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The University of Arizona, 1987

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PERCEPTIONS OF BUSINESS IMAGERY IN THE LANDSCAPE

by

Stephen Robert Cast

A Thesis Submitted to the Faculty of the

SCHOOL OF RENEWABLE NATURAL RESOURCES

In Partial Fulfillment of the Requirements
For the Degree of

MASTER OF LANDSCAPE ARCHITECTURE

In the Graduate College

THE UNIVERSITY OF ARIZONA

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STATEMENT BY AUTHOR

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ABSTRACT

This research attempts to establish that landscapes can support and enhance a business identity program. Previous environmental perception research has investigated affective and cognitive responses to natural landscapes, but little, if any, research has explored the area of meaning in a business landscape. Consequently, this study develops a theoretical framework from which to demonstrate a business identity in the landscape. In an effort to structure a framework for both affective and cognitive meanings in busness environments, this study draws on past environmental perception research that focuses on affective reponses to molar environments. From out of this research design, affective and cognitive dimensions are identified that allow testing of business identities in the environment. Findings show that landscapes can support and enhance an overall business identity program. The study concludes with a discussion of future research that might further the benefits of landscapes to the business community.

CHAPTER 1

INTRODUCTION

Background to the Problem

The relatively new field of environmental perception has focused on a variety of pursuits that provide insights into man's perception of and reaction to his environment. Landscape research has embraced many of the diverse aspects of this emerging discipline. Devising sophisticated assessment procedures, for example, landscape research has investigated the landscape as a scenic quality resource in an effort to provide land managers a scientific method to evaluate and allocate land usage. As a scenic resource though, landscapes are evaluated for only their affective qualities. Simplifying these affective aspects of environments, Ward and Russell (1981) found two affective domains: pleasure and arousal. However, due to serious methodological constraints, current environmental perception research has not advanced the investigation of both affective and cognitive responses to the environment. Consequently, there is a lack of a theoretical framework from which to study the cognitive attributes of landscapes, and their contributions to other uses. This study will then attempt to investigate this void in the research and suggest

a methodological application to study the affective and cognitive dimensions of landscapes within a business environment.

Landscapes as a Business Communicator

Business has long employed unique and sophisticated methods for communicating its company identity programs to the public. If landscape research were to establish that landscapes could communicate larger meanings than affective responses, business might then realize landscapes as contributor to an overall business identity program.

Problem Statement

The nature of this study is exploratory and finds few, if any, direct theoretical constructs within the cognitive literature from which to derive an experimental design. Consequently, this study attempts to elaborate on Ward and Russell's (1981) study of affective responses to molar environments and introduces a methodological approach for testing cognitive, as well as, affective meanings in the business landscape.

In consideration of this problem statement, the following general research goals and objectives have been developed:

General Research Goals

The goals of this research are to establish landscape's contribution to a business identity program, and

to enlarge a theoretical framework for investigating affective and cognitive components of business environments.

General Research Objectives

1. To develop a hypothesis that supports and enhances the contribution of a landscape to business identity practices.
2. To develop a methodology that facilitates testing of the hypothesis developed in this study.
3. To identify other research pursuits that might continue to further the benefits of landscapes to business.

Significance

By developing a methodology that defends the intended study purpose, this investigation will show evidence of landscape's contribution to business practices. Not incidentally, insights for further investigation of cognitive meanings in the landscape arise from this methodological development.

Development of the Research

A review of the current environmental perception literature will provide a theoretical foundation for this research. Following this review, a research method is described which is intended to support the study goals and objectives. From application of this method, research results are developed and discussions are provided.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

This section will serve as an overview of some basic business concepts and cf the current environmental perception theory and research that is relevant to the intent of this study. This overview will also identify research that provides a theoretical foundation for designing this exploratory research.

State of the Art: An Overview

Because affective terms often label our environment, aesthetics inherently become an environmental perception issue. Applying aesthetics to business concerns adds yet another dimension, cognitive perception or meaning in the environment. The degree of affective and cognitive usage in business environments depends on the business objectives. A resort business may perceive itself as 'lovely' (affective usage), but a corporate office might rather have its publics see it as 'successful' or 'powerful' (cognitive usage). Consequently, this study involves a number of issues found in such a variety of disciplines as business, geography, anthropology, architecture and psychology as well as landscape architecture. All, in some way, provide

peripheral insights into business imagery in the landscape. The focus of this literature review requires first noting some basic business principles that develop a background for business image usage in the marketplace. From this discussion, environmental perception paradigms of landscapes (Zube et al. 1982) will serve to further structure the remaining varied and relevant environmental perception literature. The following section provides necessary definitions of important terms used throughout this study.

Definitions

Cognitive Attribute: a word or phrase that knowingly serves to identify a perceived non-emotional business quality.

Affective Attribute: a word or phrase that pertains to a feeling or emotion of a business quality, especially to pleasurable aspects of a mental process.

Landscape Imagery (or Imagery Landscapes): For purposes of this study, business imagery landscapes are defined as outdoor designs that establish an intended business attribute or orientation through the creative use of natural and man-man materials in the landscape.

Marketing: Gwinner et al. (1977) defines marketing as the, "satisfaction of customer needs and the accomplishment of an organization's marketing objectives through the efficient and effective distribution of that

organization's goods and services under conditions of constraint imposed by the marketing environments.

Corporate Culture: The corporate culture includes the total business environment and all its concerns, from marketing to finance, from accounting to management style and is usually dictated by an underlying corporate philosophy (Gwinner et al. 1977).

Product Differentiation: Product differentiation is a strategy designed to attract demand through the offering of products with features, quality, style, or images that can be differentiated from rival product offerings (Gwinner et al. 1977).

Business Image or Identity: A business image or identity (to be used synonymously) is the sum total of its traditions and shared values. These traditions and values can be packaged and advertised to persuade public opinion (Ackerman 1984). A business image process attempts to establish name recognition, to promote goodwill for it and its products, or to identify itself with some meaningful and socially acceptable activity (Shrimp et al. 1986).

General Business Image Literature

Dowling (1986) does not see a single factor completely reflecting the personality of an organization. He cites the following as the many and diverse dimensions of a business image:

competent management
equal opportunity employer
quality products
stable financial condition
socially responsible
reliable
modern
technological leader
financially solvent investment
paternalistic
developer of new products
research oriented
benevolent to the community
resource conserver

By implementing a positive and effective company image program, business will find a greater overall success of its corporate strategy (Gray and Smetzer 1985). From understanding a corporate identity within a marketintg strategy, business finds the following four benefits (Ackerman 1984):

1. Understanding a company identity explains behavior and, thus, can be useful in determining parameters for employee relations.
2. Establishing an identity becomes a source and means of competitive differentiation in strategy development.
3. Understanding identity helps managers make strategic decisions.
4. Grasping identity helps managers mobilize more effective implementation of business strategies.

In Table 1, Ackerman illustrates how a company with an established identity affects a business course of action:

Table 1. How Identity Influences Business

HOW IDENTITY INFLUENCES BUSINESS

The Identity and Culture of Five Companies

	Company A Banking	Company B Computers	Company C Chemicals	Company D Consumer Products	Company E Engineering Construction
Identity (Motivation)	-Expansionist -Power-basing	-Can-do -Achieving mission impossible	-Autonomy (no corp. identity)	-Enduring enterprise -Social contribution	-Setting precedents
Resultant Culture (Behavior, Values)	-The king & his court (one man rules)	-Entrepreneurial -'Up by the bootstraps' tradition	-Me-first -Divisions do their own thing	-Family (home away from home)	-Rugged toughness Marlboro man philosophy
Course of Action	-Deregulation encourages expansion -Hiring supports leader's vision -Acquisitions-avoid banks with ambitious management	-Company thrives on small business mentality -Promotion from within	-Biting the bullet mentality -Decisions based on joint variables	-Reason for being in business transcends profit motive -Hiring supports leader's vision -New hires should seek an extended family-no opportunist	-The higher number of precedent-setting projects, the better in terms of long-range return on people and money -Character, nature of jobs, more important than size -Technicians & managers should be innovative

Business Image and Outdoor Design

Several architectural articles note that exterior design can be a component of a strong marketing process. Siler (1984) states for example, "Buildings influence behavior by embodying messages". Others write, "The exterior is, in a sense, like the package on a product" (Shimp and Delozier 1986). Gray (1986) concurs saying, "Symbolic of the corporate image is the corporate headquarters and surrounding landscape...". Still others write, "...the image is as important as the merchandise" (Selame et al. 1980). Refer to Appendix A for current trends in business landscapes.

Conclusion. It can be concluded from the business image literature that imagery is instrumental to business identity practices. The business literature has also shown that affective and cognitive dimensions are important components of business identity programs. As Dowling (1986) suggests, terms like competent, quality, stable, responsible, modern, paternalistic are representative business attributes that augment select business identity strategies. The literature has also shown various business methods that communicate these attributes. The following section reviews the environmental perception literature that identifies relevant affective and cognitive theories and research. From this review, a research direction can be initiated that explores the affective and cognitive dimensions of landscapes and the contributions of those dimensions to business identity programs.

Environmental Perception Paradigms

The diverse landscape perception research literature can be organized into four paradigms: expert, experiential, psychophysical and cognitive (Zube et al. 1982). Another study closely paralleled this organization with identification of five models within the literature: Ecological, Aesthetic, Phenomenological, Psychophysical, and Psychological (Daniel and Vining 1983).

