6.08
Understanding	20	3.45	5.85
Achievement	15	3.33	6.17
Order	14	2.43	6.20
Cognitive structure	23	2.22	5.49
Nurturance	32	1.82	6.01
Dominance	6	1.50	5.31
Social recognition	6	1.50	5.30
Abasement	8	1.25	4.25
Play	4	1.00	5.31
Exhibition	4	1.00	5.16
Succorance	14	.64	4.81
Aggression	15	.02	3.83
Harm-avoidance	16	.00	4.85
Impulsivity	5	.00	4.72
Autonomy	5	.00	4.61
Change	1	.00	5.50
Defendence	3	−1.00	4.57

contains additional information concerning the PRF scales which tends to justify the use of the present desirability index. In that column are listed the mean social desirability scale values of the items of the personality research form scales as determined by the test author.[9] The rank-order correlation between the desirability index (based on survey item correlates) and the mean social desirability scale values (based on ratings of PRF items) is .85, a correlation which is significant at $p < .001$. Such a finding provides evidence, of an indirect sort, that the desirability index employed in the present study is similar to other desirability indices that have been employed in the literature. Hence, the desirability indices displayed in Table G-2 may be used to supplement interpretations of results in the present study.

Interpreting Correlation Coefficients. When a large number of correlations are computed in a relatively small sample of subjects, many of the obtained correlations may be due to chance or sampling fluctuations. Thus, an obtained product-moment correlation of .25 may, on some occasions, not be significantly different from zero. The basic problem of statistical inference is to estimate the extent to which an obtained result may be viewed as significantly different from zero or no relationship. In the present study, 21 personality variables were correlated with 242 survey items, resulting in more than 5,000 correlation coefficients. If one were to interpret correlations significant at the $p < .05$ level, there could be as many as 250 "significant" correlations that were not different from zero. Adopting the $p < .01$ level would permit approximately 50 such false interpretations, while adopting the $p < .001$ level would allow only approxiamtely five such false inferences.

In interpreting the survey item correlates of personality scales in the present study, an interpretive strategy was decided upon in advance. First, only those personality scales were considered which had two or more survey item correlates significant at the $p < .001$ level. Second, only those additional survey item correlates were considered which were significant at the $p < .01$ level. Finally, interpretive emphasis was given to those survey items which had the highest correlations with a personality scale. In the next section survey item correlates are discussed for the ten personality research form scales which met the above criterion. For each scale, the items are listed in decreasing order of the magnitude of their correlations, starting with items significant at $p < .001$ (indicated by an asterisk) and ending with items significant at $p < .01$. All correlations reported were obtained in the "valid" sample of 155 subjects. Comparable correlations were examined in the total sample of 276 subjects and, as expected, it was found that in almost all instances, the correlations in the larger sample were attenuated. In fact, almost all correlations obtained in the larger sample were less than corresponding correlations in the "valid" sample, lending credence to the conclusion that the larger sample contained a substantial proportion of random responders.

RESULTS AND DISCUSSION

Personality Scale Correlates

Abasement. Subjects who score high on abasement express a high degree of job satisfaction, finding their work both interesting and challenging (Table G-3). Their major complaint appears to be that their barracks are not close enough to their work areas, perhaps reflecting their eagerness to get to their jobs. Minor dissatisfactions are expressed concerning storage space and the fragility of furniture in their sleeping areas. Although these subjects indicated that they are satisfied with the appearance of their posts and with the efficiency of their breakfast line, their expressed job satisfaction does not seem related in any systematic way to physical or design characteristics of their environments. This apparent indifference to physical characteristics may represent a tendency to accept rugged conditions and to place blame for dissatisfactions on themselves rather than on their environments. It may be that subjects who have a need for abasement are willing to accept almost any architectural design that does not actively prevent them from carrying out their appointed duties.

Achievement. Subjects who score high on achievement motivation express a high degree of job dissatisfaction which does not appear to be related in any way to the architectural or design characteristics of

[9] D.N. Jackson, *Personality Research Form Manual* (Research Psychologists Press, 1967).

their environment (Table G-4). Such subjects do not find their work either challenging or interesting. Although there is a tendency for these subjects to view with disfavor the lack of a trusting atmosphere among their superiors, other aspects of the organizational climate—organizational clarity and downward communication—are viewed positively. Thus, it would appear that subjects who have high achievement motivation are dissatisfied with their specific assignments rather than with the organizational atmosphere within which duties are performed or with the physical conditions of living and working.

