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Ashley Clinton
Connecticut College

Ann Sloan Devlin
Connecticut College, asdev@conncoll.edu

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**Keywords**
Architecture, Police departments, Authoritarianism, Social dominance theory, gender

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“Is This Really a Police Station?”: Police Department Exteriors and Judgments of Authority, Professionalism, and Approachability

Ashley Clinton and Ann Sloan Devlin

Connecticut College
Abstract

This study examined the relationship between exteriors of police department facilities and participants’ ratings of the buildings’ Authority, Professionalism, and Approachability. After a pilot study, research was conducted with 122 participants who were undergraduate students from a small, liberal arts college in the Northeast. On each of three characteristics (Authority, Professionalism, and Approachability), participants rated 16 color images of police departments located in the United States. The façade ratings for each characteristic were then categorized into factors through factor analyses. There were three factors for Authority (Ineffectual, Strong, and Outdated); three for Professionalism (Unskilled, Non-traditional, and Governmental); and four for Approachability (Uninviting, Accessible, Public, and Impenetrable). The results were compared to participants’ scores on the Right-Wing Authoritarianism scale (Altemeyer, 1981) and the Social Dominance Orientation scale (Sidanius & Pratto, 1999). Although the primary goal for the study was to determine whether there are consistent responses to police department exteriors, it was hypothesized that the façade ratings would relate to the authoritarianism ratings, with more authoritarian people expected to rate the façades higher in Authority. Although this hypothesis was not supported, significant findings were related to gender. Applications to architectural design are discussed.
“Is This Really a Police Station?”: Police Department Exteriors and Judgments of Authority, Professionalism, and Approachability

Beyond their role in processing criminals, police stations serve the public in a variety of ways. The characteristics of a satisfactory police department are said to include protecting persons and their property, recovering stolen property, and making arrests of perpetrators (Wilson, 1954). The police patrol highways, streets, and neighborhoods. They provide resources for victims of abuse and violence and help educate citizens about drug abuse and addiction. They assist in the recovery of lost or stolen property and of missing or kidnapped persons. With such a wide array of tasks, it is important that a station communicate appropriate authority, professionalism, and approachability to encourage the trust of and use by citizens. The judgments citizens make of a police department may be influenced by the appearance of the station’s façade and the degree to which it is perceived to encompass the qualities of authority, professionalism, and approachability. In the current study, a participant asked of a department façade “Is this really a police station?” indicating that perhaps not all stations exhibit these characteristics.

Architectural Preferences

A building can be perceived as sophisticated, new, and high-tech by one person and harsh, modern, and uninviting by another. Preferences are influenced by a range of factors from characteristics of the person (e.g., age) to elements of architecture itself. Judgments about building design made by architects have been shown to differ significantly from those made by non-architects in a number of studies (e.g., Devlin & Nasar, 1989; Nasar, 1989, 1999). Wilson (1996) found that most judgments of facades focused on the architectural style of a building although education, specifically the amount of architectural training, affected preferences.
(Wilson, 1996). The architectural style of a building can have a greater impact on preference than many demographic factors. Specifically, respondents’ geographic location, age, gender, ethnicity, political affiliations, and sensation seeking level, did not affect the ratings of residential houses as much as did the exteriors’ architectural style (Stamps & Nasar, 1997). A meta-analysis by Stamps (1999a) involving over 19,000 respondents with over 3200 environmental scenes showed a slightly different picture with regard to the role of some demographic characteristics. There was a high degree of agreement regarding environmental aesthetics across groups including students versus other respondents and designers versus others. The meta-analysis also showed lower correlations when ratings from different age groups (especially those under 12 versus those over 12), special interest groups, ethnic affiliation groups, and political affiliation groups were contrasted.

If demographic characteristics are not solely responsible for our architectural preferences, the building’s architectural style may have explanatory value. Thus, there may be specific architectural features that influence our judgments. Some researchers have looked at the possible role of innate biases. Regarding what may be innate preferences, researchers have concluded that natural elements in design have been found to benefit psychological, physiological, and cognitive behavior perhaps by having a restorative impact (Joye, 2003). It has been argued that restoration is a form of stress reduction and is important to an individual’s functioning. Humans evolved in natural settings and low complexity environments; as a consequence it may be important to consider organic features in architecture in order to fulfill basic residual needs. In contrast to natural elements, other research has found that preferences vary depending on geometric properties such as surface complexity, silhouette complexity, and façade articulation (Stamps, 1999b). The most popular of these properties, the surface complexity of the building,
illustrated that participants preferred trims, gable roofs, and bay windows to no trim, flat roofs, and flat surfaces. Similarly in room design, it was shown that high ceilings, angles of 90 degrees or greater, and pitched ceilings are preferred (Baird, Cassidy, & Kurr, 1978).

Architecture may be rated and experienced differently when it is influenced by size, contrast, direction, symmetry, closure, and other formal-geometric characteristics (Weber, Choi, & Stark, 2002). The study showed that humans rate buildings on their overall arrangement and not by visually scanning or fully tracing shapes. Though in some research, buildings that had visible entrances and were viewed from a distance were preferred over those with hidden entrances and nearer views (Herzog & Shier, 2000), in a separate study, a preference for mystery in design emerged for houses that were not fully revealed (Ikemi, 2005). Mystery was defined as “the promise of new information if one could travel deeper into the environment” (2005, p. 167). This property was tested by using images of a house in which trees blocked the façade with variations in the amount of the house concealed. The results indicated that the houses with the highest mystery – the most concealment – were rated highest in preference. Though there may be a preference for some degree of mystery in residences, one might assume that concealment of a public building would adversely affect approachability and would therefore be undesirable. While mystery was not specifically measured in the current study, it is another feature of façade design and building context indicating that individuals may have architectural preferences that are related to perceptions of such qualities.

Specific Design Preference

If architectural style preference is more heavily influenced by design than by demographics, then preferences for specific styles may exist. Views conflict about whether there is a preference for modern design (Herzog & Shier, 2000; Maass et al., 2000). The preference
for modern styles was reflected in a study of the impressions of 64 buildings that examined the link between building age and preference (Herzog & Shier, 2000). Modern buildings were preferred over older buildings when building maintenance was not controlled.

However, in the same study, when building maintenance was controlled, participants preferred the older buildings (Herzog & Shier, 2000). Similarly, in a study by Slatter and Slatter (1978), cathedrals were preferred over churches, and it was concluded that this judgment reflected people’s preferences for traditional architecture, which tends to express prestige and convention. Nevertheless, these studies were among the few indicating a preference for older or more traditional architecture, whereas more research has indicated a preference for modern design.

