DIVERGING ATTITUDES OF PLANNERS AND THE PUBLIC: AN EXAMINATION OF ARCHITECTURAL INTERPRETATION

Philip Hubbard

Previous research has revealed important differences in architectural evaluation between design professionals and the lay public, with such differences commonly assumed to be the result of professional education. However, few attempts have been made to determine the actual source of such differences, and there is little evidence that these are actually the result of training or education. This paper summarizes the findings of a study which set out to investigate these issues, specifically focusing on differences in architectural interpretation between the lay public, planning students, and practicing planning professionals, a group often neglected in studies of environmental aesthetics. These interpretations were examined utilizing multiple sorting and ranking procedures, with the respondents asked to sort fifteen examples of contemporary architecture according to criteria of their own choice. The results revealed both commonalities and differences in evaluation between the various groups, with the differences particularly pronounced between planners and the public. The results lend support to the view that education is a key factor in the acquisition of aesthetic values and also suggest that training encourages homogeneity of aesthetic tastes. This study thus corroborates and expands the findings of studies by other researchers by suggesting that there are significant relationships between expertise, attitude, and interpretation which may have important implications for planning practice.

INTRODUCTION

Over the last thirty years, a major research topic within architectural and planning research has been the investigation of architectural interpretation and appreciation, with environmental aesthetics now recognized as a field in its own right. Emerging from such research is the idea that responses to architectural or landscape scenes are as dependent on the symbolic, non-sensory aspects of design as on the sensory or physical attributes. Such conclusions seem to suggest that the scientific study of environmental aesthetics is impossible, as each individual potentially attributes a unique meaning to the environment, rendering interpretation as purely subjective. On the contrary, however, it has been suggested that architectural interpretation is constructed through codes that are socially transmitted and thus based on learning and culture (Pennartz, 1989; Hubbard, 1993). This reformulation of aesthetics as "socio-aesthetics" suggests then that architectural interpretation is far from random or idiosyncratic but rather signifies values that stabilize cultural, group, or individual identities.

Various methods have thus been developed to elicit the meanings which people attach to buildings, with the logical consequence of this approach being the investigation of how architectural interpretation diverges between different individuals and groups. Such differences have been examined in terms of age, gender, and class, but Devlin (1990) has suggested that the most important distinction is between the "producers" and "consumers" of the environment — those who create the environment and those who live in it. Obviously, such a delimitation is rather artificial, as all producers are consumers also, but a number of studies have indeed confirmed that there are important differences in environmental evaluation between design experts and the lay public. For example, in a comparison of twenty residential elevations, Devlin and Nasar (1989) found that architects preferred the "high" housing designs that the public liked least, whereas the public found the "low" styles clearer, more relaxing, and pleasing. Such discrepancies tend to support the anecdotal evidence that there is an appreciation gap between professional, "educated" tastes and those of the public at large.

Nevertheless, this finding has not been supported empirically in all studies. In particular, Stamps and Miller (1993) reported "very substantial agreement" between architects and members of neighborhood organizations in their preferences for residential infill designs. They backed this finding with a meta-analysis of correlations between design experts and general population judgments, which reported a combined correlation over four studies of 0.86, suggesting a high level of consensus between architects and public groups. Even so, Groat (1994) has suggested that whilst architects and lay people may share similar judgments, the bases for such judgments may be quite different. Specifically, it has been hypothesized that design experts and non-experts employ very different conceptual schema for interpreting architecture. Examining these issues, Groat (1982) concluded that non-architects typically use affective constructs such as "preference" and "building type" in contrast to the architects who used physical constructs such as "form," "style," and "historical significance." In a similar vein, Devlin (1990) demonstrated the relative dominance of physical constructs in the categorization schemes of architects. Normally such differences have been attributed to the influence of professional training in architectural design, suggesting that designers have an "assumed knowledge" that leads them to conceptualize architectural stimuli in ways that are similar to others of their own profession, but different from those who have not undergone their professional education. However, there have been few attempts to determine the exact nature of such differences, or whether they can be attributed to the predisposition and personality of the respondents rather than formal exposure to design education.