High achievement-oriented subjects are especially satisfied with the conditions of their sleeping areas; these areas being seen as conveniently located, clean and functional. In fact these subjects are characterized by a complete lack of dissatisfaction with any design or architectural aspect of their environments. Although the responses of these subjects to the survey are generally desirable, there is little indication that the subjects were unduly motivated to express only socially desirable opinions.

The satisfaction that achievement-oriented subjects express with their sleeping conditions indicates that they are far from impervious to the physical aspects of their environment. However, there is nothing in the present data that supports the notion that alterations in the physical environment would increase the job satisfaction of such subjects. It is possible that more flexible and challenging design elements would increase feelings of job satisfaction among high achievement-oriented subjects. But it seems more likely that job duties themselves should be made more challenging and flexible.

Affiliation. Subjects with a high need for affiliation tend to express an extraordinary degree of satisfaction with the organizational climate of their post, while responding only superficially to its architectural and design aspects (Table G-5). High-scoring subjects on affiliation enjoy being with friends and people in general and Army life, apparently, provides more than ample opportunities for such social interactions. The high degree of satisfaction that affiliative subjects feel toward the social and psychological environment in which they live is indicated by the fact that they express positive attitudes toward more than half of the

Table G-3
Personality Scale Correlate: Abasement

ABASEMENT:	Shows a high degree of humility; accepts blame and criticism even when not deserved; exposes himself to situations where he is in an inferior position; tends to be self-effacing
.267*	The job I have to do in the Army is interesting
.267*	The location of my barracks is inconvenient to my work area
.210	I find my work in the Army challenging
.208	I am satisfied with the appearance of this post
.207	The furniture and equipment in my sleeping area are easy to damage
.205	I am dissatisfied with the storage space in my sleeping room
.198	I usually do not have a long wait in line for breakfast
.193	The storage space in my sleeping room is inadequate for large personal items

Table G-4
Personality Scale Correlate: Achievement

ACHIEVEMENT:	Aspires to accomplish difficult tasks; maintains high standards and is willing to work toward distant goals; responds positively to competition; willing to put forth effort to attain excellence.
−.305*	I find my work in the Army challenging
−.276*	The job I have to do in the Army is interesting
.270*	Superiors act as though everyone must be watched or they will slack off
.258*	The latrine and washroom are close to my sleeping area
.254*	My sleeping area is easy to clean
.244*	My sleeping area is odor free
.244	My day room or lounge is located in the same building where I sleep
.266	During the past two weeks, I have not had a fight with anyone in the building where I live
.219	Regulations and chain of command in my building have been clearly explained
.219	The furniture in my dining hall is sturdy
.212	I am satisfied with the location of my barracks
.211	My sleeping area is easy to sleep in
.208	Number of years of education
.197	In my sleeping area, it is easy to be alone
.194	It is not true that the only source of information on important matters is the grapevine

possible categories of organizational climate. The factors of job satisfaction, upward communication, downward communication, atmosphere of trust, support of subordinates by superiors, and encouragement of individual responsibility are all evaluated favorably by subjects with a need for affiliation. The general satisfaction with Army life expressed by affiliative subjects appears to be related to the opportunities such life provides for continuous and, to these subjects, meaningful social interactions with others. The most important element of their environment is the human element and that alone appears to be sufficient to make their work both challenging and interesting.

Of the five items indicating satisfaction with sleeping areas and dining halls, three of them (120, 121, 247) are among the items most highly correlated with the desirability scale (see Table G-2). The item correlates of the affiliation scale had the highest social desirability index of any of the scales employed in the present study. This, plus the relatively superficial nature of the environmental items involved, suggests that the positive attitudes expressed toward the physical environment may have been motivated by a tendency to give socially desirable rather than personally meaningful responses to the survey. By the same token, the complete absence of dissatisfaction with the physical environment may indicate that such an environment provides few barriers to social interaction, or it may indicate that affiliative subjects are reluctant to express opinions that might be perceived as socially undesirable. In either event, the environmental determinants of job satisfaction in affiliative subjects appear to be social rather than physical.