For simplification purposes, this study will focus on those paradigms identified by Zube et al.(1982). The following subsections will provide a description and a subsequent assessment of each paradigm. Following this assessment, the applicable theory and/or research of each paradigm is presented. It should be noted, these paradigms share characteristics and are not mutually exclusive.

The Expert Paradigm

Description. Judgements of skilled and trained observers provide the basis for approaches to scenic assessment within the expert paradigm. Skills in art, design, ecology or resource management are used for this assessment (Zube et al. 1982). Daniel and Vining (1983) expanded this notion differentiating between an aesthetic model and an ecological model, where depending on the skill of the expert, assessment judgements were based on principles of either art or ecology.

Assessment. Both Zube et al. (1982) and Daniel and Vining (1983) suggest that the expert paradigm lacks validity and reliability and is therefore unsuitable as a research method. Reliability questions arise when there is often disagreement between expert values of a scenic landscape. The intangible and abstract criteria used for expert evaluation also diminishes validity. However, expert

analysis does provide a practical and utilitarian means for scenic assessment (Daniel and Vining 1983).

Relevant Research. No expert source was found to be appropriate to the focus of this study.

The Experiential Paradigm

Description. Differentiating itself from the other paradigms, the experiential approach investigates the experience of interacting with a landscape. This approach is often based on "subjective, feelings, expectations, and interpretations" (Zube et al. 1982).

Assessment. Because of its subjective nature , the experiential approach to environmental perception produces poor reliability and validity results. Although "richness" of value is provided , an experiential paradigm does not offer practicality for measurement methods.

Relevant Theory. Experiential literature is diverse. However, for purposes of this study, the literature falls into two principle categories: 'sense of place' and 'symbols' theory. Within each category, various theorists offer insights toward an individual's interaction with his environment.

Relph (1971) very explicitly defines 'place' or lack of it. 'Places' to him are the, "fusions of human and natural order and are the significant centers of our immediate experiences of the world". Norberg-Schultz (1979)

expands this notion to include a spirit in places. Lynch (1960) provides a basic spatial structure of a 'sense of place' by defining man's orientation through "nodes, paths, districts, edges and landmarks".

Man has historically used symbols in his environment to represent his being through nonverbal methods (Rapoport 1982) Tuan (1974) defines a symbol as, "a part that has the power to suggest a whole: for instance, the cross for Christianity, the crown for kingship, and the circle for harmony and perfection" Lynch (1960) feels that because, "image development is a two-way process between observer and observed, it is possible to strengthen the image either by symbolic devices, by the retraining of the perceiver, or by reshaping one's surroundings."

Applying symbolic meaning to a region, Meinig (1979) feels every mature nation has symbolic landscapes. Interestingly, he describes three for the United States: chronologically beginning with New England, evolving later to main street of Middle America, and emerging to the casual landscape of Southern California. These landscapes then, represent the historic symbolic essence of this country.

Another regional investigation focusing on Tucson, Arizona symbols provides a rank order profile of Tucson images for selected years between 1881 through 1982 (Peterson 1983). City directories and later telephone directories determined the number of references of a

particular image. Results found in the year 1881 there were a total of eleven local images: pioneer/frontier (5), Spanish/Mexican (3), Cowboy/Western (2) and Mining (1). By 1982, Tucson acquired six more images totalling 2,028 image references since 1881. The six additional perceptions of Tucson grew to include a desert, mountain, sun, Indian, valley and an oasis image.

Appleyard (1979), a landscape architect and planner, feels symbols have environmentally social meanings that strengthen a feeling of a 'sense of place'. He states, "An environment becomes a social symbol when it is intended or perceived as a representative of someone or some social group; when social meaning plays an influential role in relation to its other functions"

In conclusion, the experiential literature offers a rich and subjective interpretation of the environment. Through the representation of symbols and the creation of a 'sense of place, the experiential literature implicitly provides a foundation and direction for investigating meaning in a micro environment to even a molar environment or region.

The Psychophysical Paradigm

Description. This approach to environmental perception uses 'non-expert' (the general public) to assess environments. Daniel and Vining (1983) write,

"Psychophysical methods of landscape assessment seek to determine mathematical relationships between physical characteristics of the landscape and perceptual judgements of human observers." Psychophysical studies typically use photographs of environments in which respondents rate landscape scenes. Craik (1976) has established a model for the comprehension of environmental displays from which psychophysical research can obtain research directions. He describes four research domains that would guide various environmental research directions, one of which supports the notion that a photographic slide series is an appropriate media presentation for the study of environmental perception. Measurement is highly facilitated with the psychophysical model.

Assessment. The experimental nature of this paradigm implicitly poses a problem. Experimental studies place emphasis on identifying the stimuli (landscape properties) that create the response (preference), instead of attempting to explain 'why or how' the stimuli create the response (Zube et al. 1982). Additionally psychophysical methods are time consuming and often require new equations for each site variation (Daniel and Vining 1983).

As with most experimental analyses, the model proves to be highly reliable. Daniel and Vining (1983) indicate that psychophysical methods are also valid, in that they

directly measure the landscape properties that are being studied.

Relevant Research. There have been several appropriate psychophysical studies within the retail business literature that provide direction to the focus of this study. Pathak et al. (1975) compared customer's 'actual' and management's 'anticipated' images of department stores. The study found that management of lesser status stores held different opinions than their customers. Lindquist (1975) found that, "Marketers are concerned with the images consumers have of such entities as their products, services, the corporation itself...". McDougall and Fry (1975) held that store image was best measured by means of semantic differential scales in conjunction with open-ended interviews. Burke and Berry (1975) discovered that, "The social actions of a corporation not only improve a company image, but also contributes to favorable economic results" Darden and Lusch (1983) found in their study that, "development of store image by retailers is often not market based". Traditions and trade peer groups also influence store image development.

Relevant to this study, perhaps the most important research has been developed by Ward and Russell (1981) who in their article, "The Psychological Representation of Molar Physical Environments", found through factor analysis of affective descriptions of environments two principal

dimensions: pleasure and arousal. This study is significant in that several problems inherent with the semantic differential are avoided. Through factor analysis, the Ward and Russel study found with considerable reliability a cross-cultural opportunity to determine the major components of affective responses of the environment. Although Craik (1981) finds the study to, "make important advances in research on the psychological representation of molar physical environments", the theory is not without objections. Questions regarding the method's application of various verbal scales to a diverse set of environments have been raised (Daniel and Ittelson, 1981). However, the study's theoretical implication provides significant research direction for investigating and evaluating meaning in the landscape. Ward and Russell (1981) conclude that, "because affective meaning permeates language, only by delineating affective meaning and then partialling out its effect can the perceptual/cognitive component be clarified". This theory then will serve as a partial model for exploring perceptions of business imagery in the landscape.

A study that overlaps between the psychophysical and cognitive literature and examines more directly the relationships of landscape and image was presented in the paper, "Landscape Taste as a Symbol of Group Identity" (Duncan 1973). Duncan found evidence that "subtle

variations in the landscape tastes of two groups of nearly identical, high socioeconomic status are significant indicators of group identity". The boundary of social networks were also said to closely correspond with the boundary between landscapes implying that socioeconomic status can be communicated in the landscape.

Rapoport (1982) discusses a similar study by Royse (1969), where the form of planting communicated meaning. This meaning, though, varied according to socio-economic groups. Middle socioeconomic groups were found to rate a manicured landscape more highly, while a high socio-economic groups viewed the natural landscape more positively.

The Cognitive Paradigm

Description. The cognitive approach to environmental perception places emphasis on the meaning of the environment or how man interprets the landscape. This interpretation is a result of one's past experiences, future expectations and cultural contexts.

Cognitive researchers identify and describe physiological processes that dictate landscape preferences. From these processes, generalized models are developed.

Assessment. Because the methods reflect social values, Daniel and Vining (1983) feel that cognitive methods offer the greatest potential for determining value in a landscape. The cognitive approach also shows reliable and

'highly sensitve' measures that discriminate landscapes. Because the method uses those judgements of people who actually experience the environment, the cognitive model is also considered valid (Daniel and Vining 1983).

Relevant Theory/Research. Cognitive literature finds meaning in the environment, where connotative rather than simple denotative meanings evaluate the environment (Rapoport 1982). Rapoport feels that, "environmental evaluation, then, is more a matter of overall affective response than of a detailed analysis of specific aspects, it is more a matter of latent than of manifest function, and it is largely affected by images and ideals". Rapoport sees environmental meaning studied in three principle ways:

1. Using linguistic models, mainly based on semiotics. These are the most common.
2. Study of symbols. These are the most traditional.
3. Using models based on nonverbal communication that come from anthropology, psychology, and ethology. These have been least used in studying environmental meaning.

Semiotics is the relationship of signs that incorporates three elements: 'syntactics' or the study of structure of a system, 'semantics' or the relation of signs and verbal meaning, and 'pragmatics' or signs and the user behavior (Krampen 1979). Rapoport feels pragmatics is the

more appropriate research pursuit and "nonverbal analysis provides a more useful model than does language." Wallis (1973) diagrees saying, "...the theorist of architecture and the aesthetician must accordingly conclude that the traditional opinion that all architecture is a nonrepresentational, asemantic art is wrong". Nevertheless, Rapoport notes that all three approaches to the study of meaning have a number of general characteristics in common and are derived from any communication process. They are:

1. a sender (encoder)
2. a receiver (decoder)
3. a channel
4. a message form
5. a cultural code (the form of encoding)
6. a topic - the social situation of the sender, intended receiver, place, the intended meaning
7. the context or scene, which is part of what is being communicated but is partly external to it.