The Planning Profession

Whilst there have been numerous studies contrasting architectural interpretation between architects and the lay public, there has been a conspicuous absence of research utilizing planners as a study group. In many respects, such an omission is not surprising, given that planners receive limited aesthetic training and as such cannot really be considered as "design experts." Nonetheless, aesthetic issues are central to the day-to-day practices of planning control in Britain, with local authorities having to pass judgment on the design merit of thousands of planning applications each year.[1] As

such, many British planners are actually motivated to join the profession because of their interest in promoting the aesthetic quality of the environment (Punter, 1993). However, the exercise of aesthetic control remains one of the most contentious aspects of British planning and a constant source of irritation to the architectural fraternity, who regard it as stifling architectural freedom and creativity (Manser, 1980). Central government, whilst acknowledging such arguments, has continued to support the principle of aesthetic control, recognizing that 95 percent of all planning applications are made without the involvement of a trained architect. Therefore, planners retain a pivotal role in the production of the built environment, and as decision-makers must attempt to weigh all sides of any design dispute in the interests of the whole community. Given this important intermediary role, the examination of planners' aesthetic tastes, and identifying how they differ from those of the lay public, would appear to be an important research topic.

There are substantial grounds for supposing that planners would interpret architecture in a distinctive manner. A number of commentators have suggested that all planners dwell in an "occupational community" that governs their beliefs and values to a lesser or greater extent, with members of that occupational community sharing a common self-image and attitudes to a variety of issues such as the environment, society, and their political superiors. Knox and Cullen (1981) have thus described the existence of a distinctive planning personality among British planners which is an "amalgam of paternalism, environmentalism, aesthetics [sic] and social determinism." The distinctive socio-demographic background of planners (who are largely drawn from a narrowly defined middle-class spectrum of society), the rigors of day-to-day planning practice, and particularly professional training, have all been claimed as factors crucial in the development of this distinctive planning personality (Hebder, 1992). Whilst this by no means suggests that planners should be considered as a monolithic body of regimented minds, it does suggest that there may be important differences in the evaluation of the built environment between planners and the public.

The remainder of this paper seeks to investigate the nature of these differences by briefly describing one segment of a larger study on the interpretation and evaluation of architecture. Specifically, this paper summarizes the findings of an empirical study which hypothesized that architectural interpretation would vary between planners and the public in three distinctive, but complementary, ways:

- i) Differences in categorization: It was expected that the type of categories and concepts used to conceptualize architecture would vary between the planners and the public, with the two groups emphasizing different concerns in their interpretation of architectural stimuli.

- ii) Complexity of interpretation: It was further anticipated that the range or number of categories used by the respondent groups in their conceptualization of architecture would be different, with the planners characteristically possessing a more complex conceptualization of architecture and hence utilizing more categories than public groups.

- iii) Architectural preferences: On the basis of these expected differences, it was anticipated that planners and the public would have fundamentally different evaluations of architectural quality, which would be evidenced in their differing preferences for architectural stimuli.

This study also expands on a number of earlier studies by examining the hypothesis that any such differences would be directly related to factors of education and experience rather than just the predisposition and personality of the respondents. To these ends, the interpretations of planners and the public were also contrasted with those of students, both prior to and after completing an introductory planning course.

METHODS

These issues were investigated using various methods of data collection, and whilst it is not intended to describe these in detail here,[2] essentially these procedures entailed in-depth interviews (typically of

an hour's duration) examining respondents' interpretations of fifteen commercial redevelopment schemes completed between June 1988 and June 1991 in Birmingham City Center, England. These redevelopments were selected from thirty-five major redevelopment schemes completed in this period and were chosen to be broadly representative of the types and styles of commercial development undertaken in this period. Although it would have been feasible to examine reactions to these developments in the field, for logistic reasons it was decided to represent these examples of redevelopment through the medium of color photographs, which have been used successfully as an environmental surrogate in a number of similar studies (Stamps and Miller, 1993). The set of photographs for this study therefore consisted of a range of fifteen urban scenes, each of which included the redevelopment together with several of the immediately adjacent buildings.