Aggression. Subjects who score high on the aggression scale are likely to be easily annoyed, and in the present instance aggressive subjects expressed their dissatisfaction with the architectural and design characteristics of five of the possible six facilities covered in the survey (Table G-6). Aggressive subjects reported that their day rooms and lounges were dirty and cramped, had a limited variety of unsatisfactory furniture, and that they felt dissatisfied with the general appearance and atmosphere of their day rooms. The

Table G-5
Personality Scale Correlate: Affiliation

AFFILIATION:	Enjoys being with friends and people in general; accepts people readily; makes efforts to win friendships and maintain associations with people.
.292*	Superiors are open to ideas and suggestions from any of the troops
.279*	My day room or lounge is located in the same building where I sleep
.253*	My sleeping area is easy to clean
.249*	I find my work in the Army challenging
.244*	I do not think that superiors act as though everyone must be watched or they will slack off
.299	Most of my superiors listen to their men
.213	My dining hall is a comfortable temperature
.213	My superiors keep me informed about what's going on in my unit
.210	Number of years of education
.207	The job I have to do in the Army is interesting
.202	Not everything that everyone does in my unit is checked; individual judgment is trusted
.205	My sleeping area is odor free
.194	The appearance and atmosphere of my sleeping area is cheerful

Table G-6
Personality Scale Correlate: Aggression

AGGRESSION:	Enjoys combat and argument; easily annoyed; sometimes willing to hurt people to get his way; may seek to "get even" with people whom he perceives as having harmed him.
.289*	I have an uncomfortable bed in my sleeping area
.269*	I am dissatisfied with the furniture in the dining hall
.259*	The furniture in the dining hall is uncomfortable
.244*	My barracks is uncomfortable
.241*	The location of my barracks is inconvenient to on-post facilities for off-duty activities
.233	Superiors have spent too little time clarifying the lines of organization and authority
.224	My day room or lounge is dirty
.220	I am dissatisfied with furniture and equipment in my day room or lounge
.218	My day room or lounge is located in the same building where I sleep
.214	The appearance of my post is ugly
.213	My day room or lounge is cramped
.205	There is a limited variety of furniture in my day room or lounge
.199	I am dissatisfied with the appearance and atmosphere of my day room or lounge
.197	My post has unattractive natural surroundings

subjects also reported that their dining halls had uncomfortable furniture, that their barracks were inconveniently located with respect to off-duty facilities, and that their sleeping areas had uncomfortable beds in which they tended not to sleep whenever possible. In general their posts were seen as ugly and as having unattractive natural surroundings. Thus, aggressive subjects tended to express dissatisfaction with the physical, esthetic, or design characteristics of almost all post facilities. Although expressing some dissatisfaction with a lack of organizational clarity in the post administration, the complaints of aggressive subjects were, with that exception, directed at their physical rather than their social or psychological environment.

The concern of aggressive subjects for the comfort, variety, appearance, and atmosphere of their facilities suggests a hypersensitivity to "little things" which, in the aggregate, may be quite annoying. Note, however, that aggressive subjects did not express any more or less job satisfaction than nonaggressive subjects. Instead, they exhibited a general tendency to find fault which may or may not be related to their job attitudes. Such fault-finding did not appear to be related to the tendency to respond in socially undesirable ways. Instead, it may reflect a response style of complaining or "bitching." It is possible that such a style may be modulated by more attention to fine points in the design and construction of post facilities, although it does not necessarily follow that such efforts would result in increased job satisfaction.

Table G-7
Personality Scale Correlate: Cognitive Structure

COGNITIVE STRUCTURE:	Does not like ambiguity or uncertainty in formation; wants all questions answered completely; desires to make decisions based upon definite knowledge; rather than upon guesses or probabilities.
.277*	The hours for meals in the dining hall are convenient
.255*	The dining hall is well designed
.241*	My sleeping area is easy to clean
.253	The dining hall is sunny
.247	The dining hall is brightly lighted
.232	In the serving area of the dining hall there is an appetizing display of food
.232	Number of nights per week I sleep in assigned quarters
.231	My dining hall is uncrowded with people
.231	The latrine and washroom are stuffy
.229	The furniture in the dining hall is stylish
.212	My dining hall is free of bugs
.210	I usually do not have to wait to use the urinal
.208	In my day room or lounge it is possible to have more than one activity going on at a time
.207	The storage space in my sleeping room is easy to keep secure from others
.206	I usually do not have to wait long for the noon meal
.205	The appearance of my post is colorful
.205	The appearance of my post is beautiful
.199	I usually do not have to wait long for the evening meal
.199	Level of pay grade
.196	There is a wide variety of equipment to use in my day room or lounge
.194	The appearance of my day room or lounge is beautiful
.192	I find my work in the Army challenging

Cognitive Structure. Subjects who score high on the cognitive structure scale desire certainty and definiteness in their environment and are made uncomfortable by ambiguities (Table G-7). In the present sample, subjects who scored high on cognitive structure expressed a rich and profound appreciation of architectural, design, and esthetic features of their living environment. Why this should be the case is not immediately evident, although the highly-structured nature of Army life may be so satisfying to such subjects that they tend to transfer their affection for the good structured life onto the physical environment with which it is associated.