The methodologies investigating meaning in the environment have employed mostly the semantic differential (SD) first used by Osgood (1957). Osgood identifed three dimensions that reflect meaning of natural languages: evaluation, potency and activity. Krampen (1979) defines the SD as consisting of a seven-point scale that evaluates pairs of polar adjectives such as 'good-bad', 'hot-cold'."

He describes the typical SD process as confronting subjects with stimulus material, which can be either verbal or nonverbal, and having them provide a value between the polar pair. The following represents what the SD actually measures (Krampen 1979):

1. connotative meaning
2. the similarity of concepts
3. the emotive influence of words, affect, attitude
4. the plausibility of the connection between scales and concepts on the basis of experience
5. the emotive component of meaning
6. the emotional semantic dimension, affect, feeling

Krampen (1979) outlines the disadvantages of semantic differential usage. The principal disadvantage of the SD is that it measures only one's experiences and provides "affective and subjective function of language as distinct from the cognitive and objective function". Another criticism of the SD is that the experimentor`s bias in the choice of adjectives limits the amount of information one can obtain. Additionally, there are reliability questions with use of the SD in measuring meaning in the environment.

There are four main advantages for employing the SD in select research designs (Krampen 1979):

1. The SD is highly adaptable to factor analysis.
2. The SD as a componential model describes the

meaning of a large number of concepts or objects in terms of a relatively small number of distinguishing features, which are continuous rather than discrete in coding and which exhibit no logical priority of certain features over others.

3.The SD allows for systematic sampling of the distribution of concept usage instead of argument by examples as is customary in linguistic and philosophical semantics.

4. When applied cross-linguistically and cross-culturally the SD yields strong evidence for the universality of evaluation, potency, and activity as affective features of meaning."

Two very relevant studies were conducted by Krampen that explored meaning in the built environment. The first study involved, "the utility of the SD for semantically differentiating buildings of the same function but different style (Krampen et al. 1971). The second study attempted to, "establish the minimal critical properties necessry for a subject to be able to classify an architectural design as belonging to a particular functional type: factory, office building, church, school, etc."

Focusing on the second study, slides of the facades of six individual houses, six tenement houses, six office

buildings, six factory buildings, six school buildings and six churches (a total of thirty-six) were shown to groups of twenty architectural and nonarchitectural students. In addition, photographs of the same buildings were viewed individually by six architectural students and four non-students in random sequence. Both groups were asked to provide a written response of the function of each building and to name the features which had helped them identify this function.

The results for the photographs showed the following rank order for the features that best identified the function of buildings:

facade
overall building design
general impression
building elements
attached features
environmental features

In the case of the slides the following rank order appeared:

facade
general impression
overall building design
building elements
attached features
environmental features

From this study, it is implicitly noted that environmental features do not effectively communicate a function or identity of an organization.

Conclusion

Both the business and environmental perception literature find affective and cognitive attributes important dimensions within their theoretical frameworks. Through identity programs, business attempts to elicit positive affective and cognitive attributes to its publics. In another domain, research has shown that landscapes evoke strong affective responses. It then becomes apparent that a landscape might serve to reinforce those affective attributes of business. However, little is known of the cognitive value of a landscape to a business identity program. The experiential literature strongly suggests that landscapes elicit various meanings through interpretations. Psychophysical literature provides a scientific, measureable method to investigate that meaning. Finally, cognitive literature merges both these approaches to offer generalized models for interpreting landscape meaning. From discussion of these paradigms, a synthesis of previous research will be incorporated to develop an investigation of the affective and cognitive dimensions found in business landscapes.

CHAPTER 3

THE RESEARCH METHOD

Background to the Research Method

Section two provided an overview of the research and theory that is germane to the focus of this study. Ward and Russell (1981) have best provided a theoretical framework from which to further investigate the affective and cognitive domains of landscape meanings. Studying meanings in the built environment, cognitive research (Krampen 1979) has also sought to point out methodological uses for the semantic differential. Insights from Craik's (1971) development of the 'adjective checklist' provide further research direction. However, investigating meaning within a business landscape will require a composite of past methodological approaches and exploration of a few unconventional methods.

Specific Goals of the Research

The goals of this research are to suggest a theoretical framework for investigating affective and cognitive responses to an environment and to determine imagery landscape's value to business.

The Hypothesis

The hypothesis is that imagery landscapes will communicate a business attribute.

Research Questions and Objectives

Research Question #1

For the sample studied, does one element of the overall outdoor business environment (landscape, architecture or both) more clearly communicate a business attribute for a business type?

Research Objective #1

To measure values of business attributes within business types.

Research Question #2

What is the relative effectiveness of buildings and landscapes communicating a business image?

Research Objective #2

To identify business attributes within a 'corporate culture' and to measure the relationship of these attributes to architectural and landscape features of a business facility.

Research Question #3

Does public or panel perception of a business outdoor environment support management's desired attribute levels or image of itself?

Research Objective #3

To measure business management's attribute levels against public or panel perception of the site.

Method Description

This subsection describes the method designed to satisfy the stated objectives.

Site Selection

Twelve business sites in the Phoenix, Arizona area were selected for their attempts to convey various outdoor images. The following three business types were represented with four sites in each category: resorts, office buildings, and corporate headquarters. The sites within each category would be considered 'like-properties': up-scale and with similar users. Phoenix business sites were chosen for three reasons. First, the Phoenix area offered a larger selection of appropriate businesses to investigate. Additionally, as testing was to occur in Tucson, the Phoenix sites would be less familiar to the Tucson respondents, thereby reducing the influence of familiarity on test results. Finally, the sites had to be accessible from Tucson to facilitate frequent visits.

Test Instrument Development

Interviews were conducted with a business manager from each site to obtain a company communication policy (see

Appendix B). From these interviews and company promotional materials, a business attribute list of over 160 words was derived (see Appendix C). This process provided a vocabulary that avoided personal biases in the selection of words on the part of the experimenter.

This list was categorized through content analysis using two strategies. The first used Ward and Russell's study (1981) to differentiate affective from cognitive attributes, thereby consolidating affective attributes into two domains or concepts: pleasure and arousal. Categorizing the remaining cognitive attributes was based on the linguistic classification of Roget's Thesaurus (1977). Ward and Russell's classification of affective attributes into pleasure and arousal agrees with the categorization of affective terms in the fourth edition of the Thesaurus. In addition, there exists a prior relevant Thesaurus investigation (Osgood, 1957). However, this process did require experimentor interpretation of attribute meanings, where some attributes had various conceptual meanings defined by the Thesaurus.

Attribute frequencies of Thesaurus categories were then tallied by business type (see Appendix D). Two low frequency categories were removed to relieve anticipated confounding. Tallied frequencies found the rank order affection, volition and intellect for resorts. For offices, volition ranked higher than affection followed by intellect.

Corporate headquarters found almost an equal frequency for volition and affection followed by intellect. A testing instrument was further developed by deleting redundant attribute meanings and selecting four representative attributes for each concept. Finally, twelve concepts emerged that best represented the appropriate affective and cognitive dimensions for all sites (Table 2).

Table 2. Final Thesaurus Categories Of Management Attributes

Management Attributes	Concept	Class	#
chic sophisticated cosmopolitan urbane	skill	volition (cognition)	1
up-scale opulent lavish luxurious	monetary	volition (cognition)	2
traditional groomed formal classic	custom 1	volition (cognition)	3
western desert Southwest Spanish	space	space (cognition)	4
gorgeous beautiful handsome attractive	pleasure	affection	5
modern hi-tech progressive innovative	custom 2	volition (cognition)	6

Table 2, continued

paradise-like shangri-la fansiful utopian	creativity	intellect (cognition)	7
park-like pastoral natural oasis-like	security	volition (cognition)	8
playful spirited pleasant friendly	arousal	affection	9
conscientious trusted stable credible	belief	volition	10
quality first-class prestigious successful	goals	volition (cognition)	11
utilitarian practical functional economical	utility	volition	12

As another attempt to remove experimenter bias of word selection, a bipolar semantic differential scheme was not considered. Instead, a unitary 0 to 10 scale measurement of the four attributes that represented a Thesaurus concept was preferred. This questionnaire was subsequently mailed to the management of each site for evaluation (see Appendix D). Managers were asked to consider their complete corporate culture for evaluation. Pretesting the management questionnaire was not considered

necessary. The questionnaire for the testing populations (see Appendix E), however, was pretested and did present some confounding in evaluating four attributes as one concept.

Media Presentation Development

Considering Craik's (1976) "Comprehension of Environmental Displays Model", color slides were considered the more appropriate media presentation for testing the hypothesis. Other studies have shown close association between perception judgements of color slides and perception judgements of the actual sites of the photos (Daniel and Boster, 1976; Shuttleworth, 1980). Thirty slides were taken of each site with ten slides representing 1) landscapes only, 2) architecture only and 3) both landscape and architecture.

Photos were shot in April after a particularly harsh desert winter. There was evidence of frost damage on some sites, though blooming was present on most sites. Photos did not include business signage or identification. All photos were horizontal format. There was a total of 36 blocks of slides (12 sites x 3 groups) that represented the landscape, the architecture and both the landscape and architecture for each site.

To relieve testing fatigue, the total number of blocks of slides were split so that each testing group would

view 23 blocks of ten slides. To check for reliability, the same ten of the twenty-three blocks were rated by all groups. Slides blocks were randomized for each session. To establish a site context, slides were viewed two at a time.