Participants

A total of ninety individuals participated in this study, selected from three discrete respondent groups. The first group consisted of forty members of the lay public recruited through random selection in the local area. As such, this was a genuine "lay" sample, rather than the group of students typically used in many studies as a surrogate for public respondents. The use of genuine lay respondents was important in the context of the study, as this is the very group that the planners are supposed to be representing. The second group thus consisted of 20 planning officers, ranging in age from 26 to 58, representing a cross-section of planners employed by the local authority. Whilst it would be foolish to claim that the attitudes expressed by these twenty planners are completely representative of planners in general, the demographic and professional profiles of these planners tended to conform with those of the profession as a whole and appeared to be very much the "middle class animal" described by Knox and Cullen (1981).

The final interview group consisted of 15 volunteers recruited from a third-year introductory planning course at Birmingham University, interviewed at both the beginning and cessation of their course (the interviews being separated by an eight month gap). Whilst it should be noted that this course was not professionally recognized, it examined the operation of the planning system in some detail, as well as providing an overview of contemporary urban design issues. The three respondent groups were thus selected to represent a continuum of experience and expertise ranging from the lay public group, which had no special interest in urban design, a topic typically outside their professional expertise, through to the planning group, who presumably spend much longer studying and criticizing the built environment. It was speculated that the attitudes of the planning students would lie somewhere in between, as at the start of the course they would have had a special interest in the built environment that was developed throughout the course. Obviously, the sample is small, and this must be borne in mind when extrapolating the findings of such research to the wider population. However, given the intensive nature of the interview techniques and the exploratory nature of the study, it was concluded that small sample sizes were most appropriate.

The Multiple Sorting Task

It had been hypothesized that the aesthetic attitudes of planners would not diverge from those of the public as obviously as has been the case in many studies contrasting professional architects with non-architects. This suggested that a sensitive data collection technique would be required to examine these differences. To these ends, the research interview was based around the use of the multiple sorting task, an exploratory research technique that respects the ability of individuals to formulate ways of thinking about their surroundings in their own terms. In simple terms, the respondents were asked to sort the fifteen architectural stimuli into groups or categories of their own choosing, according to criteria of their own selection, and then asked to describe the sorts they had completed (utilizing their own terminology). This procedure was repeated until the respondents felt they had exhausted all the possibilities for sorting (this basic sorting task was supplemented by an additional preference ranking exercise). Such sorting procedures have been recognized by psychologists as being particularly appropriate for identifying variations in conceptual systems between groups and

TABLE 1. Matrix of Pearson product-movement correlation coefficients for the fifteen architectural stimuli.

	Planning Students$_1$	Planning Students$_2$	Planners
Lay public	0.749*	0.669*	0.502
Planning students$_1$	-	0.857*	0.584
Planning students$_2$	-	-	0.625*

* p < 0.01 (2-tailed test)

individuals and are generally preferred to more rigid semantic differential methods that virtually preclude the identification of subtle differences in evaluation (Canter, et al., 1985).

RESULTS

This interview procedure thus identified four sets of data, one each for the lay public and planning groups, and two for the planning students, one at the outset and one at the end of their course. An analysis was then carried out on these data sets, using various forms of statistical and content analysis (Doise, et al., 1993). The results of this analysis revealed both commonalities and differences in the interpretation of the redevelopments between respondent groups, yet the differences that were evident appeared to be related to factors of experience and expertise — in brief, quantitative and qualitative differences were evident at virtually every stage of analysis. Therefore, in the remainder of this paper, discussion will focus specifically on the variations on architectural interpretation between the different groups and individuals defined by virtue of their environmental experience and expertise.

Architectural Preferences — Inter-Group Comparisons

Initial analysis focused on the overall preference judgment for the fifteen redevelopments as evidenced by the preference rankings completed by the respondents. An inter-group comparison was facilitated by aggregating the rank orders of individual respondents and performing product-moment correlation coefficients on these composite rank orders. The resulting correlation matrix (Table 1) shows significant degrees of association (at the 95 percent confidence level) among the three groups, with some notable exceptions, namely the correlation between planners and the public, and also between the planners and the students at the outset of their course. These results are largely in line with expectations, as they indicate a lack of association between the planners and the lay public in terms of their judgment of the redevelopments. Furthermore, although there is also an absence of association between the planning students and the planning professionals at the beginning of their course, by the end it appears that their judgments are more in line with those of the planners and less like those of the public. Although the differences are not vast, these correlations are consistent with the hypothesis that education has a significant influence on aesthetic attitudes — specifically, it appears that there is a consistent increase in agreement between the planners and the student groups over the training period.