Public Buildings and Design

Research completed on buildings with public functions draws conclusions that illustrate the necessity and importance of architectural design research, and also addresses the continuing debate over modern design preferences. Research has indicated that the function of a building is not necessarily transparent to viewers (Nasar, Stamps, & Hanyu, 2005), and this finding reinforces the need for additional architectural design research, particularly for public buildings. One type of public building that closely relates to the police departments examined in the current study is the courthouse. Both types of public buildings represent encounters with the Criminal Justice System as well as the need for a façade that conveys power, prestige, and authority. Courthouse architecture has been shown to affect the perceived likelihood of conviction (Maass et al., 2000). The study examined two types of architecture, both of which were considered attractive. However, the modern, high-style courthouse was more likely to elicit discomfort in respondents and to be judged as more likely to garner a conviction than was the older courthouse.
(Maass et al., 2000). Pati, Bose, and Zimring (2007) also studied courthouses and sought to define “openness” in regard to architectural designs, because openness is often considered an important design feature for public buildings. Through interviewing seven courthouse design team members, six conceptualizations emerged including accessibility, transparency, exposure, organizational clarity, illumination, and inclusiveness. The sub-points for the accessibility construct include the importance of “visibility of public entry” and “invitingness of the public entry;” both relate to the variable of approachability examined in the current study (Pati et al., 2007, p. 313).

The previous research indicates that public buildings elicit specific judgments from the public who view them. The observation about openness and visibility reflects Newman’s (1972) views of the spatial continuum of private, semi-private, semi-public, and public spaces. He explains that humans are territorial creatures and that we take cues from our environment to see if we are welcome in a place. Long pathways or yards, small or covered up windows, and especially hidden doorways or uninviting walkways cause people to feel uncomfortable and vulnerable approaching a space where they might not be welcome. The features may also be related to Gibson’s (1979) concept of affordances, in that the qualities of an environment may communicate to the viewer that they accommodate or “afford” certain behaviors, such as the ability to enter. Unfortunately, some public buildings are not necessarily legible or easily “read” (Nasar et al., 2005). While this lack of clarity of function may be less critical for libraries, one type of public building studied by Nasar et al., clarity of function could be argued to be essential for police stations.

*Judgment of Expected Service*
Beyond the judicial system, an examination of restaurant design showed that participants were able to infer from the façade what the interior conditions would be like including the quality of the food and service, cost, ambience, and characteristics of fellow diners (Cherulnik, 1991). Brady and Cronin (2001) studied perceptions of service quality as well, specifically of restaurants, and found it to be related to outcome, interaction, and environmental quality. They identified nine sub-dimensions that were found to determine service quality, including: attitude, behavior, expertise, ambient conditions, design, social factors, waiting time, tangibles, and valence. This research suggests that the expected quality of interaction with police officers may be related to judgments of expected service made from the exterior design of a police department. Moreover, in the research on public buildings by Nasar et al. (2005), the authors invoke the principles of Kevin Lynch (1960) relating the importance of a clear image to emotional security. How we evaluate police department facades on the characteristics of authority, professionalism, and approachability may set the stage for the level of service we expect.

Finally, the idea and design of this study was influenced by research conducted by Devlin (2008) on the exteriors of healthcare facilities. Photographs of medical facilities were shown and participants rated each on expected quality of care and expected comfort. Specifically, for the quality of care variable, three categories of buildings emerged: Traditional House, Brick Office, and Large Medical facilities. The current study sought to extend this research by using police department exteriors and judgments of authority, professionalism, and approachability to better understand the types of buildings that possess a high degree of these characteristics. It is important to study this topic because no research was found on the perceptions of police
department exteriors and the role that a range of styles, from modern to traditional, may play in communicating the qualities of police departments to citizens.

The Current Study

This study examined the relationship between the exteriors of police department facilities and participants’ ratings of the authority, professionalism, and approachability of the building exteriors. It was expected that the judgment of the façades would vary leading to possible categorization and the development of factors (through a factor analysis) for each characteristic. The study also examined the political leanings, authoritarianism levels, and agreement with Social Dominance Theory of the participants and compared these levels to the factors that emerged.

Authoritarianism has been linked to rape-myth acceptance among college students (Koesterer & Hoffman, 2003) and to support for terrorism (Henry, Sidanius, Levin, Pratto, & Nammour, 2002), and it is therefore not unusual to study authoritarianism in relationship to police departments, as authoritarianism has already been linked to crime. Participants took the Right-Wing Authoritarianism scale, a scale measuring authoritarian behaviors developed by Altemeyer (1981) based on the Balanced F-scale (Ray, 1971) and the original Fascist scale (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950). Authoritarianism has been conceptualized as originating in a conflict between social conformity and personal autonomy values (Feldman, 2003). In the current study, those scoring higher in authoritarianism were predicted to rate the police department exteriors to have more authority, because that is a quality that would be valued by those high in authoritarianism.

The current research also tested Social Dominance Theory, the belief that it is appropriate for some groups to be dominant and other groups to be subordinate in society. After completing
the Social Dominance Orientation scale (Sidanius & Pratto, 1999), results were analyzed to see whether there is a connection between agreement with the concept of social dominance, and the ratings of police department exteriors. Altemeyer (2004) studied people who scored high on both the Right-Wing Authoritarianism scale and the Social Dominance Orientation scale and found that this group, labeled “dominating authoritarians” (p. 421), was found to be prejudiced, power-hungry, unsupportive of equality, manipulative, and amoral (Altemeyer, 2004). In examining the relationship between individuals’ scores on the Right-Wing Authoritarianism and Social Dominance Orientation scales and judgments of police station façades, we expect that there would be a correlation between the façade ratings of Authority and scores on these two scales, with those participants who endorse higher levels of these qualities also perceiving greater authority in the facades. Although we expect this positive relationship between authoritarianism and social dominance related to judgments of the facades, an alternative is possible. If some of the facades are perceived to lack authority, the scores on Authority for these facades may be lower for those high in authoritarianism and social dominance than for those lower on those two scales. Analysis should reveal whether the judgments of those who endorse authoritarianism and social dominance are more extreme (in either direction) than those who are lower on those two scales.

Before further discussion, the approach taken in the study merits comment. This study does not ask citizens to rate their own police department exteriors. Instead, participants come from a population with varied knowledge of police departments and with the experience of diverse images of police department exteriors seen in their communities of origin. These students have no architectural training and may provide data comparable to citizens where personal biases about a particular station and/or previous interactions with its officers are at least
de-emphasized. This research design does not relate judgments of citizens to their particular community; instead it takes a broader view by assessing the impressions of police department facades across communities. In doing so, the impact of the façade may be better understood within this larger design context.

