

APPRECIATING ART

**A Study of Comparisons: An Exercise in Looking
at the Hirshhorn Museum and Sculpture Garden**

INSTITUTIONAL STUDIES



Smithsonian
Institution

APPRECIATING ART -
a Study of *Comparisons: An Exercise In Looking*
at the Hirshhorn Museum and Sculpture Garden

**E. K. Ziebarth
Z. D. Doering
A. Bickford**

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INSTITUTIONAL STUDIES
Smithsonian Institution
900 Jefferson Drive, S.W.
Washington, D.C. 20560
(202) 786-2289

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Preface

In December 1990, the Hirshhorn Museum and Sculpture Garden (HMSG) opened an experimental exhibition entitled *Comparisons: An Exercise in Looking*. The Institutional Studies Office was asked to study viewers' experiences in this exhibition. This report presents the results of that study.

The survey, as well as this report, reflect the work of many individuals whose efforts we would like to recognize. Judith Zilczer, Curator of Paintings at HMSG, initiated our involvement in the exhibition. She offered insights and suggestions throughout the study, especially in reviewing the report. Edward Lawson, Chief of Education, assembled a group of seven HMSG staff members, volunteers and interns who cheerfully gave their time and energy to the data collection. Their efforts are reflected in the impressive participation rate to the survey, 93.5 percent.

The Institutional Studies Office (ISO) staff participated in many facets of the study. Elizabeth Ziebarth was ably assisted in the data collection by Ann Ziebarth, Keri Lubell and Leonila Francisco, a volunteer. Robert D. Manning provided technical assistance and review.

Finally, and most critically, the results reported here reflect the participation of the 471 visitors to the exhibition who responded to the survey. Their cooperation and comments are appreciated. Errors in interpretation are the responsibility of the authors.

Summary

In December 1990, the Hirshhorn Museum and Sculpture Garden (HMSG) opened a temporary exhibition entitled *Comparisons: An Exercise in Looking*. By its closing in July 1991, between 90,000 and 100,000 visits were made to the exhibition both by individuals who were visiting the Smithsonian in general and thousands who came specifically to see *Comparisons*.

The goal of the exhibition was to affirm the importance of visual observation of the physical object in the appreciation of art. The curator and other museum staff believed that HMSG, as one of the most popular art museums in the country, had a special responsibility to provide meaningful educational and aesthetic opportunities for a broad spectrum of visitors.

The exhibition included pairs of objects by fifteen modern artists selected from the HMSG permanent collection, representing a cross-section of art from the late nineteenth to the mid-twentieth century. The thirteen pairs of paintings and two pairs of sculptures were displayed with text panels that offered specific questions and comments to encourage the viewer's comparison. An exhibition brochure was available that reproduced the works of art and contained the same information as the text panels. The exhibition's structure was the result of the curator's belief that the display of pairs of objects for comparison in and of itself disrupted patterns of vision and engaged the viewer, especially the first-time visitor, in active looking. It was hoped that a positive experience at this exhibition would enrich the rest of the HMSG visit and, in the long run, subsequent visits to this and other museums of modern and contemporary art.

To assess the effectiveness of the exhibition, a survey of the visitors was conducted between March 4 and March 28, 1991. From a total of approximately 2,400 individuals exiting the exhibition, 471 individuals were selected for interviewing; among intercepted visitors, 93.5 consented to be interviewed. Here, we highlight the principal findings.

A Portrait of Visitors to the Exhibition

- o Somewhat more women than men visited the *Comparisons* exhibition (53.4 percent and 46.6 percent).
- o They were relatively young, with over half (53.0 percent) under age 35 and only 15.2 percent 55 years of age or older.
- o The audience was predominantly adult. Four-fifths of the visits were made by one, two, or several adults (79.1 percent).
 - Only 16.4 percent of the visitors to HMSG brought their children.
- o People from 42 states and 21 countries were interviewed; 87.5 percent were from the United States and 12.5 percent were foreign residents.
 - "Local visitors," those from the Washington metropolitan area, were 25.9 percent of the total .

- o Caucasians were 88.5 percent of the visitors and 11.5 percent were minority group members.
 - One-third of the minorities but only 10 percent of the Caucasians live outside the United States.
- o Overall, 67.0 percent of the visits were made by people with at least a bachelor's degree; 79.9 percent of Washington area residents reported at least a bachelor's degree.
 - Among all visitors over age 25, 82.3 percent have at least a bachelor's degree.

Experience with the Visual Arts

- o Almost half of the respondents (45.6 percent) said they had a general interest in art, without indicating formal study or pursuit of art as an avocation or vocation. The rest (54.4 percent) were more specific:
 - Another 20.4 percent had studied art appreciation or the studio arts, primarily in college.
 - Those people who created art for their own enjoyment made up 13.7 percent of the total sample, followed by professionals in the arts at 10.4 percent, those who read about the visual arts at 5.2 percent and those pursuing a career in the arts at 4.7 percent.
- o Most (70.8 percent) HMSG visitors go to art museums at least every few months (or more frequently). However, they visit art galleries less frequently; 42.6 percent report going every few months or more often.
- o With few exceptions, higher education increases the likelihood of going to art museums. The majority of people who said they never go to art museums, i.e., the visit to the HMSG was their first contact, were in the some college category.
- o Almost three-fourths of the visitors had been to a Smithsonian facility previously (72.1 percent).
 - About half (49.8 percent) of the visitors to *Comparisons* were new to HMSG.
 - Of the repeat visitors, 41.1 percent had been to HMSG in the 16 months prior to the survey (since January 1990).
 - Three-fourths (76.8 percent) of local residents and 40.8 percent of non-local visitors had visited the HMSG previously.
- o The majority of people (72.5 percent) happened upon the exhibition during their visit to HMSG.
 - Local residents were more likely to have previous knowledge of the exhibition (68.9 percent) compared to non-locals, primarily from print media followed by family and friends.

Use of the Exhibition's Didactic Materials.

- o Most visitors read the text panels, rather than the brochure, for learning about the purpose of the exhibition.
 - About half (49.1 percent) read the panels only and another 23.5 percent used the panels and brochure in combination; only 3.2 percent relied exclusively on the brochure.
 - Thus, three-quarters of the visitors read the text panels and/or the brochure (75.8 percent).
 - For all those who picked up the brochure (58.6 percent), it also became a souvenir.
- o College graduates read more than those with less formal education.
- o People considering an art related career or who had formal arts courses paid more attention to the reading materials (about 86 percent) than the art professionals (62.8 percent).
- o Three-fourths (74.0 percent) of those with a general interest or who create art for enjoyment read the didactic materials.
- o Estimates were made of the probability that certain types of individuals would or would not read the exhibition materials.
 - If we assume that all exhibition visitors had exactly the same arts experience, but different demographic characteristics, the probability of reading increases if a respondent is female, decreases if a respondent is a member of an ethnic or cultural minority, and increases with educational achievement. However, *education* has the greatest influence on whether someone will read the exhibit materials, independent of the influence of gender or racial/ethnic identity.
 - If we assume that all demographic characteristics are equal across individual respondents, but arts experience factors differ, the results show that as frequency of museum attendance rises, the probability of reading increases, although the amount of increase is slightly smaller for frequent museum goers than for those who go an average number of times. For individuals who study the arts or read art publications, the probability of reading increases substantially. For those with a professional interest in the arts, the probability of reading increases only marginally.
 - If all of the demographic and arts experience factors are analyzed simultaneously, we observe the pronounced effect of educational attainment (ranging from 30 percent to 61 percent) followed by the effect of having taken art courses/read art publications (16 percent) on the likelihood of reading; other art background factors and museum attendance did not have significant effects. Finally, frequent gallery attendance (-15 percent) and minority racial/ethnic heritage (-15 percent) are strong, negative factors while women are more likely (15 percent) than men to read the exhibition materials.

Length of Time in the Exhibition

- o Slightly over half (57.7 percent) of the visitors reported spending 15 minutes or less in the exhibition, another fourth (28.6 percent) spent between 15-20 minutes, and the rest (26.1 percent) spent more than 20 minutes.
- Extended visits were reported by those with high levels of education, those who were older (especially those 55 or older), women and non-minorities.
- Local visitors reported spending more time than non-locals in the exhibition.

Assessment of the Questions Posed to Visitors in the Brochure and Panels

- o On a scale of one to five (where one was not at all provocative and five was very provocative) the average rating of question provocativeness was 3.4; the median was a more positive evaluation of 4.0 because of the clustering of low scores at ratings of 1 and 2.
- o Level of education was the most important influence on how people perceived the questions posed in the exhibition:
 - People with less than a high school education were neutral about the questions (71.8 percent), those in the high school degree category tended to have a negative reaction to the questions, and those people with some college education or a bachelor's/graduate degree had increasingly positive responses to the questions.
- o General interest visitors and people who studied the arts were the most positive about the questions.

Perception of Exhibition's Purpose

- o Almost half of the visitors (48.9 percent) understood the purpose of the exhibition to be educational, followed by responses of "Don't Know" (19.8 percent), expressions of enjoyment as the purpose (17.5 percent), perceptions that the focus was on comparisons (4.5 percent) and a residual category of "other" responses (9.3 percent).
- o Over half (56.4 percent) of the people who read the didactic materials said the purpose was to teach and another 20.4 percent thought the purpose was to increase enjoyment for the visitor.
- o Only 10 percent of the people who read the accompanying materials did not understand the main purpose of the exhibition.
 - On the other hand, over half (52.5 percent) of the people who did not read reported that they did not know the purpose of *Comparisons*.

Perception of Appropriate Audience

- o About one fourth (27.2 percent) thought an appropriate audience for the *Comparisons* exhibition was "people who want to learn about art," 13.5 percent thought it was for "first time visitors," and 22.0 percent said everyone could benefit from attending the exhibition.

- Small percentages of the total sample named other types of audiences. A number of people (16.3 percent) gave an answer of "Don't Know."

Interest in Educational Galleries

- o Almost everyone interviewed wanted to see some gallery space devoted to this type of educational exhibition within an art museum.
 - When asked to assign a "number of galleries," based on a museum with 10 galleries, on average visitors would allocate 2.3 galleries to exhibitions like *Comparisons*; the median is two galleries.
 - The largest percentage of the sample (35.4 percent) would like to see one educational gallery, followed by 28.8 percent that preferred two, and 14.2 percent that preferred three.
 - Only 2.5 percent of the sample would not allocate any space for a didactic exhibition.
- o Various characteristics were related to the responses about gallery space:
 - The average for women was 2.6 while men preferred 2.2.
 - As age increases, the number of galleries decreases.
 - Minority group members are interested in more galleries compared to non-minorities.
 - Visitors with a high school degree express more interest in educational galleries than do members of other educational groups.
 - While the average for the two lower educational groups is over 3 galleries, for the college educated groups it declines to nearly two galleries.
- o The infrequent museum attendee is more interested in allocating gallery space for educational purposes compared to the frequent or average museum goer.
- o Those visitors who read about the arts, create art or are interested in an arts career are more interested in educational gallery space compared to the other background groups.
- o When we examine various factors simultaneously, using mathematical models we find that:
 - If we assume that all demographic characteristics are equal, respondents want an average of nearly four (3.78) explanatory galleries. Women and racial/ethnic heritage groups increase this figure (more so for women than for racial/ethnic minorities) whereas greater education reduces the number of desired galleries.
 - Once visitors' educational attainment exceeds high school graduation, they want progressively less space for explanatory exhibits.
 - If we assume that all demographic characteristics are the same across individual respondents, but arts experience factors differ, museum and gallery attendance reduce the average number of explanatory galleries desired to 2.7 galleries.

- Without regard to demographic characteristics, an individual with average museum attendance, frequent gallery attendance, and a general interest in the arts wants the least amount of space allocated for educational purposes (1.6 galleries).
- The individual who is a frequent museum goer and infrequent gallery visitor, also with a general interest in the arts, would like to see 2.7 galleries.
- If all of the demographic and arts experience factors are analyzed simultaneously, we observe the pronounced negative effect of educational attainment (ranging from -0.80 to -1.35) followed by frequent gallery attendance (-.742) on the preference for more educational gallery space. Frequent museum attendance has a negligible effect (-.01). On the other hand, racial/ethnic minorities (.82), women (.26), and visitors with a general art interest (.10) would like more gallery space.

Conclusions

Ideally, the *Comparisons* exhibition hoped to build visitor motivation and confidence in examining and asking questions about works of modern art. While the study cannot assess the long range impact of the experience, data from the survey show that the visitors appreciated explanatory exhibitions, and wish to see more of them. People who are not particularly familiar with arts institutions especially want the experience that is offered by these types of exhibitions. They are also valued by experienced museum goers.

If HMSG designs a similar exhibition in the future, two ideas from the J. Paul Getty Museum's Interactive Gallery could be incorporated which may increase the visitor's educational options.¹ First, a facilitator within the exhibition could answer visitor questions stimulated by the comparative technique. Second, a handout could be produced that would lead visitors to other parts of the permanent collection to practice their new skills in examining art. Visitor comments indicate that they would be receptive to these exhibition enhancements.

Finally, we need to recognize the educational value was not confined to attendance at the exhibition. The brochure was designed so that it could be used independently of the exhibition. The "exhibition message" was portable and some visitors undoubtedly gained a better understanding of the exhibition after the actual visit and perhaps shared it with others.

¹ From an internal report by Wade H. Richards, The J. Paul Getty Museum Report on the Interactive Gallery, March 1991.

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I. Introduction

Background

In December 1990, the Hirshhorn Museum and Sculpture Garden (HMSG) opened a temporary exhibition entitled *Comparisons: An Exercise in Looking*. The curator, Judith Zilczer, had designed this experimental exhibition to develop a visitor's appreciation for art, especially modern art. The opening statement for the show, a quote from the artist Ben Shahn, encapsulates the concept of the exhibition -- "The process of art is ... the discovery of images during work, the recognition of shapes and forms that emerge and awaken a response in us." The goal of the exhibition was to affirm the importance of visual observation of the physical object in the appreciation of art. The curator and other museum staff believed that HMSG, as one of the most heavily attended art museums in the country, had a special responsibility to provide meaningful educational and aesthetic opportunities for a broad spectrum of visitors.

The exhibition included pairs of objects by fifteen modern artists selected from the HMSG permanent collection, representing a cross-section of art from the late nineteenth to the mid-twentieth century. The thirteen pairs of paintings and two pairs of sculptures were displayed with text panels that offered specific questions and comments to encourage the viewer's comparison. An exhibition brochure was available that reproduced the works of art and contained the same information as the text panels (see Appendix A). The curator also provided comment cards for visitors to fill out and deposit in a "ballot box" as they exited from the exhibition.¹

The exhibition's structure was the result of the curator's belief that the display of pairs of objects for comparison in and of itself disrupted patterns of vision and engaged the viewer, especially the first-time visitor, in active looking.² In order to stimulate active participation by the viewer, four main orienting questions were posed in the exhibition's introductory panel:

- 1) *Do you respond more to one work than the other? Do you like (or dislike) them both, or do you prefer one to the other?*
- 2) *Is it obvious that both works within each pair are by the same artist? If so, what are the elements that suggest the works are by the same artist? Or do the two works appear so different that you would not have guessed that they were by the same artist?*
- 3) *Considering what you see and how you respond, do you believe one is a more effective work of art than the other?*
- 4) *Do you think other people would agree with your choice? Is such agreement necessary or important?*

The underlying assumption behind the *Comparisons* exhibition was that exposure to the didactic materials, whether on text panels or in the accompanying brochure, would help visitors analyze and consider the pairs of art objects on display. Through this experience, they would develop a better appreciation of both

¹ The comment cards are discussed in Appendix E.

² From a lunch bag seminar, sponsored by the National Museum of American Art at the HMSG, January 11, 1991 and a public lecture, "Focus: On Looking," HMSG, January 16, 1991, presentation by Judith Zilczer on the conceptualization and installation of the *Comparisons* exhibition.

the particular objects in the exhibition and of the process of viewing works of art. It was also assumed that many visitors to the HMSG came with limited exposure to contemporary art and perhaps some reluctance to embrace it. An exhibition which clearly provided guidance would enhance the visit to the exhibition and thus would reduce the mystique which may be associated with these and similar works of art. It was hoped that a positive experience at this exhibition would enrich the rest of the visit to the HMSG and, in the long run, subsequent visits to this and other museums of modern and contemporary art.

Prior to our formal study, HMSG had several indications that the exhibition's goals were being met. Reviews of the exhibition in the press were positive. Yet, they were written by individuals with art backgrounds and not by the "average" visitor. Comment cards left by visitors at the exhibition's exit and informal comments by visitors to HMSG staff were also generally positive. However, such comments have limitations, as they may not be representative of the views of the visiting public. Consequently, the Institutional Studies Office was asked to conduct a study of *Comparisons* to examine who came to the exhibition, the extent to which they were engaged by the display technique to compare the works of art, and determine whether they would be interested in similar exhibitions in the future.

The Study³

To answer these research questions, a survey of the visitors to *Comparisons* was conducted. The survey was conducted between March 4 and March 28, 1991. Data collection consisted of personal interviews at the exit of the exhibition, conducted by trained interviewers who were either museum staff, interns or volunteers. Interviewing was conducted every other day during the three-week period, using a schedule that rotated between three time intervals (10:00 am - 12:00 pm, 12:30 - 2:30 pm, or 3:00 - 5:00 pm). Depending on the time of day and the flow of visitors, interviewers intercepted every third, fifth, or tenth person who left the exhibition; a short precoded questionnaire was administered after eligibility was established. If the intercepted person was an employee, an interview was not conducted. If a child under 12 years of age was selected to be the respondent, permission for an interview was obtained from the accompanying adult. If the child was too young to be interviewed, the adult was asked to respond for the child. All participants were given a postcard or catalog provided by the museum as a token of appreciation. The use of this rotating schedule produced a sample that was representative of the visitors to the exhibition.

The initial portion of the questionnaire, as reproduced in Appendix C, was designed to collect information about frequency of visits to HMSG and, more generally, to art museums and galleries. After establishing some rapport with the visitor, a number of questions were asked that related to their experience in the exhibition and their impressions of it. The remainder of the questionnaire inquired about the visitor's art background and standard demographic characteristics. The interview concluded with the opportunity for the visitor to offer general comments about the exhibition.

³ Technical details of the design and implementation of the *Comparisons* exhibition survey are in Appendix B.

Overall, the data collection met our expectations for visitor cooperation rates. We estimate that approximately 2,400 individuals exited from the exhibition during the hours in which interviewing was conducted. From the total, 471 individuals were selected for participation in the survey. As shown in Appendix B, Table B.1, an overall response rate of 79.6 percent was attained. Among intercepted visitors, a response rate of 93.5 percent was achieved.⁴

Report Contents

Section II of the report describes the characteristics of the individuals who visited the exhibition. Wherever appropriate, comparisons are made from this survey to studies of other Smithsonian museums. Section III of the report presents findings on visitor behavior in the exhibition. As mentioned above, the appendices include the exhibition brochure, technical information about the survey, a copy of the questionnaire and selected comments from the survey and the exhibition comment cards.

⁴ This excludes respondents who were not interviewed because an interviewer was not available; i.e., an interviewer was still in the process of speaking to a previously selected respondent. See Appendix B for an analysis of response bias.

II. Characteristics of Individuals Who Visited the *Comparisons* Exhibition

Introduction

This section describes the demographic characteristics of visitors to the *Comparisons* exhibition at HMSG during March of 1991. Basic characteristics such as gender, age, cultural/racial/ethnic identity, residence, and educational attainment were obtained from the visitors. We will also look at visitor reports of their experience with the visual arts and their visitation patterns to the Smithsonian, HMSG and art museums and galleries in general.

The reader should keep in mind that these data exclude Smithsonian staff, contractors, or those who had professional appointments in the building. Such individuals constituted 9.8 percent of the total number of people intercepted in the course of the study.⁵

Basic Demographic Characteristics

Gender and Age

Somewhat more women than men visited the *Comparisons* exhibition. Over fifty percent of the visitors interviewed were women (53.4 percent) and 46.6 percent were men. These proportions differ somewhat from the gender distribution in the National Museum of American Art and the National Portrait Gallery (NMAA/NPG), which this office studied in 1990; 52.3 percent of the visitors surveyed were men and 47.7 percent were women.⁶

The age distribution of respondents is shown in Figure 2.1. Visitors to the exhibition were relatively young with over half (53.0 percent) under age 35 and only 15.2 percent 55 years of age or older. By comparison, 29.1 percent of the respondents in the NMAA/NPG study were under 35 and 25.0 percent were 55 or over. The location of the museums may partially account for this age difference. NMAA/NPG are located a short walking distance off the National Mall, while HMSG is more centrally located among the complex of museums. The HMSG is situated with the Castle and Arts & Industries (A&I) Building on one side and the National Air and Space Museum (NASM) on the other. It may be that young adults, as well as adults with children, are combining a visit to HMSG with a visit to one of the larger and more popular Smithsonian museums.⁷ In addition, younger people may

⁵ The physical configuration of the HMSG is such that these individuals were either walking through the museum to another location or were contractors working on installations.

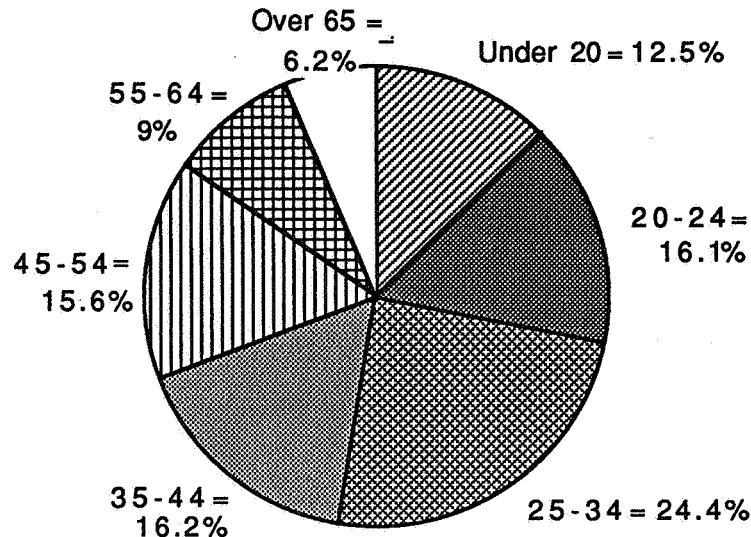
⁶ For this report, many of the comparisons to other Smithsonian Institution visitor data will refer to a 1990 study, Z. D. Doering with the assistance of E. K. Ziebarth, *Museum Images: A Study of the National Museum of American Art and the National Portrait Gallery*. Report 91-1. (Washington, D. C.: Smithsonian Institution, 1991). The fact that this and the cited study were conducted in the spring and at art bureaus facilitates comparison. For additional references to other studies, see citations in Z. D. Doering, *Museum Images*.

⁷ Although the HMSG is among the top ten art museums in the country in terms of annual visits, it is generally 6th in annual attendance for Smithsonian facilities. Annually, between 5-7 million visits are made to the National Museum of American History, National Museum of Natural History, and National Air and Space Museum, compared to approximately 900,000 visits for HMSG.

have had more exposure to modern art prior to their visit than their older associates, thus making the younger people more apt to visit HMSG. We will return to this point in a later discussion of experience with art.

Figure 2.1

Age Distribution of Visitors to the *Comparisons* Exhibition



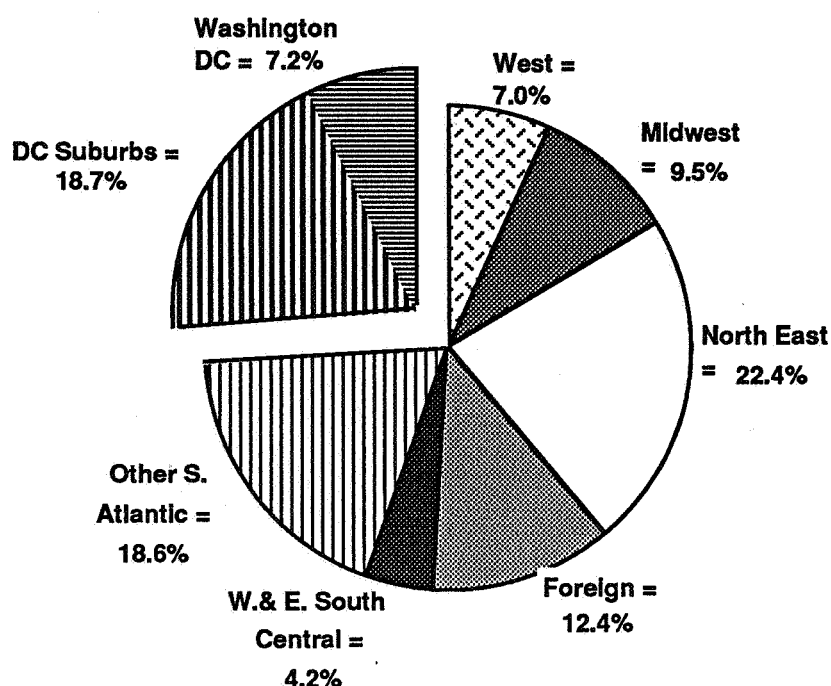
Geographic Origins of Visits

During the study, we interviewed people from 42 states and 21 countries; 87.5 percent were from the United States and 12.5 percent were from foreign locations. Further analysis, using Census defined geographic classifications for the U.S. visitors, shows that the majority are from the South and North East regions (48.7 percent and 22.4 percent respectively). Only 7.0 percent of the HMSG visits were made by people from the West and 9.5 percent came from the Midwest, as shown in Figure 2.2.