Closer examination of the preference rankings revealed that the majority of inter-group variation in preference scores seemed to be because of the disagreement surrounding the relative merits of "high-tech" redevelopments as opposed to those which incorporated derivative and historical elements. Specifically, it appeared that the planners generally preferred the more "up-to-date," late Modern styles, with the public indicating a stronger preference for derivative Post-modern styles often dismissed as "pastiche" by the planners. In contrast, the planning students appeared to be more ambivalent about stylistic issues per se, with their evaluations appearing to lie somewhere between those of the planners and the public. This lends support for the view that whilst the public tend to appreciate continuity in the townscape, planners, like other design experts, tend to appreciate more fashionable and "up-to-date" architectural styles (Devlin and Nasar, 1989).

Differences in Categorization Schemes

Although mean preference ranks may reveal discrepancies in architectural and aesthetic appreciation, they can overshadow important intra-group variations in evaluation. Similarly, even when respondents appear to share similar judgments of architectural stimuli, the basis for that judgment might be quite different (Groat, 1994). The nature of this categorization scheme was explored in the context of the interview procedure whereby each respondent was asked to select their own criteria for sorting the redevelopments. In total, two hundred and thirty-four different sorts were completed by the ninety respondents in this "free" sort procedure. Simple numerical comparison of the number of sorts completed is not a good indicator of conceptual complexity (Downing, 1992), but it can indicate some trends of interest. In this case, the planners were able to complete twice as many sorts as the public, on average completing four sorts each as compared to the public's two, whilst the planning students increased the number of sorts they used from 2.5 to an average of 3.5 for the second interview. This was felt to reflect the planner's and planning student's superior competence when dealing with architecture, as the more familiar respondents are with a set of stimuli, the more likely they would be able to produce a greater number of varied sorts (Canter, et al., 1985). This disparity immediately suggests that a person's education and development can make a major difference in architectural interpretation.

To facilitate further comparison of the concerns emphasized by the respondents in their sorts, a basic content analysis of the category descriptors was performed. To this end, the respondents' descriptions were sorted into sixteen categories by the researcher based on construct categories elicited in similar studies (e.g. Groat, 1982; Devlin, 1990). To maximize the reliability of this technique, this procedure was also completed by a colleague unfamiliar with the objectives of the study, with considerable inter-judge agreement evident in the categorization of the sorts (only thirteen of the two hundred and thirty-four different sorts were disputed). Where the raters disagreed on the concepts reflected in the sorts, the two judges discussed the categorization until agreement was reached. The construct categories elicited were based not only on physical characteristics (groups sorted on the basis of style, details, and context) but also on human activities (particularly function) and cognitive responses (preferences, meanings, and affect), confirming that buildings are conceptualized not only in terms of their sensory qualities but also in terms of non-sensory qualities such as psychological attributes, images, and meanings.

From this we can conclude that quite a large range of constructs was called upon to categorize the buildings, but only a few were used with any real consistency, particularly function, affect, and age. However, of more interest in terms of the preceding discussion were the inter-group variations evident in construct use. To explore this variation, the construct categories used by each group were tabulated (Table 2) and a chi-square test performed on this table. This statistical analysis demonstrated that there was a significant difference in the type of concerns emphasized by the various respondent groups at the 99 percent confidence interval. This suggested that the type of concepts emphasized by the respondents was strongly dependent upon their educational attainment and level of experience. However, rather than possessing completely different categorization schemes, the groups tended to place a different emphasis on particular categories.