Pilot Study

A pilot study was conducted that examined the relationship between the exteriors of police department facilities and participants’ ratings of their authority, professionalism, and approachability. Participants who scored higher on the Balanced F Scale, a scale measuring authoritarian behaviors developed by Ray (1972) based on the Fascist Scale created by Adorno (1950), were predicted to rate the exteriors to have more authority, because that is a characteristic that would be valued. It was expected that the judgment of the facades would vary leading to categorization and the development of factors for each characteristic. Though factors were created, the personality scales proved problematic and data were deemed unusable. Two main changes came from this pilot study.

The first methodological change that stemmed from the pilot study concerned the three variables: authority, professionalism, and approachability. In the pilot study these three characteristics were not revealed to participants and statements to measure these concepts were used instead. Two statements were used to measure the station’s professionalism (“I feel confident that my complaint would be handled responsibly here” and “The Police Officers who work here would be professional”); two to measure authority (“The goal of this department is to carry out the law to the fullest extent” and “If I received a ticket from here they would never let me off with just a warning”); and two to measure approachability (“The Police Officers who work here would be friendly” and “If my wallet/purse had been stolen, I would feel comfortable
going into this station to report it missing”). However, analysis indicated that these statements had low reliability. This lack of reliability is the origin of the decision to use the three characteristics themselves in the study (along with supporting synonyms), instead of trying to measure these characteristics without providing the words outright to the participants.

The second methodological change from the pilot study involved the scales used. The Balanced F Scale, measuring participants’ levels of authoritarianism, was judged to be poorly worded and out-dated, despite its use in earlier literature. In the current study, the Right-Wing Authoritarianism scale, created by Altemeyer (1981), was substituted. In addition, the Social Dominance Orientation scale from Sidanius and Pratto (1999) was included to measure agreement with Social Dominance Theory, the belief that it is appropriate for some groups to be dominant and others to be subordinate in society. Political leaning was also included in the current study.

The Current Study

Method

Participants

The participants of this study consisted of 122 undergraduate students from the same small liberal arts college in the Northeast, although 2 students were ultimately dropped from analyses due to a failure to follow directions. The participants came from the introductory psychology pool and consisted of 99 women and 23 men. Students enrolled in the Psychology course received credit toward a research requirement for participation. The average age was 19.3 years and there were 65 first-years (53.3%), 41 sophomores (33.6%), 10 juniors (8.2%), and 5 seniors (4.1%). A majority of the participants indicated they were European American/White (98 students, 80.3%) and the second largest category was African American/Black (9 students,
7.4%). When asked about citizenship, 91.8% reported United States citizenship, and 8.2% marked “other.”

For approximate household income, the largest categories were the “$50,001-$100,000” category and the “greater than $300,000” category (both with 17 students, 13.9%). These categories were followed by the “$100,001-$150,000” category (16 students, 13.1%). There were 27 participants (22.1%) who left the question blank. Participants were asked to mark an X on a line from “Very Conservative” to “Very Liberal” indicating their political view. The marks were measured in centimeters and changed to a scale of 0-100 (0 indicating Very Conservative, and 100 indicating Very Liberal). The range was 1.8 to 98.8 and the mean was 66.3. When the line was divided into three equal sections and labeled conservative, neutral, and liberal, 7.4% emerged as conservative, 31.1% were neutral, and 59.8% were identified as liberal.

The greatest number of students indicated that they spent a majority of their childhood living in the suburbs (42 students, 34.4%) followed by those who lived in a town (32 students, 26.2%), a large city (24 students, 19.7%), a small city (16 students, 13.1%) and a rural area (8 students, 6.6%). When asked to state how many times the participants had been to a police station in America, 28 had never been, 31 had been once, 25 had been twice, 15 had been three times, and the final 21 had been to a police station four or more times. When rating their general degree of familiarity with police stations on a scale of 1 (not familiar) to 10 (very familiar), most participants marked levels 1 through 3 (80.3%) though the highest mark was a 9.

**Materials**

Participants were shown 16 color photographs of police department facilities from across the United States that had been obtained from the Internet (see Appendix A). The images were altered using Photoshop to remove any identifying information such as town names that
appeared on the signs for the police departments. This step was taken because the town name or state could indicate whether the station was urban or rural, and to reduce the influence of stereotypes about states or regions of the country. Participants rated each photo on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree) as to how much the image embodied the words provided. The three variables were presented to participants along with synonyms in order to elucidate the concepts being examined, and to avoid the confusion made by the sentences used in the Pilot Study. The characteristics were not provided to prime participants; they were the variables being examined in this study. The characteristics and synonyms presented to participants, were: “Authority (power, control, influence)”, “Professionalism (proficiency, skill, training, competence)”, and “Approachability (friendliness, openness, lack of intimidation).” After rating these variables for a given photograph, the participants wrote their reactions to and descriptions of the given photos on lines provided. These descriptions were used to create the factor labels and to describe the stations.

The Right-Wing Authoritarianism scale, created by Altemeyer (1981) measuring authoritarianism and respect for authority was administered. The scale consists of 30 questions. Examples include #12: “Obedience and respect for authority are the most important virtues children should learn” and reverse-scored #15: “Free speech means that people should even be allowed to make speeches and write books urging the overthrow of the government.” Cronbach’s alpha for this scale was calculated to be .915. The questions were rated on a 7-point Likert scale from Strongly Disagree (1) to Strongly Agree (7). Of a possible range of scores from 30 to 210, the range for participants was 53 to 182, with a mean of 99.1 (with higher scores indicating higher levels of authoritarianism).
The Social Dominance Orientation scale (Sidanius & Pratto, 1999) was used to measure agreement with Social Dominance Theory, the belief that it is appropriate for some groups to be dominant and others to be subordinate in society. The scale consisted of 16 questions. Again, a 7-point Likert scale from Strongly Disagree (1) to Strongly Agree (7) was used. Questions included, #1: “Some groups of people are simply inferior to other groups,” compared to reverse-scored #16: “No one group should dominate in society.” Of a possible range of scores from 16 to 112, participants scored from 16 to 78, and the mean was 35.6 (with higher scores indicating greater agreement with Social Dominance Theory). Cronbach’s alpha for this scale was calculated to be .899. Finally, a demographics questionnaire requested basic information such as age, sex, class year, ethnicity, family income, and political leaning, as well as questions regarding the participants’ familiarity with police departments.

*Ratings by Architects*

Two architects were asked to independently categorize the 16 police department facades in terms of the architectural groupings they perceived. There was 100% agreement in their judgments that the façade exteriors yielded three categories and 100% agreement about which exteriors were members of each category. The three categories were: A) Some form of modernism (facades 2, 5, 6, 7, 10, 12, 16); B) Some form of post-modernism/neo-classicism (facades 1, 9, 15); C) Having qualities of residential architecture (facades 3, 4, 8, 11, 13, 14). Later in the paper, these categorizations are discussed in relationship to the respondents’ judgments of authority, professionalism, and approachability.