For purposes of this discussion, it is useful to think of visitors as "local" and "non-local." "Local visitors" are defined as people from Washington, D.C. and the surrounding Maryland and Virginia suburbs, essentially the Washington, D.C. metropolitan area. "Non-local visitors," therefore, are from all other states in the U.S. outside of the metropolitan area, including the parts of Maryland and Virginia not contiguous to D.C. and foreign countries. Local visitors were 25.9 percent of the total sample and non-locals from other U.S. locations were 61.7 percent of the total (the remainder were foreign). As noted above, most of the non-locals came from the South and North East regions of the country. At NMAA/NPG, we found that about one-third (32.5 percent) of the visitors were from the local area and once again the non-locals came primarily from the North East and the South. The HMSG data show a local constituency similar to that found in our studies of two adjacent Mall facilities. A study of the A&I Building found 6.9 percent of the visitors

Figure 2.2

Geographic Origins of Visitors to the *Comparisons* Exhibition



to be from Washington, D.C. and 22.1 percent from the suburbs for a total of 29.0 percent local visitors.⁸ A major study of NASM found that 23.9 percent of the visits were made by individuals from the local area, although this varied from a low of 20.6 percent in the fall to a high of 30.1 percent in the winter due to seasonal differences.⁹

Local and non-local residence tends to vary with age categories. Between 30.4 and 40.9 percent of all the children (under 12 years), young adults (25-34 years) and older visitors (65 years and above) came from Washington, D.C. and the surrounding areas. This compares to the total survey population of only 7.5 percent of the teenaged visitors (12-19 years) and 18.3 percent of middle aged adults (35-64 years) who were local residents.

Cultural, Racial and Ethnic Identification

Although the Smithsonian Institution has made a concerted effort to design exhibitions and programs that will appeal to a more culturally diverse audience, the visitors to most of the museums are still predominantly Caucasian, compared to the population of the Washington metropolitan area or the U.S. At HMSG, 88.5 percent of the visitors were Caucasian, 6.1 percent of the visitors identified themselves as

⁸ See Z. D. Doering, *Visits to the Arts and Industries Building: A Background Study for the Experimental Gallery*. Report 90-8. (Washington, D. C.: Smithsonian Institution, 1989), p. 6.

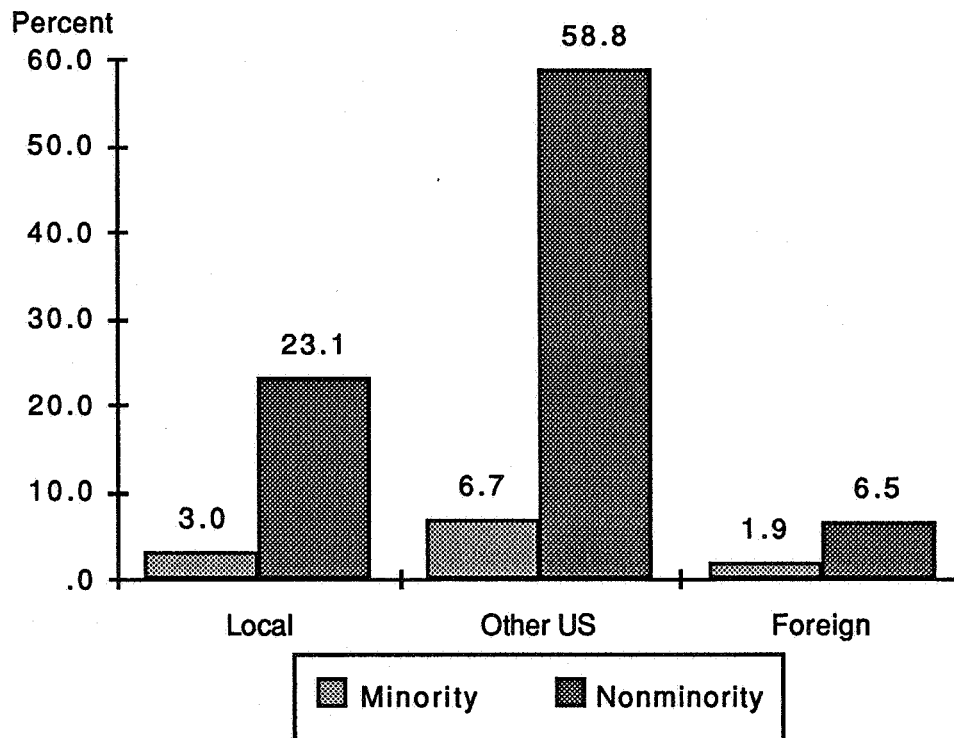
⁹ See Z. D. Doering and K. J. Black, *Visits to the National Air and Space Museum (NASM): Demographic Characteristics. Based on the 1988 NASM Survey*. Working Paper 89-1. (Washington, D. C.: Smithsonian Institution, 1989), p. 10.

Asian, 3.1 percent as Hispanic/Latino and 1.3 percent as African American or Black.¹⁰ The remaining one percent identified with other groups. In the rest of this report, all the different minority groups -- a total of 11.5 percent of the respondents -- are treated as one category, because the individual groups are too small for separate analysis. The racial/ethnic data for NMAA/NPG was almost identical, with Caucasian visitors making up 88.4 percent of the total and minority groups 11.6 percent.

Figure 2.3 depicts the relationship between local and non-local residence and minority/non-minority data. Local residents who are members of minority groups made up three percent of the total sample while local non-minorities account for 23.1 percent. Among non-local visitors, 8.6 percent of the sample total were minorities and 65.3 percent were non-minorities.

Figure 2.3

Racial/Ethnic Identity of Local and Non-local Visitors



Social Composition

The social composition of a visiting group can influence the interaction between the individuals and the museum exhibition. An individual visiting an exhibition alone, for whatever the reason, may relate to the environment around him quite

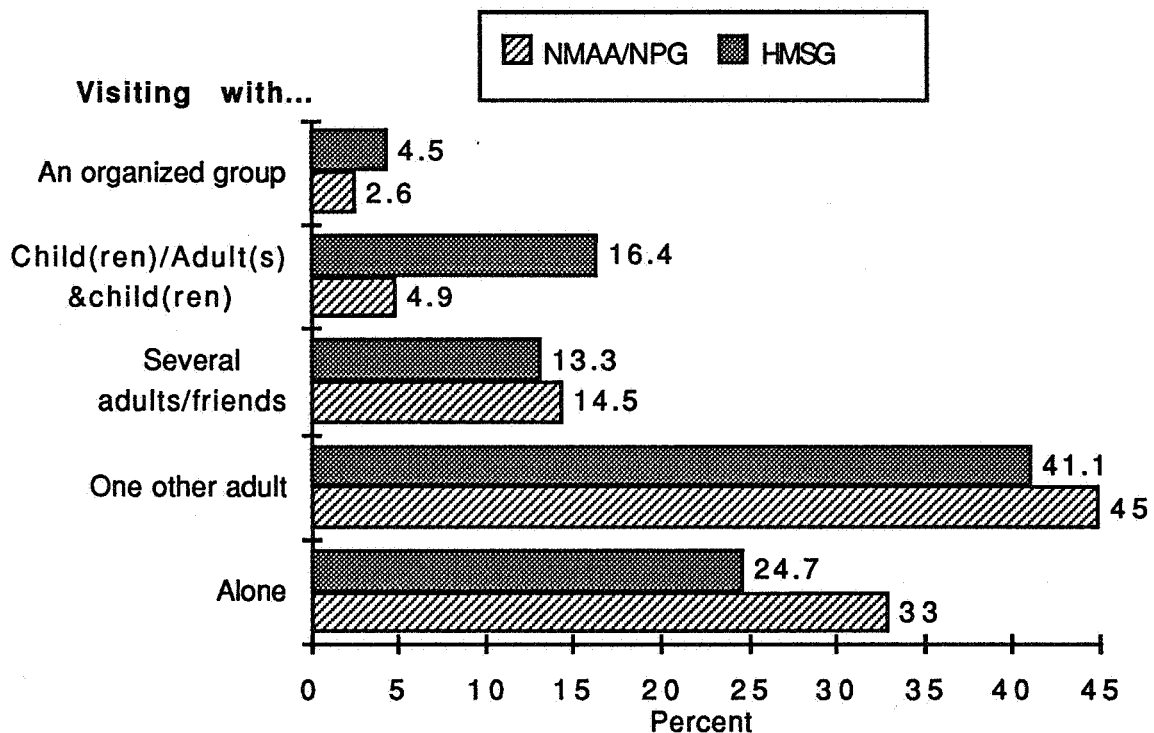
¹⁰ For comparison, 80.3 percent of the U.S. population identifies themselves as Caucasian, 2.9 percent as Asian, 9.0 percent as Hispanic/Latino, and 12.1 percent as African American or Black. See U.S. Bureau of the Census, *1990 Census of Population, General Population Characteristics*, (Washington, D.C.: U.S. Government Printing Office, 1992).

differently than an individual who comes with small children or another adult companion. In the case of the *Comparisons* exhibition, for example, social composition may interfere with or facilitate the visitor's reading of the didactic materials. The social composition can also provide clues into the perceived "appropriateness" of art museums as places to visit. For example, few visit groups of adults with young children certainly implies that parents consider it an "inappropriate" place for their children in the context of an overall Smithsonian visit.

The data show that the audience for HMSG is predominantly adult (Figure 2.4). Nearly two-thirds (65.8 percent) of the visits made to HMSG during the *Comparisons* survey were by one or two adults. The number increases to four-fifths (79.1 percent) when the category of several adults/friends is added. Only 16.4 percent of the visitors to HMSG brought children and 4.5 percent came with organized groups.

Figure 2.4

Social Composition of Visitors to *Comparisons* Exhibition and NMAA/NPG



The group composition at HMSG was similar to that of NMAA/NPG, although multi-generational groups are found more frequently at HMSG. During the NMAA/NPG survey period, three-fourths (78.0 percent) of the visits were made by one or two adults with an additional 14.5 percent from the several adults category. Only 4.9 percent of visitors to NMAA/NPG brought children. In contrast, the Arts and Industries (A&I) Building study shows that about half of the visits were made by one or two adults, an additional 16.6 percent by several adults, and about one-

fourth (27.6 percent) were visits with one or more children.¹¹ The time of the year does influence the social composition. For example, in the previously cited study of NASM we found that visits by one or more adults with one or more children comprised 37.2 percent of the summer total, decreasing to 11.5 percent in the fall and rising to 15.1 in the winter; overall 25.1 percent of the visits were with children.¹²

When comparing the social composition of groups for local and non-local visitors, little difference is found in most categories. Local residents, however, are more likely to come with several adults or friends, compared to non-local visitors (17.6 compared to 11.9 percent). A comparison of minority and non-minority visitors shows the former more likely to come with children (23.0 compared to 15.3 percent) and the latter with another adult (42.5 vs. 30.0 percent).

Educational Attainment

Educational attainment, as an indirect measure of socio-economic status, can be easily collected in a museum setting. Education can also provide some indication of the probability of exposure to the arts. Figure 2.5 shows the educational attainment of the *Comparisons* visitors. Overall, two thirds (67.0 percent) of the visits to the exhibition were made by people with at least a bachelor's degree. Two-fifths (39.6 percent) of the visitors had advanced degrees or some graduate education.¹³ Washington metropolitan area residents are considerably better educated, with 79.9 percent of the visitors reporting at least a bachelor's degree; 50.8 percent reported advanced degrees or some graduate education. When we examine the educational attainment of all visitors over age 25, i.e., individuals who can be assumed to have completed their formal education, we find that 82.3 percent have at least a bachelor's degree.

The Smithsonian tends to draw a well educated audience as evidenced by various studies conducted by this office since 1988. If we compare visitor education levels for HMSG and NMAA/NPG, we find that they are very similar. Overall, almost three-fourths (73.2 percent) of visits to NMAA/NPG were made by persons with at least a bachelor's degree, with a slightly higher percentage for Washington Metropolitan area residents (about 77 percent). A 1987 study conducted at the International Gallery in the S. Dillon Ripley Center showed that 72.2 percent of visitors had a Bachelor's degree or higher, and that 84.3 percent reported some college or more.¹⁴ Our study of the A&I Building found that 65.8 percent have a Bachelor's degree or higher, and that 86.5 percent reported some college or more.¹⁵ Sixty percent of the adults age 25 or older were found to have a Bachelor's degree or higher at the National Museum of Natural History.¹⁶

¹¹ See Z. D. Doering, *Visits to the A&I Building*, p. 6.

¹² See Z. D. Doering and K. J. Black, *Visits to NASM*, p. 13.

¹³ Those with graduate education but without an advanced degree were 6.4 percent of the total.

¹⁴ See Z. D. Doering and C. L. Fronville, *A Description of Visitors to the International Gallery*. A Report based on the 1987 International Gallery Survey. Report 88-1. (Washington, D. C.: Smithsonian Institution, 1988), p. 4.

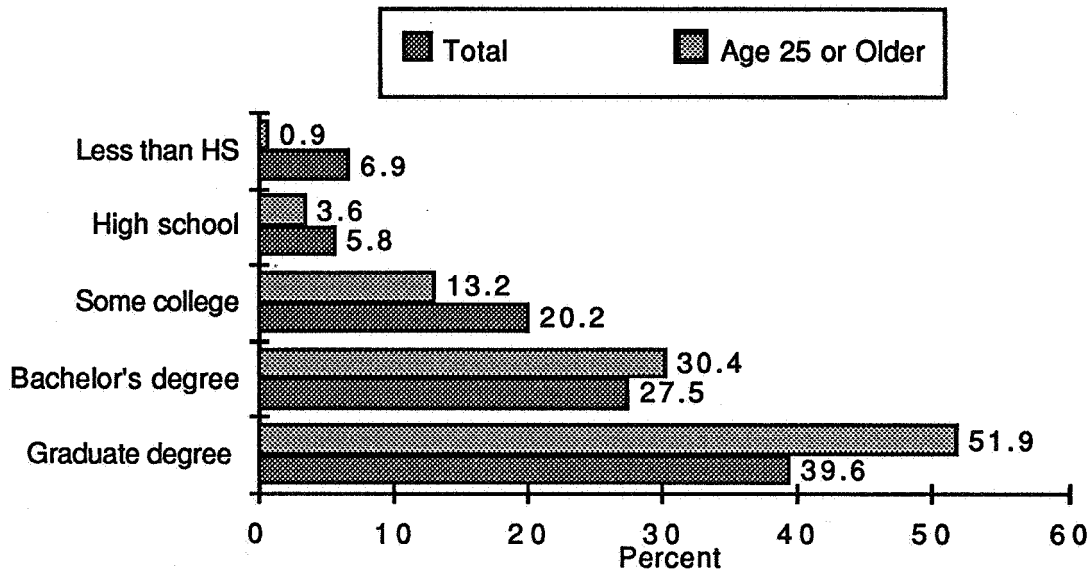
¹⁵ See Z. D. Doering, *Visits to the A&I Building*, p.10.

¹⁶ See J. D. Pawlukiewicz, Z. D. Doering, and K. Paasch, *Views from the Audience: Planning a New Exhibition on Human Evolution*. Report 90-3. (Washington, D. C.: Smithsonian Institution, 1990). March 1990, p. 6.

However, the U.S. Bureau of the Census reports that only 20.3 percent of the adult population over age 25 has attained this level of education. In the Washington Metropolitan area, the Census data show that 41.3 percent of the adult population over age 25 has a Bachelor's degree or higher.¹⁷

Figure 2.5

Educational Attainment of Visitors to the *Comparisons* Exhibition. Total and Adults Age 25 or Older



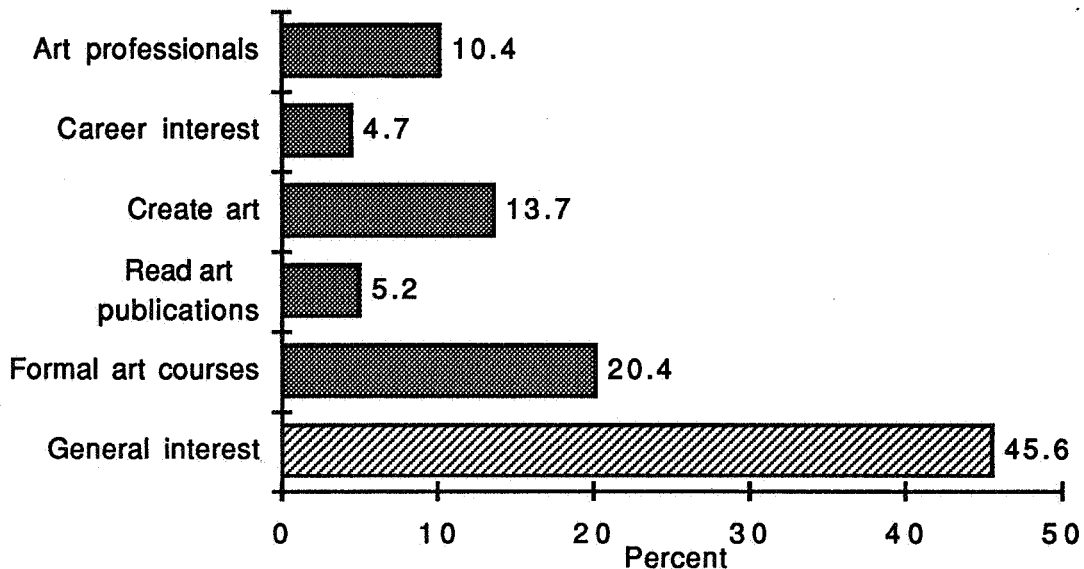
Visitor Background in the Visual Arts

What a visitor brought to the exhibition in terms of visual arts background was one of the things we wanted to learn during this study. Understandably, within the course of a short interview, collecting detail about this experience was not possible. As an alternative, survey respondents were asked to review a list of possible sources of such experience and choose the one that most accurately described their background or experience with the visual arts. Figure 2.6 shows that almost half of the respondents (45.6 percent) said they had a general interest in art, without indicating formal study or pursuit of art as an avocation or vocation. The rest (54.4 percent) were more specific. Another 20.4 percent of the visitors had studied art appreciation or the studio arts, primarily in college. Those people who created art for their own enjoyment made up 13.7 percent of the total sample, followed by professionals in the arts at 10.4 percent, those who read about the visual arts at 5.2 percent and those pursuing a career in the arts at 4.7 percent. In the figure, the results are ordered from the most general to the most specific, rather than in ascending or descending percentages.

¹⁷ U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 415, *Educational Attainment in the United States: March 1984 to 1987*, U.S. Government Printing Office, Washington, D.C., 1989.

Figure 2.6

Reported Art Background of Viewers at the *Comparisons* Exhibition



The relationship between demographic characteristics and a person's background in the visual arts follows an intuitive pattern, for the most part. Women were more likely to have studied the arts (25.6 percent versus 14.9 percent) and men who are professionals or create art outnumbered their female counterparts. Gender made little difference for people considering a career in the arts or who read about the arts. The more specific interests of women result in a larger proportion of men indicating a general interest in art (49.4 percent versus 41.2 percent).

Visual arts background did not vary by racial/ethnic identification nor by residence. Education, however, does factor into experience with the arts. A majority of the professionals in the arts had achieved a graduate education (57.6 percent) with another third (33.5 percent) indicating college graduation. People who had studied the arts had at least a bachelor's degree (64.5 percent) while those people who wanted a career in the arts reported that they had some college education (49.4 percent) or a bachelor's degree (23.0 percent) as they were still in the educational system. Individuals who reported creating art were equally distributed across educational categories, the largest group being those with graduate degrees (27.5 percent). Those who indicated that they read arts publications and those who had a general interest in the arts without being more specific tended to have graduate level education (46.9 and 50.4 percent respectively).

Consistent with the just reported results for education, we found a relationship between age and specific categories of art experience. While imperceptibly affecting the totals, the majority (64.4 percent) of young children (under age 12) were quick to respond that they were involved in "creating art," followed by a general interest in art (30.5 percent). Without implying the direction of causality, it may be that children seen as "creative" by their parents are brought to art museums

or that visits to art museums increase the likelihood of active engagement with art. These responses may also reflect our social/cultural conditioning; that is, what is considered "creative" or "creativity" varies considerably both as individuals view or describe themselves and as they are viewed by others. Thus, it may be that the definition used by children is broader than a more restrictive one used by older individuals.

We also find that young adults, ages 20-24, are much more likely than other groups to report experience with college art courses. Earlier, we had noted that visitors to HMSG were younger than those visiting art museums devoted to older or historical, rather than modern or contemporary, periods. It may be that the exposure to modern art in college, perhaps more likely among younger people than older visitors, makes them predisposed to visit a non-traditional museum such as HMSG.

Visits to Museums and Galleries

For the majority of people at HMSG during this study, this was not their first visit to a Smithsonian facility (72.1 percent). About half (49.8 percent) of the visitors to *Comparisons* were new to HMSG. Of the repeat visitors, 41.1 percent had been to HMSG in the 16 months prior to the survey. When we look at these visits by residence, in Figure 2.7, we note that three-fourths (76.8 percent) of local residents and 40.8 percent of non-local visitors had visited the HMSG previously. At NMAA/NPG we found that 82.9 percent of Washington, D.C. residents and 64.1 percent of suburban residents indicated that they had visited NMAA/NPG before. Comparatively, 26.9 percent of other U.S. residents and only 8.0 percent of foreign visitors had visited NMAA/NPG before.¹⁸

During the interview, respondents were asked where or how they first heard about the *Comparisons* exhibition. The majority of people (72.5 percent) happened upon it during their visit to HMSG. If a visitor had heard about the exhibition in advance, the source was most likely print media (13.2 percent) or family or friends (9.8 percent).¹⁹ In our study of NMAA/NPG, we found that local visitors were more likely than others to report coming specifically to visit an exhibition rather than one of the museums in general (65.9 percent compared to 25.7 percent). At *Comparisons*, while the "accidental visitor" who had no previous knowledge of the exhibition predominated, it is also the case that local residents were more likely to have previous knowledge (37.4 percent), compared to non-local visitors. As shown in Figure 2.8, the local residents who indicated prior knowledge of the exhibition reported that it was primarily from print media (68.9 percent) followed by family and friends (22.2 percent). Non-local visitors either heard about the exhibition from family or friends (43.2 percent of those with prior knowledge), the print media (36.9 percent) or were attracted to the exhibition by a sign (14.9 percent).

¹⁸ See Z. D. Doering with the assistance of E. K. Ziebarth, *Museum Images*, Figure 3.5, p.16.

¹⁹ Press coverage for this exhibition was relatively extensive. A number of syndicated columnists wrote about the exhibition, focusing on the opportunity for visitor feedback. Personal communication with HMSG Public Affairs Office, July 10, 1992.