Consider the attitudes expressed toward their dining halls by subjects with a need for cognitive structure. For most subjects, the dining hall is a place to eat, or to associate with others, or perhaps to relax from their duties. But for subjects with a need for cognitive structure the dining hall is a well-designed, stylish, brightly-lighted, uncrowded, bug-free haven in which there is an appetizing display of food available at convenient hours, with hardly a wait for lunch and dinner. Similarly, the sleeping area is easy to clean, a secure place to store possessions, and a place these subjects tend to sleep when possible. The day room or lounge is beautiful in appearance and makes possible many different activities with a variety of equipment. The general appearance of the post is both colorful and beautiful. Even the urinal in conveniently available at all times. These rhapsodic descriptions of post facilities do not appear to be attempts to respond to the survey

in socially desirable terms since the desirability index of these items is only moderate. Instead, subjects with a need for cognitive structure appear to be genuinely turned on by their surroundings.

Although there is a slight tendency for subjects scoring high on cognitive structure to be satisfied with their jobs, these subjects are generally much more reactive to the physical rather than to the social or psychological climate of their living environments. One might speculate that things are more predictable and certain than are people and hence physical elements are a greater source of satisfaction to the mind that requires structure. But this particular relationship was unexpected, although it would seem to warrant further investigation. It would seem also that architectural and design improvements at Army posts would be keenly appreciated by individuals with a need for cognitive structure.

Endurance. Subjects who obtain high scores on the endurance scale are willing to work hard and for long hours in the face of great difficulty (Table G-8).

Table G-8
Personality Scale Correlate: Endurance

ENDURANCE:	Willing to work long hours; doesn't give up quickly on a problem; persevering even in the face of great difficulty; patient and unrelenting in his work habits.
.305*	Superiors do not act as though everyone must be watched or they will slack off
	I find my work in the Army challenging
.263*	I have not been in a fight with anyone in the building where I live during the past two weeks
.250	Level of pay grade
.236	My sleeping area is easy to clean
.226	The job I have to do in the Army is interesting
.224	It is not true that my superiors are always on my back
.220	The location of my barracks is convenient to the main PX
.203	My sleeping area is odor free
.203	My latrine and washroom are stuffy
.199	I am satisfied with the location of my barracks
−.194	Number of people assigned to sleep in the same room as I do
−.194	Number of friends I would like to eat with if tables were of different sizes

Such a need is certainly compatible with the purpose and structure of the Army and it is therefore not surprising that the efforts of such subjects would be met with favorable responses from their superiors. This may, in part, be reflected in the fact that high endurance subjects view favorably the organizational climate in which they operate. Such subjects feel that they are working in an atmosphere of trust in which their jobs are both challenging and interesting, and in which they receive the support of their superiors.

Enduring subjects express some satisfaction with the physical conditions of their living environments: sleeping areas are easy to clean and odor free, barracks are in a satisfactory location and close to the PX, and the latrine is stuffy (a socially desirable response). But these particular items are relatively superficial in nature and of relatively high social desirability value. The Desirability Index of items correlated with the endurance scale is among the highest obtained for the scale set, suggesting that enduring subjects are motivated to present a favorable picture of themselves.

In summary it appears that high-scoring subjects on the endurance scale have work habits and attitudes that are especially compatible with the expectations of superiors and that the efforts of such subjects are met with favorable responses by superiors. Perhaps as a consequence, enduring subjects tend to view the organizational climate in which they work favorably and to experience a relatively high degree of job satisfaction. Although they are not insensitive to the physical environment in which they work, enduring subjects appear to derive job satisfaction from rewarded hard work, rather than from architectural or design characteristics that facilitate such work.

Harm-Avoidance. Subjects who score high on the harm-avoidance scale avoid risk of bodily harm and seek to maximize their personal safety (Table G-9). It is of some interest to note that such subjects tend to have been on active duty for a long period of time and tend to have a relatively high pay grade; circumstances which suggest that such a need may be highly adaptive in the Army. But the most striking characteristic of harm-avoidant subjects in the present study is their expression of satisfaction with *esthetic* aspects of their physical environment. Harm-avoidant subjects express virtually no opinions regarding the organizational climate within which they operate, and they respond to their physical environment primarily in terms of its appearance, rather than in terms of its design or function.