*Procedure*
All participants received an explanation of the study and were first shown the 16 images for two seconds each to illustrate the range of designs to be rated and to reduce the likelihood of order effects. After this run-through, participants then viewed each image individually for 40-45 seconds, at which time they filled out the image questionnaire and characteristics sheet. After the last slide they completed the Right-Wing Authoritarianism scale, the Social Dominance Orientation scale, and the demographics form, in that order. They then received the debriefing form and a signature to obtain research credit.

Results

To evaluate whether agreement in the ratings of the photographs existed with regard to the characteristics of interest, three separate factor analyses were conducted, one each for the ratings of Authority, Professionalism, and Approachability based on viewing the 16 police department facades. Images that loaded 0.40 or greater (all images that loaded, loaded positively) were retained. This number was chosen as a cutoff because it resulted in the most coherent structure for each of the factors. Out of the factor analysis of the ratings for Authority, three factors emerged. Out of the factor analysis for Professionalism, three factors emerged. And out of the factor analysis for Approachability, four factors emerged. The factors were given labels suggested by the comments written about the images that loaded on each factor.

The varimax rotated component structure, and the means and standard deviations for the factors, as well as the means and standard deviations for each image are presented in Tables 1 through 3. For the characteristics of professionalism, authority, and approachability, higher scores indicate higher levels of the variable. The architects’ categories are also indicated on Tables 1 through 3.
For the authority factors, four images loaded on Factor 1, which was termed Ineffectual (see Figure 1 for an example of this factor; Image 11; Cronbach’s alpha = .76). Along with looking ineffectual, these images were described as “townsy,” “not powerful,” “isolated,” “quaint” and “not very convincing.” Four images loaded on Factor 2, which was termed Strong (see Figure 2; Image 2; Cronbach’s alpha = .62). The words “strict,” “powerful,” “intimidating,” and “looks like the stereotype of ‘the Man’” were written about the images in this factor. Five images loaded on Factor 3, deemed Outdated (see Figure 3; Image 13; Cronbach’s alpha = .71). These images were described as “outdated,” “unkempt,” “shabby,” and “poor.” It seemed that the exteriors loading on this factor were those that implied poor maintenance on the part of the police department.

The factors’ authority scores were ranked as follows: Factor 2, Strong ($M=5.86$), Factor 3, Outdated ($M=3.61$), and Factor 1, Ineffectual ($M=3.40$). The image that was rated the highest for authority was Image 2 ($M=6.34$), which was described as “authoritative,” “hard-core,” “intimidating,” “high-tech,” and “top dogs” (see Figure 2). The lowest ranked image for authority was Image 12 ($M=2.43$, see Figure 4). This image received descriptions such as “tacky,” “gross,” “low-budget,” “unofficial,” “shady,” and “under-funded.” This station was compared multiple times to a deli, strip mall, and convenience store, and ironically also to seedy places like a tattoo parlor, liquor store, and a pawn shop, hardly what is expected from a police station.

A factor analysis was run for the second variable, professionalism, and yielded three factors. Thirteen images loaded using the 0.40 cutoff. Images 1 and 16 were dropped for not loading on any factor, and Image 13 was dropped because it had loaded on multiple factors at or above the .40 level. The first factor contained six images and was labeled Unskilled (Cronbach’s
alpha = .76). These images garnered adjectives such as “pointless,” “confused,” “ramshackle,”
“unofficial,” and the harsh comment that it would contain “the failures of the police academy.”
Three images loaded on Factor 2, which was labeled Non-traditional (see Figure 5; Image 10;
Cronbach’s alpha = .59). This label was used because the images in this factor resembled
buildings that would be utilized for other purposes. For example one was compared to a sports
arena and another was said to look like a high-school. It is understandable that the officers in a
non-traditional station would seem less professional than those in a very traditional building.
The very traditional buildings appeared on Factor 3. This factor contained four images and was
labeled Governmental (see Figure 6; Image 9; Cronbach’s alpha = .67). These images were
described as “patriotic,” “FBI,” “large,” “legitimate” and “powerful.” Comments were made
regarding flags visible outside some of these buildings and the professionalism of the officers.

The professionalism scores for each factor were ranked from highest to lowest level as
follows: Factor 3, Governmental (M=6.30), Factor 2, Non-traditional (M=4.25), and Factor 1,
Unskilled Type (M=3.82). The images rated the highest and lowest for professionalism were
Image 2 (M=6.49), and Image 12 (M=2.52) respectively, which were the same images that were
rated highest and lowest for authority (see Figures 2 and 4; Images 2 and 12, respectively).

The final variable that was tested, approachability, yielded four factors. Images 2, 7, 10
and 11 were dropped because they loaded on more than one factor at or above the .40 level,
leaving 12 images that were used. On the first factor there were four images that loaded (see
Figure 7; Image 14; Cronbach’s alpha = .71). The factor was labeled Uninviting and contained
descriptions such as: “run-down,” “mediocre,” “cheap,” and a comment that one participant
“wouldn’t go in for help.” Another asked of one image, “where’s the entrance?” Differing in
tone from the first factor, the second factor containing two images was labeled Accessible (see
The images were described as “friendly,” “approachable” and “charming.” The third factor that emerged included three images, and was considered Public (see Figure 9; Image 15; Cronbach’s alpha = .60). These images were deemed public-looking because they resembled other approachable public buildings, including banks, post offices, libraries, courthouses, and schools. Finally, the fourth factor contained three images and was deemed Impenetrable (see Figure 10; Image 1: Cronbach’s alpha = .56). These images had thick, blank walls, few windows and were “fortress-like,” “big” and “dark.”

The approachability factors ranked from most approachable to least were: Factor 2, Accessible (M=5.86), Factor 3, Public (M=4.95), Factor 4, Impenetrable (M=4.60), and Factor 1, Uninviting (M=4.13). The image that was rated the highest for approachability was Image 8 with a mean rating of 6.12 (see Figure 8), which appeared house-like and friendly. The image rated the least approachable was Image 7 with a mean of 3.24 (see Figure 11), which was large and foreboding.