Figure 2.7

Visitor Experience with the Smithsonian and HMSG.
Local Residents and Non-local Visitors

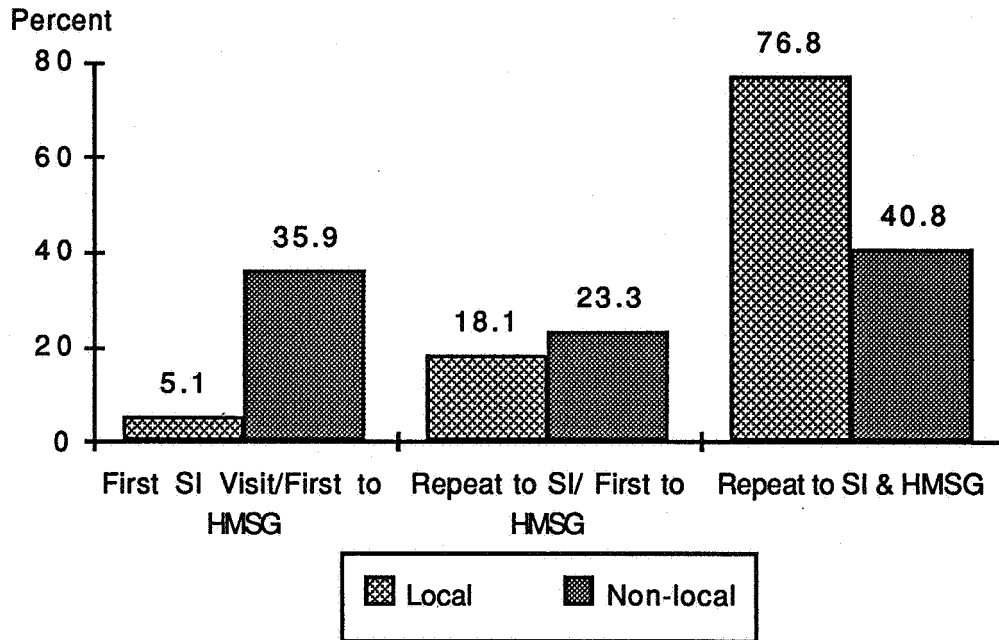
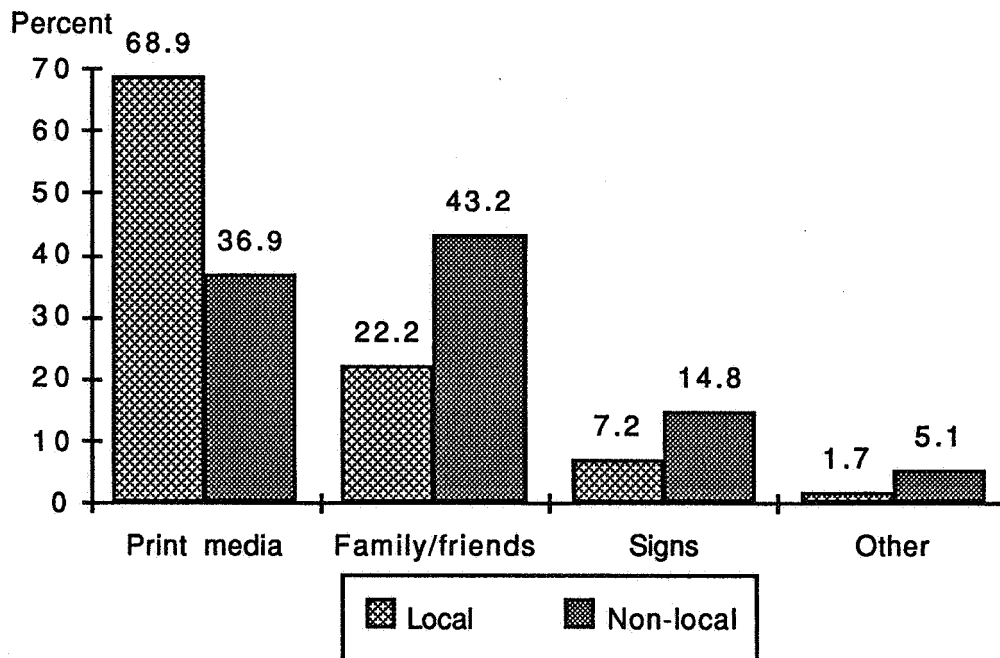


Figure 2.8

Sources of Information about *Comparisons* Exhibition for Visitors with Prior Knowledge.
Local Residents and Non-local Visitors



The visit to the HMSG, in addition to being viewed in the context of a Smithsonian visit, should also be examined in the context of the respondents' experience with art facilities more generally. In addition, since museum visits are of a voluntary nature, these data would provide us with additional information about exposure to the visual arts. Respondents were thus asked how frequently they visited art museums and private art galleries. An explanation of what constituted the difference between an art museum and a private art gallery was often necessary for respondents. For purposes of this study, we defined private art galleries as places dedicated to the sale of the art work on display.²⁰ The results of these questions are shown in Figure 2.9. Most (70.8 percent) HMSG visitors go to art museums every few months or more frequently. However, they visit art galleries less frequently (42.6 percent report going every few months or more often). The wealth of opportunity to visit art museums in the Washington metropolitan area is clearly indicated by differences between local and non-local visitors in reported attendance. Residents of the U.S. interviewed at HMSG go to art museums and galleries quite frequently (89.1 percent visit art museums once a year or more often and 62.6 percent visit art galleries once a year or more frequently). If we exclude local people, the percentage drops considerably to 61.7 percent for art museum visits once a year or more often and 44.6 percent for gallery visits.²¹

A visitor's education level contributes to the frequency of visits to art museums and art galleries. With few exceptions, the higher the education level the more likely an individual is to attend art museums.²² Those people who have not completed high school, i.e., are still in the educational stream, reported visiting art museums and galleries more frequently than adults with a high school education. The majority of people who said they never go to art museums, i.e., the visit to the HMSG was their first contact, were in the some college category. Attendance at art galleries was somewhat different as it was less highly correlated with education. The highest percentage of people who said they never visited galleries was in the bachelor's degree category while the highest percentage who visited every few years was in the graduate education category. Visiting a gallery, however, often implies an interest in making a purchase. Thus, younger respondents (generally those with a college degree) are less likely to consider such activities.

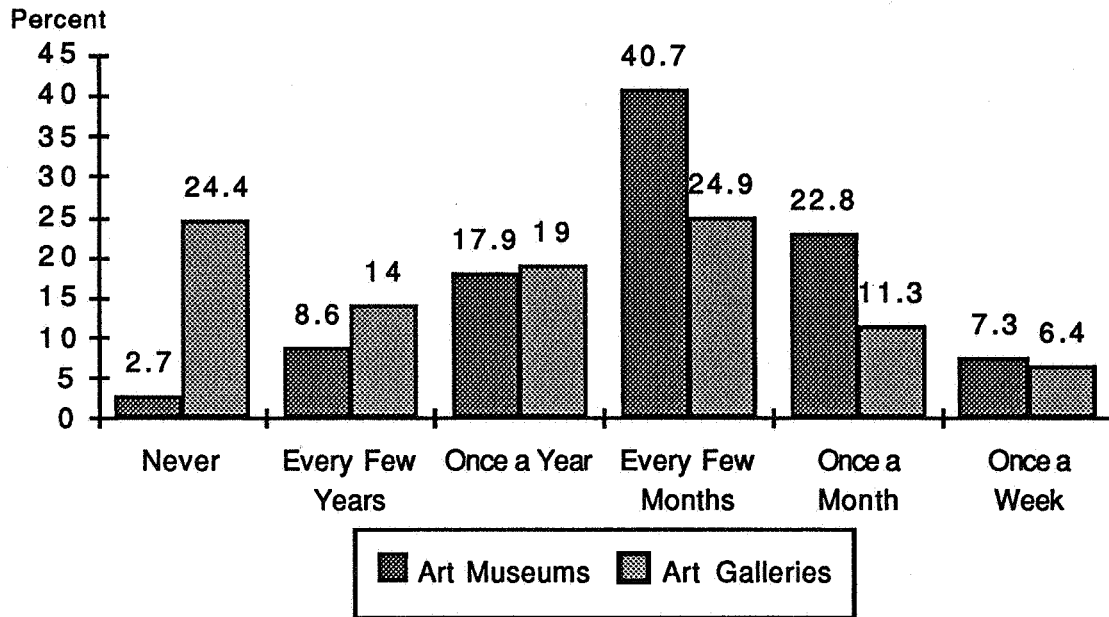
²⁰ The decision to ask respondents about art galleries arose from an interest in comparing these data with national data collected in the *1985 Survey of Public Participation in the Arts* (SPPA) sponsored by the National Endowment for the Arts, the U.S. Bureau of the Census and the University of Maryland. We recognized, in advance, that only a small percentage of museum goers may have experience or interest in art galleries. However, the SPPA asked "During the last 12 months, did you visit an art gallery or art museum?" Thus, by asking both components of the questions, a comparison of the data is possible. A detailed comparison of the two studies will be undertaken separately.

²¹ We have no comparative data for visits to art museums or galleries for other groups of Smithsonian visitors, as these questions were asked for the first time in this study. In reading this report, the reader should keep in mind that attendance at arts galleries or museums is a leisure time activity for only a portion of the American population. In the *1985 Survey of Public Participation in the Arts* (SPPA), 22 percent of the population responded that in the year preceding the survey they had "visited an art gallery or art museum." J. Mark Davidson Schuster, *The Audience for American Art Museums*, Research Division Report #23, National Endowment for the Arts, (Cabin John, MD: Seven Locks Press, 1991), p. 4.

²² National data from the 1985 SPPA also found a positive correlation between higher levels of education and the predisposition to visit art museums and galleries. See J.M. Schuster, *The Audience for American Art Museums*, p.5.

Figure 2.9

Visitor Experience with Art Museums and Art Galleries



As one would expect, a visitor's background in the visual arts affects the frequency of visits to art museums and to galleries. The relationships between visits and experience with the arts are shown in Figure 2.10 by focusing on frequent visitors (once a month or more often). Higher proportions of professionals attend both art museums and galleries (66.0 and 53.9 percent), followed by those who read art publications or have a career interest (41.9 and 36.5 percent for the former and 41.6 and 34.2 percent for the latter). Those with a general interest in art are least likely to attend.

Summary

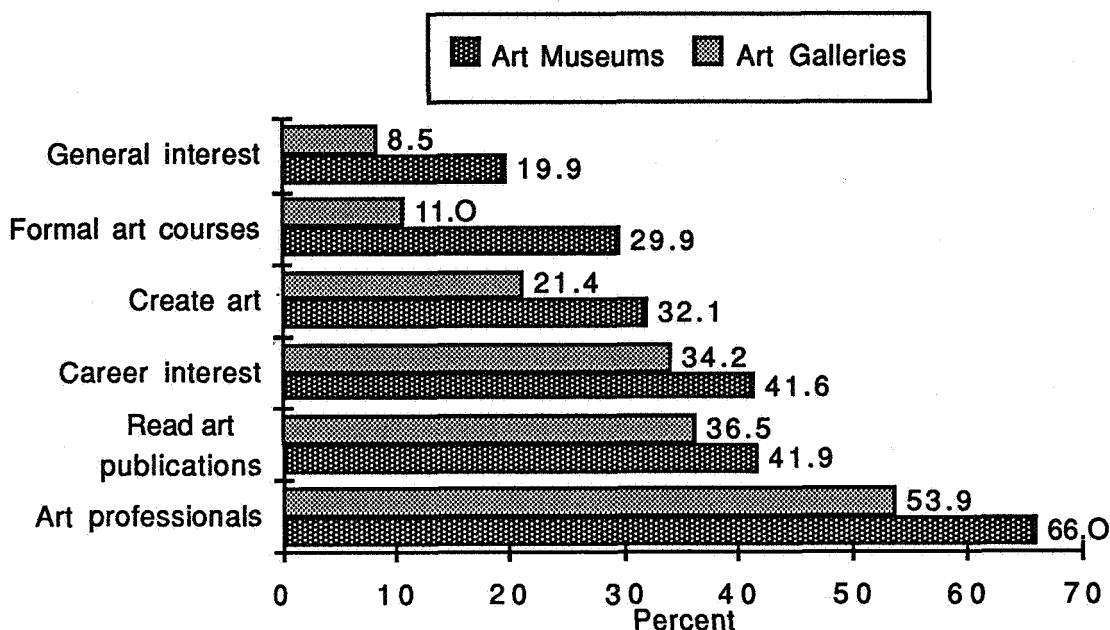
In this section, we have drawn a portrait of the visitors to the exhibition both in terms of their demographic characteristics and their experience with the visual arts. These data are presented both for general information and as background for our analysis of the exhibition experience.

Somewhat more women than men visited the *Comparisons* exhibition. Forty-six percent of the visitors interviewed were men and 53.4 percent of the visitors were women. Visitors to the exhibition were relatively young with over half (53.0 percent) under age 35 and only 15.2 percent 55 years of age or older. Residents of 42 states and 21 countries were interviewed; 87.5 percent were from the United States and 12.5 percent were from foreign locations. "Local visitors," defined as those from the Washington metropolitan area, were 25.8 percent of the total sample and non-locals from other U.S. locations were 61.6 percent of the total (the remainder were foreign). At HMSG, 88.5 percent of the visitors were

Caucasian and 11.5 percent were minority group members. One-third of the minorities but only 10 percent of the Caucasians live outside the United States.

Figure 2.10

Frequent (Once a Month or More Often) Visitors to Art Museums and Art Galleries,
by Visual Arts Background



The audience for HMSG is predominantly adult. Four-fifth of the visits were made by one, two or several adults (79.1 percent). Only 16.4 percent of the visitors to HMSG brought their children. Overall, 67.0 percent of the visits made to the exhibition were by people with at least a bachelor's degree. Visitors from the Washington metropolitan area have higher education levels, with 79.9 percent reporting at least a bachelor's degree. Among all adult visitors over age 25, i.e., individuals who can be assumed to have completed their formal education, we find that 82.3 percent have at least a bachelor's degree.

Almost half of the respondents (45.6 percent) said they had a general interest in art, without indicating formal study or art as an avocation or vocation. The rest (54.4 percent) were more specific. Another 20.4 percent of the visitors had studied art appreciation or the studio arts, primarily in college. Those people who created art for their own enjoyment made up 13.7 percent of the total sample, followed by professionals in the arts at 10.4 percent, those who read about the visual arts at 5.2 percent and those who are pursuing a career in the arts at 4.7 percent.

Most (70.8 percent) HMSG visitors go to art museums every few months or more frequently. However, they visit art galleries less frequently (42.6 percent report going every few months or more often). Residents of the U.S. interviewed at HMSG go to art museums and galleries quite frequently (89.1 percent visit art museums once a year or more often and 62.6 percent visit art galleries once a year or more frequently).

With few exceptions, higher education increases the likelihood of going to art museums. The majority of people who said they never go to art museums, i.e., the visit to the HMSG was their first contact, were in the some college category. Attendance at art galleries was somewhat different, i.e., was less highly correlated with education.

The majority of people (72.5 percent) did not come to the HMSG specifically to see the *Comparisons* exhibition. Rather, they happened upon it during their visit to HMSG. If a visitor had heard about the exhibition in advance, the source was most likely print media (13.2 percent) or family or friends (9.8 percent). Local residents were more likely to have previous knowledge (37.4 percent), compared to non-locals. Similarly, local residents who indicated prior knowledge of the exhibition reported that it was primarily from print media followed by family and friends.

Almost three-fourths of the HMSG visitors had been to a Smithsonian facility previously (72.1 percent) whereas about half (49.8 percent) were new to HMSG. Of the repeat visitors, 41.1 percent had been to HMSG in the 16 months prior to the survey (since January 1990). Three-fourths (76.8 percent) of local residents and 40.8 percent of non-local visitors had visited the HMSG previously.

III. Visitor Experience with the *Comparisons* Exhibition

Introduction

As indicated in the first section, the underlying assumption behind the *Comparisons* exhibition was that exposure to the exhibition's didactic materials, either the text panels or the brochure, would help visitors analyze and consider the pairs of art objects on display. Reading these materials would help visitors develop a better appreciation of both the particular objects and of the *process* of exploring works of art. It was also assumed that many visitors to HMSG come with limited exposure to contemporary art and perhaps some reluctance to embrace it. An exhibition which offered a framework for viewing would enhance the visit to the exhibition and thus demystify these and similar works of art. It was hoped that a positive experience at this exhibition would enrich the rest of the HMSG visit and, in the long run, subsequent visits to this and other museums of contemporary art.

In this section, we focus on visitors' responses to the *Comparisons* exhibition itself. First, we will explore the relationship between audience characteristics and the use of the exhibition text panels and brochure. This is important since the exhibition relies on these didactic materials extensively. We will look at the length of time that visitors reported spending in the exhibition. We will then discuss visitor perceptions of both the main purpose of the exhibition and the appropriate audience for it. These data are used to assess the extent to which the exhibition's goals were effectively communicated. Finally, we will discuss visitor thoughts on the amount of gallery space they would allocate to this type of exhibition. The results are used as an indicator of the public's interest in such exhibitions.

Use of the Text Panels and the Brochure

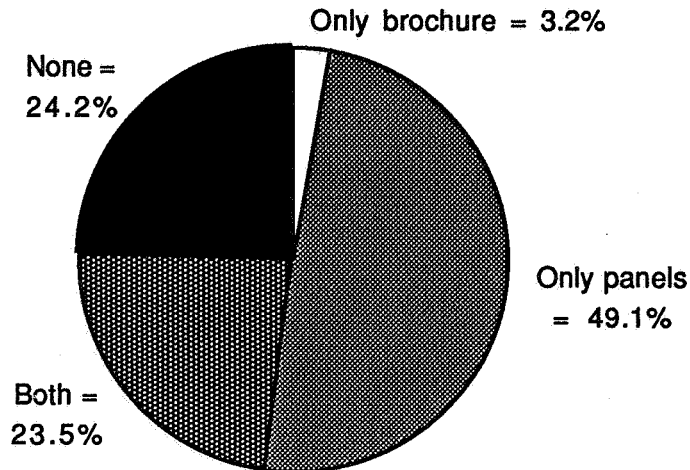
Understandably, for most visitors the text panels rather than the brochure were the primary medium for communicating the purpose of the exhibition. Three-quarters of the people interviewed read either the text panels, the brochure or both (75.8 percent). About half (49.1 percent) read the panels only and another 23.5 percent used the panels and brochure in combination, while only 3.2 percent relied exclusively on the brochure (Figure 3.1).

Although 26.7 percent of the visitors reported using the brochure in the exhibition, either alone or in combination with the panels, over half (58.6 percent) of all the visitors picked one up in the exhibition or elsewhere in the museum.²² Some of those who had the brochure relied on the panels in the exhibition for information (24.1 percent of the total); others who had the brochure did not read it or the text panels (8.4 percent) (Figure 3.2). A number of people commented that they liked the brochure and planned to peruse it at home. In effect, the brochure

²² Brochures were available at the Information Desk in the HMSG Lobby, at the entrance to the exhibition and in a vitrine outside the exit to the exhibition. Individuals who picked up the brochure either in the museum lobby or at the exhibition entrance obviously had the opportunity to use it in the exhibition. Those who picked it up at the exit prior to being interviewed did not have the chance to use it in the exhibition. However, our interviewers were stationed before the exit vitrine; thus, the responses shown here refer only to people who had the option of picking up a brochure prior to seeing the exhibition (at the Information Desk or at the exhibition entrance).

Figure 3.1

Visitor Use of Didactic Materials in the *Comparisons* Exhibition



became a souvenir and its information was more likely to have been "consumed" after leaving the exhibition. The design of the brochure, as shown in Appendix A, enabled the visitor to use it independent of the exhibition visit. Thus, the "exhibition message" was portable and, some visitors undoubtedly gained a better understanding of the exhibition after their visit.

Reading the materials was related to a number of audience characteristics. While 75.8 percent of all visitors reported reading, a gender difference is evident; 82.3 percent of women and only 70.6 percent of men used the didactic materials. As shown in Figure 3.3, college graduates were more likely to read (85.2 percent) than visitors with other educational levels. A lower proportion of those with a high school education or less used the materials (71.1 and 65.4 percent, respectively). Also, minority group members were less likely to read the materials than non-minorities (65.0 percent versus 77.7 percent). In part, this may be the result of language difficulties and other cultural factors since one-third of the minority visitors were from overseas.

Figure 3.2
Use of Didactic Materials in *Comparisons* Exhibition by Visitors who Had or Did Not Have Brochure

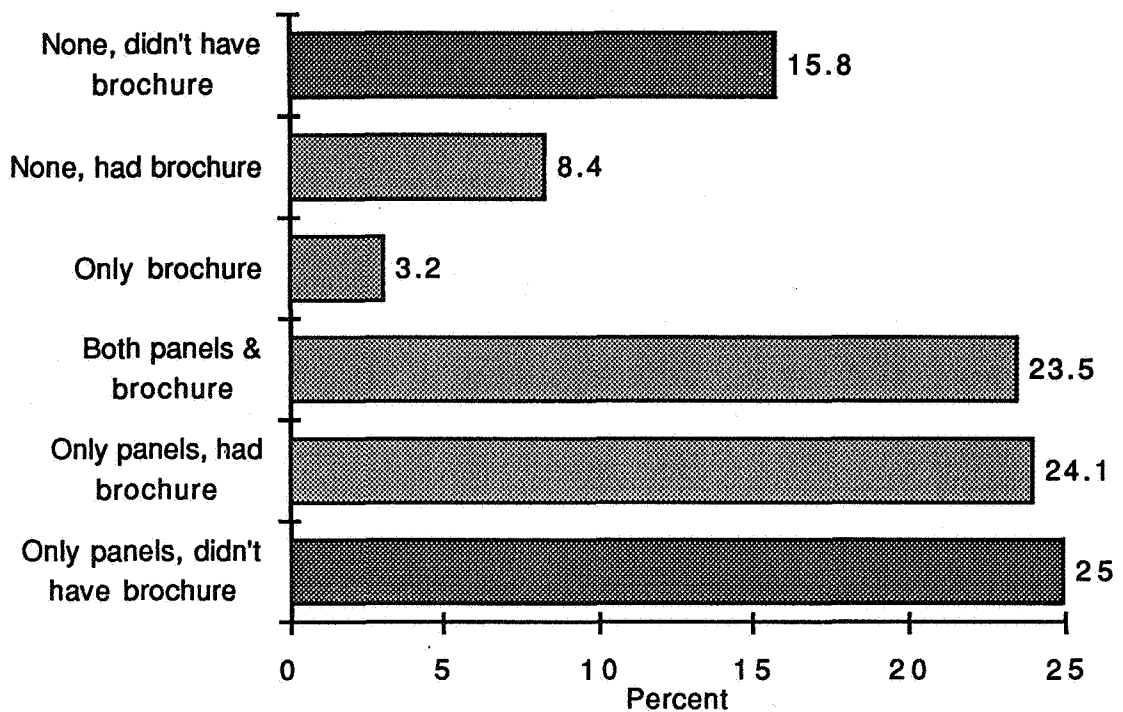
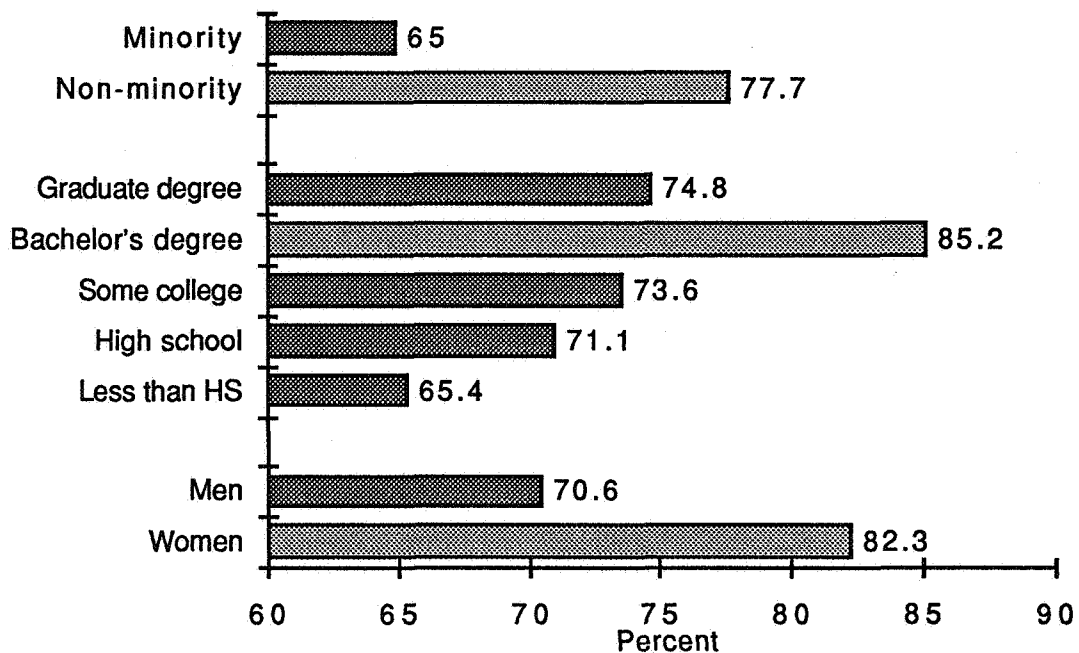


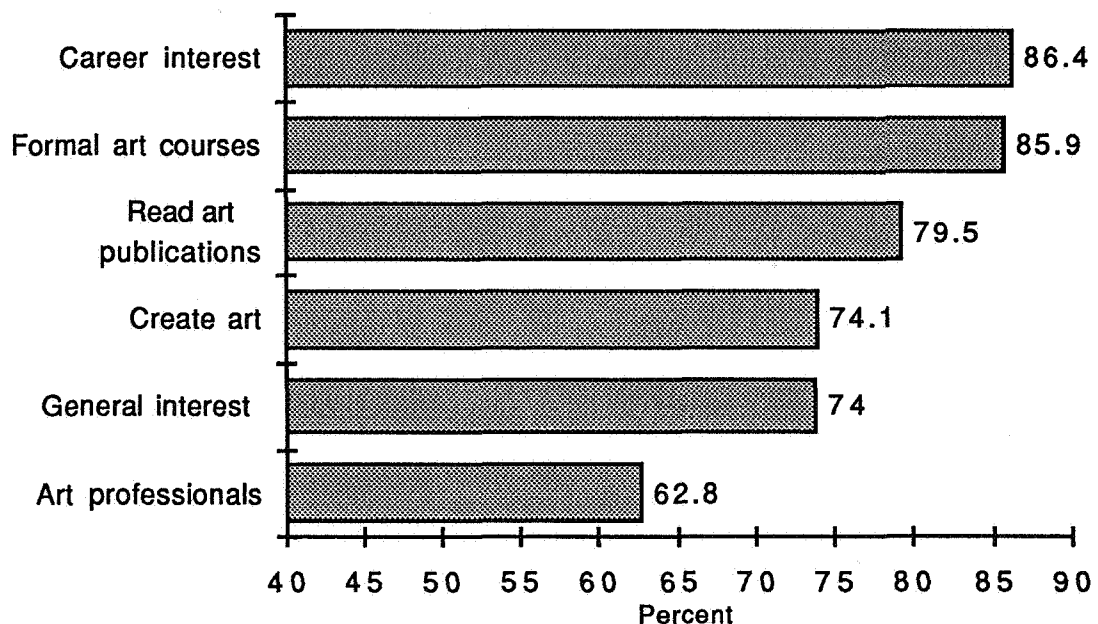
Figure 3.3
Reported Reading of Didactic Materials in *Comparisons* Exhibition, by Demographic Characteristics
 Total = 75.8%



The use of the didactic materials provided at the exhibition was influenced by visitors' experience with the visual arts. As shown in Figure 3.4, those people considering an art related career or who had formal arts courses paid more attention to the reading materials (about 86 percent), than the art professionals (62.8 percent). A plausible explanation is that the latter may feel that they have the necessary background for appreciating the art and do not necessarily need the guidance offered by the exhibition while the former may have an interest in the display technique as much as the didactic materials. Three-fourths (74.0 percent) of those with a general interest or who create art for enjoyment read the didactic materials.