Harm-avoidant subjects regard their day rooms or lounges as beautiful, colorful, and uncluttered in appearance, as clean and easy to keep clean. Their nearby sleeping areas are seen as beautiful and colorful and as having colorful furniture and equipment. Nothing prevents their spending time in the attractive sleeping areas and it is easy to be alone there. The dining room has colorful furniture and, overall, the post is seen as beautiful in appearance. Such highly favorable responses to the appearance of post facilities seem a bit much, but the Desirability Index of items correlated with the harm-avoidance scale is zero, suggesting that these subjects are not attempting to present unduly favorable attitudes.

The degree of esthetic interest of harm-avoidant subjects was unexpected, but it is intriguing nevertheless. The relatively passive orientation of interest in the appearance of one's environment is not likely to bring one into contact with potentially harmful situations. It may be that harm-avoidant subjects tend to be observers of potentially harmful situations. It may be that harm-avoidant subjects tend to be observers of potentially harmful situations rather than active participants in them. The absence of interests in functional aspects of living and in organizational climate tend to substantiate such a hypothesis. Improvements in architectural and facility design are likely to be appreciated by harm-avoidant subjects, though it is not clear that such improvements will increase the participation of such subjects in work or leisure activities.

Table G-9
Personality Scale Correlate: Harm-Avoidance

HARM-AVOIDANCE:	Does not enjoy exciting activities, especially if danger is involved; avoids risk of bodily harm; seeks to maximize personal safety.
.246*	The appearance of my day room or lounge is beautiful
.243*	Level of pay grade
.232	The furniture in my dining hall is colorful
.231	The appearance of my day room or lounge is colorful
.220	The appearance of my sleeping area is beautiful
.218	Length of time on active duty
.216	The appearance of my day room or lounge is uncluttered
.215	My day room or lounge is easy to clean
.212	My day room or lounge is close to my sleeping area
.209	My day room or lounge is clean
.208	The appearance of my post is beautiful
.207	The appearance of my sleeping area is colorful
.204	Present room conditions do not keep me from spending time in my room
.203	The furniture and equipment in my sleeping area is colorful
.191	In my sleeping area it is easy to be alone
−.189	Number of people assigned to sleep in the same room as I do

Nurturance. Subjects scoring high on the nurturance scale have a strong need to give assistance, support, and comfort to others, and the variety of social interactions involved in Army life may provide more than ample opportunity to "lend a helping hand" (Table G-10). The almost unlimited opportunities for the expression of helping tendencies may provide an atmosphere in which the nurturant individual flourishes and in which he derives deep satisfactions from his work and his life. Whatever the reasons, the nurturant subjects in the present sample expressed an unusual amount of satisfaction with their social and physical environments. This satisfaction was expressed with respect to many facets of the organizational climate in which they worked and with respect to the esthetic and functional features of most of the facilities in which they lived.

Nurturant subjects expressed a high degree of job satisfaction, finding their work challenging and interesting. They also viewed their organizational climate as one fostering trust by superiors, communication upward and downward, and encouragement of individual responsibility. Thus, nurturant subjects tend to view the organizational climate in which they work favorably and to derive satisfactions from working within it.

Nurturant subjects were equally satisfied with the esthetic and functional features of almost all facilities about which they were questioned. They are satisfied with the general conditions of their sleeping areas which are seen as easy to clean, odor free, and roomy. The barracks are seen as modern, colorful, well-designed structures in which repair service and fire safety are satisfactory. Dining halls are seen as sunny, brightly-lighted, bug-free facilities which have the advantages of an appetizing display of good food, convenient hours, a fast food line, and courteous personnel. Nurturant subjects are also satisfied with the appearance of their modern, roomy, posts which are

Table G-10
Personality Scale Correlate: Nurturance

NURTURANCE:	Gives sympathy and comfort; assists others whenever possible, interested in caring for children, the disabled, or the infirm; offers a "helping hand" to those in need; readily performs favors for others.
.277*	I find my work in the Army challenging
.276*	Superiors do not act as though everyone must be watched or they will slack off
.250*	My sleeping area is easy to clean
.247*	My sleeping area is odor free
.245*	The outside appearance of my barracks is modern
.251	In the dining hall there is an appetizing display of food in the serving area
.249	My dining hall is sunny
.240	In my dining hall the food line is fast
.236	My dining hall has convenient hours for meals
.235	My dining hall is brightly lighted
.230	My dining hall is free of bugs
.227	My post is convenient to off-post shops and stores
.223	I am satisfied with the appearance of my post
.222	My sleeping area is roomy
.219	It is not true that about the only source of information on important matters is the grapevine
.217	I am satisfied with the general conditions of my sleeping area
.215	Not everything that everyone in my unit does is checked; individual judgment is trusted
.215	My day room or lounge is located in the same building where I sleep
.214	There is good food in my dining hall
.209	My latrine and washroom are stuffy
.208	The outside appearance of my barracks is colorful
.207	In my dining hall there are courteous personnel
.206	Superiors are open to ideas and suggestions from any of the troops
.205	The appearance of my day room or lounge is colorful
.197	My barracks is well designed
.196	There is fast repair service in my barracks
.194	The general conditions on my post are pleasant
.193	The latrine and washroom are drafty
.192	The job I have to do in the Army is interesting
.192	My post is convenient to off-post night spots
.191	My barracks is safe from fire
.190	The appearance of my post is modern
.189	My post is roomy