Specifically, it appeared that the planners used a slightly larger range of categories than was the case for the other groups, and also interpreted architecture mainly according to design criteria. Over seventy percent of planners' sorts were concerned with physical or formal qualities of the redevelopments, with their most frequently used categories including "design approach," "materials," and particularly "context" — issues that are typically within their control as development control officers. In addition, functional concerns (essentially, what a building was used for) accounted for 10 percent of their sorts. In contrast, nearly half of the public sorts were based on cognitive and functional constructs, particularly affective criteria (i.e. what it reminded them of and whether they liked it). Again, the concerns emphasized by the planning students seemed to be a composite of the two, exhibiting aspects of both professional and lay perspectives, but with the relative dominance of physical and stylistic criteria increasing with further education. Overall then, this analysis indicated that non-

TABLE 2. Frequency of construct use: inter-group comparison.

	Public	Planning students₁	Planning students₂	Planners
Affect	32	4	9	6.5
Age	11	15	9	3
Function	10	13	15	10
Style	8	11	17	6
Form	8	4	1.5	3
Details	6.5	8	12.5	3
Scale	6.5	9	11	9.5
Materials	5	11	8	6.5
Humanity	3	4	0	7.5
Environment	3	4	3	6.5
Other	2.5	0	0	2
Form\function	1.5	0	0	3
Familiarity	1.5	0	0	5
Context	1.5	4	5	13
Location	0	4	4.5	4
Design approach	0	4	4.5	11.5
Total	100	100	100	100

trained individuals gave more affective and simple descriptive responses to the physical forms, whereas trained individuals commented more on detailed issues of design and the concepts used to arrive at that design.

The differences in the criteria used for categorizing the architectural stimuli can also be fruitfully explored by studying the differences between the respondents as individuals, as aggregating data may mask important differences (Doise, et al., 1993). The use of multidimensional scaling procedures facilitated further examination of patterns of construct use amongst individuals (Schiffman, et al., 1985).[3] To implement this analysis, a matrix was constructed matching each respondent to the construct categories that they employed in their sortings, with the resulting multidimensional scalogram plot (Figure 1) graphically illustrating the differences between individuals in terms of their construct category use. In this plot, each point represents a respondent in the study, and the closer two people appear in the plot, the more similar they were in the criteria they employed in their sorting; conversely, the further apart two points appear, the more dissimilar they were. Although the plot does not partition clearly between respondent groups, suggesting there was some overlap in the type of concerns that they emphasized, it can be observed that the planners are tightly grouped in the center of the plot, indicating that the twenty planners emphasized similar concerns in their interpretation of the architectural stimuli. However, the forty public respondents are scattered far more widely, indicating a higher level of heterogeneity amongst this group. This would seem to indicate that the public group, as individuals, tended to utilize a more varied and idiosyncratic range of criteria for the interpretation of architecture than did the planners. Most interestingly, it can be seen that the planning students became more homogeneous in their construct use with increased education, and, furthermore, that their construct use tended to converge on that of the planners.