Figure 3.4

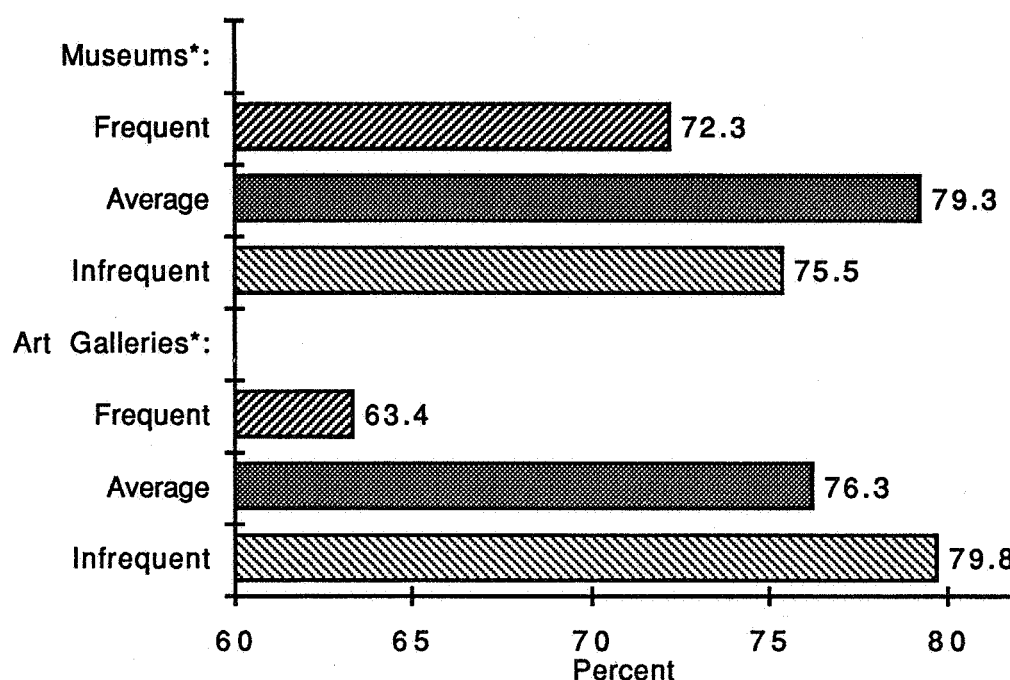
Reported Reading of Didactic Materials in *Comparisons* Exhibition.
by Art Background
 Total = 75.8%



When we look at the relationship between reading the materials and experience with museums and galleries the results are not so obvious (as shown in Figure 3.5). The proportion of readers is lowest among frequent museum visitors, followed by infrequent and then average visitors. However, as self-reported gallery visits decrease, the frequency of reading the text panels and/or the brochure increases. This is particularly noticeable among those persons who visit art galleries frequently (at least once per month) and the other two groups.

Figure 3.5

Reported Reading of Didactic Materials in *Comparisons* Exhibition, by Frequency of Visits to Museums and Galleries
Total = 75.8%



*Key:

Frequent = Once a month or more
Average = Every few months
Infrequent = Once a year or less

In the discussion thus far, we have examined each of the various background characteristics (gender, education, race/ethnic identification and experience with the arts) separately in relation to reading the didactic materials. Research techniques exist, however, for examining several characteristics simultaneously and estimating the probability that certain types of individuals would or would not read the materials. In calculating the probability of an exhibition visitor reading the didactic materials, we conceptualize "reading" as a discrete act. In these models, each person who read the materials received a score of 1 and the people who did not read received a score of 0. We can then ascertain the unique or net contribution of each background variable (independent variables) in the likelihood of perusing the exhibition brochure and/or panels.²³

²³ This multivariate technique, called a "logistic regression," has been utilized in earlier ISO reports. See Z. D. Doering, R. D. Manning and K. J. Black, *Transportation to the National Air and Space Museum (NASM): Based on the 1988 NASM Survey*. Working Paper 89-2. (Washington, D. C.: Smithsonian Institution, 1989) and R. D. Manning and Z. D. Doering, *Methodological Issues of a Complex Sample Design: Visit Patterns at the National Air and Space Museum*. Paper presented at the annual meeting of the Society for Applied Sociology, October 1990. Readers interested in the details of these analyses are directed to Appendix D and Tables D.1 and D.2.

The first model, described in Appendix D, considers only demographic factors and assumes that all exhibition visitors had exactly the same level of arts experience, but varied by demographic characteristics. The results show that the probability of reading increases if a respondent is female, decreases if a respondent is a member of an ethnic or cultural minority group, and increases with higher levels of educational achievement. Education, however, has the greatest influence on whether someone will read the exhibition materials, independent of the influence of gender or racial/ethnic identity.

The second model predicts reading for arts experience factors, assuming that all demographic characteristics are equal across individual respondents. Experience with arts institutions was measured in terms of frequency of visits to museums and art galleries. Personal background in the arts, both formal and informal, was measured on the basis of the self-reports discussed in a previous section. The results show that as frequency of museum attendance rises, the probability of reading increases, although the amount of increase is slightly smaller for frequent museum goers than for those who go an average number of times. We interpret this effect as a function of individuals becoming accustomed to the museum environment and with art itself. In contrast, as gallery attendance increases the probability of reading falls precipitously. We attribute this to familiarity with the arts as well, in this case familiarity with the private, for profit, art market rather than with the public arts community.

Type of background in the arts is quite important in the second model. For individuals who study the arts or read art publications, the probability of reading increases substantially compared to those with a general interest in the arts. For those with a professional interest in the arts, the increase in the probability of reading is not statistically significant.

In a final mathematical model, we analyzed all of the demographic and arts experience factors simultaneously. This model gives us the most complete picture of visitor activity patterns in the *Comparisons* exhibition. We observe a pronounced effect of educational attainment followed by the effect of having taken art courses/read art publications on the probability of reading. Table D.2 shows that Caucasian women who visit museums every few months have the highest probability of reading the exhibition materials. This is true for all combinations of education and arts backgrounds. This suggests that the people most likely to read exhibition materials like those in *Comparisons* are those with moderate experience going to museums, not museum neophytes. However, these findings suggest that reading exhibition materials is part of the process of becoming familiar with art, since those persons who go to museums frequently (and for that matter, galleries) tend to have a lower probability of reading than those who go every few months.

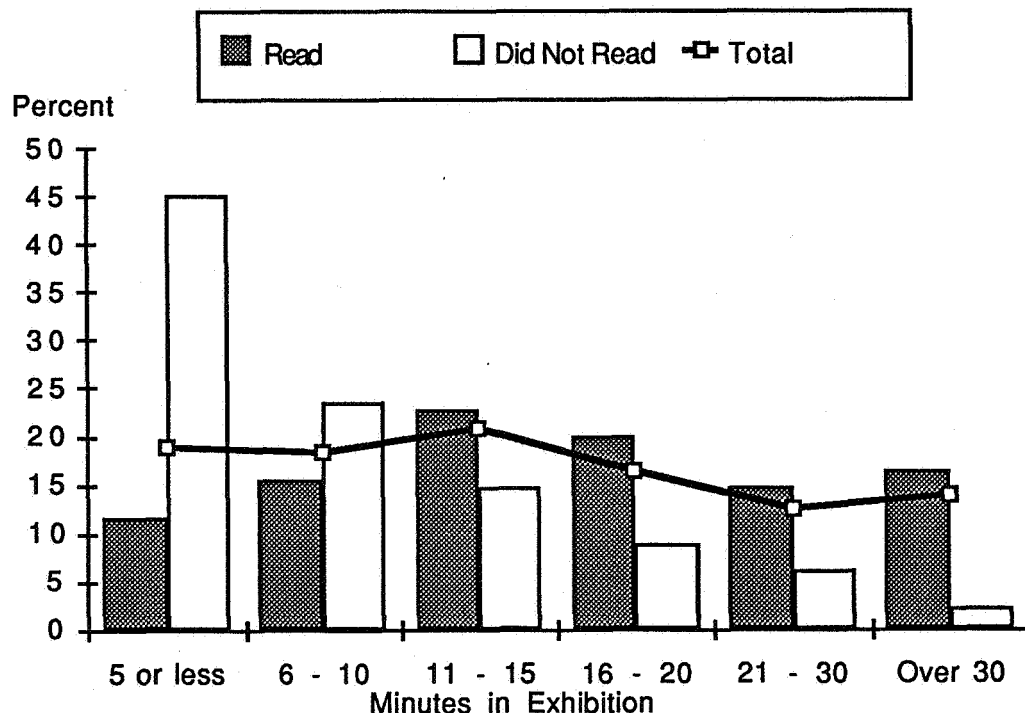
Amount of Time Spent in the Exhibition

Intuitively, we expected that there would be a relationship between the amount of time spent at the exhibition and visitors' responses to it. Unfortunately, we do not have an independent measure of time spent; rather, we only have visitors' self-reported duration of visit. Thus, the resultant data represent visitors' perceptions of

time rather than actual time.²⁴ The data, therefore, should be interpreted with care. In Figure 3.6, we see the reported time distribution, for the total sample as well as for those who read the didactic materials and those who did not. The figure shows the following percentages for each of the time categories for the total: 0-5 minutes at 18.7 percent, 6-10 minutes at 18.3 percent, 11-15 minutes at 20.7 percent, 16-20 minutes at 16.2 percent, 21-30 minutes at 12.4 percent and over 30 minutes at 13.7 percent. Slightly over half (57.7 percent) spent 15 minutes or less, another fourth (28.6 percent) spent between 15-20 minutes, and the rest (26.1 percent) spent more than 20 minutes. As expected, Figure 3.6 shows rather dramatically that those who did not read the didactic materials were considerably more likely to spend less than 5 minutes in the exhibition (45.1 percent of those who did not read, compared to 11.5 percent of those who did).

Figure 3.6

Visitors' Reports of Time Spent in the *Comparisons* Exhibition.
Total and by Use of Didactic Materials



One way to assess these data is to compare them to other visitors' reports of time spent in exhibitions. Over the past several years, visitor reports of time spent were collected for two other exhibitions; the first, an exhibit of Zaire textiles at the National Museum of African Art (NMAfA) and the second, an exhibition about gender roles at the National Museum of American History (NMAH).²⁵ As shown in

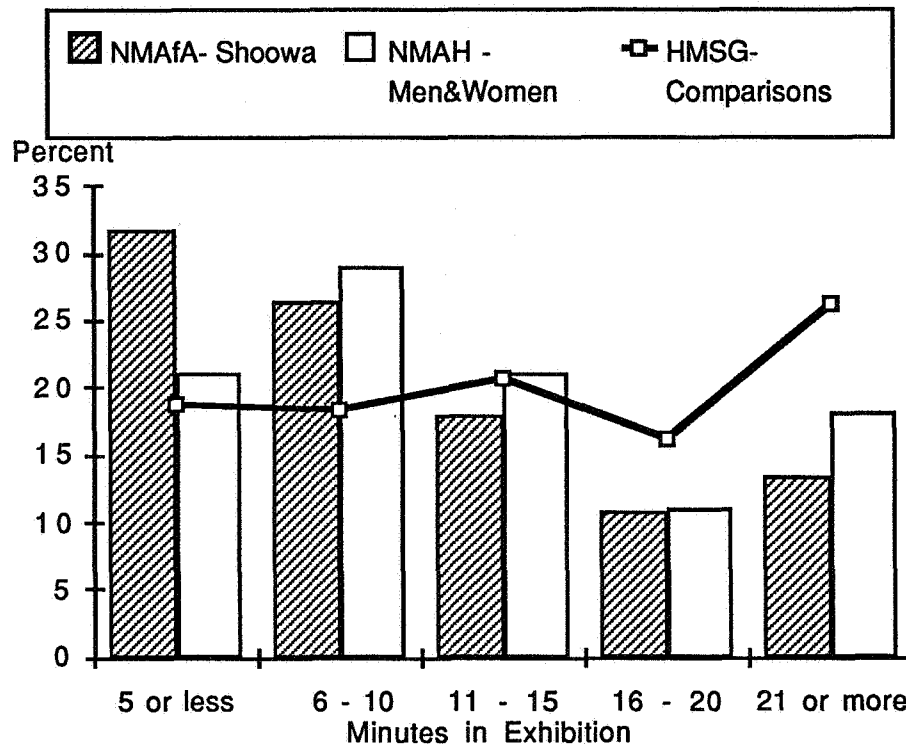
²⁴ In addition, the responses were coded into discrete categories (5 minutes each for the first 20 minutes, then 21-30 minutes and an open-ended "over 30 minutes"). This coding scheme limits our ability to conduct a precise analysis of time spent in the exhibition.

²⁵ See Z. D. Doering with the assistance of L. Mathai, *Visitors' Assessment of Educational Materials at Shoowa Design: Raffia Textiles from Zaire*. National Museum of African Art. Report

Figure 3.7, visitors to *Comparisons* reported longer exhibition visiting periods than did visitors to the other two exhibitions. While there are differences between both the populations of visitors and the content of the three exhibitions, the format of *Comparisons* appears to have engaged visitors sufficiently so that they spent (or reported spending) more time in it compared to the other two exhibitions.²⁶

Figure 3.7

Visitors' Reports of Time Spent in Exhibitions: *Comparisons*, NMAfA's *Shoowa* and NMAH's *Men & Women*



The time spent reported in *Comparisons* varied among different groups of exhibition visitors. Extended visits were reported by those with high levels of education, those who were older (especially those 55 or older), women and non-minorities. Local visitors reported spending greater time, compared to non-locals. The difference is especially clear among those who spent more than 20 minutes; one-third (33.9 percent) of Washington metropolitan area visitors compared to one-fifth (21.8 percent) of non-locals. The former, more likely to make a special visit to the Mall to see a specific exhibition, undoubtedly had more time in comparison to non-local visitors whose visit included multiple exhibitions and/or museums.

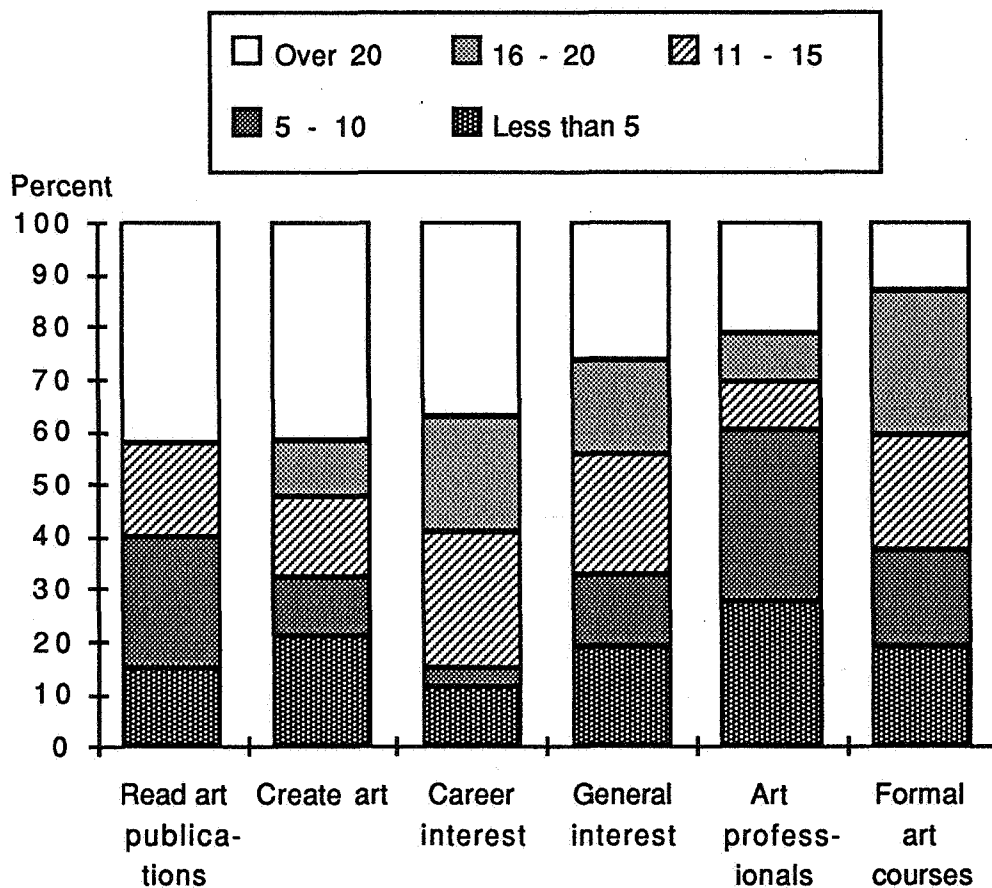
88-4. (Washington, D.C.: Smithsonian Institution, 1988), p. 13 and C. L. Fronville, *Men and Women: Costume, Gender and Power*. Report 90-11. (Washington, D. C.: Smithsonian Institution, 1990), p. 19.

²⁶ The *Comparisons* exhibition was 2800 sq. ft. and included 30 objects. *Shoowa* at NMAfA was 4700 sq. ft. and included 111 objects. *Men and Women* at NMAH was 7600 sq. ft. and contained 750 objects and 750 graphic images.

While visitors who attended museums infrequently reported somewhat shorter times in the exhibition than those who came every few months, the differences are not substantially significant. However, frequent gallery visitors tended to report shorter times compared to the rest. As expected, visitors' art background and reported time spent are clearly related, as seen in Figure 3.8. Individuals who read art publications, create art for their own enjoyment or are considering careers in the arts reported the most time at the exhibition. Art professionals and those who studied art spent the least amount of time. Previously we saw that professionals were the smallest percentage of those who reported reading the exhibition materials compared to other groups (Figure 3.4). This is consistent with their relatively brief time at the exhibition. Most visitors who reported formal art training, however, reported reading the didactic materials; yet, they spent the least time in the exhibition. It may be that their training enables them to "scan" and to absorb relatively quickly the didactic materials rather than to take the time to actually read the materials.

Figure 3.8

Visitors' Reports of Time Spent in *Comparisons* Exhibition, by Arts Background

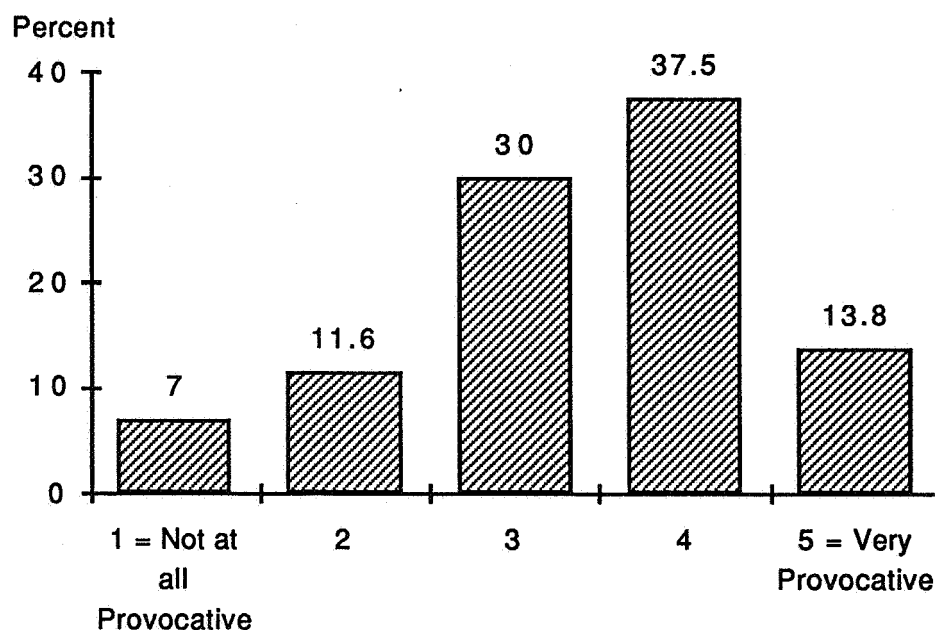


Audience Engagement through Questions in the Text Panels and Brochure

During the course of the survey, if a visitor reported that they read the text panels and/or the brochure they were asked to rate how thought provoking they found the questions posed (75.8 percent of all visitors). To simplify their evaluation, they were asked to select a number on a scale of one to five (where one was not at all provocative and five was very provocative). Figure 3.9 shows the results.²⁷ The most common response, selected by 37.5 percent of the respondents, was a four -- a favorable reaction. This is followed by people who were rather neutral, as expressed by their rating of three (30.0 percent), those who chose a rating of five (13.8 percent), those who chose a rating of two (11.6 percent), and those who chose a rating of one (7.0 percent). Overall, visitors rated the level of question provocativeness at an average of 3.4; the median, or one-half of the respondents, gave a more positive evaluation of 4.0. This is due to the clustering of low scores (1 and 2).

Figure 3.9

Visitor Rating of Provocativeness of Comparisons Panel/Brochure Questions



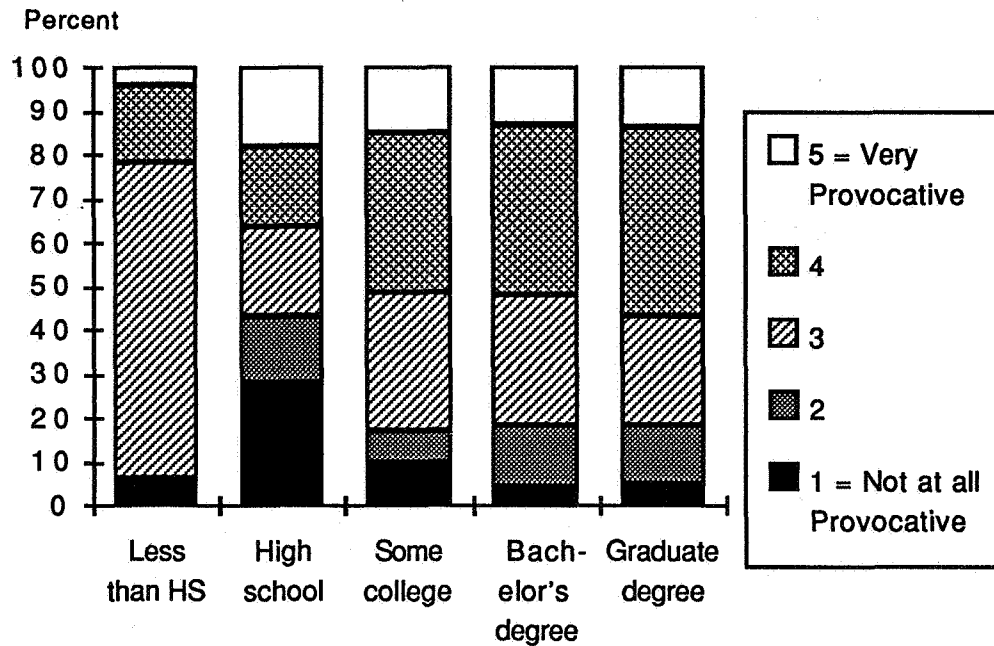
Among the visitors who gave an actual rating, their level of education was the most important influence on how they perceived the questions posed in the exhibition (Figure 3.10). The most frequent rating by people with less than a high school education was a three, indicating that they were neutral about the questions (71.8 percent). People in the high school degree category tended to have a negative reaction to the questions, giving them a rating of one (27.8 percent). Those people with some college education or a bachelor's or graduate degree had

²⁷ Very few respondents who reported reading the exhibition materials did not answer this question; they are excluded here.

an increasingly positive predisposition towards the questions; 35.8 percent in the some college category, 38.9 percent in the bachelor's category and 42.6 percent in the graduate category chose a rating of four. Age data coincide with education, where people under 20 years of age chose a rating of three most of the time (53.3 percent) and everyone over 20 tended to choose a rating of four.