generally pleasant and convenient to off-post shops and night spots. Day room and lounges are seen as colorful in appearance.

Nurturant subjects are no less pleased by their physical surroundings than are subjects with a need for cognitive structure. However, nurturant subjects are pleased by their social environment as well, and derive considerable job satisfaction from their work. Although one might suspect that such generally favorable attitudes toward Army life would reflect tendencies to respond in socially-desirable ways, the item correlates of the nurturance scale have only an average desirability index. Nurturant subjects might be receptive to design or administrative changes that improve the quality of Army life, but they already appear to be quite satisfied with that life.

Succorance. Subjects who score high on the succorance scale seek the sympathy, protection, advice, and reassurance of others (Table G-11). It seems unlikely that the Army provides a generally nurturant

Table G-11
Personality Scale Correlate: Succorance

SUCCORANCE:	Frequently seeks the sympathy, protection, love, advice, and reassurance of other people; may feel insecure or helpless without such support, confides difficulties readily to a receptive person.
.257*	The furniture in my dining hall is colorful
.240*	It is important to have free telephones in your barracks for making on-post calls
.241	The food line in my dining hall is fast
.240	I am satisfied with the food service in the dining hall
.225	My day room or lounge is located in the same building where I sleep
.217	My dining hall is close to my sleeping area
.214	My post has attractive buildings
.213	My barracks are safe from fire
.208	My dining hall has convenient hours for meals
.208	It is important to have a place in your barracks for visiting with guests (family, friends, dates)
.203	I am satisfied with the outside appearance of my barracks
.201	The appearance of my post is modern
.193	My day room or lounge is close to my sleeping area

atmosphere that would allow for the satisfaction of such a need for support by succorant individuals. However, there is no direct evidence for this speculation in the present data since succorant subjects do not express opinions regarding the organizational climate, either positively or negatively. Instead they express their satisfaction with several aspects of their physical environment. Dining halls are seen as well-furnished, and as having good food which is conveniently served. Some satisfaction is also expressed with respect to the general appearance of their barracks and post as well.

Two opinions regarding design features seem important because they do not appear as correlates of other scales and because they relate to the needs of succorant individuals: "It is important to have free telephones in your barracks for making on-post calls" and "It is important to have a place in your barracks for visiting with guests (family, friends, dates)." These two items would seem to underscore the importance to succorant individuals of having access to certain others and to the support that they might give. It seems reasonable to generalize that any design improvements that increased direct and relatively private access to supporting others would be viewed favorably by succorant individuals.

Table G-12
Personality Scale Correlate: Understanding

UNDERSTANDING:	Wants to understand many areas of knowledge; values synthesis of ideas, verifiable generalization, logical thought, particularly when directed at satisfying intellectual curiosity.
.292*	Number of years of education
.277*	My sleeping area is odor free
.259*	My sleeping area is easy to sleep in
.254*	My sleeping area is easy to be alone in
.247*	My barracks are dry
.247*	My latrine and washroom are close to my sleeping area
.241*	The storage space in my sleeping room is easy to keep secure from others
.234	I am satisfied with the general conditions of my sleeping area
.233	My day room or lounge is located in the same building where I sleep
.222	My dining hall has good food
.221	My latrine and washroom are stuffy
.215	In my dining hall there is an appetizing display of food at the serving area
.214	I have not been in a fight with anyone in the building where I live during the past two weeks
.213	There is sunny weather on my post
.207	The furniture and equipment in my sleeping area is sturdy
.205	My dining hall is convenient to washroom facilities
.203	My sleeping area is easy to clean
.202	My barracks is free of rodents
.199	My barracks is convenient to enter and leave
.190	My barracks is convenient to the main PX

Understanding. Subjects who score high on the understanding scale have a deep-seated need to satisfy their intellectual curiosity in many areas of knowledge (Table G-12). It is not surprising that the most substantial correlate of scores on this scale is number of years of education. It is also the case that education itself tends to be correlated with responding to the survey in a socially-desirable manner and this may, in part, explain the relatively high desirability index of the items which correlated with the understanding scale.