To understand the relationship between the factors for Authority, Professionalism, and Approachability, and the three architectural groupings developed by the architects, correlations were conducted. To accomplish these analyses, nine variables were created from the three architectural categories, using the means for Residential, Modern, and Post-modern separately for the Authority, Professionalism, and Approachability ratings. Then the three Authority ratings created from the architectural categories were correlated with the three Authority factors that had emerged through factor analysis; the three architectural Professionalism ratings with the three Professionalism factors, and the three architectural Approachability ratings with the four Professionalism factors. Of these 30 correlations, 28 were significant, and of those 27 at p <.001. The two non-significant correlations involved Approachability Factor 2 – Accessible - with the
Post-modern and Modern categories. Given the large number of significant correlations (even with a Bonferroni correction, 26 of the correlations were significant), examination of the largest \( r \) values may be informative. For Authority, the highest correlation for Factor 1 – Ineffectual – was with Residential, \( r(120)= .923 \); for Authority Factor 2 – Strong – with Post-modern, \( r(120) = .892 \); and for Authority Factor 3 – Outdated - with Modern, \( r(120) = .814 \). For Professionalism, the highest correlation for Factor 1 – Unskilled – was with Residential, \( r(120) = .710 \); for Professionalism Factor 2 – Non-Traditional – with Modern, \( r(120)=.772 \); and for Professionalism Factor 3 – Governmental – with Post-modern, \( r(120)=.614 \). For Approachability, the highest correlation for Factor 1 – Uninviting – was with Residential, \( r(120)=.790 \); for Factor 2 – Accessible - with Residential, \( r(120) = .700 \); for Factor 3 – Public - with Post-modern, \( r(120)=.790 \); and for Factor 4 – Impenetrable – with Post-modern, \( r(120) = .585 \). but it should be noted that in the Impenetrable category, the correlations for all three architectural styles were fairly close, in the range of .53 to .58. In summary, the factor labels that corresponded to the highest correlations for the Residential category were: Ineffectual, Unskilled, Uninviting, and Accessible. For the Modern category they were: Outdated and Non-traditional. And for the Post-modern category they were Governmental, Public, and Impenetrable.

To evaluate the hypotheses related to social and political outlook, the Authority, Professionalism, and Approachability factors were compared to participants’ authoritarian levels, agreement with Social Dominance Theory, and political leanings. The scores on all three variables were divided into high and low by removing the data up to one quarter of a standard deviation above and below the mean. A multivariate analysis of variance was conducted to evaluate the relationship between authoritarianism and ratings on each of the factors. There was no statistically significant difference between those with high or low levels of authoritarianism
and ratings on the factors, Wilks’s Lambda=.91; $F(10,88)=.917$, $p=.52$. To examine the relationship between agreement with Social Dominance Theory and ratings of the factors, another multivariate analysis of variance was run and results were again insignificant, Wilks’s Lambda=.89; $F(10,89)=1.05$, $p=.41$. Finally, to examine the relationship between political leaning and ratings on the factors, a third multivariate analysis of variance was run; it yielded insignificant results, Wilks’s Lambda=.95; $F(10,81)=.38$, $p=.95$.

Demographics characteristics were examined using multivariate tests. Analyses for gender and income were run separately due to the number of people who did not indicate income. No results were found for income on any of the three variables. There were significant multivariate effects for gender for all three variables (Authority, Professionalism, and Approachability): for Authority, Wilks’s Lambda=.89; $F(3,116)=4.98$, $p=.003$; for Professionalism, Wilks’s Lambda=.91; $F(3,116)=4.06$, $p=.009$; for Approachability, Wilks’s Lambda=.88; $F(4,115)=4.00$, $p=.004$.

For all univariate findings, women’s ratings were higher than men’s ratings (see Table 4). Univariate findings for the Authority factors showed significant results for Factor 1: Ineffectual ($F(1,118)=7.15$, $p=.009$) and Factor 2: Strong ($F(1,118)=12.27$, $p=.001$). For the Professionalism variable, factors showing significant findings were Factor 1: Unskilled ($F(1,118)=7.09$, $p=.009$) and Factor 3: Governmental ($F(1,118)=5.97$, $p=.016$). Finally, univariate findings for the Approachability factors yielded significant results for Factor 2: Accessible ($F(1,118)=8.27$, $p=.005$) and Factor 3: Public ($F(1,118)=9.51$, $p=.003$).

To examine the possibility of a connection between the factors and other characteristics of the participants, correlations were run on a number of variables. This step was taken to assess whether characteristics such as different childhood environments or familiarity with police
Correlations were conducted using the three Authority, three Professionalism, and four Approachability factors, and the following variables: political leaning (as indicated on a scale from conservative to liberal), number of visits to a police station, familiarity with police stations, and childhood upbringing (the size of the area where the participant was raised, ranging from rural area to large city). Correlations were found for both familiarity with police stations and childhood upbringing and the three variables. There was a negative correlation between familiarity and Approachability Factor 2: Accessible, $r = -.29$, $N = 120$, $p = .001$, indicating that the less familiar participants were with police stations the higher they rated this factor of approachability. For those less familiar with police stations, it may be harder to envision what problems in entering a facility might exist. For childhood, negative correlations were found for Authority Factor 3: Outdated, $r = -.18$, $N = 120$, $p = .05$, and Professionalism Factor 2: Non-traditional, $r = -.20$, $N = 120$, $p = .029$. Participants who were from larger communities rated the images on these factors lower for authority and for professionalism, respectively. Participants familiar with larger communities where the police stations are likely to be bigger may be influenced by this background to rate stations that appear outdated as lacking authority and those that appear non traditional as lacking professionalism. This finding is important because it is an instance where a participant’s demographic, as measured by the size of the community in which the individual was raised, is related to the perception of station facades.

On the demographics form, participants were asked to indicate how they would describe their perfect police station. An examination of these responses revealed that the most frequently written words were “professional” ($n = 30$), and “authority/authoritative” ($n = 30$), followed by “clean,” “friendly,” and “approachable” ($ns = 27, 26$ and $25$, respectively). The general idea
communicated was that police departments should be “welcoming,” “safe,” “organized,” “intimidating,” and “efficient.” Some said they should be “well-built,” “well-staffed,” “well-informed,” and “well-kept.” Preferences for size differed, though “large” and “big” were most frequent, mentioned 12 times, whereas “small” was mentioned 4 times, though many agreed the station should be proportional to the size of the community. Participants liked “new” and “modern” designs \(n = 5\), which was consistent with previous research (Herzog & Shier, 2000; Maass et al., 2000). However, while some thought the modern designs would help the station appear “powerful,” “sterile,” “strict,” “respectable” and “protective,” others wrote that they would prefer an atmosphere that was “comfortable,” “warm,” “approachable,” “welcoming,” and of course, “forgiving.”

Discussion

The purpose of this study was to understand the perceptions people have of police department exteriors and the meaning communicated by these exteriors. This goal was accomplished by examining whether factors would emerge from the ratings of the 16 images and the content reflected by such architectural groupings. The ratings of each characteristic (authority, professionalism, and approachability) across the images yielded multiple factors; three factors for authority, three for professionalism, and four for approachability.

The Authority factor rated the highest (Factor 2: Strong) was characterized by large, sturdy architecture that appeared well funded, with high-tech equipment. In terms of the categorizations of the architects, these buildings were either some form of post-modernism/neo-classicism or modernism. In fact the highest correlation for Strong was with the post-modern category. Underscoring the impressiveness of these post-modern structures, the post-modern category had the highest correlations for Governmental (Professionalism Factor 3), Public
(Approachability Factor 3), and Impenetrable (Approachability Factor 4). If a building’s exterior were large and domineering, it is understandable that people would see the station as dominant and possessing authority.