Figure 3.10

Visitor Rating of Provocativeness of Comparisons Panel/Brochure Questions, by Educational Attainment



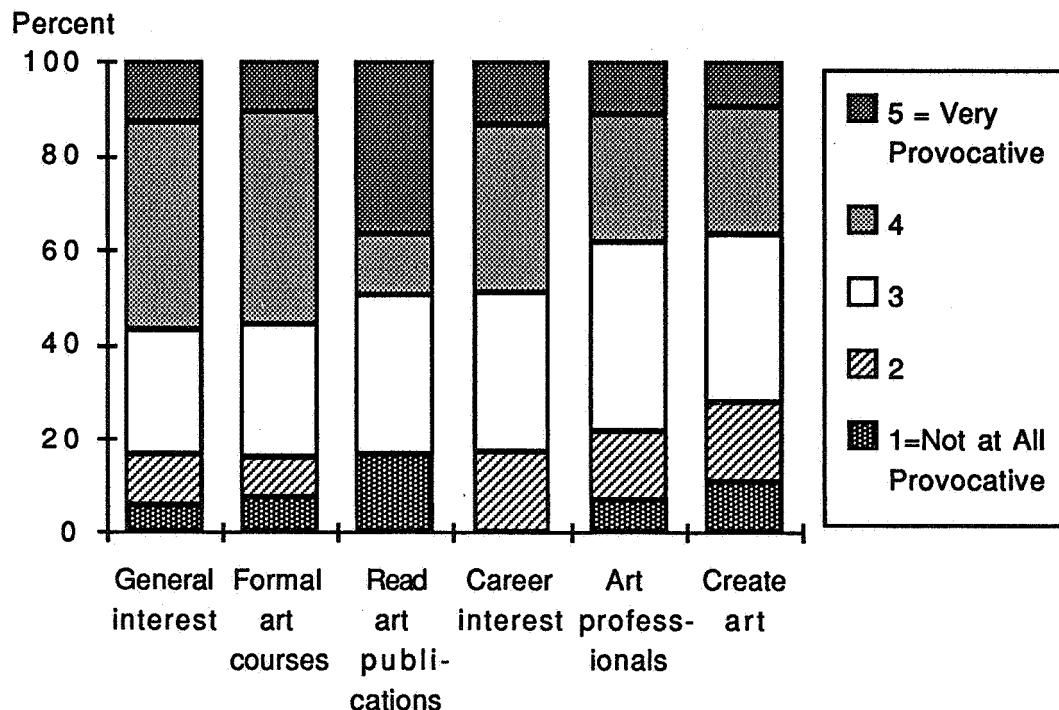
In examining other demographic characteristics, non-minorities most often chose a rating of four (38.2 percent) and minorities chose a rating of three (57.3 percent). Women were more favorable than men about the questions; over half (57.2 percent) of the women chose a rating of either four or five compared to 42.8 percent for men.

When considering visual arts background in terms of the rating of the questions, general interest visitors and people who studied the arts were the most positive (43.7 and 45.2 percent, respectively, reported a rating of four). Respondents who read about art or who were considering a career in the arts followed, with about half giving a positive rating of a four or five. Professionals in the arts or those who created art, gave the lowest percentage of favorable ratings (Figure 3.11). Frequency of visits to art museums and galleries show a similar pattern for rating the questions. If a visitor said they went to art museums or galleries every few months or less often, they tended to choose a rating of four, i.e., positive evaluation. People who frequently visit art museums or galleries (once a month or more often) tended to be neutral about the questions. Again, the data suggest that the materials served their intended purpose. The questions tended to provoke thought on the part of those with the least experience in the arts: those with a general

interest and those with limited experience in visiting art museums or galleries. The data also imply that greater familiarity or professional ties to the arts made respondents less likely to consider the questions to be provocative.

Figure 3.11

Visitor Rating of Provocativeness of *Comparisons* Panel/Brochure Questions, by Visual Arts Background



The results of the ratings shown above nevertheless raise several questions about the content of the didactic materials given the narrow range of ratings and their clustering around a neutral or somewhat positive score. It may be that the questions themselves were not especially thought provoking; rather, that the very presence of questions was provocative. Put another way, the fact that HMSG was asking questions -- any question -- may have stimulated visitors to think about the art. It may also be the case that visitors were reluctant to critique the questions. In several other situations, we have observed a tendency on the part of visitors to hesitate when asked to express a critical opinion about a Smithsonian offering.²⁸ Something similar may have happened here. The query about the questions in the panels and/or brochure was the only time in the interview when the respondent was asked to rate what HMSG did and the question may have implied, unintentionally, an "expected response." (The actual wording was, "On a scale of 1 to 5, how thought provoking did you find the questions posed in the text panels and/or the brochure?" [1 being not at all provocative and 5 being very provocative]).

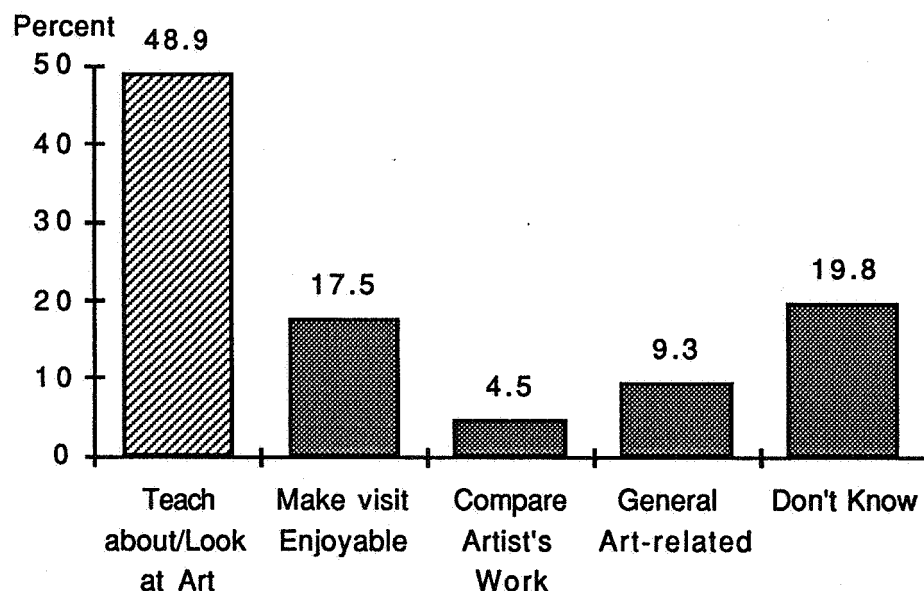
²⁸ See Z.D. Doering, *Visitors' Assessment of Educational Materials at Shoowa Design*, p. 16.

Perception of the Exhibition Purpose

If a visitor read the accompanying materials, to what extent did reading influence their response to the exhibition? Survey participants were asked what they saw as HMSG's main purpose in developing the exhibition. An analysis of the responses identified five main categories: the exhibition was designed to teach about art or how to look at art, to make the visit more enjoyable, to compare an artist's work, other very general responses or an answer of "Don't Know." Almost half of the visitors (48.9 percent) understood the purpose of the exhibition to be educational, followed by responses of "Don't Know" (19.8 percent), expressions of enjoyment as the purpose (17.5 percent), perceptions that the focus was on comparisons (4.5 percent) and a residual category of responses ("Other" at 9.3 percent). See Figure 3.12 below.

Figure 3.12

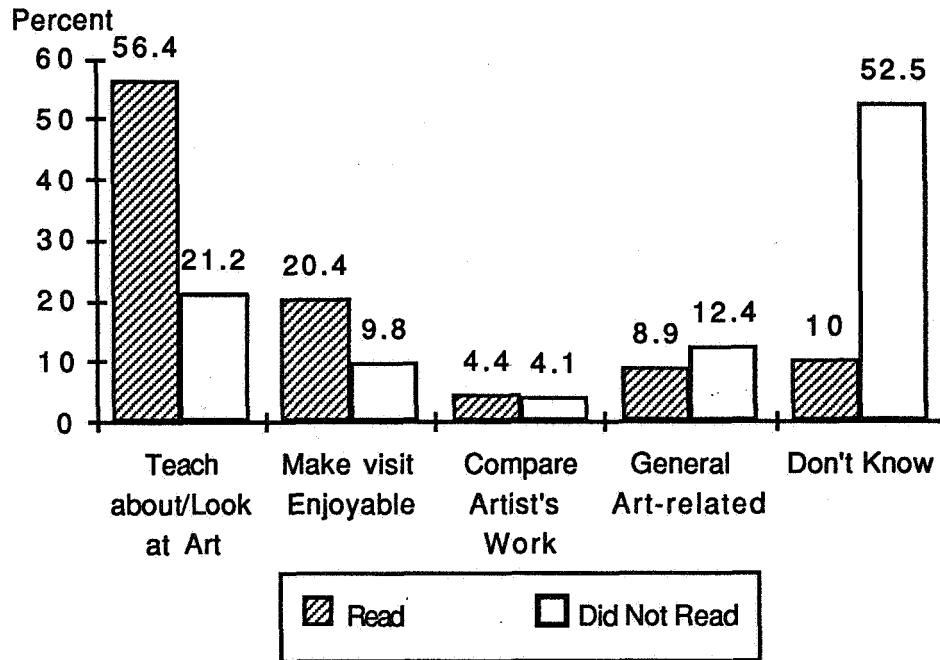
Visitors' Perceptions of the Purpose of the *Comparisons* Exhibition



Understandably, reading the text panels and/or the brochure greatly enhanced the visitor's ability to articulate an accurate purpose for the exhibition. Over half (56.4 percent) of the people who read said the purpose was to teach and another 20.4 percent thought the purpose was to increase enjoyment for the visitor. Only 10 percent of the people who read did not understand the main purpose of the exhibition. On the other hand, over half (52.5 percent) of the people who did not read said they did not know the purpose of *Comparisons*. A small percentage of people who did not read (21.2 percent) understood that the exhibition was educational, most likely from the display of the pairs of objects or the exhibition title.

Figure 3.13

Visitors' Perceptions of the Purpose of the *Comparisons* Exhibition, by Those who Read and Those who Did Not Read the Didactic Materials



An understanding that the purpose of the exhibition included making visitors more comfortable with modern art and educating them about how to examine art, clearly influenced how people rated the provocativeness of the questions. The visitors who felt that the exhibition purpose was to teach or to make the visit more enjoyable were more likely to give the questions a rating of four (40.2 percent and 49.8 percent, respectively). The people who felt comparison was the purpose of the exhibition tended to rate the questions with a three (50.0 percent) as well as people who gave other general answers (51.7 percent) or said they did not know its purpose (45.3 percent).

Education influenced a visitor's perception of the purpose. People with a high school education or less most frequently said they did not know what HMSG's purpose was in developing *Comparisons* (44.6 percent for less than high school education and 50.6 percent for high school education). The most frequent response in all other education categories was that the purpose was educational; 40.4 percent in the some college category, 54.1 in the bachelor's degree category and 53.3 percent in the graduate degree category.

A person's level of art gallery experience did not make much difference in naming a purpose for the exhibition but frequency of art museum visits is related to a perception of purpose. A small group of people (9.5 percent) who frequently visit art museums (once a month or more often) identified enjoyment as a purpose for the exhibition but tended to see it primarily as educational (61.0 percent). While two-fifths (43.3 percent) of HMSG visitors who go to art museums every few months

saw the exhibition as educational, another two-fifths thought it was created to increase enjoyment or did not know its purpose (22.1 percent and 17.2 percent, respectively). The infrequent art museum visitor usually thought the exhibition purpose was to teach (41.9 percent) but also gave an answer of "Don't Know" more often than other museum visitors (24.8 percent).

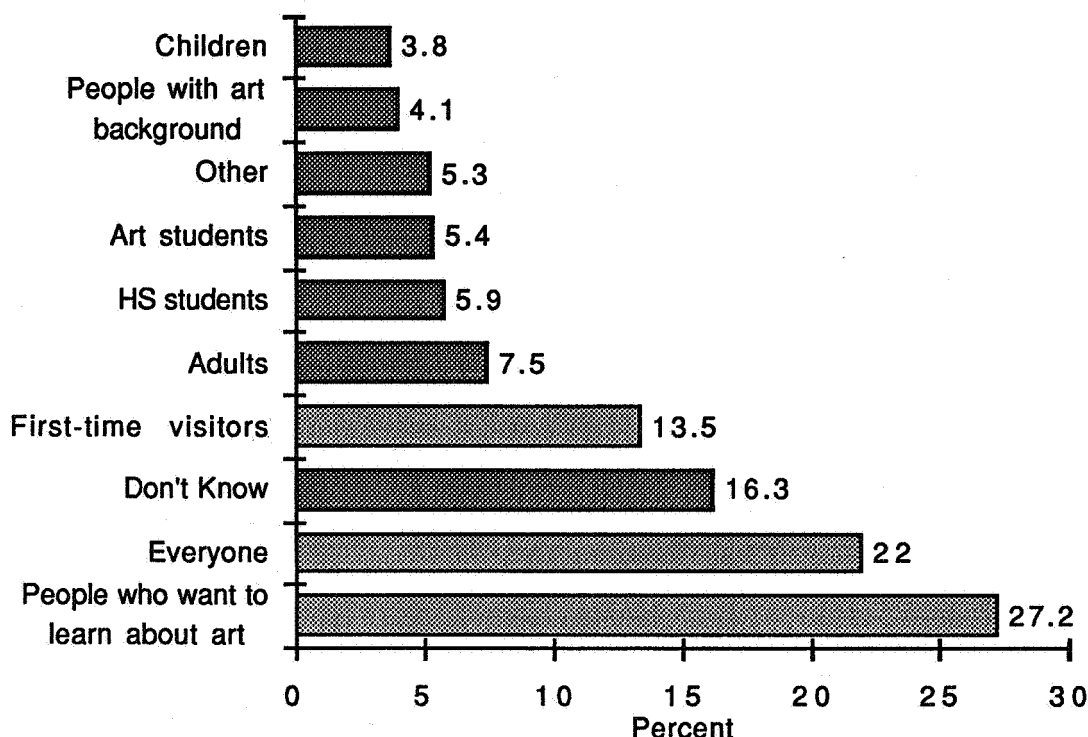
If a visitor was under 20 years of age, he or she most frequently gave an answer of "Don't Know" for purpose (43.6 percent) but everyone over the age of 20 gave purposes in roughly the same proportions. Finally, local people were slightly more likely to associate an educational component with the exhibition (53.5 percent versus 45.8 percent) but non-locals were slightly more likely to discern an enjoyment component (20.4 percent versus 12.0 percent) or to say that they did not know the purpose (21.5 percent versus 16.1 percent). To some extent, the local versus non-local responses may reflect an underlying reason for the visit. The non-local person may be defining the visit to Washington as a general recreational experience, while the local visitor may have a somewhat better appreciation for the Institution's broader agenda of stimulating an educational experience through more selective visit patterns.

Perception of Appropriate Audience

In asking visitors about an appropriate audience for the *Comparisons* exhibition, we were also indirectly asking if they benefited from it. Visitor responses were classified into ten categories, as shown in Figure 3.11. The most common response category was "people who want to learn about art" at 27.2 percent. The "first time visitors" category was mentioned by 13.5 percent of the respondents and 22.0 percent said everyone could benefit from attending the exhibition. Small percentages of the total sample felt the following audiences would benefit from attending the exhibition: adults (7.5 percent); art students (5.4 percent); high school students (5.9 percent); people with a background in art (4.1 percent); children (3.8 percent); and other responses (5.3 percent). A number of people (16.3 percent) gave an answer of "Don't Know." Reassuringly, the categories that we would hope visitors would choose had some of the highest percentages. Further analysis, either by demographic characteristics or experience with the visual arts, did not discern any particular patterns. In other words, visitors were willing to indicate an audience, irrespective of whether or not they were somehow part of it.

Figure 3.14

Visitors' Perceptions of the Appropriate Audience for the *Comparisons* Exhibition*



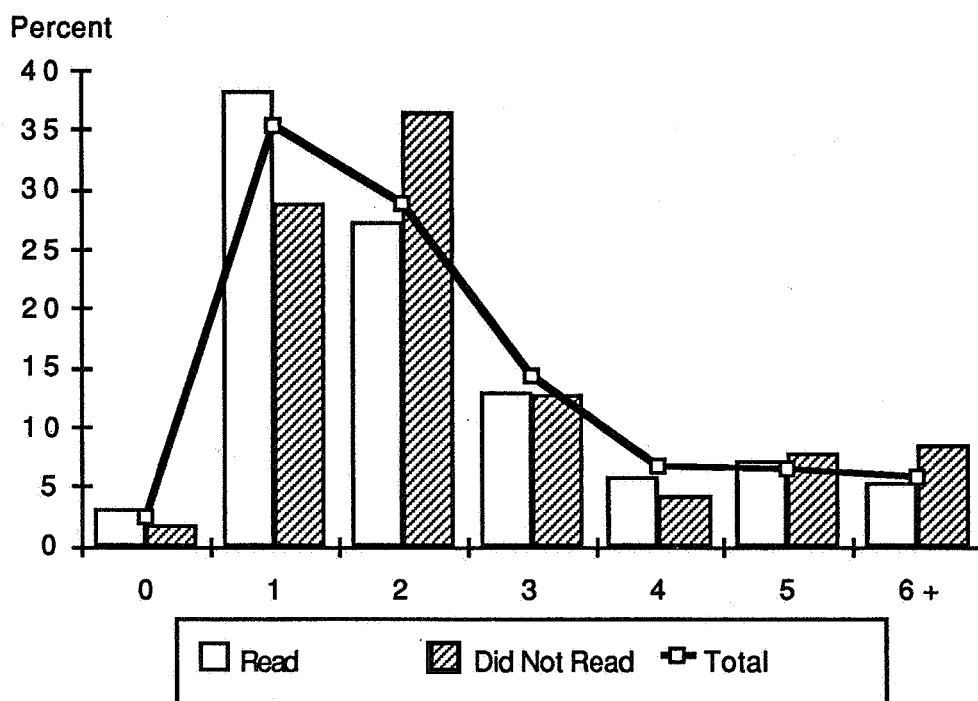
*Percentage is more than 100, as participants could respond with more than one category.

Amount of Gallery Space Desired

While visitors appear to have understood this exhibition's purpose, are they interested in more exhibitions of this nature? The visitor responses are instructive. Almost everyone interviewed wanted to see some gallery space devoted to this type of educational exhibition within an art museum. In practical terms, visitors were asked to assign a number of galleries based on a museum with 10 galleries. Only 2.5 percent of the sample would allocate no space for a didactic exhibition. The largest percentage of the sample (35.4 percent) would like to see one educational gallery, followed by 28.8 percent who preferred two galleries, and 14.2 percent who preferred three galleries. Responses of four through ten galleries were fairly infrequent, as shown in Figure 3.15. On average, visitors would allocate 2.3 galleries to exhibitions like *Comparisons*; the median is two galleries. If a visitor read the exhibition text panels and/or the brochure, they were most likely to choose one gallery (38.3 percent) but if they did not read the materials they were more likely to choose two galleries (36.4 percent). Beyond two galleries, there are no significant differences between readers and non-readers.

Figure 3.15

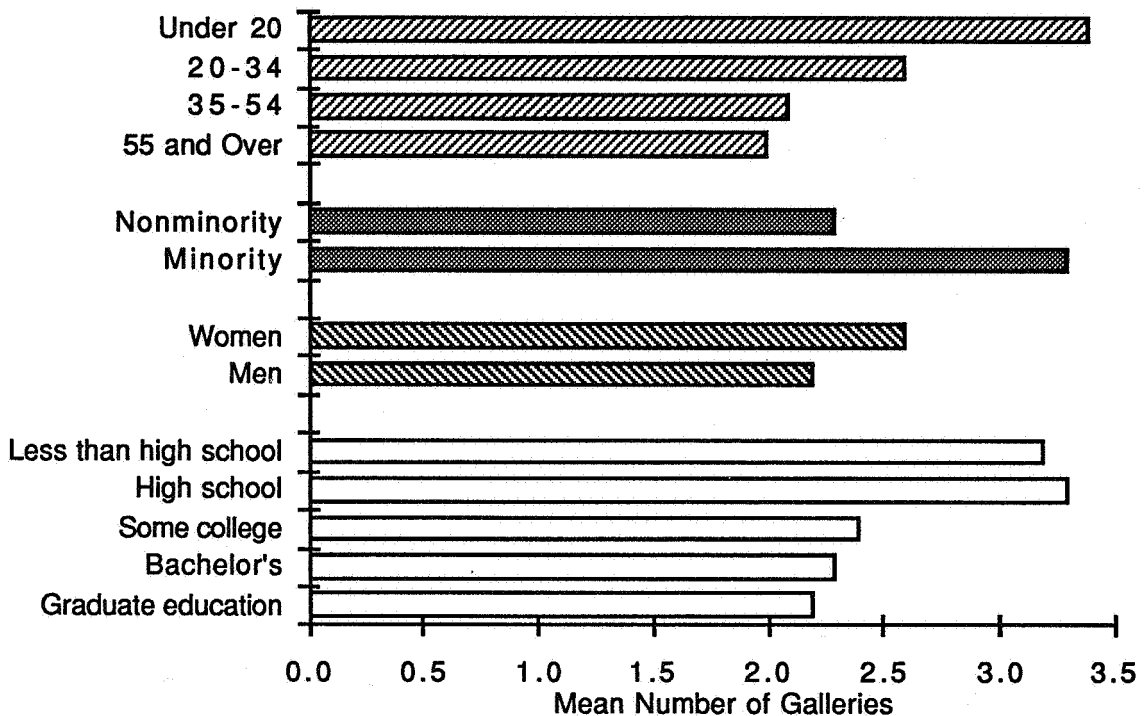
Visitors Interest in Gallery Space Allocation for Educational Exhibitions Expressed as "Number of Galleries" (Maximum = 10). Total and by Use of Didactic Materials



In Figure 3.16, we show the average number of galleries recommended for educational exhibitions by the various demographic groupings. Beginning with respondents' age, the data show that as it increases, the number of galleries desired decreases; e.g., while half (50.7 percent) of those under age 20 would like 3 or more galleries, only about one-sixth (17.7 percent) of those over age 55 would allocate 3 or more galleries. Minority group members are interested in more galleries (an average of 3.3), compared to non-minorities (an average of 2.3). The average for women was 2.6 while men preferred 2.2; among women, two-fifths (41.5 percent) indicated 3 or more galleries, while only one-fourth (27.0 percent) of the men wanted 3 or more galleries devoted to educational exhibits. The differences among the educational groups is striking, as shown in the figure. Visitors with a high school degree express more interest in educational galleries than do members of the other educational groups. While the average for the two lower educational groups is over 3 galleries, for the college educated groups it declines to nearly two galleries.