Differences in Architectural Conceptualization

Having demonstrated differences in the type and range of concerns emphasized by each respondent group in their multiple sorts, the final stage of analysis examined the distribution of the architectural stimuli within these construct categories. Table 3 shows the variation in the number of categories or groups used within each sort by each respondent group. Obviously, the number of categories that could be formed was restricted to the number of architectural stimuli supplied for sorting, but, in actual fact the range was from a minimum of two to a maximum of eight categories. A chi-square analysis of this table demonstrated that there was a significant difference (at the 95 percent confidence interval) between the number of categories typically used in each sort by the respective respondent groups, with the public, on average, using more categories within each sort than the other
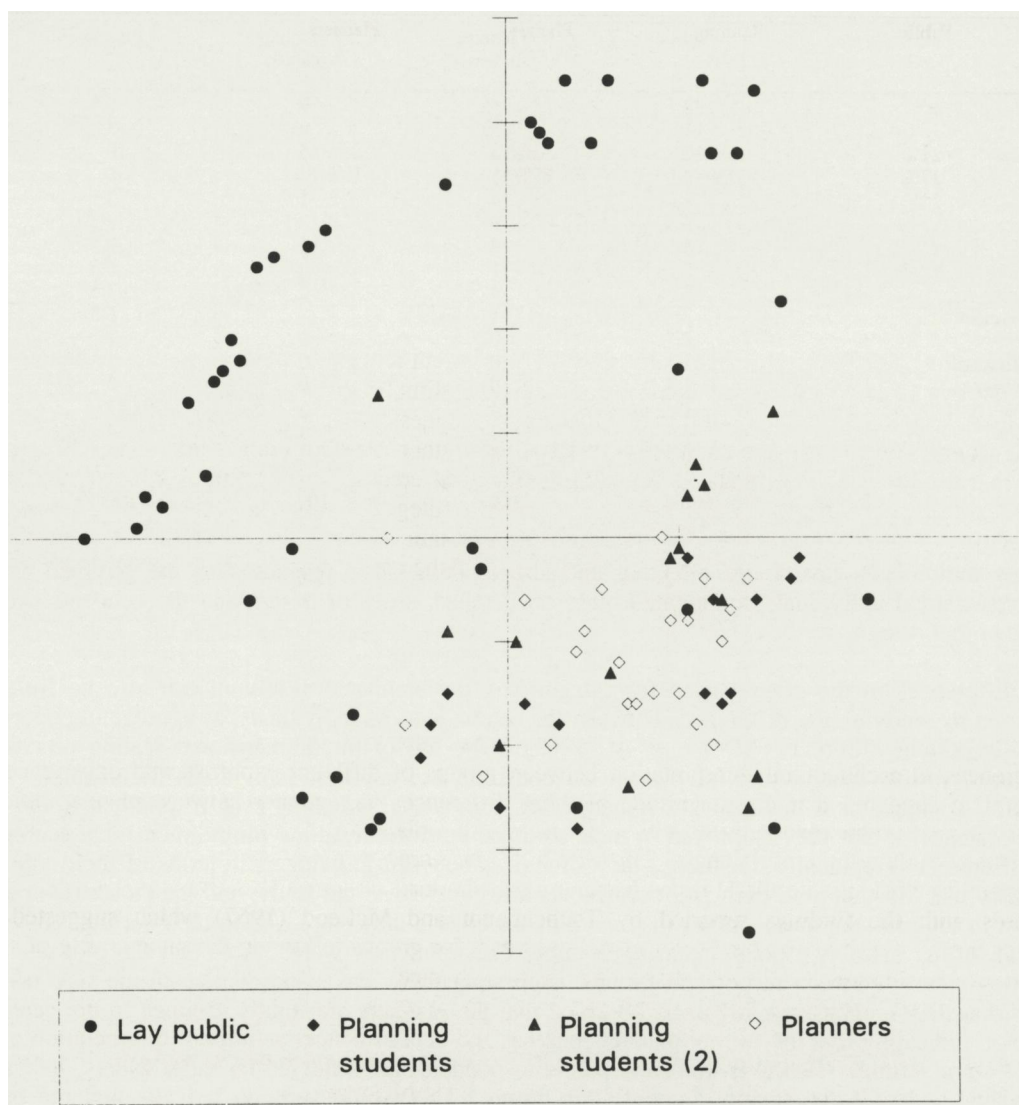
FIGURE 1. Multidimensional scalogram of construct use: inter-group comparison (STRESS = 0.145).

groups (21 percent dividing the fifteen buildings into six or more groups). One possible interpretation of this was that the planners had a clearer and more coherent basis for their sorts, and thus required fewer groups.

This suggestion was borne out in detailed analyses of specific construct categories. For example, examining the sorts classified under the construct category "style," it was apparent that the respondents were sorting the architectural stimuli in very different ways, with the planners typically having a better organized and consistent classification of the redevelopments drawn from their familiarity with architectural and townscape literature. At the same time, planners adopted an increasingly sophisticated vocabulary to describe their classifications, typically identifying stylistic variants such as "high-tech," "neo-vernacular," or "post-modern pastiche." There was less consistency apparent for the sorts completed by the public, with idiosyncratic categories such as "house style," "1960s office," and "functional boxes." Analysis of the planning students' classifications revealed a shift from descriptive

TABLE 3. Number of categories used: inter-group comparison.