The least authoritative (Factor 1: Ineffectual) were those images that appeared residential and small. All four buildings loading on the Ineffectual factor were judged by the architects to have the qualities of residential architecture. Further, looking across all the factors and their labels, those that correlated most highly with the residential category had labels that communicate relative unimpressiveness: Ineffectual, Unskilled, Uninviting, and Accessible.

As mentioned earlier, buildings that looked like government buildings were rated highest for professionalism (Factor 3: Governmental), and the post-modern architectural category stood out in this regard, with the highest correlations for this category associated with the factors Governmental, Public, and Impenetrable. These findings can be interpreted as indicating that the public expects professional behavior to be exhibited by those who inhabit facilities whose facades appear to dominate their surroundings. Those buildings that appeared run-down or as containing apathetic, unskilled officers were rated the lowest for professionalism (Factor 1: Unskilled). Four of the six buildings on this factor were categorized by the architects as having qualities of residential architecture. Moreover, as mentioned earlier, across factors, the residential architectural category was associated with factors unlikely to create the impression of legitimacy.

Of the four approachability factors, two (Uninviting and Accessible) correlated most highly with the residential architectural category, and two (Public and Impenetrable) with the post-modern category. The factor with the highest mean for Approachability (Factor 2: Accessible) contained structures that appeared easily reached with clear walkways, windows,
and entrances. This description is consistent with research by both Newman (1972) and Pati et al. (2007). The second most approachable factor (Factor 3: Public) contained exteriors that looked most clearly like public buildings -- a bank, library, courthouse, post office, or other building that one would associate with civic life. Two of the buildings loading on this factor were judged by the architects to be in the post-modern/neo-classicism category, and one in the modernism category.

Any exterior that seemed unfriendly or unwelcoming was understandably deemed less approachable (Factor 4: Impenetrable, and Factor 1: Uninviting). Large buildings with thick walls, few windows, and no hint at interior characteristics through the sturdy façade, were rated low on approachability. The factor rated lowest for approachability contained images that appeared temporary, “seedy,” and low-budget. It is less that these buildings appeared impenetrable and unwelcoming, but more that a participant might not want to enter for health or safety reasons. For the Uninviting factor, two buildings were judged to be in the modernism category, and two in the category of having some qualities of residential architecture. For the Impenetrable factor, there was one building from each of the three architectural categories.

One might be tempted to associate a particular architectural style in this study (e.g., having qualities of residential architecture) with a particular description, such as the small and residential buildings that loaded on the Ineffectual factor for ratings of Authority. At the same time, the fact that all three architectural categories were represented in the buildings loading on the Impenetrable factor that emerged from the ratings of Approachability argues against such simple generalization. Still, an examination of the rating patterns and correlations suggests that some degree of relationship exists between architectural style and connotation. For example, the pattern of ratings and correlations with Authority suggest that buildings that are perceived to be
“strong” are likely to be an example of some form of modernism or post-modernism, whereas those that are perceived to be “ineffectual” are likely to have the qualities of residential architecture. Similarly, the ratings and correlations for the characteristic of Professionalism suggest that “governmental” buildings are likely to be some form of post-modernism or modernism, whereas those buildings that communicate a sense of unskilled service are likely to have the qualities of residential architecture. When Approachability is evaluated, the pattern is more variable. Accessible buildings are likely to have some quality of residential architecture, and those structures labeled “public” may be some form of post-modernism/neo-classicism or some form of modernism, which makes sense given their architectural characteristics. At the same time, those buildings grouped as “uninviting” may be some form of residential architecture but also of modernism, although the highest correlation for this factor was with the residential category. And then there are examples of all three architectural categories in the grouping labeled “Impenetrable,” with the correlations for all three categories around .5.

Although the impact of style on the ratings in this study is not uniform, the findings are consistent with the literature in that architectural style has a greater effect on ratings than is true of demographic characteristics (Baird, Cassidy, & Kurr, 1978; Joye, 2003; Stamps, 1999). This concept was supported by the general lack of significant results related to personality and demographic characteristics with the exception of gender. The effects for gender indicated that women gave higher ratings to authority, professionalism, and approachability than did men. Even the differences between men and women that did not reach significant levels showed the same trend with women’s ratings higher than were men’s.

This difference between men’s and women’s ratings may be supported by previous research that demonstrates that women tend to be more compliant with group norms than are
men. This finding was shown in Asch’s (1956) classic line judgment study, and supported by a later meta-analysis and other research (Bond & Smith, 1996; Cacioppo & Petty, 1980).

However, while these early findings seem conclusive, later literature is divided on the topic (Eagly, 1978, 1981). For police departments, this susceptibility to influence may demonstrate that women may be more compliant with figures of authority, such as police, than are men.

The trend toward a preference for modern architecture was supported by the current results. When describing a perfect station in the current study, participants indicated a desire for clean, sharp architecture and new and modern designs. Also, the most modern-style building (Image 2), which contained an arched roofline, clean lines, and materials characteristic of modern design (glass and chrome), was rated as the building with the most professionalism and most authority. It loaded on Authority Factor 2: Strong, and Professionalism Factor 3: Governmental and was judged to be some form of modernism by the architects. Though not most approachable, it was well-liked, and was assumed to have competent officers, high-tech equipment, and adequate funding. These results were consistent with previous research showing preferences for modern architectural styles (Herzog & Shier, 2000; Maass et al., 2000).

Participants liked “new” and “modern” designs ($n = 7$), which was consistent with previous research (Herzog & Shier, 2000; Maass et al., 2000). However, whereas some thought the modern designs would help the station appear “intimidating,” “sharp,” “strict,” “respectable” and “protective,” others wrote that they would prefer an atmosphere that was “comfortable,” “relaxed,” “approachable,” “welcoming,” and of course, “forgiving.” This same kind of bifurcation of preference, that is a preference for public structures that are impressive on the one hand, yet welcoming on the other, has been reported in the literature on healthcare facilities (e.g.,
Devlin, 2008). A continuing challenge for design professionals is to create structures that communicate competence but at the same time welcome the individual.

A hypothesis of this study was that participants’ ratings on the Right-Wing Authoritarianism scale, participants’ agreement with Social Dominance Theory, as tested through the Social Dominance Orientation scale, and participants’ political leanings would be related to their ratings of the factors, especially the relationship between authoritarianism and the authority factors. These results were not significant, indicating no substantive relationship between the personality characteristics and factor ratings. The relative constriction of political views among the participants likely contributed to the inability to reject the null hypothesis.