Figure 3.16

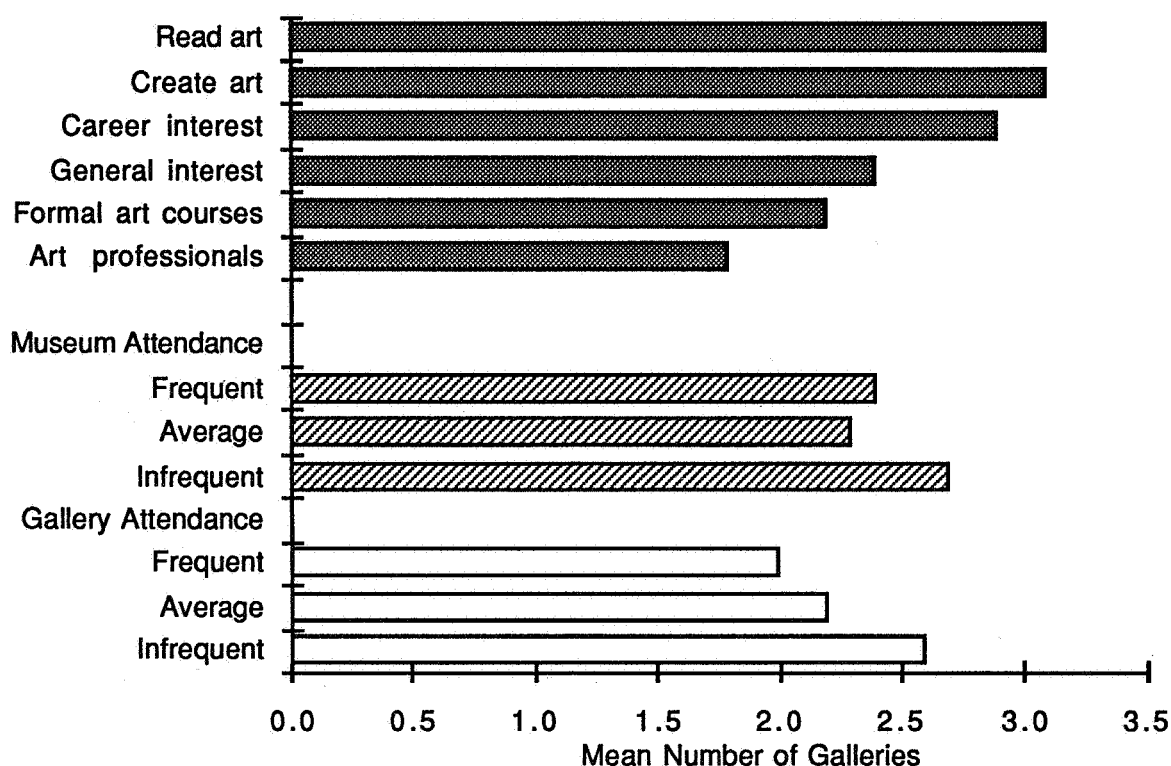
Visitors Interest in Gallery Space Allocation for Educational Exhibitions. by
Demographic Characteristics
Expressed as "Average Number of Galleries" (Maximum = 10)



Art background clearly influences this space allocation response (Figure 3.17). Those visitors who read about the arts, create art or are interested in an arts career are more interested in educational gallery space compared to the other background groups, possibly indicating their interest in learning more about art. Museum attendance does not follow an intuitive pattern, although the infrequent attendee is more interested in educational gallery space compared to the frequent or average museum visitor. Frequency of gallery attendance, however, appears to be related to interest in educational space; the less frequent the attendance, the higher the average number of galleries desired.

Figure 3.17

Visitors Interest in Gallery Space Allocation for Educational Exhibitions, by Art Background and Museum/Gallery Attendance
Expressed as "Average Number of Galleries" (Maximum = 10)



For the discussion of space allocation, as we initially did in the discussion of reading, we examined separately each of the various background characteristics (gender, education, race/ethnic identification and experience with the arts). To better understand the responses to the question about space allocation, we also estimated multivariate models which allow us to examine these various factors simultaneously. Here the outcome being predicted, the number of galleries a respondent would like to see dedicated to explanatory exhibits, is a numeric measure (a continuous, categorical variable). The three multivariate models are specified exactly as before: (1) demographic variables (gender, racial/ethnic identification and education); (2) variables assessing an individual's arts experience (frequency of museum and gallery attendance, background in the arts); and (3) both demographic and arts experience variables simultaneously.²⁹

The demographic characteristics (Model 1) show that, all factors being equal, respondents want an average of nearly four (3.78) explanatory galleries. Differences in gender and race/ethnic identification increase this number (more so for racial/ethnic identification than for gender) whereas all levels of education reduce the preferred number of galleries. In fact, once visitors' educational

²⁹ See Appendix D, Table D.3 for the full report of these models.

attainment exceeds a high school degree, they want progressively less space allocated for explanatory exhibits.

Turning to the arts background factors (Model 2), museum and gallery attendance reduce the average number of explanatory galleries desired, to 2.7 galleries, assuming all other background factors are the same. This suggests that persons who are not particularly familiar with arts institutions want the experience that is offered by these types of exhibits. The number of galleries desired increases with different types of arts interests, with persons who create art for pleasure wanting more of these galleries than arts professionals or persons who study the arts in other ways. The model predicts that the individual who is a frequent museum goer and infrequent gallery visitor, with a general interest in the arts, would like to see 2.7 galleries.

Model 3 or the "full" model, which includes all of the previously discussed factors, shows that the influence of gender and race/ethnic identification is essentially the same as Model 1 while the influence of education decreases somewhat. However, different types of art backgrounds produce moderately greater effects in comparison to Model 2. Also, frequent museum attendance changes from a negative to a positive effect. Taken as whole, these results suggest that individuals who spend time in museums see the value of explanatory exhibits and wish to see more of them. Nevertheless, the results of our study indicate a considerable disagreement in the preferred number of educational galleries among the various visit groups.

Summary

In this section, we explored the relationship between audience characteristics and the use of the exhibition's didactic materials. We then looked at the length of time that visitors reported spending in the exhibition and their perceptions of both the main purpose of the exhibition and the appropriate audience for it. These data were used to assess the extent to which the exhibition's goals were effectively communicated. Visitors were also asked how much space in a museum they would allocate for this type of exhibition. As an indicator of the public's interest in such exhibitions, these data are presented.

The text panels rather than the brochure were the primary medium for communicating the purpose of the exhibition for most visitors. About half (49.1 percent) read the panels only. Another 23.5 percent used the panels and brochure in combination while only 3.2 percent relied exclusively on the brochure. Thus, three-quarters of the visitors read either the text panels, the brochure or both (75.8 percent). For all those who picked up the brochure (58.6 percent), it also became a souvenir. Since the design of the brochure enabled the visitor to use it independently of the exhibition, the "exhibition message" was portable and some visitors undoubtedly gained a better understanding of the exhibition after the actual visit.

Reading the materials was not unrelated to audience characteristics. Over four-fifths of the women (82.3 percent) and only 70.6 percent of the men used the didactic materials. College graduates read more than those with less education. Minority group members were less likely to read the materials than non-minorities (65.0 percent versus 77.7 percent). In part, this may be the result of language

difficulties and other cultural factors since one-third of the minorities were from overseas. Those people considering an art related career or who had formal arts courses paid more attention to the reading materials (about 86 percent), than the art professionals (62.8 percent). Three-fourths (74.0 percent) of those with a general interest or who create art for enjoyment read the didactic materials.

In the results reported above, each of the various background characteristics (gender, education, race/ethnic identification and experience with the arts) were examined separately in relation to reading the didactic materials. Several characteristics were also examined simultaneously and estimates were made of the probability that certain types of individuals would or would not read the materials.

In the first model, we assumed that all exhibition visitors had exactly the same arts experience, but different demographic characteristics. The results show that the probability of reading increases if a respondent is female, decreases if a respondent is a member of an ethnic or cultural minority, and increases with educational achievement. Education has the greatest influence on whether someone will read the exhibition materials, independent of the influence of gender or racial/ethnic identity.

Next, we predicted reading for arts experience factors, assuming that all demographic characteristics are the same among individual respondents. The results show that museum attendance and gallery attendance have opposite effects on the probability of reading. As frequency of museum attendance rises, the probability of reading increases, although the amount of increase is slightly smaller for frequent museum goers than for those who go an average number of times. The key variable in the second model, however, is the type of background in the arts. For individuals who study the arts or read art publications, the probability of reading increases substantially. For those with a professional interest in the arts, the probability of reading increases only marginally.

Finally, we analyzed all of the demographic and arts experience factors together; in a statistical sense this is the "full" model. Besides assessing the effects of education and arts interest together, we observe a pronounced effect of gender and museum attendance on the probability of reading. The results show that Caucasian women who visit museums every few months have the highest probability of reading the exhibition materials. This is true for all combinations of education and arts backgrounds. This suggests that the people most likely to read exhibition materials like those in *Comparisons*, are those with moderate museum experience -- clearly not museum neophytes.

Slightly over half (57.7 percent) of the visitors reported spending 15 minutes or less in the exhibition, another fourth (28.6 percent) spent between 15-20 minutes, and the rest (26.1 percent) spent more than 20 minutes. As expected, those who did not read the didactic materials were considerably more likely to spend just a few minutes in the exhibition (45.1 percent of those who did not read, compared to 11.5 percent of those who did). The format of *Comparisons* appears to have engaged visitors sufficiently so that they reported spending more time in it compared to two other Smithsonian exhibitions. Longer time was reported by those with high levels of education, those who were older (especially those 55 or

older), women and non-minorities. Local visitors reported longer times, compared to non-locals.

Visitors were asked to rate on a scale of one to five how thought provoking they found the questions posed in the text panels and brochure (where one was not at all provocative and five was very provocative). Overall, visitors rated the level of question provocativeness at an average of 3.4 but the median, or one-half of the respondents, gave a more positive evaluation of 4.0. Level of education was the most important influence on how people perceived the questions posed in the exhibition. The most frequent rating by people with less than a high school education was three, indicating that they were neutral about the questions (71.8 percent). People in the high school degree category tended to have a negative reaction to the questions, giving them a rating of one (27.8 percent). Those people with some college education or a bachelor's or graduate degree had an decidedly positive inclination towards the questions.

When considering visual arts background in terms of the rating of the questions, general interest visitors and people who studied the arts were the most positive (43.7 and 45.2 percent respectively at a rating of four). Professionals in the arts or those who created art, gave the lowest percentage of favorable ratings. If a visitor said they went to art museums or galleries every few months or less often, they tended to choose a rating of four, i.e., positive evaluation. People who frequently visit art museums or galleries (once a month or more often) are neutral about the questions.

Survey participants were asked what they perceived to be HMSG's main purpose in developing the exhibition. Almost half of the visitors (48.9 percent) understood the purpose of the exhibition to be educational, followed by responses of "Don't Know" (19.8 percent), expressions of enjoyment as the purpose (17.5 percent), perceptions that the focus was on comparisons (4.5 percent) and a residual category of responses ("Other" at 9.3 percent). Over half (56.4 percent) of the people who read the exhibition materials said the purpose was to teach and another 20.4 percent thought the purpose was to increase enjoyment for the visitor. Only 10 percent of the people who read did not understand the main purpose of the exhibition. On the other hand, over half (52.5 percent) of the people who did not read said they did not know the purpose of *Comparisons*.

Visitor responses to the query about an appropriate audience for the *Comparisons* exhibition were classified into ten categories. The category with the largest percentage of responses was "people who want to learn about art" at 27.2 percent. The "first time visitors" category was mentioned by 13.5 percent of the respondents and 22.0 percent said everyone could benefit from attending the exhibition. Small percentages of the total sample named other types of audiences. A number of people (16.3 percent) gave an answer of "Don't Know."

Almost everyone interviewed wanted to see some gallery space devoted to this type of educational exhibition within an art museum. In practical terms, visitors were asked to assign a number of galleries based on a museum with 10 galleries. Only 2.5 percent of the sample would allocate no space for a didactic exhibition. The largest percentage of the sample (35.4 percent) would like to see one educational gallery followed by 28.8 percent who preferred two galleries, and 14.2

percent who preferred three galleries. On average, visitors would allocate 2.3 galleries to exhibitions like *Comparisons*; the median is two galleries.

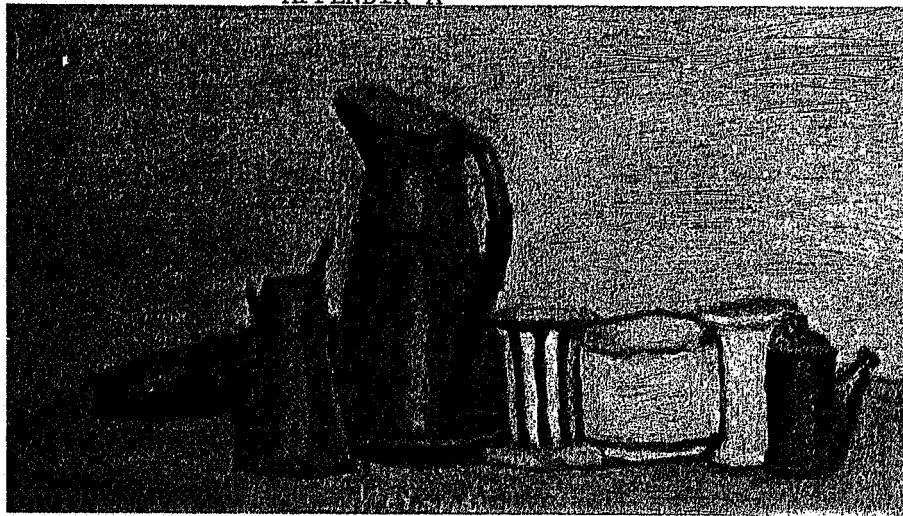
Various characteristics were related to the responses about gallery space. The average for women was 2.6 while men preferred 2.2; as age increases, the number of galleries desired decreases; and minority group members are interested in more galleries, compared to non-minorities. Visitors with a high school degree express more interest in educational galleries than do members of the other educational groups. While the average for the two lower educational groups is over 3 galleries, for the college educated groups it declines to nearly two galleries.

Those visitors who read about the arts, create art or are interested in an arts career are more interested in educational gallery space compared to the other background groups. Interestingly, the infrequent museum attendee is more interested in educational gallery space compared to the frequent or average museum visitor.

To better understand the responses to the question about space allocation, we also estimated multivariate models which allow us to examine the various background characteristics simultaneously. The demographic characteristics model (Model 1) shows that, all factors being equal, respondents want an average of nearly four (3.78) explanatory galleries. Differences in gender and race/ethnic identification increase this number (more so for racial/ethnic identification than for gender) whereas education reduces the number of galleries desired. Once visitors' educational attainment exceeds a high school degree, they want progressively less space for explanatory exhibits.

In the arts background model (Model 2), museum and gallery attendance reduce the average number of explanatory galleries desired, to 2.7 galleries, assuming all other factors are the same. This suggests that persons who are not particularly familiar with arts institutions want the experience that is offered by these types of exhibits. The number of galleries desired increases with different types of arts interests, with persons who create art for pleasure wanting more of these galleries than arts professionals or persons who study the arts in other ways. The model predicts that the individual who is a frequent museum and infrequent gallery visitor, with a general interest in the arts, would like to see 2.7 galleries.

When all of the previously discussed factors are considered simultaneously, the results show first that the influence of gender and race/ethnic identification is essentially the same as in Model 1 while the influence of education slightly decreases. However, different types of art backgrounds produce moderate effects, compared to Model 2. Also, frequent museum attendance changes from a negative to a positive effect. Taken as whole, these results would suggest that individuals who spend time in museums see the value of explanatory exhibits, and wish to see more of them. Nevertheless, the results of our study indicate a considerable disagreement in the preferred number of educational galleries among the various visit groups.



COMPARISONS

AN EXERCISE IN LOOKING



December 11, 1990–April 21, 1991
Hirshhorn Museum and Sculpture Garden
Smithsonian Institution

This exhibition has been supported in part by a grant from the Smithsonian Special Exhibition Fund.

The process of art is . . . the discovery of images during work, the recognition of shapes and forms that emerge and awaken a response in us.

Ben Shahn, 1967

Have you ever wondered why you respond to a particular painting or sculpture? Artists like Ben Shahn, as well as many viewers, have searched for the answer to that question. This exhibition offers you an opportunity to answer the question for yourself. It is designed as an exercise in active looking.

Selected from the Hirshhorn Museum's collection, the exhibition consists of pairs of objects by fifteen modern artists. In each pair, two similar works by the same artist are juxtaposed for comparison. Comparison literally means setting things side by side so as to discover likenesses and differences. To focus and simplify the comparisons, differences in size, subject matter, date, physical condition, or materials have been minimized in each pair. Each comparison allows you to discover how an artist may use similar themes and materials and yet produce two distinct results.

The thirty works chosen for this exercise span the late nineteenth to the mid twentieth century. In range of subject, style, and media, these works represent a cross-section of the Hirshhorn Museum's collection of modern art. All the artists selected have earned recognition for their achievements. Yet comparison of the objects on view discloses that works by the same artist do not necessarily produce equivalent responses in viewers.

The general questions that follow can provide a framework for your viewing. Brief comments and additional questions also accompany each pair of objects. Other questions may occur to you as you compare the works in the exhibition. We welcome your comments about this exercise in looking. Please share your thoughts, using the card provided with this handout.

COVER:

GIORGIO MORANDI

Still Life, c. 1951
Oil on canvas; 11 1/4 x 19 1/4 in. (28.4 x 48.8 cm)
Gift of the Marion L. Ring Estate, 1987 (87.31)

Still Life with Flask, 1953
Oil on canvas; 14 1/8 x 15 7/8 in. (35.8 x 40.3 cm)
Gift of the Joseph H. Hirshhorn Foundation, 1966 (66.3657)

Judith Zilczer, Curator of Paintings

What will each comparison reveal? For each pair of objects, you might ask yourself:

Do you respond more to one work than to the other? Do you like (or dislike) them both, or do you prefer one to the other?

Is it obvious that both works within each pair are by the same artist? If so, what are the elements that suggest the works are by the same artist? Or do the two works appear so different that you would not have guessed that they were by the same artist?

Considering what you see and how you respond, do you believe one is a more effective work of art than the other?

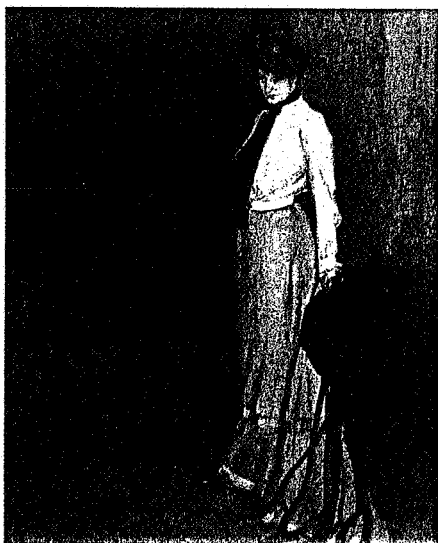
Do you think other people would agree with your choice? Is such agreement necessary or important?

Evaluating works of art is not unlike judging such individual sports as gymnastics, diving, or figure skating. As any sports fan knows, even a champion performs better at some times than at others. As you compare the works in this exhibition, you might also consider what the painter Josef Albers once wrote: "In my own work/I am content to compete/with myself."

ALFRED MAURER

American, 1868–1932

Early in his career, Alfred Maurer preferred subdued color schemes for paintings of women elegantly posed in interior scenes.



The Model (Figure Study), c. 1902
Oil on canvas; 36 x 29 1/8 in. (91.1 x 71.0 cm)
Gift of Joseph H. Hirshhorn, 1966 (96.350.1)



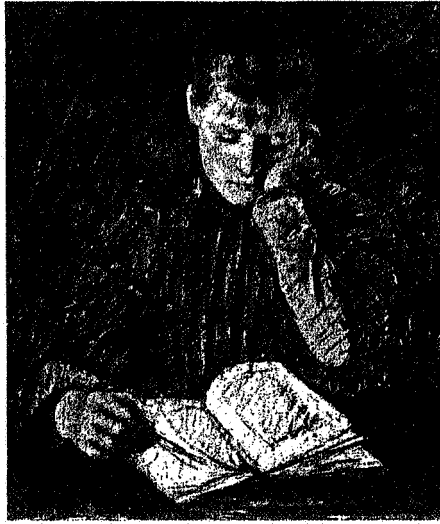
Woman in Black (Gaby), c. 1901
Oil on canvas; 36 1/8 x 29 in. (91.6 x 73.7 cm)
Gift of Joseph H. Hirshhorn, 1966 (96.349.5)

Is the placement of the figure more interesting in one of the two paintings?

Does the pose of one of the two women appear more graceful than the other?

MARY CASSATTAmerican, 1844–1926

Mary Cassatt used color and light to create spontaneous impressions of her favorite subjects, women and children.



Young Girl Reading, c. 1894
Pastel on paper; 21 7/16 x 17 7/8 in. (54.5 x 45.5 cm)
Joseph H. Hirshhorn Bequest, 1981 (86.853)



Baby Charles, 1900
Pastel on paper mounted on paper; 12 3/8 x 9 5/8 in. (31.9 x 24.5 cm)
Gift of the Joseph H. Hirshhorn Foundation, 1966 (66.846)

Is the subject of one of the two pastels more appealing?

Are there areas in either drawing (or in both) that appear awkward or unfinished?

Has Cassatt used light and color to focus your attention on particular features of her subjects?

GEORGE BELLOWAmerican, 1882–1925

George Bellows captured the vitality and colorful atmosphere of everyday life. For this pair of paintings, Bellows selected similar views of the Hudson River from Riverside Drive in New York City. *A Cloudy Day* depicts a typical river scene before a storm, while *The Warships* records a particular event—the tricentennial celebration of Henry Hudson's discovery of the river.



A Cloudy Day (Hudson River: Coming Squall), 1908
Oil on fabric mounted on fiberboard; 30 x 38 5/8 in.
(76.3 x 98.0 cm)
Gift of the Joseph H. Hirshhorn Foundation, 1966 (66.410)



The Warships (Warships on the Hudson), 1909
Oil on canvas; 30 1/2 x 38 1/2 in. (77.3 x 97.8 cm)
Joseph H. Hirshhorn Bequest, 1981 (86.311)

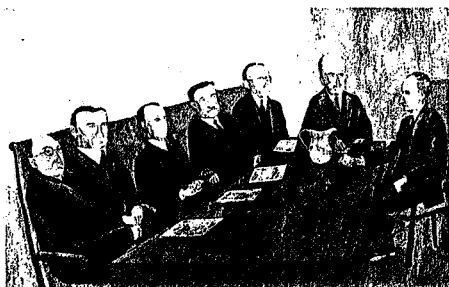
In each canvas, does the pattern of colors and light lead your eye over the whole painting, or is your attention focused on one particular area?

Do the figures on the riverbank create different impressions of distance within the two scenes? Do you feel closer to or more involved with one of the two paintings?

BEN SHAHN

American, b. Lithuania, 1898–1969

Ben Shahn painted subjects that reflected his concern over the social and political issues of his time. He completed these two works during the Depression. While the *Farmer and His Son* shows the plight of rural America, *Supreme Court of California: Mooney Series* concerns a specific legal case that became an international cause. Thomas J. Mooney, a California labor leader, was convicted on the basis of perjured testimony and sentenced to death for bomb killings at the 1916 San Francisco Preparedness Day Parade. Years of protest led to commutation of his sentence and an eventual pardon.



Supreme Court of California: Mooney Series, 1932
Gouache on paper; 16 1/8 x 24 in. (40.7 x 61.0 cm)
Gift of Joseph H. Hirschhorn, 1966 (66.1533)



Farmer and His Son, 1936
Tempera on paper mounted on fiberboard; 16 1/8 x 12 1/8 in. (40.7 x 32.1 cm)
Gift of Joseph H. Hirschhorn, 1966 (66.1535)

Is the information about the subject of either painting essential to appreciating it?

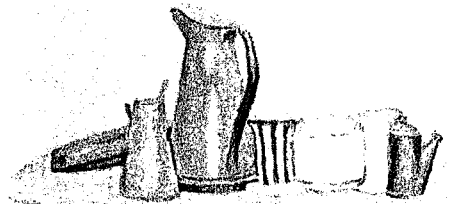
Do the people in one of the two compositions seem more sympathetic?

Does the subject matter of these works affect your preference for one or the other?

GIORGIO MORANDI

Italian, 1890–1964

Vases, pitchers, and simple ceramic vessels provided the subject matter for Giorgio Morandi's carefully arranged still-life paintings.



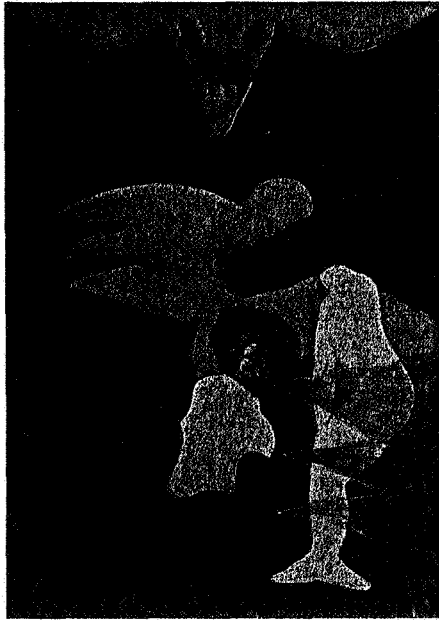
Still Life, c. 1951
Oil on canvas; 11 1/8 x 19 1/8 in. (28.4 x 48.8 cm)
Gift of the Marion L. Ring Estate, 1987 (87.31)



Still Life with Flask, 1953
Oil on canvas; 11 1/8 x 15 7/8 in. (28.8 x 40.3 cm)
Gift of the Joseph H. Hirschhorn Foundation, 1966 (66.3657)

Does the way in which Morandi placed the objects near one another focus your attention on individual items or on the collection of vessels as a whole?

Bob Thompson used intricate patterns of intense colors to depict religious or mythological subjects, as well as imaginary scenes filled with personal symbols. Although both paintings show imaginary scenes, *The Indian Triumph of Bacchus* was inspired by the seventeenth-century French artist Nicolas Poussin's painting of the Graeco-Roman god Bacchus.