Respondent Selection

Acknowledging semantic tests as possible measurements of one's experience, attempts to test the slides with civic organizations were made, however futile. Consequently, student populations were used to represent the general population. However, to relieve some of the experiential concern, two business student groups (upper divisions in market research and consumer behavior) in conjunction with two freshman psychology groups were tested to total four testing sessions. The number and type of respondents for each session were:

Session 1 - Freshman Psychology - 15

Session 2 - Freshman Psychology - 19

Session 3 - Consumer Behavior - 39

Session 4 - Marketing Research - 15

No other demographic or psychographic information was obtained.

Testing Procedure

Each respondent for each session was given a brief overview of written instructions and a testing instrument.

Thorough verbal instructions were read by the experimenter prior to the slide presentation (see Appendix F). To relieve the confounding discovered in pretesting, verbal instructions from the experimenter emphasized to the respondents to evaluate the four attributes collectively as one concept; the group of attributes were not intended to be similar in meaning. Respondents were asked if they did not understand the meaning of any of the attributes. Twice the attribute, "Shangri-la", required a definition. Respondents were given 60 seconds to evaluate each of the twelve concepts for each block of slides. Total testing time for each session was 45 minutes.

Analysis for Agreement

A t-test and correlation analysis was performed to determine agreement between similar populations. Analysis found good agreement between the business groups indicating a range from .80 to .97 and moderate agreement between the psychology groups with a range from .62 to .97 (see Appendix G).

To facilitate further analysis, similar populations were merged allowing for two different type testing populations, business and psychology students. For both testing populations, the t-test and correlation analysis indicated poor agreement for two concepts, utility and qualifications. Consequently, these concepts were removed

from further analysis. Because of the resultant quantity of data, the psychology students were also removed from further analysis. Simple means analysis and subsequent correlations provided further data information.

Establishing a Method for Analysis of the Results

To determine what site element or variable (landscape, architecture or both) most clearly communicated a business attribute, the following analysis was performed. Statistical analysis provided a simple mean value for the measurement of the relative perception of the landscape, the architecture and both the landscape and architecture (perception of the overall site) for each concept of each site. A chart was developed that graphically compared the relative relationship of means between business type and business concept. Minimum and maximum mean values were found for the perception of the overall site of each business type to determine a distribution that discriminated between low, below average, average, above average, and high normative values. For each site element or variable (landscape, architecture, both), one of these normative values was assigned (see Appendix H).

To further identity what variable best communicates a business attribute and for what business type, a subsequent chart analyzed the normative value of the overall perception of each site for each concept and compared it to

the relationship of each variable (see Appendix I). A variable relationship describes the relative relationship of the normative value for each variable. For example the variable relationship, B>A=L, indicates the normative values for landscape and architecture are equal but less than the overall perception of the site. Thirteen variable relationships were identified that provided the following categories: Landscape Dominance, Architecture Dominance, Equivalence, Synergy, Reverse Synergy and Averaging. Within the Synergy, Reverse Synergy and Averaging categories, equilvalence or dominance occurs. These relationships can best be defined by the following inequalities:

Equivalence:

(All variables are equal.)

B=A=L

Landscape Dominance:

(Landscape provides a higher value in relation to architecture.)

B=L>A (landscape equals both which is larger than architecture)

B=A<L (architecture equals both which is smaller than landscape)

Architecture Dominance:

(Architecture provides a higher value in relation to landscape.)

B=A>L (architecture equals both and is greater than landscape)

B=L<A (landscape equals both and is smaller than architecture)

Synergy:

(The overall perception of the site, both, is greater in value than its elements, architecture or landscape.)

B>A=L (equivalence: architecture equals landscape but is less than both)

B>A>L (architecture dominance: architecture is greater than landscape but less than both)

B>L>A (landscape dominance: landscape is greater than architecture but less than both)

Reverse Synergy:

(The overall perception of the site, both, is less in value than its elements, landscape and architecture.)

B<A=L (equivalence: architecture equals landscape and is greater than both)

B<A<L (landscape dominance: landscape is greater than architecture which is greater than both)

B<L<A (architecture dominance: architecture is greater than landscape which is greater than both)

Averaging:

(The overall perception of the site, both, is an average value between landscape and architecture.)

A<B<L (landscape dominance: landscape is greater than both which is greater than architecture.)

L<B<A (architecture dominance: architecture is greater than both which is greater than landscape.)

From this analysis, percentage breakdowns of normative values by concept for each business type were determined (See Appendix J). Dropping all values less than average, further analysis to determine communication effectiveness provided frequencies of each variable relationship.

To determine whether panel perception of the outdoor business environment supports management's desired image of itself, correlations were performed to find consistency of responses. Two correlations were initiated. One analysis determined the association or agreement between management and panel responses <u>across concepts</u> for each site. This analysis provided agreement measures of consistency between management and panel responses within sites for all concepts. The other analysis determined the association or agreement between management and panel responses <u>across sites</u> for each concept. This analysis determined the overall ability of the tested outdoor business environments in communicating to the public intended business identities.

The flow chart of the methods in Figure 1, provides a schematic representation that summarizes the methodological process employed in this study.

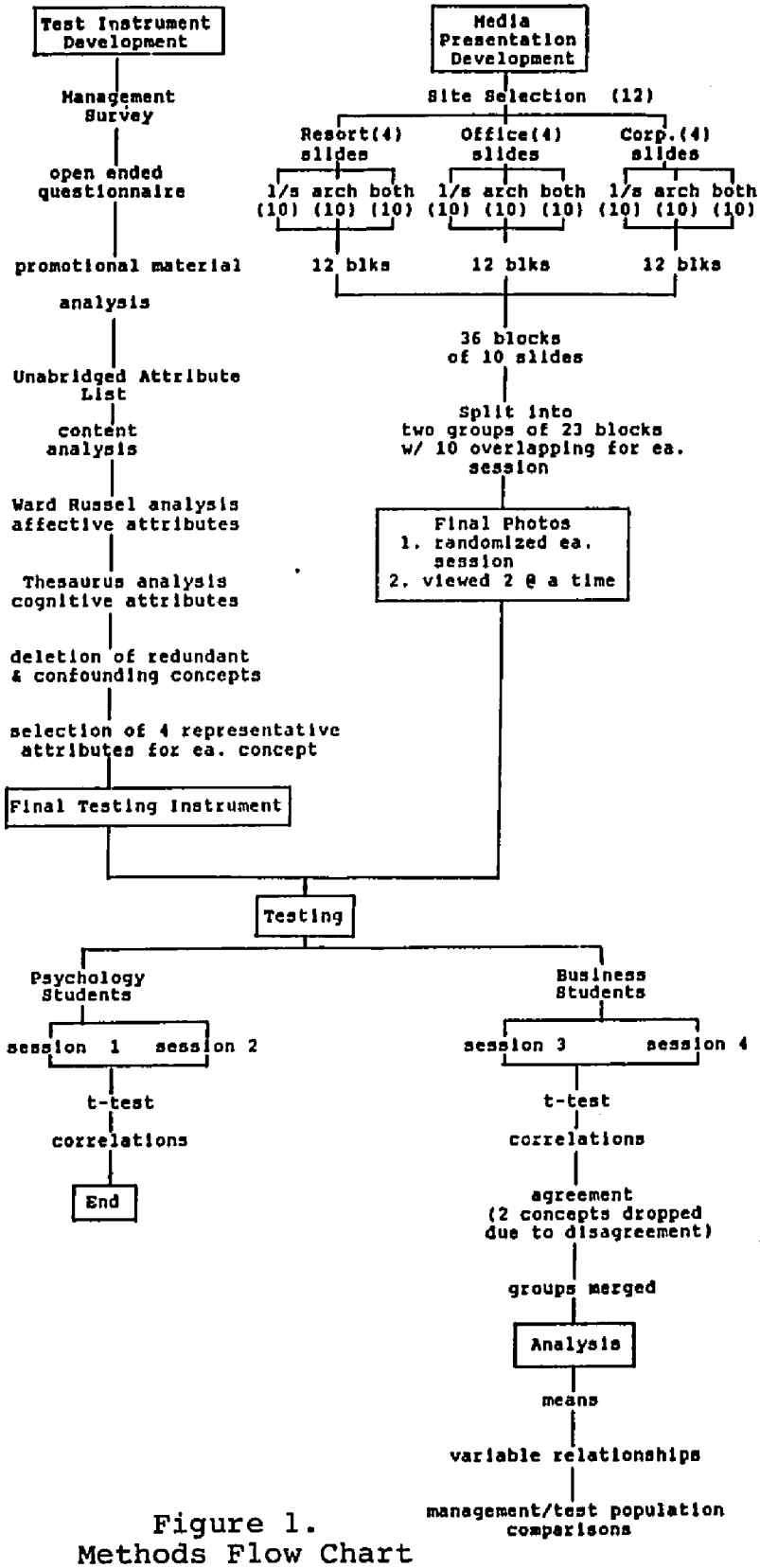


Figure 1.
Methods Flow Chart

CHAPTER 4

RESEARCH RESULTS

Introduction

This section provides the research findings from the application of the method described in Section 3.0. First, description of each site offers a general contextual perspective for interpreting the results. Discussion of these results is subsequently presented. Finally, responses to the research questions raised in Section 3.0 are provided.