Limitations to the study included the lack of diversity in the participant sample. Most were European-American and all participants were undergraduate students from a small, private, liberal arts college in the Northeast. This sample is hardly representative of the United States population so generalization is difficult. Although a majority of the participants rated their personal familiarity with police departments as low on a rating scale, 61 of them reported having visited a police department at least twice. Still, the results are probably better viewed as representing schemas based on exposure to popular culture (i.e., media) rather than on much actual experience. However, it is beneficial to use young adults as participants in a study involving perceptions of police. Data suggest that the population with the highest arrest rates, and the greatest number of interactions with police are those in the young adult range, ages 16-21, according to national crime statistics (http://www.fbi.gov/ucr/addpubs.htm).

Summary and Recommendations

It seems likely that police buildings constructed with the attributes of residential architecture are unlikely to communicate professionalism and legitimacy. For that reason,
communities that are considering the construction or renovation of buildings for their police departments may want to consider styles such as post-modernism that have associations with values more typically consistent with civic structures, such as being strong and public. At the same time, the values of transparency and accessibility cannot be overlooked in buildings that the public will use.

To further understand the meaning of architectural attributes in the criminal justice system, more research should be undertaken, including research on police departments, courthouses, prisons, jails, and law firms. For example, researchers could examine whether the architecture and design of offender rehabilitation centers or halfway houses has a relationship to the likelihood that a community would endorse having the facility within its geographical boundaries. Another possible research topic emerged from the descriptions of a perfect police station. As indicated in their open-ended comments, these young adults would prefer a police station that has authority, is professional, and is approachable, mirroring the characteristics examined in this study. Generally, police stations were desired to be proportionally sized to the community, well-kept, and clean. Additionally, descriptions of the perfect police station reflect trends about the importance of windows in the façade. Participants wrote that stations should be “well-lit,” “open,” “bright,” and “clear.” All of the buildings that loaded on the Impenetrable factor had either no or few visible windows. Future research should include a variable addressing the lighting or openness of a building, as this characteristic seems to be preferred.

It is important for chiefs of police departments across the country to recognize how the exteriors of their stations affect the feelings of the general public. That is, buildings not only have denotative aspects, they also have connotative or affective aspects (Nasar, 1989). If the stations look run-down, shabby, unprofessional, or impenetrable, the community may not feel
safe, adequately protected, or welcome. Arguably, the most effective façade that emerged from the findings of the current study would be one that reflects strong modern architecture, and projects a sense of being governmental, well-funded, and high-tech. Further, the building needs to reflect the size of the community, possess a welcoming sidewalk and entry, and offer an adequate number of windows to appear well-lit and open. For citizens, buildings meeting these criteria are likely to generate a level of comfort and emotional security.
Table 1

*Factor Loadings, Means (M), and Standard Deviations (SD) of Authority (N=120) and Architects’ Style (S) Categorizations*

<table>
<thead>
<tr>
<th>Factor/Station</th>
<th>Loading</th>
<th>M</th>
<th>(SD)</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority-Factor 1: Ineffectual (% variance 16.53)</td>
<td>.56</td>
<td>3.38</td>
<td>(1.11)</td>
<td>C</td>
</tr>
<tr>
<td>Brick, green roof, 1 story building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brick, 2 stories, house-like building</td>
<td>.74</td>
<td>3.83</td>
<td>(1.30)</td>
<td>C</td>
</tr>
<tr>
<td>Brick, 2 story, house-like building with dormers</td>
<td>.71</td>
<td>3.33</td>
<td>(1.45)</td>
<td>C</td>
</tr>
<tr>
<td>White, 1 story with stone columns</td>
<td>.77</td>
<td>3.06</td>
<td>(1.31)</td>
<td>C</td>
</tr>
<tr>
<td>Authority-Factor 2: Strong (% variance 16.38)</td>
<td>.60</td>
<td>4.58</td>
<td>(1.15)</td>
<td>B</td>
</tr>
<tr>
<td>Grey, 2 stories, rectangular building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass, modern, rounded building</td>
<td>.67</td>
<td>6.34</td>
<td>(1.01)</td>
<td>A</td>
</tr>
<tr>
<td>Brick/concrete, 4 story, parking-garage building</td>
<td>.67</td>
<td>6.26</td>
<td>(1.16)</td>
<td>A</td>
</tr>
<tr>
<td>Sandstone, large, pilaster building</td>
<td>.56</td>
<td>6.28</td>
<td>(0.84)</td>
<td>B</td>
</tr>
<tr>
<td>Authority-Factor 3: Outdated (% variance 16.33)</td>
<td>.47</td>
<td>4.61</td>
<td>(1.32)</td>
<td>A</td>
</tr>
<tr>
<td>Pastel, 1.5 stories, school-like building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brick, tall, 2 stories, building</td>
<td>.63</td>
<td>4.85</td>
<td>(1.21)</td>
<td>A</td>
</tr>
<tr>
<td>White brick, shop-like facility</td>
<td>.62</td>
<td>2.43</td>
<td>(1.37)</td>
<td>A</td>
</tr>
<tr>
<td>Grey siding, light blue roof, 1 story building</td>
<td>.74</td>
<td>3.08</td>
<td>(1.34)</td>
<td>C</td>
</tr>
<tr>
<td>Faux brick, blue roof, 1 story, long building</td>
<td>.56</td>
<td>3.10</td>
<td>(1.55)</td>
<td>C</td>
</tr>
</tbody>
</table>

On a scale where 1= Strongly Disagree, to 7= Strongly Agree

S=Architects’ Style Categorizations
A=Some form of modernism
B=Some form of post-modernism/neo-classicism
C=Having qualities of residential architecture
Table 2

*Factor Loadings, Means (M), and Standard Deviations (SD) of Professionalism (N=120) and Architects’ Style (S) Categorizations*