Untitled, 1962
Oil on canvas; 36 1/4 x 25 1/8 in. (92.0 x 65.0)
Gift of Joseph H. Hirshhorn, 1966 (66.1929)



The Indian Triumph of Bacchus (Poussin), 1661
Oil on canvas; 18 1/8 x 21 1/8 in. (45.8 x 61.2 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.1921)

Is one of the paintings more elaborate or complicated than the other?

Are all areas of each painting equally interesting?

Does the color scheme in one of the two paintings produce a more vibrant impression?

OSCAR BLUEMNER

American, b. Germany, 1867–1938

For Oscar Bluemner, brilliant color was the primary subject of his geometrically simplified depictions of buildings and landscapes.



Old Canal, Red and Blue (Rockaway River), 1911–17
Oil on canvas; 11 1/4 x 20 in. (36.1 x 50.4 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.560)

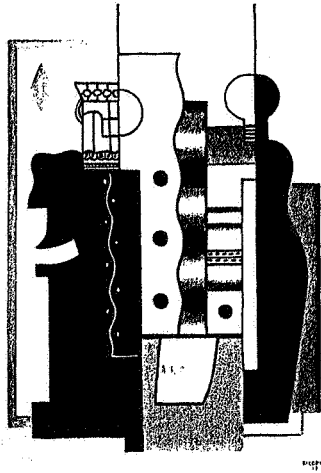


Morning Light (Dover Hills, October), 1912–16
Oil on canvas; 20 x 30 1/8 in. (50.7 x 76.5 cm)
Gift of Joseph H. Hirshhorn, 1972 (72.32)

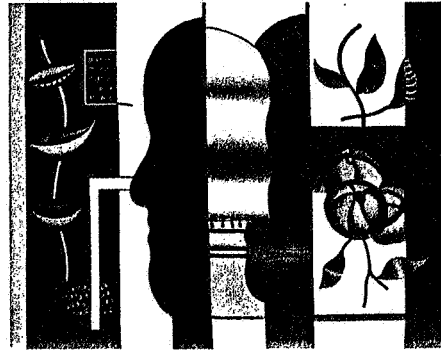
Does the arrangement of the buildings within a landscape setting create a more natural impression of space in one of the two paintings?

Do the planes of color and the geometric shapes of the buildings form a pattern in either painting?

Fernand Léger rearranged fragments of real life scenes and objects to create orderly designs suitable to the modern, Machine Age.



Still Life, King of Diamonds, 1927
Oil on canvas: 36 1/2 x 25 7/8 in. (92.0 x 65.5 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.2989)



Still Life with Profile, 1928
Oil on canvas: 29 x 36 1/8 in. (73.5 x 92.3 cm)
Joseph H. Hirshhorn Bequest, 1981 (86.2904)

Is it apparent that Léger has changed the composition and painted over areas in either painting?
Is the combination of fragmentary shapes and objects more satisfying in one of these paintings?

OSSIP ZADKINE

French, b. Russia, 1890–1967

In both carvings, Ossip Zadkine simplified the female figure into elemental shapes. Despite their similarity in subject and medium, the two sculptures create contrasting images of human form.



Standing Female Figure, 1910–25
Painted wood: 13 3/8 x 47 8/8 x 3 3/4 in. (34.0 x 12.4 x 9.5 cm);
base, 3 3/8 x 3 3/8 x 3 1/4 in. (8.5 x 8.4 x 8.3 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.5640)

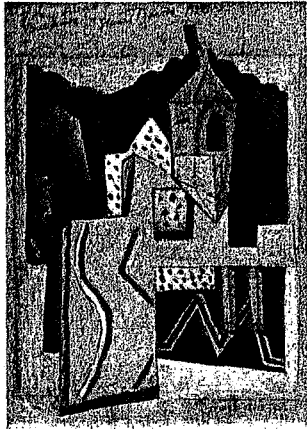


Female Torso, c. 1925
Wood: 24 1/4 x 6 1/2 x 6 3/8 in. (61.5 x 16.1 x 16.2 cm);
artist's base, 5 3/4 in. (14.6 cm) high
Gift of Joseph H. Hirshhorn, 1966 (66.5641)

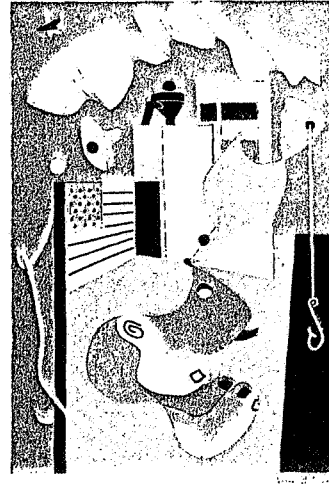
Has Zadkine used the pose of the figure to suggest motion in either sculpture?
Does the texture of the carving and the pattern of the wood grain emphasize the shape and imply movement in either figure?
Walk around each figure. Are the carvings equally interesting from all viewpoints?

STUART DAVISAmerican, 1892–1964

In recombining elements and fragments of everyday scenes, Stuart Davis captured the tempo and spirit of Jazz Age America. These two small paintings, originally completed ten years apart, represent different stages of the artist's career. In fact, Davis changed some of the colors in *T-View* when he repainted the canvas in 1951. These two works also differ in their physical condition. A layer of surface grime, which cannot be removed, covers the earlier painting, *Composition*, while *T-View* has recently been cleaned so that its colors appear as vivid as when the artist completed the painting.



Composition, 1922
Oil and pencil on canvas board; 13 7/8 x 9 7/8 in.
(35.2 x 25.2 cm)
Joseph H. Hirshhorn Bequest, 1981 (86.1331)



T-View (Right panel of three-part study for New York Mural), 1932, repainted 1951
Oil and pencil on canvas; 21 1/8 x 14 1/8 in. (53.6 x 35.9 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.1166)

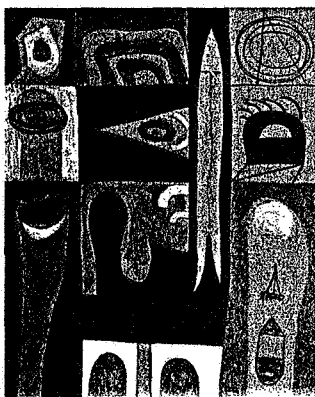
Despite the time that separates these two paintings, do they have similar features?

Does the difference in condition and intensity of the colors in the two works create different impressions?

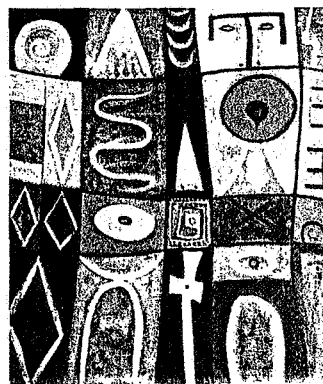
Does one of the two paintings appear more finished or more carefully organized than the other?

ADOLPH GOTTLIEBAmerican, 1903–1974

Adolph Gottlieb used imaginary symbols and hieroglyphic-like signs arranged within a grid to conjure such mysteries as the subconscious and the origins of the universe.



Night Voyage, 1946
Oil on canvas; 38 x 30 in. (96.1 x 76.3 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.2159)



Pictogenic Fragments, 1946
Oil on canvas; 36 1/8 x 30 1/8 in. (91.7 x 76.4 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.2160)

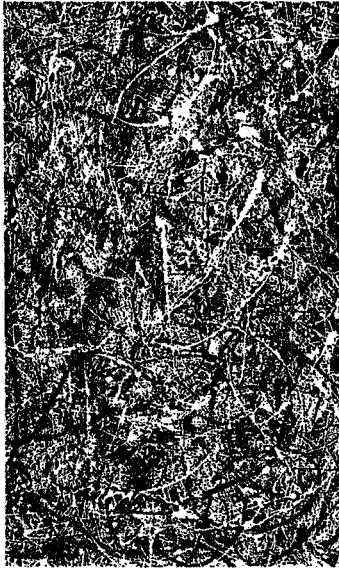
Do you respond more to the colors in one of the two paintings?

Are the images arranged in a more orderly sequence or pattern in one of these paintings?

Do the signs and images seem equally ambiguous or mysterious in both paintings?

JACKSON POLLOCKAmerican, 1912–1956

Jackson Pollock used ribbons of poured paint to create networks of color and intricate patterns. In these two works, he used different materials: one is a painting with extra elements—string and a cigarette fragment; the other is a collage—a mixture of many materials with painted elements.



Number 3, 1949: Tiger, 1949

Oil, enamel, metallic enamel, string, and cigarette fragment on canvas mounted on fiberboard; 62 1/8 x 37 1/4 in. (157.5 x 94.6 cm)
Gift of Joseph H. Hirshhorn, 1972 (72.235)



Number 2, 1951, 1951

Collage of paper soaked in Rivet glue, pebbles, twine, wire mesh, newsprint, and oil paint on board; 41 x 31 in. (104.1 x 78.7 cm)
Gift of the Joseph H. Hirshhorn Foundation, 1966 (66.1084)

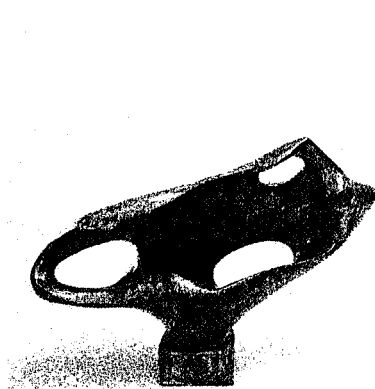
Despite the difference in materials, how are these two works alike?

Does one area stand out, or do you find yourself looking at the overall pattern in each work?

Has Pollock used materials to produce a sense of movement in either of these works?

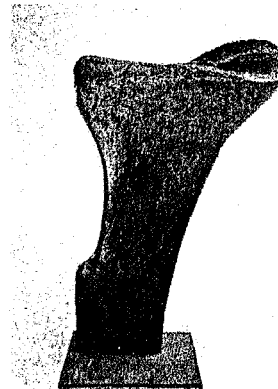
BARBARA HEPWORTHBritish, 1903–1975

The forms created in nature inspired many of Barbara Hepworth's abstract sculptures. This pair of bronze casts, produced in the same year, reveal different visions of organic form.



Sea Form (Porthmeor), 1958

Bronze; 30 5/8 x 44 1/8 x 12 3/4 in. (77.3 x 112.0 x 32.2 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.2415)



Torso I (Ulysses), 1958

Bronze; 51 1/4 x 31 7/8 x 21 5/8 in. (130.0 x 80.8 x 54.9 cm)
Gift of Joseph H. Hirshhorn, 1966 (66.2413)

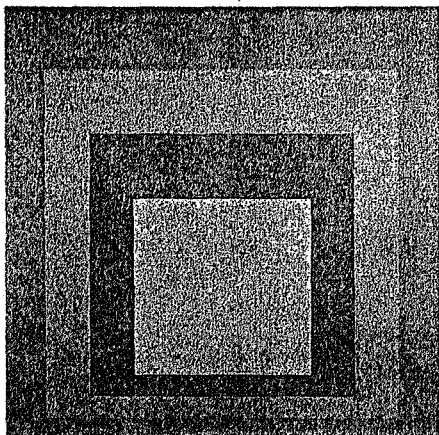
Does either sculpture seem to enclose or envelope the space that surrounds it?

Do the shape and proportion of each work imply movement and thereby produce a convincing impression of living form?

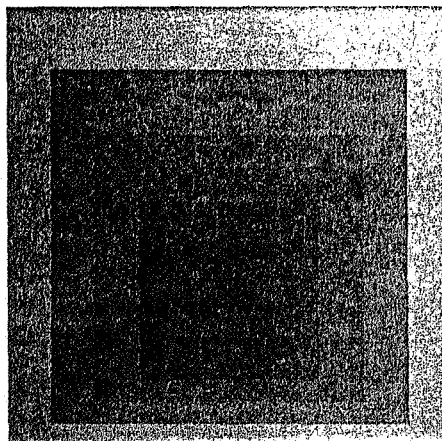
When viewed from a variety of angles, are both bronze casts equally interesting?

JOSEF ALBERSAmerican, b. Germany, 1888–1976

Josef Albers reduced the subject of his paintings to basic geometric shapes and variations in color. These two paintings share a common design of superimposed squares.



Homage to the Square: Elected II, 1961
Oil on fiberboard; 40 x 40 in. (101.6 x 101.6 cm)
Gift of the Joseph H. Hirshhorn Foundation, 1966 (66.30)



Homage to the Square: Glow, 1966
Acrylic on fiberboard; 48 x 48 in. (121.7 x 121.7 cm)
Gift of Joseph H. Hirshhorn, 1972 (72.3)

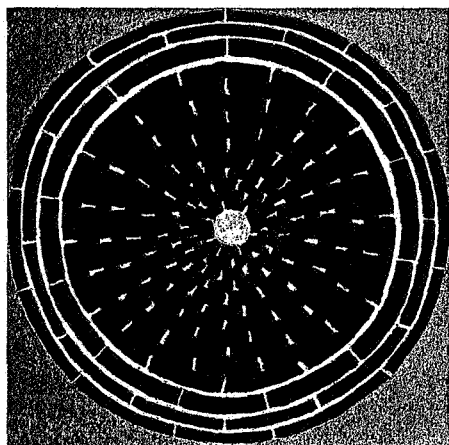
Is the combination of colors more pleasing in one painting than in the other?

Do the colored squares in each painting appear to come toward you or recede away from you?

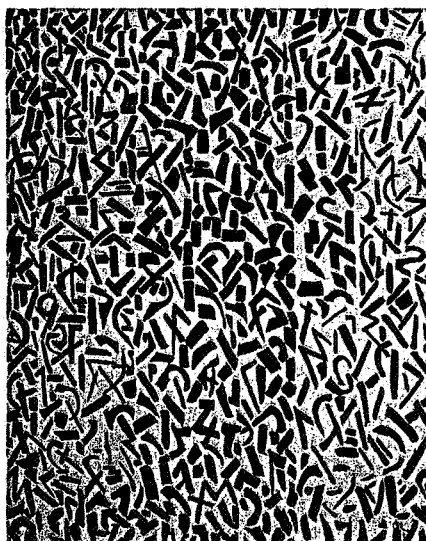
Is there a connection between the order and size of the squares and the arrangement of colors in either painting?

ALMA THOMASAmerican, 1891–1978

In her abstract paintings, Alma Thomas used bright colored patches or strokes of pigment that suggest the shimmering effects of light and life-like motions of the natural world.



Blue Asteroid, 1976
Acrylic on canvas; 36 x 36 1/8 in. (91.4 x 91.6 cm)
Gift of Joseph H. Hirshhorn, 1980 (80.48)



Oriental Garden Concerto, 1976
Acrylic on canvas; 68 1/8 x 54 1/4 in. (172.9 x 137.4 cm)
Museum purchase, 1976 (76.115)

Although this pair of paintings evokes different concepts—the heavens in one and the earth in the other—are there elements of painting common to both?

Do you prefer the colors in one of the two paintings?

Was the paint applied to produce the effect of motion in either painting?

Appendix B

Design and Implementation of the Hirshhorn Museum and Sculpture Garden *Comparisons* Exhibition Survey

Introduction

This appendix explains, in some detail, the design for the *Comparisons* exhibition survey conducted at the Hirshhorn Museum and Sculpture Garden (HMSG). The present study builds on the body of information compiled by the Institutional Studies Office (ISO) over the past four years of studying Smithsonian visitor characteristics, behaviors and attitudes. In what follows, we discuss the development of the questionnaire, rationale for the particular sample design and the implementation of the survey.

In order to generalize to the exhibition's audience, the survey was based on personal interviews with respondents selected by a systematic random sample design. Depending on the day of the week and time of day, interviewers intercepted every third, fifth or tenth person. They administered a short precoded questionnaire to eligible respondents, and thanked the participants with a postcard or catalogue provided by HMSG. The data collection extended from March 4 through March 28, 1991 with a systematic survey schedule encompassing the hours of 10:00 - 12:00, 12:30 - 2:30 and 3:00 - 5:00 during each day of the week. A total of 42 hours of interviewing were completed according to this schedule.¹ Smithsonian staff and contractors, as well as members of school groups making formal tours, were excluded from the study. During the thirteen survey days, we estimate that approximately 2,400 individuals passed our interviewing location during the hours that interviewing was conducted. From these, 471 people were selected for the survey.

Questionnaire Development

In Section I of the report, we noted that *Comparisons: An Exercise in Looking* was specifically designed to develop a visitor's appreciation of modern art. One of the research objectives for the survey was to determine whether the exhibition engaged a visitor to actively examine the 15 pairs of art objects. The curator also sought information on the demographic characteristics of the audience and to understand whether visitors wanted to see similar educational techniques employed in future exhibitions.

The questionnaire was formatted for processing by the Institutional Studies Office's optical scanning equipment. The initial portion of the questionnaire, as reproduced in Appendix C, was designed to collect general information about the visit. After establishing some rapport with the visitor, we asked questions about: frequency of visits to art museums and private art galleries; how they heard about the exhibition; the brochure and the text panels; their opinion about the main purpose and intended audience for the exhibition; whether art museums should allocate space for exhibitions using this type of technique; and length of time spent

¹ A copy of the schedule is available from the Institutional Studies Office.

in the exhibition. The remainder of the questionnaire asked about the visitor's art background and collected a set of standard demographic characteristics. The interview concluded with the opportunity to give other comments about the exhibition. In appreciation for participating in the study, interviewees received a postcard or catalogue from HMSG.

Upon completing the interview, administrative information necessary for empirical analyses was recorded by the interviewer. These included the sample selection interval, the reason -- if applicable -- that an interview was not completed (e.g., Smithsonian employee) and the time, date, and location of the interview.

Approximately 20 preliminary questionnaires were administered in February by Institutional Studies staff, followed by interviewer training of HMSG volunteers and staff on February 28, 1991.

Survey Design and Implementation

Sample Design. The survey team decided to conduct personal interviews with a representative sample of visitors (using systematic sampling techniques) at the exit of the *Comparisons* exhibition. This approach allows for generalizations about the distribution of characteristics and opinions to the total population of visitors to the exhibition. It does not offer information about the HMSG visitors who did not see the exhibition.

Resource and other schedule constraints restricted the data collection to a thirteen-day period and coverage of 6.0 hours rather than of 7.5 hours each interviewing day. The sample was therefore designed to take into account these limitations as well as possible variations in visitor types during different days of the week and times of the day. The basic approach was as follows:

- (1) The museum was open daily from 10:00 a.m. until 5:30 p.m. We collected data during three time blocks -- 10:00-12:00, 12:30-2:30 and 3:00-5:00. Half-hour intervals were inserted between time blocks to allow for questionnaire review, resupply of materials and a break for the interviewers.
- (2) The survey schedule dictated that interviewing take place during 21 two-hour time blocks every other day; six days had two time blocks, six days had one time block and one day had three time blocks. This gave us a total of 42 hours of interviewing.
- (3) Before determining the appropriate sample selection intervals, we obtained some visitor counts from HMSG. We supplemented this information with observation of visitor patterns at the exhibition and took into account staff resources. One of three respondent selection intervals (every third, fifth or tenth person) were chosen, depending upon the number of visitors that were leaving the gallery.

Data Collection. The survey began on March 4 and concluded on March 28, 1991. A complete interviewing schedule is available from the Institutional Studies Office upon request.

Two staff members and one volunteer from Institutional Studies, two paid interviewers, and four docents, one staff member and one intern from HMSG were trained by the Survey Coordinator about the goals of the study, the intended meaning of each question, and procedures for filling out the questionnaire. Each person involved with the survey received an interviewing manual during training. General interviewing instructions were based on a manual developed for another Smithsonian study; specific question-by-question instructions were incorporated for this study.²

During the survey period, teams of two or three individuals -- one or two interviewers and a team leader -- intercepted visitors and administered the questionnaire. The team leader had two primary responsibilities: (a) to count and record the number of persons exiting the exhibition during each fifteen-minute interval, and (b) to identify every third, fifth or tenth person crossing an imaginary exit "line" and to select which visitor the interviewers should intercept. The team leader recorded the ongoing tally and time on a "Sample Selection Form" with the help of a mechanical counter and a watch. Although the role of the team leader in selecting respondents was outlined during training, as a precaution, at least one Institutional Studies staff member was on site for each interviewing session to supervise the data collection.

Interviewers completed a questionnaire for every individual that they intercepted, even if he or she was not eligible for the study (an SI employee) or declined to participate. In order to assess response bias, every effort was made to ask several key questions (where they lived and who they were with) from those who refused participation in the survey and to record additional information based on interviewer observations (approximate age, cultural/racial/ethnic identity and gender). If the person to be intercepted turned out to be an employee, an interview was not conducted. If a child under 12 years of age was selected to be the respondent, permission to interview him/her was asked of the accompanying adult. If the child was too young to be interviewed, the adult was asked to respond for the child. On those occasions when the team leader identified an eligible respondent but no interviewer was available -- usually because the interviewer was still conducting an interview -- the team leader made an effort to record salient facts about the "missed" respondent.

As scheduled, 21 two-hour sessions were completed -- a total of 42 hours of data collection over a thirteen day period. The Survey Coordinator ensured that questionnaires, Sample Selection Forms, other supplies and an adequate number of gifts were available for each day; she also interviewed or counted during most sessions and scheduled available volunteers or other staff for each session. In sum, 12 staff members and volunteers conducted the interviews. Total hours "on the floor" came to 127 person hours (exclusive of survey planning and post data collection activities) with 63 of the hours provided by HMSG volunteers and staff.

² See Institutional Studies, *A Manual for Interviewers*. Prepared for the 1988 National Air and Space Survey. Report 88-3. (Washington, D.C.: Smithsonian Institution, 1988). Question-by-question specifications for the HMSG *Comparisons* study are available from the Institutional Studies Office.

Data Review and Processing. After each session, interviewers reviewed their questionnaires to make sure that information was recorded appropriately, the administrative data was completed and special circumstances were noted. Institutional Studies staff members reviewed and edited all questionnaires and coded additional administrative information. Questionnaires were then entered into a data file through optical scanning and checked for accuracy. Some inconsistencies were resolved by reviewing the original questionnaires; missing administrative data was imputed from questionnaires completed during the same sessions and from the Sample Selection Forms.

Response Rates and Weighting the Data

Two response rates can be calculated from the information in Table B.1. As seen in the middle panel of the table, a response rate of 79.6 percent was achieved. However, the lower panel shows that 26 potential respondents did not participate in the study either due to language difficulties or other reasons, e.g., being in a hurry, and that 70 interviews were not conducted because interviewers were busy with another respondent. Thus, among intercepted visitors, an impressive response rate of 93.5 percent was achieved.³

For both the 26 selected respondents that chose not to participate in the study (either due to language difficulties or other reasons) and the 70 interviews that were not completed due to the lack of available interviewers, limited data about their demographic characteristics are available. These include gender, an estimate of minority/non-minority identification, age, residence and social composition of the visit. Using multivariate procedures that essentially investigate the simultaneous roles of these variables in the probability of non-participation, we first explored the possible differences between respondents who were interviewed and those who were not because an interviewer was not available. Essentially, this is a reliability check of the interviewing procedures. The results show that, based upon recorded information, there are no significant differences between the characteristics of respondents and those who were not intercepted due to lack of interviewer availability. Second, we compared the demographic characteristics of "refusals" and respondents who completed an interview. We do find that some refusals were conditioned by variables beyond the control of potential respondents. As our interviewers generally spoke only English, we find that a slightly higher number of women, who reported living overseas, declined to participate in comparison to those who completed interviews; i.e., in all likelihood, those who could not effectively communicate with the interviewers. Note, however, that this group constitutes a very small proportion of our sample.⁴

³ This excludes those 70 visitors who were not interviewed because an interviewer was still in the process of speaking to a previously selected respondent.

⁴ The results of the logistic regressions are on file in the Institutional Studies Office.

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APPENDIX C
Hirshhorn Museum and Sculpture Garden Study

HELLO, MY NAME IS _____. I am a Smithsonian Volunteer. I would like to ask you a few questions about your visit.