Site Descriptions

The following provides a descriptive overview of each site by business type. This overview is intended to provide only that site information considered relevant to the intent of this study. If available, this information includes location and age of the facility, site amenities, awards, journalistic or literature reviews, and self descriptive brochure comments. Refer to Appendix K for the photography of each site.

Resorts

Boulders. A USA Today article (1987) writes of the Boulders, "As are most of the 'money-is-no-object' resorts

in the USA, the Boulders is discreet - so discreet you can't even see it at first." The article goes on to add, "Architects did an amazing job blending the man-made with Mother Nature." The Boulders is located 20 miles northeast of Phoenix on 1,300 acres of the Sonora Desert foothills in Carefree, Arizona. The resort has made strong attempts to blend with its unique environment of "piles of granite boulders". Architecture mirrors its environment with an adobe-tan pueblo-style lodge and casitas. Promotional materials tout the resort's intimacy and naturalness.

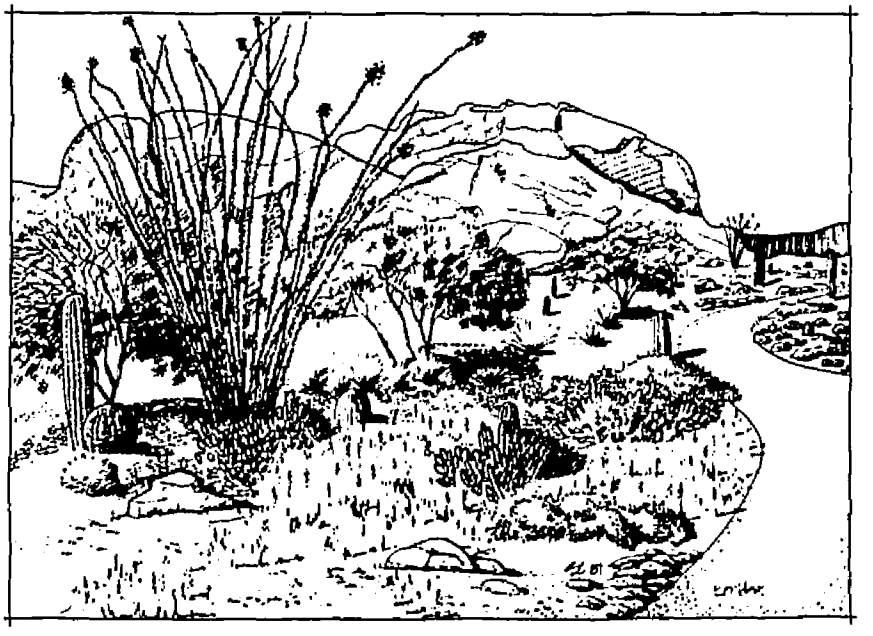


Figure 2. Boulders Resort

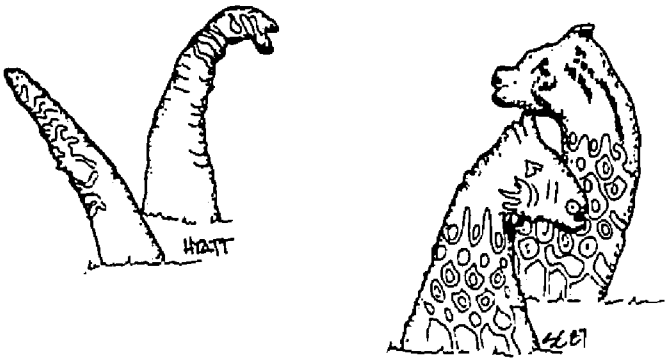


Figure 3. Hyatt Resort Site Feature

Hyatt at Gainey Ranch. The Hyatt at Gainey Ranch is approximately one year old built on a previous horse ranch in Scottsdale, Arizona, a 'touristy' bedroom community of Phoenix. The resort offers the usual Hyatt amenities, where effort was made "to bring the natural beauty and romance of our surroundings into the resort". The facilities include two connected 'neoclassic' main buildings with "five functionallly and aesthetically different courtyards" The buildings and grounds would be considered very 'high-style'.

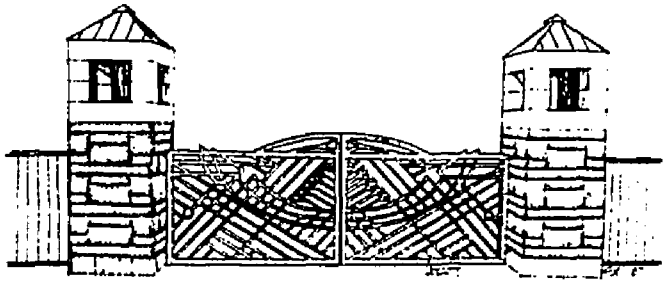


Figure 4. Hyatt Resort Site Feature

Mountain Shadows. Mountain Shadows is owned by Marriott and sits prominently in the shadow of Camelback Mountain in the community of Paradise Valley just north of Phoenix. The resort has been in existence for over 30 years with little evidence of remodeling; astroturf surrounds the very large pool area. Management contends the resort retains from year-to-year a "popular family and youthful following". The site is sprawled across 70 acres of "lushly landscaped greenbelts, amid swaying palms and exotic flowering cacti". Landscape contractor awards for 'outstanding landscaping' are found on the walls of management's reception area.

Sheraton Scottsdale.

Promotional materials offer this resort as, "an oasis of 40 lushly landscaped acres" that includes all the usual resort amenities. Recently remodeled architecture reflect a Southwest flavor. The landscaping was not altered and varies from wide expanses of lawn to desert gravel. The facilities consist of a main building, various separate and diverse lodging facilities and a conference center.

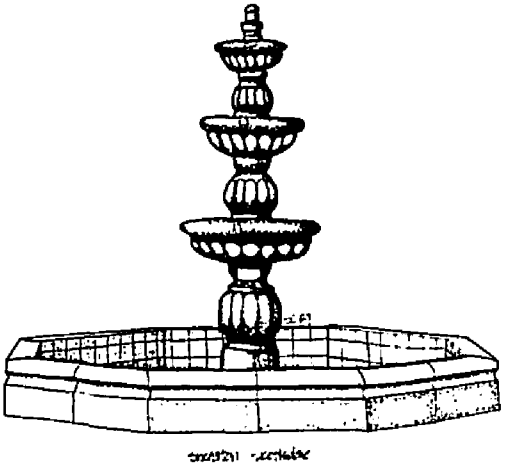


Figure 5. Sheraton Resort Site Feature

Office Buildings

Arizona State University Research Park. "The special ambiance within the Park that will facilitate interface between business and University research has been created by the Research's Park's careful attention to pedestrian oriented site planning, landscaping and quality of environment." The park has won, "for its initial planning and design studies the Industrial Development Research Council's 1985 outstanding Research Award". The park is almost one year old with two virtually unoccupied office buildings. There are 117 acres of "gently undulating common open space with a series of three lakes covering 18 acres." The site offers unique amenities like a six mile track for joggers, one mile of equestrian trail, tennis, boating, and outdoor lakeside plazas. The park is located in Tempe, a university town southeast of Phoenix.

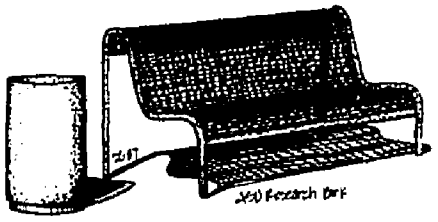


Figure 6. A.S.U. Research Park Site Feature

Gateway Center. The center was, "designed to make both an architectural and an environmental statment...(the center) is heavily landscaped to create its own atmosphere". This 'garden office' complex is over one year old and is located near Phoenix's Skyharbor International Airport. The

intended masterplanned mixed-use commercial community will sit on a 37 acre campus site. Stringent design guidelines have been enforced to provide "a cosmopolitan, sophisticated place to office". The center feels they understand, "how important environment and amenities are to productivity."

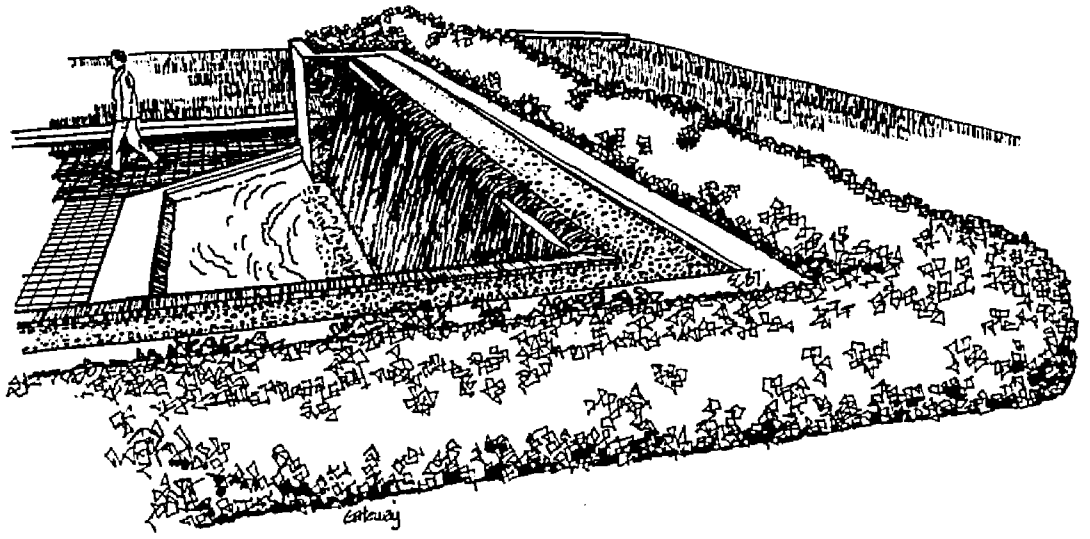


Figure 7. Gateway Offices Site Feature

Kaiser Center. This office center, located on a major freeway exchange in Phoenix, is also "just minutes from Skyharbor International Airport". The center is a "dramatic brick and glass office building" with "extensive landscaping" and a "beautifully landscaped pedestrian corridor". This complex is less than a year old and is the first of other proposed mixed-use development. The facility does not provide health-oriented amenities.