	Public	Planning Students₁	Planning Students₂	Planners
2	15%	11%	11%	29%
3	26%	18%	28%	24%
4	21%	25%	34%	27%
5	17%	21%	15%	10%
6	20%	14%	10%	8%
7+	1%	11%	2%	2%
Total	100%	100%	100%	100%

identification of styles to formal labeling, with an attendant reclassification of many redevelopments. The fact that respondent groups sorted the architectural stimuli into very different groups, not merely that they described the groups in contrasting terms, suggests that the differences observed did not result from differences in the expression of ideas, but rather revealed fundamental differences in the way that the groups conceptualized the stimuli. Such differences in conceptualization were also apparent with respect to other frequently used construct categories, such as "function," "details," and "form" (see Hubbard, 1994). Therefore, even within certain construct categories, it was apparent that there were profound differences in the classification of the architectural stimuli between the respondent groups.

DISCUSSION

In summary, these research findings have built upon and supported the notion that there are important differences in architectural interpretation between groups of different expertise and experience. In general, it appeared that the magnitude of these differences was greater between planners and the public than was the case between either lay people and planning students or between the planning students and planning professionals. Furthermore, it appeared that over the course of their education, the planning students' aesthetic tastes became more similar to those of the practicing planners. This accords with the findings reported by Tannenbaum and McLeod (1967) which suggested that homogeneity of attitude increases during college years for groups following the same course of study. This process, which has been termed "value convergence" (Hebder, 1992), was also evident in Whitfield's and Wiltshire's (1982) investigation of the impacts of design education.

The data analysis presented here also suggested that the respondent groups categorized the architectural stimuli according to different, if overlapping, codes of interpretation. The most apparent difference between the groups was the tendency for respondents to become more likely to invoke physical and stylistic concerns as their level of education and experience increased. Specifically, the planners tended to categorize the stimuli by means of a greater number of constructs that were qualitatively different from those stressed by the other groups, particularly emphasizing physical and technical concerns, whilst the public used a range of more ethno-demographic concepts, including the affective and functional connotations of the redevelopments. These findings are consonant with the seminal study of Hershberger (1969) which suggested that whilst design experts respond to representational meanings, lay people tend to respond more to responsive meanings. The increasing emphasis on physical aspects of design also concurs with Downing's (1992) study of imagery across the architectural "timeline," which concluded that design experts are increasingly likely to utilize specialized and abstract concepts drawn from their education in their dealings with architecture.

At this point, however, it is necessary to inject a note of caution. This study was, in its very nature, exploratory, and hence must be tentative in its conclusions. For example, one factor affecting the reliability of the research design would clearly be the limited size of respondent groups, and it would clearly be necessary to replicate this research procedure in other settings, with professionals from

other planning departments, to confirm the existence of disjunctive aesthetic attitudes. Similarly, there are many aspects of the multiple sorting task itself that have yet to be fully explored. Of particular relevance here is the suggestion that the procedure has a subtle learning effect (i.e. the respondents actually learn by being forced to rationalize and discuss the way they think about architecture). This offers an interesting interpretation of the results reported above for the planning students, namely, that the changes in architectural conceptualization and judgment between their first and second interview were not attributable to education but rather to the effects of the multiple sorting procedure itself. However, supplementary interviews with a control group of non-planning students did not support this interpretation, demonstrating remarkable consistency in architectural conceptualization over the same time period.

These caveats not withstanding, this is probably the first study to have empirically demonstrated differences in architectural interpretation between planners and the public. It is felt that the essentially non-verbal nature of the sorting technique employed here means that the differences observed did not merely result from differences in language or the expression of ideas, but rather revealed fundamental differences in the way in which the groups conceptualized the redevelopments being studied. These differences in the conceptualization in turn manifested themselves in diverging judgments of overall architectural quality, with the differences particularly pronounced between planners and public. Significant differences were found in the judgment of architectural quality between the public and planning officers, although, interestingly, significant differences were not demonstrated between planners and student groups, nor between public and student groups. Again, it is suggested that these differences in assessment of architectural merit are due to the fact that the two groups use different criteria as a basis for that judgment. In this study, it appeared that the planning officers placed more importance on whether a development fitted into its surroundings, what materials it was made of, and its overall design more than did the public group, who showed more interest in the use to which a building was put, the age or era that a building appeared to belong to, and more subjective and existential criteria, for example, whether a building created a "sense of place." The most successful redevelopments in this study were therefore those that were adjudged to be successful according to very different sets of criteria.