1. Is TODAY your first visit to the Smithsonian?

☐ Yes: GO TO Q.3
☐ No

Yes: GO TO Q.3

Work at SI/Contractor: TERMINATE. THANK YOU

2. When have you been in the Hirshhorn Museum before?

☐ Never

☐ Since Jan 1, 1991

☐ In the last year

☐ 1-2 years ago

☐ 2+ years ago

3. On average, how frequently do you visit art museums?

☐ Never visited before

☐ Every few years

☐ Once a year

☐ Every few months

☐ Once a month

☐ Once a week

4. How about private art galleries?

☐ Never visited before

☐ Every few years

☐ Once a year

☐ Every few months

☐ Once a month

☐ Once a week

5. Where or how did you first hear about this exhibition?

☐ Hirshhorn Info Desk

☐ Other VIARC Info Desks

☐ Print media [papers, mags]

☐ Other people /family /friends

☐ TV/radio

☐ Signs inside museum

☐ Had not heard

6. Did you pick up an exhibition brochure?
If so, where?

☐ Yes, at Info Desk

☐ Yes, in the exhibition

☐ No [ASK Q.7 WITHOUT BRACKETS]

7. Did you read [the brochure and/or] the text panels next to each pair of objects?

☐ Yes, only brochure

☐ Yes, only panels

☐ Yes, both

☐ No [GO TO Q.9]

8. If YES: On a scale of 1 to 5, how thought provoking did you find the questions posed in the text panels and/or the brochure? 1 being not at all provocative and 5 being very provocative.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

9. What do you see as the Hirshhorn's main purpose in developing this exhibition?

☐ To teach visitors about art

☐ To make the visit more enjoyable

☐ To teach visitors how to look at art

☐ To compare an artist's work

☐ Other: _____

☐ Don't know

10. In your opinion, for what kinds of audiences/people are the brochure or text panels most appropriate?

☐ Art students

☐ High school students

☐ People who want to learn about art

☐ First time visitors

☐ Children

☐ Other: _____

☐ Don't know

11. In your opinion, how much gallery space should be allocated in art museums, if at all, to this kind of exhibition? Assume a museum with 10 galleries.

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

12. About how long did you spend in the exhibition?

☐ 0-5 minutes

☐ 6-10 minutes

☐ 11-15 minutes

☐ 16-20 minutes

☐ 21-30 minutes

☐ Over 30 minutes

12A. Are you on a Hirshhorn tour?

☐ Yes

☐ No

13. Different people have different art backgrounds. Would you please look at this and tell me which of the following MOST ACCURATELY describes your background or experience with the visual arts?

[HAND RESPONDENT THE CARD]

- ☐ (1) I am a professional in the studio arts.
☐ (2) I am a professional in art history.
☐ (3) I studied art appreciation/studio art in-
(Please indicate where)
☐ High School
☐ College
☐ Graduate/Professional School
☐ Continuing Education
☐ Museum/gallery
☐ (4) I am considering a career or a degree in the arts.
☐ (5) I create art for my own enjoyment, but I am not a professional artist.
☐ (6) I regularly read books/magazines about art.
☐ (7) I have a general interest in art.

*14. Where do you live?

- ☐ Washington, D.C.
☐ Suburbs of MD/VA
☐ Other U.S. state: _____
☐ Outside the U.S.: _____

☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9

*15. Who are you here with today?

- ☐ Alone
☐ One other adult
☐ Adult(s) and Child(ren)
☐ Friends (same age)
☐ Organized tour/group

16. What is the highest level of education you have completed?

- ☐ Grade school (1-8)
☐ Some high school (9-12)
☐ High school
☐ Some college/technical
☐ Bachelor's Degree
☐ Some graduate study
☐ MA/PhD/Professional degree

*17. What is your age?

- ☐ Less than 12
☐ 12-19
☐ 20-24
☐ 25-34
☐ 35-44
☐ 45-54
☐ 55-64
☐ 65 and older

*18. What is your cultural/racial or ethnic identity?

- ☐ African American/Black
☐ Asian/Pacific Islander
☐ Caucasian
☐ Hispanic/Latino
☐ Native American/Alaskan Native
☐ Other: _____

*19. Mark. Do not ask:

- ☐ Male ☐ Female

20. Do you have any other comments about the exhibition?

Thank you very much for taking the time to help us.
 In appreciation, we'd like to give you this gift.

Interval: ☐ 1 ☐ 2 ☐ 3

Status: ☐ Interview ☐ No Interview

Reason:

- ☐ Work at SI/Cont. ☐ Refusal: Language
☐ No interviewer avail. ☐ Refusal: Other

Time: ☐ 10-12 ☐ 12:30-2:30 ☐ 3-5 PM

Day: ☐ ☐ ☐ ☐ ☐ ☐ ☐
 Mon Tu Wed Th Fri Sat Sun

Date: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
 0 1 2 3 4 5 6 7 8 9

Appendix D

Results from Multivariate Analyses

Introduction

This appendix contains a detailed discussion of the results of the multivariate analyses briefly mentioned in Section III and the associated tables. First, the results of logistic regression models that estimate the probability of reading the didactic materials in the *Comparisons* exhibition are presented. This is followed by the results of OLS regression models that estimate respondents' desired space allocation for didactic exhibition.

Reading of Didactic Materials in *Comparisons* Exhibition

In Section III, we examined each of the various background characteristics (gender, education, race/ethnic identification, and experience with the arts) separately in relation to reading the didactic materials. Here, we examine several characteristics simultaneously and estimate the probability that certain types of individuals would or would not read the materials. In calculating the probability of an exhibition visitor reading the didactic materials, we conceptualize "reading" as a discrete act. In these models, each person who read the materials received a score of 1 and those who did not read received a score of 0. We can then ascertain the unique or net contribution of each background factor (independent variables) in the likelihood of perusing the exhibition brochure and/or panels.¹ Table D.1 shows the results of logistic regressions models for reading the didactic materials in the *Comparisons* exhibition.

To examine the probabilities of relevant factors and their differences with various combinations of other characteristics we estimated three models with three sets of independent variables: (1) demographic variables (gender, racial/ethnic identification and education); (2) variables assessing an individual's arts experience (frequency of museum and gallery attendance, background in the arts); and (3) both demographic and arts experience variables simultaneously. Our analysis began by calculating the probability that a person would read the exhibition materials if everyone in the sample was identical. Once this probability was estimated, we systematically varied each of the variables in the model to see the change in the probability of reading due to the change in a particular factor. For example, in the demographic model (1), the first assumption was that everyone in the sample was non-minority, male, and had a grade school education. This hypothetical person had a probability of reading the exhibition materials equal to .32 (row 1, column 2). In other words, we could expect 32 out of 100 non-minority men with grade school education to read the exhibition materials. The next step was to examine the role of gender by assuming that some

¹ "Logistic regression" has been utilized in earlier ISO reports. See Z. D. Doering, R. D. Manning and K. J. Black, *Transportation to the National Air and Space Museum (NASM): Based on the 1988 NASM Survey*. Working Paper 89-2. (Washington, D. C.: Smithsonian Institution, 1989) and R. D. Manning and Z. D. Doering, *Methodological Issues of a Complex Sample Design: Visit Patterns at the National Air and Space Museum*. Paper presented at the annual meeting of the Society for Applied Sociology, October 1990.

of the people in the sample were women. This modification increased the probability of reading by .17. Thus, on average, we would expect the probability of non-minority women with a grade school education who read to be equal to .49. We continued this process of changing individual variables for gender, racial/ethnic identification, and education until predicted probabilities for all combinations of the independent variables were completed (see Table D.2).

Model 1 considers only demographic factors and assumes that all exhibition visitors had exactly the same arts experience, but different demographic characteristics. The results show that the probability of reading increases if a respondent is female (17 percent), decreases if a respondent is a member of an ethnic or cultural minority group (-16 percent), and increases with higher levels of educational achievement (28-59 percent). The change in probability of reading due to educational attainment, while consistently positive, fluctuates with different levels of achievement. For example, visitors with only a high school education, have a probability of .28, while those with some high school education show an increase in probability of .59. For persons who have completed college, the probability of reading rises by .47; those with some college and with graduate or professional education increases the estimated probability to .37 and .39, respectively. As demonstrated by these results, education has the greatest influence on whether someone will read the exhibition materials, independent of the influence of gender or racial/ethnic identity. [In Table D.2, for Model 1, we show the estimated probabilities for the smallest group of visitors (minority men, 5.7 percent of the sample) and the largest group (non-minority women, 47.1 percent of the total sample). Calculations can be computed for the intermediate groups (minority women and non-minority men, 7.2 percent and 40.0 percent of the total sample, respectively).]

There are striking differences between levels of educational achievement. In Table D.2, for example, we see that the probability of reading for minority males with some high school education is more than four times that of minority males with just a grade school education.² In Table D.2, for Model 1, we show the estimated probabilities for the smallest group of visitors (minority men, 5.7 percent of the sample) and the largest (non-minority women, 47.1 percent of the total sample). Similar calculations can be made for the intermediate groups (minority women and non-minority men, 7.2 percent and 40.0 percent of the total sample, respectively).

Model 2 predicts reading by variation in arts experience factors, with all demographic characteristics assumed to be equal across individual respondents. These factors can be categorized as experience with arts institutions (measured in terms of frequency of visits to museums and art galleries) and personal background in the arts (both formal and informal). When all demographic characteristics are held equal, or statistically "controlled," the probability of reading is .70, consistent with the results previously reported in Figure 3.2. The two institutional variables, museum attendance and gallery attendance, have opposite effects on the probability of reading; albeit the former is minor and statistically insignificant. As frequency of museum attendance rises, the probability of reading increases, although the amount of increase is slightly smaller for frequent museum goers than for those who go an

² Differences were not found between residents of the U.S. and those from abroad.

average number of times. We interpret this effect as a function of individuals becoming accustomed to the museum environment and with art itself. We would expect that this process is discernible among persons who go to museums at least once a month. In contrast, as gallery attendance increases the probability of reading falls sharply, declining to .19 for frequent gallery goers. We attribute this to familiarity with the arts as well, although this variable is probably measuring familiarity with the private, for profit, art market rather than with the public arts community.

The key variable in Model 2, however, is the type of background in the arts. For individuals who study the arts or read art publications, the probability of reading increases a substantial .13 compared to those with a general interest in the arts. For those with a professional interest in the arts, the increase in the probability of reading is not statistically significant. For those who create art for pleasure, the influence on reading is negative, albeit also not statistically significant. In terms of the predicted probabilities, as reported in Table D.2, it ranges from a low of .45 for persons who create art for pleasure and go to museums less than once a year but go to galleries more than once a month to .92 for persons who go to museums every few months and read art publications. The type of person with the lowest probability almost resembles a caricature of a person interested in art, while the type of person with the high probability clearly resembles the average museum goer. As was the case with Model 1, in calculating probabilities for Model 2, we picked the two extreme groups. Those who attended museums infrequently and galleries frequently were less than one percent of the total sample, while those who had an average museum attendance and infrequent gallery attendance were 25.7 percent of the sample. The probabilities for all other combinations of attendance fall between these calculated values. [For Model 2, we again use "minimum" and "maximum" groups. Those who attended museums infrequently and galleries frequently were less than one percent of the total sample, while those who had an average museum attendance and infrequent gallery attendance were 25.7 percent of the sample. The probabilities for all other combinations of attendance fall between these calculated values.]

Model 3 analyzes all of the demographic and arts experience factors simultaneously; in a statistical sense this is the "full" model. This model gives us the larger picture of visitor activity patterns in the *Comparisons* exhibition. Besides being able to assess the effects of education and arts interest together, we observe a pronounced effect of gender and museum attendance on the probability of reading. Table D.2 shows that Caucasian women who visit museums every few months have the highest probability of reading the exhibition materials. This is true for all combinations of education and arts background. All of the probabilities are over .50 and some of them approach certainty (a probability of 1.00).³ This suggests that the people most likely to read materials like those in the *Comparisons* exhibition are those with moderate experience going to museums - not infrequent museum goers. However, these findings suggest that reading exhibition materials is part of the process of becoming familiar with art, since those persons who go to museums (and

³ Although it is not mathematically possible to have a probability greater than 1.00, such predicted probabilities may arise as a statistical artifact of the procedure for estimating logit models. Predicted probabilities greater than 1.00 are typically adjusted to equal 1.00.

for that matter, galleries) tend to have a lower probability of reading than those who go every few months. The Model 3 values shown in Table D.2 are for the combined "minimum" and "maximum" gender, racial/ethnic identification, and attendance profiles from Models 1 and 2. [The "full" model (Model 3) values shown in Table D.2 are for the combined "minimum" and "maximum" gender, racial/ethnic identification, and attendance profiles from Models 1 and 2.]

Gallery Space Allocation for Educational Exhibitions. Expressed as "Average Number of Galleries" (Maximum = 10)

To better understand the responses to the question about space allocation, we estimated multivariate models which allow us to examine the various factors simultaneously. These multivariate models were specified using the variables and techniques employed in the previously discussed logistic regression models with one important exception. Here the outcome being predicted, the number of galleries a respondent would like to see dedicated to explanatory exhibitions, is a numeric measure (a continuous, categorical variable). In other words, the model being estimated is the number of galleries desired rather than the change in probability of an event occurring. The three multivariate models are specified exactly as before: (1) demographic variables (gender, racial/ethnic identification and education); (2) variables assessing an individual's arts experience (frequency of museum and gallery attendance, background in the arts); and (3) both demographic and arts experience variables simultaneously.⁴ [Table D.3 presents the results of OLS regression models for the respondents' desired space allocation for didactic exhibitions and, in Table D.4, the number of predicted galleries is calculated with specific visitor "types." The same "minimum" and "maximum" profiles used in Table D.2 are used in Table D.4.]

The demographic characteristics (Model 1) show that, all factors being equal, respondents want an average of nearly four (3.78) explanatory galleries. Differences in gender and racial/ethnic identification increase this figure (more so for racial/ethnic identification than for women) whereas all levels of education reduce the preferred number of galleries. In fact, once visitors' educational attainment exceeds a high school degree, they want progressively less space allocated for explanatory exhibitions. The model predicts that the average Caucasian male with a graduate school education wants only two explanatory galleries (i.e., 3.78 minus 1.78), while the average minority female with the same level of education would want 3.19 galleries ($3.78 + 0.32 + 0.87 + -1.78$). The negative influence across all educational categories is clearly shown in Table D.3.

Turning to the arts background factors (Model 2), museum and gallery attendance reduce the average number of explanatory galleries desired, to 2.7 galleries, assuming all other background factors are the same. This suggests that persons who are not particularly familiar with arts institutions want the experience that is offered by these types of exhibitions. The number of galleries desired increases with different types of arts interests, with persons who create

⁴ See Appendix D, Table D.3 for the full report of these models.

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Table D.2

Summary of Predicted Probabilities for Reading Exhibition Materials
(from Logit Models)

Model 1: Demographic Characteristics

	<u>Minimum</u> (Male, Minority)	<u>Maximum</u> (Female, Non-Minority)
<u>Education</u>		
Grade School	0.16	0.49
Some High School	0.75	1.00 (1.08)
High School Graduate	0.44	0.77
Some College	0.53	0.86
College Graduate	0.63	0.96
Graduate/Professional School	0.55	0.88

Model 2: Art Experience

	<u>Minimum</u> (Infreq. Mus. Attend., Freq. Gal. Attend.)	<u>Maximum</u> (Avg. Mus. Attend., Infreq. Gal. Attend.)
<u>Arts Background</u>		
General Interest in Arts	0.51	0.79
Arts Courses/Read Arts Magazines	0.64	0.92
Professional/Career Interest in Arts	0.52	0.80
Create Art for Pleasure	0.45	0.73

Model 3: Full Model

	<u>Minimum</u> (Male, Minority, Infreq. Mus. Attend., Freq. Gal. Attend.)	<u>Maximum</u> (Female, Non-Minority, Avg. Mus. Attend., Infreq. Gal. Attend.)
<u>Education and Arts Background</u>		
<u>Grade School and...</u>		
General Interest in Arts	0.00	0.51
Arts Courses/Read Arts Magazines	0.15	0.67
Professional/Career Interest in Arts	0.00	0.52
Create Art for Pleasure	0.00	0.47

Table D.2 (cont.)

Model 3: Full Model(cont.)

	<u>Minimum</u> (Male, Minority, Infreq. Mus. Attend., Freq. Gal. Attend.)	<u>Maximum</u> (Female, Non-Minority, Avg. Mus. Attend., Infreq. Gal. Attend.)
<u>Some High School and...</u>		
General Interest in Arts	0.60	1.00 (1.12)
Arts Courses/Read Arts Magazines	0.76	1.00 (1.28)
Professional/Career Interest in Arts	0.61	1.00 (1.13)
Create Art for Pleasure	0.56	1.00 (1.08)
<u>High School Graduate and...</u>		
General Interest in Arts	0.29	0.81
Arts Courses/Read Arts Magazines	0.45	0.97
Professional/Career Interest in Arts	0.30	0.82
Create Art for Pleasure	0.25	0.77
<u>Some College and...</u>		
General Interest in Arts	0.33	0.85
Arts Courses/Read Arts Magazines	0.49	1.00 (1.01)
Professional/Career Interest in Arts	0.34	0.86
Create Art for Pleasure	0.29	0.81
<u>College Graduate and...</u>		
General Interest in Arts	0.44	0.96
Arts Courses/Read Arts Magazines	0.60	1.00 (1.12)
Professional/Career Interest in Arts	0.45	0.86
Create Art for Pleasure	0.40	0.81
<u>Graduate/Professional School and...</u>		
General Interest in Arts	0.38	0.90
Arts Courses/Read Arts Magazines	0.34	1.00 (1.06)
Professional/Career Interest in Arts	0.39	0.91
Create Art for Pleasure	0.34	0.86

Table D.3

Results of OLS Regressions Models for Desired Space Allocation for
Didactic Exhibitions

<u>Variables</u>	<u>Model 1</u> Coeff.	<u>Model 2</u> Coeff.	<u>Model 3</u> Coeff.
<u>Intercept</u>	3.776*	2.731*	3.626*
<u>Gender</u>			
Female	0.319*	--	0.264*
Male+	...	--	...
<u>Race/Ethnic</u>			
Minority	0.872*	--	0.819*
Nonminority+	...	--	...
<u>Education</u>			
Grade School+	...	--	...
Some High School	-1.739*	--	-1.351*
High School Graduate	-0.994	--	-0.799
Some College	-1.673*	--	-1.274*
College Graduate	-1.712*	--	-1.252*
Graduate/Prof School	-1.785*	--	-1.281*
<u>Arts Participation</u>			
<u>Museum Attendance</u>			
Frequent	--	-0.066	0.012*
Average	--	-0.041	-0.321
Infrequent+	--
<u>Gallery Attendance</u>			
Frequent	--	-0.713*	-0.742*
Average	--	-0.437	-0.039
Infrequent+	--
<u>Arts Background</u>			
General Arts Interest+	--
Arts Courses/Read Arts	--	0.053*	0.096*
Prof/Career Interest	--	0.116	0.086
Create Art	--	0.309	0.599
R-Square	0.0765	0.0464	0.0946
	P < .005	P < .05	P < .05

+ = Dummy variable excluded from regression.

* = p. < .05.

Table D.4

Summary Results of OLS Regressions Models for Desired Space Allocation for
Didactic Exhibitions: Number of Galleries

Model 1: Demographic Characteristics

	Minimum (Male, Minority)	Maximum (Female, Non-Minority)
<u>Education</u>		
Grade School	4.65	4.10
Some High School	2.91	2.36
High School Graduate	3.65	3.10
Some College	2.98	2.42
College Graduate	2.94	2.38
Graduate/Professional School	2.86	2.31

Model 2: Art Experience

	Minimum (Infreq. Mus. Attend., Freq. Gal. Attend.)	Maximum (Avg. Mus. Attend., Infreq. Gal. Attend.)
<u>Arts Background</u>		
General Interest in Arts	2.02	2.69
Arts Courses/Read Arts	2.07	2.74
Professional/Career Interest	2.13	2.81
Create Art for Pleasure	2.33	3.00

Model 3: Full Model

	Minimum (Male, Minority, Infreq. Mus. Attend., Freq. Gal. Attend.)	Maximum (Female, Non-Minority, Avg. Mus. Attend., Infreq. Gal. Attend.)
<u>Education and Arts Background</u>		
<u>Grade School and...</u>		
General Interest in Arts	3.70	3.57
Arts Courses/Read Arts	3.80	3.67
Professional/Career Interest	3.79	3.66
Create Art for Pleasure	4.30	4.17

Table D.4 (cont.)

Model 3: Full Model(cont.)

Some High School and...

General Interest in Arts	2.35	2.22
Arts Courses/Read Arts	2.45	2.31
Professional/Career Interest	2.44	2.30
Create Art for Pleasure	2.95	2.82

High School Graduate and...

General Interest in Arts	2.90	2.77
Arts Courses/Read Arts	3.00	2.87
Professional/Career Interest	2.99	2.86
Create Art for Pleasure	3.50	3.37

Some College and...

General Interest in Arts	2.43	2.30
Arts Courses/Read Arts	2.53	2.39
Professional/Career Interest	2.52	2.38
Create Art for Pleasure	3.03	2.89

College Graduate and...

General Interest in Arts	2.45	2.32
Arts Courses/Read Arts	2.55	2.41
Professional/Career Interest	2.54	2.40
Create Art for Pleasure	3.05	2.92

Graduate/Professional School and...

General Interest in Arts	2.42	2.89
Arts Courses/Read Arts	2.52	2.38
Professional/Career Interest	2.51	2.37
Create Art for Pleasure	3.02	2.89

Appendix E

Selected Comments From *Comparisons* Visitors

Visitors to *Comparisons* had two opportunities to make comments about the exhibition. The first, available to all visitors, was an opportunity to write comments on a card designed by the curator. Visitors could complete a 4"x6" card that asked three questions:

- 1) *Was the exhibition interesting?*
- 2) *Were the written materials and questions helpful?*
- 3) *Do you have any suggestions for improving other visitors' experience of this exhibition?*

The completed cards were deposited in a box as they left the exhibition. During the course of the exhibition (Dec. 1990 to July 1991), approximately 6,400 comment cards were collected. Since we estimate that 90,000 - 100,000 visits were made to *Comparisons*, between 6.4 percent and 7.1 percent of the visitors completed comment cards.

The second opportunity for comments was available only to visitors who participated in the survey. Survey participants could respond to the following prompt at the end of the personal interview: *Do you have any other comments about the exhibition?* Overall, 36.6 percent of respondents offered additional comments but only 14 percent answered with more than a single word, e.g., "Interesting" or "Great." Most respondents may have felt that they had sufficiently expressed their opinions earlier in the survey.

We reviewed both sources of visitor comments. The comments on the questionnaires did not yield any new information for analysis. The comment cards are illustrative of visitor reaction to the exhibition. Listed below are a range of responses to the questions found on the comment card. Overall, the responses were positive. However, earlier in this report we noted that the utility of comment cards is limited since they may not be representative of the "average" visitor. The comment cards and examples below should be viewed as suggestive rather than informative of visitor response to *Comparisons*. That is, they are not representative of the larger population of exhibition visitors.

Was the exhibition interesting?

"Yes! Very. But definitely an exhibit to see with someone."

"For me - very! But I am an artist, and ask myself these questions anyway. I view my environment in much the same way."

"A refreshing change. A step toward an interpretative art exhibition."

"It was a bit too sophomoric - more information on individual works/artists would have been helpful."

"Frustrating. The subtle implication I got was that one of the images was 'better' and the viewer who was 'learning' from the exhibition could determine which piece it was. The concepts presented seem to be an unresolved straddling of personal preference and conventional art historical preference."

"It was a good idea but fell short of being successful - needs to be more comprehensive."

Were the written materials and questions helpful?

"Very - questions ordered my seeing and the brochure means I can do this again more leisurely."

"Very - especially for those who are uninitiated into artistic evaluation. This should tour the schools!"

"The questions make me choose, and therefore learn about both color preferences and preferences in composition. I discovered how much I like the serene, the subdued."

"Questions next to paintings: condescending and inane."

"Yes - but often questions are too 'leading' to a 'right' or 'wrong' conclusion rather than an informal reaction."

"The questions were helpful but annoying. One couldn't help considering, 'Did I get the answer right?' - that is, wondering what the questioner thought. I would have enjoyed receiving an essay at the end, in which the curator gave his or her own thoughts about the art works."

"No. The questions were very simplistic and did not help me to understand what was important about the artist in terms of his/her style. Also, they did not help me to understand what the artists' point was or how they used their materials to get across their point."

Do you have any suggestions for improving other visitors' experience of this exhibition?

"Do it again. I don't know what it cost to mount this but it is worth it! Spend money like this anytime. I'm a regular museum goer - but this was helpful - and unabashed fun. I especially appreciate the brochure - I can 'share' the exhibit with family not near here (including Saudi Arabia). (Married) couples had wonderfully disparate views as they saw this exhibit. That was fun too!"

"Repeat with different pieces - maybe on a smaller scale."

"More women artists please (I expected more of the Hirshhorn). More sculpture."

"A docent in the room."

"Have a tape to accompany exhibit which explains the thrust or viewpoint of the artist or the particular work on view."

"Yes - change the questions. There is no point to having to answer yes or no to these questions without learning something from them."

"Build questions from children's level to more sophisticated adult ones, perhaps, for each comparison."

"I would like to see the curator's viewpoint or interpretation at the end. I left the exhibition not having any information about what I should have learned and in fact, did not really learn anything. Someone needed to provide answers to the questions or suggestions as to how to interpret what we saw for those of us without art history backgrounds."

"I'd like to know more about what makes some of these ART! In my opinion, most of them are neither pleasing nor provocative, nor interesting. Some preschoolers could do as well. Even I could paint squares on canvas."