Park One. Located in mid-town Phoenix, this four year old office park feels it is, "a total prestigious office environment" which "centers around a man-made lake, complete with an island, fountains, and bridged walkways, surrounded by lush landscaping indigenous to the area". The office complex positions itself as a healthy work environment by offering exercise facilities, jacuzzi, pool and parcourse fitness circuit in addition to its park environment.

Corporate Headquarters

America West Airlines. This newly burgeoning company is headquartered in Tempe, minutes southeast of Phoenix. The corporate headquarters is less than ten years old and southwestern in appearance. The facility is a complex of buildings with a series of landscaped courtyards and spanish fountains. Management feels the landscaped areas are important centers for employee interaction and consequently morale.

Best Western International. This corporate facility was modeled after a well-known architectural project in Sedona, Arizona and intended to reflect a regional heritage. The headquarters are located on a slope overlooking much of sprawling Phoenix and are approximately five years old. The site is Spanish in flavor and includes grass lawns and Sycamores with courtyards and fountains. Management takes pride in offering the facilities to charitable civic events.

Figure 8. Best Western Site Feature

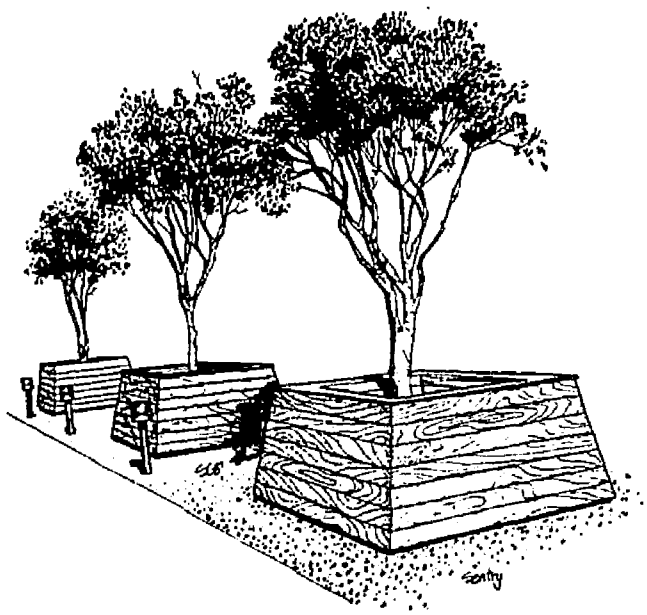


Figure 9. Sentry Insurance Site Feature

Sentry Insurance. This regional corporate office was built over fifteen years ago and was considered innovative for its concern of employee health. The facility offers a recreation center, exercise rooms, tennis, handball, athletic field , and swimming pool. The facility is "designed in an integrated campus

style of Neo-Hispanic-Calaboose architecture". Landscaping is zoned utilizing water conserving materials and methods.

Southwest Forest Industries. This site was chosen from review of the literature. "In an effort to project a corporate image consistent with business life-styles in the Southwest, and to express that image in materials reflecting the company's products, Southwest Forest Industries in Phoenix, Arizona, undertook a major project. Southwest insisted that the interior and exterior design of its new 85,000 square-foot, aluminum-sheathed headquarters blend with and reflect the best of the surrounding environment. The new building, interiors, graphics, and landscaping have won awards, providing Southwest favorable visibility in the business community" (Gray, 1986).

Results of the Comparison between Concepts and Variable Relationships for Business Types

For convenience purposes, business concepts will be referred by the first attribute listed (see Appendix E).

The overall percentage breakdown of normative values (low, below average, average, above average, high) for most concepts within business types fell into a typical bell-curve distribution. As only a few of the twelve sites could clearly be identified as Southwestern, an expected exception occurred for the attribute `western'. Another exception with a bi-modal distribution occurred for the attribute `modern'.

Again, sites could be described as half traditional and half modern and would therefore explain a bi-modal response.

As a group, resorts most clearly reflected the overall percentage breakdown for all sites with low values for attributes `western´and `modern´. Resort sites would also be described as half `western´ and half `modern´. With no responses below average, resorts very clearly communicated the attributes ´gorgeous´, ´up-scale´ and ´quality´. Reflecting largely the actual description of each site, three out of the four resort sites did not communicate the concept ´modern´.

Offices more strongly communicated the volition (cognition) concepts of `chic´, `modern´, and `quality´. However, the volition concepts of `park-like´ `traditional´ and `up-scale´ were mixed in responses due to varied site descriptions. Offices very strongly communicated `gorgeous´ with all responses as ´high´. However, responses for an affective, `arousal´ were low, though three out of the four sites very clearly displayed health amenities in their business environments.

Corporate headquarters fared lower in communicating most concepts than the other two business types. In only two categories, `western´, and `gorgeous´ were sites perceived as high. Though one site demonstrated extensive health facilities, corporate headquarters, as a group, ranked low with `paradise-like´, and `playful´ attributes.

Frequency Results of Variable Relationships

This section provides the frequencies of responses according to the relationship between landscape, architecture and both the landscape and architecture. This information is intended to determine what site element in the outdoor business environment communicates more strongly. The frequencies for each relationship are presented in Table 3.

Table 3. Frequency of Responses for the Relationship Between Landscape and Architecture.

	Frequency Breakdown			
Equivalence:	Resort	Office	C.H.	Total
B=A=L	2	3	0	5
Landscape Dominance:				
B=L>A	6	3	6	15
B=A<L	4	0	0	4
Architecture Dominance:				
B=A>L	3	11	5	19
B=L<A	0	1	0	1
Synergy:				
B>A=L (equivalence)	8	1	3	12
B>A>L (arch dominance)	0	1	2	3
B>L>A (l/s dominance)	3	0	1	4
Reverse Synergy:				
B<A=L (equivalence)	0	0	0	0
B<A<L (l/s dominance)	1	0	0	1
B<L<A (arch dominance)	3	0	1	4
Averaging:				
A<B<L (l/s dominance)	4	4	1	9
L<B<A (arch dominance)	0	3	2	5

Dominance from a particular site element indicates one element's ability to communicate a business attribute over the other element. Interestingly, totals show that landscape and architectural dominant relationships are very close. Predictably, landscape indicates stronger dominance with resorts. Architecture was dominant with offices. Results show that landscape most clearly communicated the concepts 'paradise-like', 'park-like', 'playful' and 'gorgeous' with all responses as above average. These concepts more successfully communicated with resorts and corporate headquarters. Other concepts that communicated an average response in a dominant landscape were 'chic', 'traditional', and 'western'. Architectural dominance was strongly evident with offices and the concepts 'modern' and 'quality' .

Equivalence provides ideal environmental contribution, where all environmental factors equally contribute to the overall perception of a desired business attribute. Results show that equivalence was achieved with two responses for resorts and three for offices. Equivalence ranked high for the concept 'western' and strong for the concepts 'chic' and 'gorgeous'.

Synergy poses an unusual response to perceiving the environment. This category is interesting in that the overall perception of the site ranks higher than its components, landscape or architecture. Most of these

synergistic responses occurred with equal independent values. Resorts elicited the majority of the synergistic equilvalent responses with strong values for the concepts 'up-scale', 'gorgeous', and 'quality'.

Reverse Synergy also provides curious results. With this category, either landscape or architecture ranks higher than the overall perception of the site. The largest response (nine) occured when landscape was dominant over 'both' which was greater than architecture. This category was prevalent with resorts and offices and present in the concepts 'up-scale', 'western', 'park-like', 'playful', and 'quality'.

Results of the Comparison between the Overall Panel Perception of Each Site and Management Business Identity Responses

As management was asked to evaluate their entire business culture, inflated responses were expected. Consequently, analysis correlated a panel value of means representing the outdoor business environment to one management value representing the entire business identity. To determine consistency of agreement or association between these two test populations, two correlations were performed. One analysis determined the correlation between panel mean values and management values across concepts for each site. The other analysis determined the correlation between panel

mean values and management values across sites for each concept.

The correlational analysis across sites for each concept found very low agreement or association levels (see Appendix K). With a significant .630 correlation value (one tail test), findings show that management and panel responses were in agreement for only one concept, 'western'. Other findings show slight agreement with the concepts, 'up-scale' and 'playful' (.440 and .459 values respectively). Finally, two concepts 'chic' and 'traditional' indicated a negative or inverse relationship.

The correlational analysis across concepts for each site proved to show very strong correlations (see Appendix K). Correlation values (one tail test) ranged from .641 for Mountain Shadows resort to a .981 for Best Western corporate headquarters.

Summary: A Response to the Research Questions

This final section of the Research Results presents responses to the research questions posed in Chapter 3. Each of the research questions is reiterated and followed by a response based on the findings of this study.

Research Question #1

What independent variable (landscape, or architecture,) communicates more clearly a business attribute?