In this respect, it is particularly noteworthy that the major disagreements in preference judgments tended to concern a few examples of late modern and hi-tech redevelopment. This tendency for disagreement between design experts and the lay public over "high" architectural stimuli was also evident in the findings of Nasar and Devlin (1989), which reported an architect/non-architect correlation of only 0.23 for examples of house elevations sampled from the "avant-garde" professional literature. These results also suggest that the type of meta-analysis completed by Stamps and Miller (1993) should be treated with some caution, as it appears that discrepancies between design experts and the lay public are more pronounced in respect of certain architectural types or styles, thus rendering generalizability across diverse stimuli or settings unreliable.

Overall, these results also contradict the arguments of many architects who resent the intrusion of development control officers in matters of design, regarding them as possessing an untrained and "unsophisticated" perspective. The data analyses presented here, as well as conversations with the planners, indicated that most development control officers maintained a particular interest in the quality of the built environment and were familiar with contemporary design trends and issues. However, comparison with similar studies of the architectural profession (Groat, 1982; Devlin, 1990) does suggest that planners' aesthetic tastes are somewhat different from those of architects. Specifically, it appears that planners' professional training and socialization leads them to emphasize the technical and material qualities of buildings and largely discourages an "intuitive" artistic response, although further comparative research would clearly be required to validate this statement.

Finally, the diverging aesthetic sensibilities identified in this study between the planning profession and the public also raise more fundamental questions about the ability of the planners to judge the design merits of planning applications in the best interests of the public. This suggests the need for planners not only to interrogate and articulate their own aesthetic tastes, but also to develop a more

considered awareness of local needs and wants, particularly through improved public participation. As with the U.S. system of design review, the involvement of the British public in matters of design control is extremely limited, and few genuine opportunities exist for the public to express their aesthetic sensibilities (Punter, 1993). Clearly then, there is a need for planning officers to establish mechanisms whereby local opinions and attitudes could be gathered. In the absence of such mechanisms, it appears that design professionals will continue to neglect crucial questions of what architectural styles mean, what buildings are saying and how architecture is received. However, lest this paper end on a pessimistic note, it is worth noting that despite the various differences in aesthetic attitude uncovered here, there are common ideas and concepts shared across groups, and it is by identifying these shared concepts that planners may be able to promote the kind of design quality that reconciles the tastes of different groups.

NOTES

1. Under the Town and Country Planning General Development Order, 1977, all construction, redevelopment, and change of use in existing developments is only permissible subject to gaining planning permission from the appropriate local authority. The administration of the development control system, along with the production of long-range development plans, is the main statutory requirement of local planning authorities and forms the cornerstone of the British planning system.

2. The methodological and analytical procedures are described more fully in Hubbard (1994). Interested readers are also referred to Groat (1982) for details of the application of multiple sorting task and multidimensional scaling techniques to studies of environmental meaning, whilst Canter, et al. (1985) describe the theoretical and strategic relevance of the multiple sorting procedure in more general terms.

3. This data was subjected to a classic Euclidean multidimensional scaling analysis performed through the ALSCAL suite of programs in the SPSS-X (IBM mainframe) package.

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Additional information may be obtained by writing directly to the author at the Geography Division, Coventry University, Priory Street, Coventry CV1 5FB, UK.

AUTOBIOGRAPHICAL SKETCH

Phil Hubbard is currently a lecturer in human geography at Coventry University (England), after having received his Ph.D. at Birmingham University in 1993. His research publications have included papers on the symbolism of the built environment, theoretical perspectives in environmental aesthetics and the role of planning in design control. He is currently investigating the role of urban design in local economic development, with particular reference to the entrepreneurial strategies being pursued by British urban governments.