High-scoring subjects on the understanding scale did not express opinions concerning the organizational climate in which they work, nor did they express satisfaction or lack of satisfaction with their work. Most of their expressed opinions related to design features of their sleeping areas, barracks, and dining halls. Sleeping areas are seen as convenient for sleeping, being alone, storing belongings and cleaning. They are also seen as odor free and as having sturdy furniture. Barracks are seen as convenient for entering, leaving, and going to the PX, and as dry and rodent-free. Dining halls are said to have good and well-displayed food and to be convenient to washrooms. The social desirability of many of these items is substantial.

Other than their being educated, valuing convenience in architectural design, and having a tendency to give socially-desirable responses, there is nothing particularly distinctive about the attitudes and opinions of subjects with a need for understanding. Of the major correlates of this scale that are not closely related to social desirability, the item: "My sleeping area is easy to be alone in" is the most salient. Perhaps opportunities for undisturbed reading are among the most prominent living requirements of subjects with a need for understanding. It is likely that the availability of off-duty and on-duty education opportunities would also be important, but such matters were outside the scope of the present survey.

Summary of Findings. It seems apparent from the foregoing discussion of personality scale correlates that personality characteristics are definitely a factor to be considered in the evaluation of results from surveys of attitudes toward housing and related facilities. Individual differences in personality characteristics were systematically related to individual differences in both general and specific attitudes toward post facilities. Whether or not the appearance or design of a particular structure can be said to be generally satisfactory to enlisted men is very much a function of who is asked and what kind of person that individual is. In a few instances it was possible to relate the personality characteristics to attitudes toward facilities and to job satisfaction or lack of same. In other instances, it was possible to identify styles of responding associated with personality characteristics that required qualification of expressed attitudes. In still other instances the relations between personality characteristics and attitudes toward facilities were unexpected, but seemed worthy of further investigation. Taken together, these relationships suggest that mean or modal attitudes toward housing and related facilities mask subtle individual differences that should be taken into account in facility design.

The correlates and implications of high scores on ten personality characteristics may be summarized as follows:

Abasement. Expressed a high degree of job satisfaction with apparent indifference to physical and design characteristics of their environments. May be willing to accept almost any architectural design that does not actively prevent them from carrying out their duties.

Achievement. Expressed a high degree of job dissatisfaction which does not appear to be systematically related to the organizational climate in which they work. Nor does their job dissatisfaction appear to be related to any dissatisfaction with the physical or design aspects of their environments. It appears that their major source of dissatisfaction is with their specific job duties which they view as lacking challenge and interest.

Affiliation. Expressed an extraordinary degree of satisfaction with the organizational climate of their post, while responding only superficially to its architectural and design aspects. It may be that their physical environment provides few barriers to social interaction or that they are reluctant to express opinions that might be perceived as socially undesirable.

Aggression. Expressed dissatisfaction with the architectural and design characteristics of five of the six facilities covered in the survey. Did not express any more or less job satisfaction than nonaggressive subjects, but exhibited a general tendency to "bitch" or find fault. Such a negative attitude toward the physical environment may be modulated by more attention to fine points in the design and construction of post facilities, but it does not necessarily follow that such efforts would result in increased job satisfaction.

Cognitive Structure. Expressed a rich and profound appreciation of architectural, design and esthetic features of their living environment as opposed to social or organizational features. Improvements in design might be keenly appreciated by such individuals.

Endurance. Tended to view the organizational climate in which they work favorably and to experience a relatively high degree of job satisfaction. Although not insensitive to their physical environment, they appear to derive job satisfaction from rewarded hard work, rather than from architectural or design characteristics that facilitate such work.

Harm-Avoidance. Expressed virtually no opinions regarding the organizational climate within which they operate, but respond to their physical environment with a high degree of satisfaction with its esthetic characteristics (appearance rather than design or function). May be relatively passive observers of potentially harmful situations. Improvements in facility design may be appreciated but may not increase participation of such subjects in work or leisure activities.

Nurturance. Expressed an unusual amount of satisfaction with both social and physical environments. Also expressed a high degree of job satisfaction and satisfaction with their organizational climate. Equally satisfied with esthetic and functional features of almost all post facilities. May be receptive to design or administrative changes that improve the quality of Army life, but they already appear to be quite satisfied with that life.