Response

Results show that landscape most clearly communicated the concepts 'paradise-like', 'park-like', 'playful', and 'gorgeous'. Ranking above average, landscapes also communicated 'chic', traditional', and 'western'.

Architectural dominance was strongly evident in offices. Concepts that communicated well through architecture were 'modern' and 'quality'.

Research Question #2

For the sample studied, does one element of the overall outdoor business environment (landscape, architecture or both) more clearly communicate a business attribute for a business type?

Response

Results show that landscapes communicate business attributes of resort and corporate headquarter sites. Architecture best communicated business attributes of offices.

Research Question #3

Does public or panel perception of a business outdoor environment support management's desired attribute levels or image of itself?

Response

Findings show that within this testing sample, there is no agreement between management identity values and panel response to the overall perception of the outdoor business environment. However, within sites there exists very high correlation between management identity values and panel perceptions to the outdoor business environmnets.

The following section offers a discussion and a conclusion of the findings for this study.

CHAPTER 5

CONCLUSIONS

Introduction

This section offers conclusions from the findings of the research. The conclusions are discussed in two parts. Section 5.2 provides theoretical implications from the research results and Section 5.3 suggests applied uses for those findings.

Thoretical Implications of the Research Findings

Findings for Affective Responses

Ward and Russell (1981) found two basic dimensions for affective responses of environments: pleasure and arousal. These dimensions have been confirmed in the findings as effective communicators of business attributes for certain business types. Predictably as a group, resorts communicated both affective dimensions, where landscapes were a stronger elicitor of affective attributes than architecture. Offices evoked a strong pleasure response, but a lesser arousal reponse. With low perceived affective responses in both dimensions, corporate headquarters expectantly confirmed a reluctance to display a frivilous environment at the workplace.

Findings for Cognitive Attributes

Findings have shown the outdoor business environment to elicit a cognitive meaning that is perceived accurately by the public. This finding is strongly evident in office architecture. Although cognitive meanings in an outdoor business environment vary in importance according to business type, results show they can serve to reinforce a larger business identity practice. Findings also show that the ability of a landscape to communicate meaning as effectively as architecture is similar. By virtue of the fact that a landscape can elicit a cognitive response for a site, suggests that perception of landscape imagery is a function of strength. As an overall conclusion, results substantiate the ability of an imagery landscape to support and enhance a business identity program.

As a group, findings show synergistic equilvalent relationships to more strongly reinforce cognitive meanings. This suggests that architecture in conjunction with landscapes generate stronger recognition of cognitive business attributes. Resorts better demonstrated this relationship, indicating their ability to understand and maximize this relationship to strengthen their overall business identity programs. When minimal input from business achieves larger results, strong interest from business is generated. Consequently, this relationship shows greater promise that support public recognition of

cognitive meanings in the outdoor business environment and would require further investigation.

A reverse synergistic relationship is of special interest to the findings of this study. Results for landscape dominance within this relationship were significant with nine average or above average responses. Such an inverse relationship was elicited by the resorts, Boulders and Sheraton, where landscapes were perceived as above average for the attribute, 'up-scale'. This specific finding implies that architecture provides a negative weighting to the overall perception of the site. Further investigation would be required to substantiate this notion.

Findings for Agreement Between Management Responses and Panel Perceptions

Results suggest that business identity programs are not consistently supported by the overall panel perceptions of the outdoor business environments. Because earlier reliability measures strongly agree within testing populations, it is assumed that landscapes have the ability to communicate both an affective and cognitive business attribute. For the sites studied, however, this message is not consistently received and suggests that management has not effectively utilized this communication resource to reinforce their business identity programs.

Further analysis does show strong agreement within sites between business identity and panel perception of the outdoor business environment. However, this finding does not refute the criticism of Ward and Russell's analysis of affective responses to molar environments. Rather, this finding may affirm that sematic analysis of perceptional meaning in the environment is associational and does not reflect actual perception measures of each dimension.

Implications for the Applied Use of the Research Findings

Findings suggest that imagery landscapes could better serve business identity programs. From an understanding of business communication needs and those design elements that best communicate those needs, designers could implement an outdoor environment that serves to reinforce an overall business identity program. Far sighted consequences might have impacts on outdoor signage, public space usage, and commercial streetscapes.

Conclusion

Conclusions arising from these implications support the intended study purpose: landscapes can enhance business identity programs. The following section provides future research direction that is a result of the findings from this study as well as a result of the limitations from this study.

CHAPTER 6

FUTURE RESEARCH

Introduction

This section suggests research directions that might further the affective and cognitive contributions to an outdoor business environment. These directions are first defined by the limitations of this study. A second direction is suggested from the findings of this study.

Research Directions Arising from Limitations of this Study

1. Regression analysis of cognitive terms would identify, reduce and statistically verify the cognitive domains or concepts noted in this study. By better understanding these domains, testing for reliability could be facilitated for greater scientific rigor.

2. As another test for reliability, it would be useful to identify variance between testing populations. A 'real world' testing population or actual site users might provide better measures of the perception of outdoor business environments.

3. Testing other business sites for other cognitive information would expand the scope of this study.

Additionally, seeking sites that provide stronger imagery in the environment might provide stronger results.

4. Seasonality might have an impact on the overall perception of a business site and influence perception of the landscape accordingly.

Research Directions Arising from Results of this Study

1. It would be interesting to determine what site elements would elicit more strongly a particular business attribute. From this analysis, designers would benefit in demonstrating a design concept as a contributor of a business practice.

2. An extensive and ambitious study might investigate the monetary benefits resulting from an imagery landscape. A relevant research questions might ask, Does an imagery landscape generate economic return to a business?

3. A follow-up investigation to determine actual preferences for each site might provoke interesting and conflicting results. A site may be perceived to reinforce business identity programs, but would it be selected as the preferred site by a user?

4. Correlational analysis of concepts might provide further insights into business needs. For example, by correlating the attributes, 'natural' and 'quality', would the analysis

find a strong association between public perception of a natural landscape and a quality business site?

End Comment

By furthering the uses and benefits of landscape architecture to business, a lucrative market need for landscape architectural services within the business community can be supported and enhanced. However, a theoretical research framework from which to structure support for those benefits must first be identified and developed.

APPENDIX A

TRENDS IN BUSINESS LANDSCAPES

Not until recently has imagery in the landscape been acknowledged as a business concern. To cite a few current thoughts from across the country, the profession of landscape architecture is just now recognizing "propitious trends that could enhance opportunities" (Miller 1983). Miller suggests that, "As national and multi-national corporations continue to branch out...the need to marry corporate image with regional ideals will become increasingly acute". He adds further, "The landscape architect can persuasively argue that the indigenous corporate landscape builds a regional image and aids public relations, not incidentally complementing and/or expanding local natural resources". "Engineering News Record" reports that, "Corporate America provides the largest single market for landscape architects...Money is flowing into the business for a number of reasons. Most landscape architects agree that one reason is corporate image". Corporations are becoming increasingly concerned about `creating visual pollution´". The same article goes on to add that, "Corporations want their headquarters to project their image." "Corporations are willing to spend extra money for

landscaping because appearance is important to pride, to their company image, to represent the corporate name well". In a recent "Los Angeles Times" (1985) article it was reported that, "As an architectural element, rows of tall, stately palms enhance the size and scale of a project and the grandeur of the corporate image". The attitude is spreading from palm trees to cornfields. A recent article in the "Indianapolis Star" (1986) states, "Builders are realizing the importance of land planning and landscape architecture. They're realizing this is a money-making proposition. It's a way to create image out of a cornfield". Another Indianapolis development firm is breaking ground ror a business park that would be one of the most ambitious real estate projects in the area. " The thickets of trees will be kept in an attempt to use heavy landscaping as a marketing tool" (Indianapolis Star/News 1987). "Two trends are fueling the boom in Central Florida's landscape industry: the region's rapid growth and a nationwide emphasis on more lavish and professionally planned living and working environment" (Florida Sentinnel 1987).

APPENDIX B

MANAGEMENT OPEN-ENDED QUESTIONNAIRE

Opening Statement:

* I'm a graduate student at the University of Arizona.
* The focus of my study is concerning business image or its identity and how it is communicated to the public.
* To maintain unbiased responses, the specific nature of my study will be revealed at the end of our discussion.

Company Image/Identity

1. Do you have a company image that you convey? If so, what is the message?

2. Who is the target audience?

3. What methods do you use to communicate this image?

4. Have you surveyed various publics about your company image?

5. Does your organization periodically reevaluate its image to make sure it is still on track?

Company Name/Logo

1. Does the company name reflect your organization's product or service?

2. Do you have a slogan or theme that conveys your company goals to your customers? If so, what are they?

3. What attribute does your logo reflect? (i.e., contemporary, solid, hi-tech, progressive, environmental, sophisticated...)

4. Does the logo communicate your product or service?

Corporate Management

1. Does management internally promote your corporate image? How?

2. Do managers actively represent the organization in:

   professional associations
   community social and civic groups
   political/governmental groups
   other

Community Relations

1. Does your organization set specific social goals in addition to any corporate goals? What are they?

2. Is your organization involved in conservation of community/natural resources? What are they?

3. Does your company promote any community relations? How?

Miscellaneous

1. Does your organization promote any of the following:

   public art
   park/picnic areas
   recreation areas
   public shade/seating
   other

2. What type of outdoor signage do you use? Is it effective?

3. Do you feel governmental zoning/planning regulations helpful or a hinderance when attempting to convey a company image?
   Explain.