<table>
<thead>
<tr>
<th>Factor/Station</th>
<th>Loading</th>
<th>M</th>
<th>(SD)</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionalism-Factor 1: Unskilled</td>
<td>% variance</td>
<td>19.75</td>
<td>3.82</td>
<td>(0.87)</td>
</tr>
<tr>
<td>3. Brick, green roof, 1 story building</td>
<td>.41</td>
<td>3.81</td>
<td>(1.13)C</td>
<td></td>
</tr>
<tr>
<td>4. Brick, 2 stories, house-like building</td>
<td>.72</td>
<td>4.44</td>
<td>(1.22)C</td>
<td></td>
</tr>
<tr>
<td>6. Brick, tall, 2 stories building</td>
<td>.53</td>
<td>4.69</td>
<td>(1.21)A</td>
<td></td>
</tr>
<tr>
<td>8. Brick, 2 stories, house-like building with dormers</td>
<td>.71</td>
<td>3.91</td>
<td>(1.40)C</td>
<td></td>
</tr>
<tr>
<td>11. White, 1 story with stone columns</td>
<td>.77</td>
<td>3.58</td>
<td>(1.37)C</td>
<td></td>
</tr>
<tr>
<td>12. White brick, shop-like facility</td>
<td>.58</td>
<td>2.52</td>
<td>(1.41)A</td>
<td></td>
</tr>
</tbody>
</table>

| Professionalism-Factor 2: Non-traditional | % variance | 15.48 | 4.25 | (1.02)   |
| 5. Pastel, 1.5 stories, school-like building | .69    | 4.77  | (1.39)A |
| 10. Brick with metal roofing, large arena-like facility | .73    | 4.78  | (1.18)A |
| 14. Faux brick, blue roof, 1 story, long building | .59    | 3.21  | (1.55)C |

| Professionalism-Factor 3: Governmental | % variance | 14.73 | 6.29 | (0.64)   |
| 2. Glass, modern, large, rounded building | .71    | 6.49  | (0.81)A |
| 7. Brick/concrete, 4 stories, parking-garage building | .71    | 6.24  | (1.10)A |
| 9. Sandstone, large, pilaster building | .61    | 6.31  | (0.72)B |
| 15. Brick, large, black window, 2 story facility | .68    | 6.14  | (0.90)B |

On a scale where 1= Strongly Disagree, to 7= Strongly Agree
S=Architects’ Style Categorizations
  A=Some form of modernism
  B=Some form of post-modernism/neo-classicism
  C=Having qualities of residential architecture
Table 3

*Factor Loadings, Means (M), and Standard Deviations (SD) of Approachability (N=120) and Architects’ Style (S) Categorizations*

<table>
<thead>
<tr>
<th>Factor/Station</th>
<th>Loading</th>
<th>M</th>
<th>(SD)</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approachability-Factor 1: Uninviting</td>
<td>% variance</td>
<td>16.92</td>
<td>4.13</td>
<td>(1.19)</td>
</tr>
<tr>
<td>6. Brick, tall, 2 stories, building</td>
<td>.54</td>
<td>4.28</td>
<td>(1.35)</td>
<td>A</td>
</tr>
<tr>
<td>12. White brick, shop-like facility</td>
<td>.70</td>
<td>4.08</td>
<td>(1.92)</td>
<td>A</td>
</tr>
<tr>
<td>13. Grey siding, light blue roof, 1 story building</td>
<td>.73</td>
<td>4.28</td>
<td>(1.52)</td>
<td>C</td>
</tr>
<tr>
<td>14. Faux brick, blue roof, 1 story, long building</td>
<td>.67</td>
<td>3.86</td>
<td>(1.66)</td>
<td>C</td>
</tr>
<tr>
<td>Approachability-Factor 2: Accessible</td>
<td>% variance</td>
<td>13.91</td>
<td>5.86</td>
<td>(1.02)</td>
</tr>
<tr>
<td>4. Brick, 2 stories, house-like building</td>
<td>.76</td>
<td>5.60</td>
<td>(1.22)</td>
<td>C</td>
</tr>
<tr>
<td>8. Brick, 2 story, house-like building with dormers</td>
<td>.86</td>
<td>6.12</td>
<td>(1.02)</td>
<td>C</td>
</tr>
<tr>
<td>Approachability-Factor 3: Public</td>
<td>% variance</td>
<td>13.91</td>
<td>4.95</td>
<td>(0.95)</td>
</tr>
<tr>
<td>9. Sandstone, large, pilaster building</td>
<td>.73</td>
<td>4.39</td>
<td>(1.43)</td>
<td>B</td>
</tr>
<tr>
<td>15. Brick, large, black window, 2 story facility</td>
<td>.76</td>
<td>5.66</td>
<td>(1.02)</td>
<td>B</td>
</tr>
<tr>
<td>16. Light brick, 1 story building with bell</td>
<td>.59</td>
<td>4.80</td>
<td>(1.33)</td>
<td>A</td>
</tr>
<tr>
<td>Approachability-Factor 4: Impenetrable</td>
<td>% variance</td>
<td>11.47</td>
<td>4.60</td>
<td>(1.03)</td>
</tr>
<tr>
<td>1. Grey, 2 stories, rectangular building</td>
<td>.76</td>
<td>3.95</td>
<td>(1.48)</td>
<td>B</td>
</tr>
<tr>
<td>3. Brick, green roof, 1 story building</td>
<td>.40</td>
<td>5.48</td>
<td>(1.30)</td>
<td>C</td>
</tr>
<tr>
<td>5. Pastel, 1.5 stories, school-like building</td>
<td>.73</td>
<td>4.38</td>
<td>(1.46)</td>
<td>A</td>
</tr>
</tbody>
</table>

On a scale where 1= Strongly Disagree, to 7= Strongly Agree
S=Architects’ Style Categorizations
A=Some form of modernism
B=Some form of post-modernism/neoclassicism
C=Having qualities of residential architecture
### Table 4

*Means (M), Standard Deviations (SD), and p-values for Authority, Professionalism, and Approachability Factors and Gender*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Men</th>
<th>Women</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authority</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 1: Ineffectual</td>
<td>2.91 (1.02)</td>
<td>3.51 (0.96)</td>
<td>.009</td>
</tr>
<tr>
<td>Factor 2: Strong</td>
<td>5.42 (0.92)</td>
<td>5.96 (0.60)</td>
<td>.001</td>
</tr>
<tr>
<td>Factor 3: Outdated</td>
<td>3.37 (0.90)</td>
<td>3.67 (0.92)</td>
<td>.156</td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 1: Unskilled</td>
<td>3.40 (0.82)</td>
<td>3.92 (0.86)</td>
<td>.009</td>
</tr>
<tr>
<td>Factor 2: Non-traditional</td>
<td>4.19 (0.97)</td>
<td>4.27 (1.04)</td>
<td>.739</td>
</tr>
<tr>
<td>Factor 3: Governmental</td>
<td>6.01 (0.85)</td>
<td>6.36 (0.56)</td>
<td>.016</td>
</tr>
<tr>
<td><strong>Approachability:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 1: Uninviting</td>
<td>3.79 (1.29)</td>
<td>4.21 (1.16)</td>
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On a scale where 1= Strongly Disagree, to 7= Strongly Agree
Author Notes

The authors want to thank the research and design professionals with HOK New York City who categorized the 16 images.
References


Figures

Figure 1. Example of Authority Factor 1: Ineffectual

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Figure 11. Exterior With the Lowest Approachability Rating
Figure 1.
Figure 2.
Figure 3.
Figure 4.
Figure 5.
Figure 6.
Figure 7.
Figure 8.
Figure 9.
Figure 10.
Figure 11.
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