Succorance. Did not express opinions regarding organizational climate, but indicated importance of certain design features. Would view favorably any design improvements that increased direct and relatively private access to supporting others (e.g., telephones and visiting areas).

Table G-13
Summary of Correlates and Implications of Ten Personality Scales

Need	Job Satisfaction	Social Environment	Physical Environment	Design Implications
Abasement	High	–	Indifferent	May accept any design not interferring with execution of duties.
Achievement	Low	–	Moderately satisfied	None. Change job duties.
Affiliation	High	Highly satisfied	Positive, but socially desirable	None. Determinants of satisfaction appear social.
Aggression	–	–	Dissatisfied with comfort, appearance, and atmosphere of post facilities	Improvements may not affect job satisfaction.
Cognitive Structure	Slightly positive	–	Very high appreciation of architectural, design, and esthetic features	Improvements may be keenly appreciated
Endurance	High	Highly satisfied	Positive, but socially desirable	Few. Derive job satisfaction from rewarded hard work.
Harm-Avoidance	–	–	Highly satisfied with esthetic features	Improvements may be appreciated but may not increase participation.
Nurturance	High	Highly satisfied	Highly satisfied with esthetic and functional features	Receptive to change, but already quite satisfied.
Succorance	–	–	Moderately satisfied	Improvements that increase direct and private access to supporting others.
Understanding	–	–	Appreciate convenience in design	Possibly more opportunities for undisturbed reading.

Understanding. Other than being educated, valuing convenience in architectural design, and having a tendency to give socially desirable responses, there is nothing particularly distinctive about their attitudes and opinions. Opportunities for undisturbed reading may be among the most prominent living requirements of these subjects.

Comparison of the differing correlates and implications of high scores on these ten personality scales may be facilitated by an examination of the entries of Table G-13. In that table, capsule summary statements are provided of attitudes toward jobs, social environments, and physical environments, as well as the major design implications of such attitudes, for each of the personality scales.

CONCLUSIONS AND RECOMMENDATIONS

Although the results of the present study suggest that personality characteristics are a factor to be reckoned with in designing post facilities with an eye toward increasing morale, efficiency, and job satisfaction, it would be premature to recommend that the present findings be directly incorporated in future architectural planning. The relatively small sample of subjects on which the present results are based, the fact that a substantial proportion of subjects tested did not appear to take the task seriously, and the small magnitude of the obtained correlations themselves would all militate against any such direct practical application. On the other hand, the present results would seem to have direct implications for the design and implementation of future studies in this and related areas, and would seem to suggest areas of exploration that might eventually have practical import.

The major conclusion of the present study is that attitudes toward housing and related facilities are related to the personality characteristics of the respondent. The findings of the present study that 10 per-

sonality characteristics are related in distinctive patterns to job satisfaction, attitudes toward social and physical environments, and possible implications of design improvements may not all be replicable in other surveys employing other subjects. Nevertheless, they form the basis for specific hypotheses regarding ten personality characteristics that should be investigated by the inclusion of the 200 items necessary for scoring these scales in future studies. The utility of employing the infrequency scale for detecting invalid records and the desirability scale for evaluating the operation of the social desirability variable were also demonstrated in the present research. A potentially useful by-product of the present study was the development of a desirability scale for the Facility Survey, which may be of considerable value in future applications of that instrument.

Should the present results hold up in future studies, it may be of practical value to know that self-abasing subjects are indifferent to their physical environments, that aggressive subjects are dissatisfied, that achievement-oriented, succorant, and understanding subjects are moderately satisfied, that subjects with needs for cognitive structure, harm-avoidance, and nurturance are highly satisfied, and that affiliative and enduring subjects are apparently satisfied, but that this satisfaction may be an expression of tendencies to respond in a socially-desirable manner. It would also be important to confirm the present findings that satisfaction with a physical environment is not necessarily related to job satisfaction, so that design modifications may not be effective in increasing morale or performance.

Should the above findings be replicated in other samples, it might be possible to develop procedures for assigning men to different post facilities based in part on personality characteristics that are related to the probable improvements in morale, efficiency, and job satisfaction that might result. Thus, for example, it may be that aggressive subjects will demand many facility improvements, but that providing such improvements would have little if any effect on their performance or job satisfaction. On the other hand, should succorant subjects be provided with free telephones in their barracks and a quiet place for visiting friends and relatives, a noticeable improvement in morale might result. Hypotheses of this kind would seem to be of sufficiently practical import to justify future, more extensive investigations of the present kind.

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