4. List the two most important mediums that effectively communicate your image

5. List the two least important mediums.

6. On a 0 to 10 scale, what role does landscape architecture play in communicating a company image?

7. On a 0 to 10 scale, what role does architecture play in communicating a company image?

8. Obtain site description (acreage, square feet of bldg./property, amenities etc.)

APPENDIX C

UNABRIDGED MANAGEMENT ATTRIBUTE LIST ACCORDING TO THESAURUS CATEGORIES

ATTRIBUTE	CATEGORY (SUB)	CLASS
value	monetary relations	volition
regional	specific space	space
quality	discriminative affection	affection
homey	discriminative affection	affection
friendly	social affection	affection
top quality	discriminative affection	affection
stylish	arts of design	intellect
innovative	time w/ reference to age	abstract
modern	custom	volition
service	compliance	volition
excellence	adaptation to ends	volition
attractive	discriminative affection	affection
environmental	external dimension	space
life style	adaptation to ends	volition
resourceful	adroitness	volition
stable	resolution/determination	volition
credible	belief	intellect
mean business	purpose	volition
high end	monetary relations	volition
up scale	monetary relations	volition
progressive	physical progress	volition
successful	accomplishment	volition
sophisticated	custom	volition
conscientious	morals	affection
people place	morals	affection
open	external dimension	space
class (A,world,1st)	adaptation to ends	volition
park-like	security	volition
healthful	wholesomeness	volition
amenities	pleasure	affection
water conserving	adroitness	volition
escape	security	volition
convenient	adaptation to ends	volition
consistent	ideas communicated	intellect
spirited	pleasure	affection
renaissance	physical progress	volition
genuine	social relation	affection
personality	social relation	affection
warm	social affection	affection

APPENDIX C continued

cordial/courteous	social relation	affection
artsy	arts of design	intellect
tropical	specific space	space
neoclassic	arts of design	intellect
fun	pleasure	affection
stately	pride	affection
oasis	specific space	space
Hanging Garden...	arts of design	intellect
Victorian	discriminative affection	affection
professional	adroitness	volition
knowledgeable	comprehension	intellect
trusted	belief	intellect
old/traditional	custom	volition
fair	moral condition	affection
secure	qualifications	intellect
unobtrusive	discriminative affection	affection
confidence	qualifications	intellect
loyalty	moral condition	affection
pleasant	pleasure	affection
comfortable	pleasure	affection
quiet/peaceful	peace	volition
hospitable	social affection	affection
leader	direction	volition
clean	wholesomeness	volition
individual	unrestraint	volition
unique	contemplative emotion	affection
functional	use	volition
beautiful	discriminative affection	affection
ambiance	external dimension	space
recreational	pleasure	affection
high tech	adroitness	volition
dynamic	action	volition
Neo-Hispanic Calaboo	arts of design	intellect
Southwestern/Spanish	specific space	space
natural	informal custom	volition
efficiency	use	volition
indigenous	existence in space	space
economy	monetary relations	volition
elegance	discriminative affection	affection
prestigious	adaptation to ends	volition
luxury	accomplishment	volition
garden office	arts of design	intellect
corporate	endeavor	volition
cosmopolitan	adroitness	volition
superior design	adaptation to ends	volition
prominent	esteem	affection
executive	direction	volition
durability	change	abstract

APPENDIX C continued

worth	monetary relations	volition
distinguished	esteem	affection
productive	possession	volition
energetic	action	volition
care	mental attitude	intellect
lush	vegetable life	matter
distinctive	esteem	affection
aesthetic	discriminative affection	affection
dramatic	discriminative affection	affection
exotic	motive	volition
showcase	accomplishment	volition
vitality	vitality	matter
paradise	creative thought	intellect
gracious	civility	affection
country club	external dimension	space
graceful	discriminative affection	affection
handsome	discriminativeaffection	affection
casual	custom	voltion
formal	discriminative affection	affection
stunning	discriminative affection	affection
premier	adaptation to ends	volition
playful	pleasure	affection
groomed	preparation	volition
residential	existence in space	space
exclusive	discriminative affection	affection
extravagant	discriminative affection	affection
lavish	monetary relations	volition
exquisite	discriminative affection	affection
exceptional	contemplative emotion	affection
romantic	emotion	affection
spectacular	discriminative affection	affection
grand	esteem	affection
fanciful	creative thought	intellect
classic	discriminative affection	affection
intimate	social affection	affection
Mayan	arts of design	intellect
Greek allee	arts of design	intellect
Egyptian aquifer	arts of design	intellect
enchanting	pleasure	affection
primitive culture	arts of design	intellect
unpretentious	discriminative affection	affection
urbane	discriminative affection	affection
pastoral	specific space	space
post modern	arts of design	intellect
special	adaptation to ends	volition
conservation	security	volition
desert	space	space
timeless	absolute time	abstract

APPENDIX C continued

brillance	discriminative affection	affection
stature	esteem	affection
retreat	social relation	affection
unearthly	conformity to rule	abstract
gorgeous	discriminative affection	affection
opulent	monetary relation	volition
inviting	pleasure	affection
untouched	security	volition
shangri-la	creative thought	intellect
superb	discriminative affection	affection
chic	custom	volition

APPENDIX D

ATTRIBUTE TALLY BY BUSINESS TYPE AND THESAURUS CATEGORY

	Resorts			
Attribute	Hyatt	Sheraton	Boulder	Mt.Shadow
value		V		
regional			S	
quality	A			A
homey	A			
friendly	A	A		
top quality				
stylish			I	
innovative				
modern	V		V	V
service	V			
excellence				
attractive				
environmental		S	S	
life style			V	
resourceful	V			
stable				
credible				
mean business				
high end				
up scale	V	V		
progressive				
successful				
sophisticated	V		V	
conscientious		A		A
people place				
open				
class				
(A,world,lst)	V			
park-like				
healthful				V
amenities			A	
water conserving			V	
escape				
convenient	V			
consistent	I			

APPENDIX D continued

spirited	A			
renaissance	V			
genuine	A			
personality	A			
warm	A			
cordial/courteous	A			A
artsy	I	I		
tropical	S			
neoclassic	I			
fun	A	A		
stately	A			
oasis	S		S	S
Hanging Garden...	I			
Victorian	A			
professional		V		V
knowledgeable				
trusted				
old/traditional		V		
fair				
secure				
unobtrusive	A	A	A	A
confidence				
loyalty				
pleasant				
comfortable			A	A
quiet/peaceful			A	A
hospitable				
leader				
clean			V	
individual				
unique			A	
functional				
beautiful	A		A	A
ambiance			S	S
recreational	A	A		A
high tech				
dynamic				
Neo-Hispanic				
Southwestern/				
Spanish	S	S	S	S
natural	V		V	V
efficiency				
indigenous	S		S	
economy				
elegance	A	A	A	
prestigious				
luxury	V		V	
garden office				

APPENDIX D continued

corporate		V		
cosmopolitan				
superior design				
prominent				
executive		V	V	
durability				
worth				
distinguished				
productive				
energetic	V			
care				
lush		M		M
distinctive		A		
aesthetic			A	
dramatic	A		A	
exotic	V			V
showcase				V
vitality				M
paradise				I
gracious		A		A
country club				S
graceful	A			A
handsome				A
casual		V		
formal		A		
stunning		A	A	
premier		V		
playful	A	A		
groomed		V		
residential		S		
exclusive		A		
extravagant		A		
lavish		V		
exquisite		A		
exceptional		A	A	
romantic	A		A	
spectacular	A		A	
grand	A			
fanciful	I			
classic	A			
intimate	A		A	
Mayan	I			
Greek allee	I			
Egyptian aquifer	I			
enchanting	A			
primitive culture	I			
unpretentious	A			
urbane	A			

APPENDIX D continued

pastoral	S	
post modern	I	
special		V
conservation		V
desert		M
timeless		T
brillance		A
stature		A
retreat		A
unearthly		T
gorgeous		A
opulent		V
inviting		A
untouched		V
shangri-la		I
superb		A
chic		V

RESORT TOTALS:

Abstract	(T)	8
Space	(S)	19
Matter	(M)	7
Intellect	(I)	21
Volition	(V)	40
Affection	(A)	72

ATTRIBUTETALLYBY BUSINESS TYPE
AND THESAURUS CATEGORY

	Offices			
Attribute	Park 1	Gateway	ASU Pk	Kaiser
value		V		
regional		S		
quality	A	A	A	A
homey				
friendly				
top quality			A	
stylish			I	
innovative		T	T	
modern	V	V	V	
service			V	
excellence			V	
attractive			A	
environmental		S	S	
life style		V	V	
resourceful		V	V	
stable			V	
credible			I	
mean business			V	
high end		V		
up scale		V		
progressive		V		
successful		V		
sophisticated		V		
conscientious		A	A	
people place	A	A	A	
open		S	S	
class (A,world,1st)	V	V	V	
park-like	V	V		
healthful	V	V	V	
amenities	A		A	
water conserving	V		V	
escape	V			
convenient		V		
consistent				
spirited				
renaissance				
genuine				
personality				
warm				
cordial/courteous				
artsy		I		

APPENDIX D continued

tropical				
neoclassic				
fun				
stately				
oasis				
Hanging Garden...				
Victorian				
professional				
knowledgeable				
trusted				
old/traditional				
fair				
secure				
unobtrusive	A	A	A	
confidence				
loyalty				
pleasant				
comfortable	A	A		
quiet/peaceful				
hospitable				
leader				
clean			V	
individual				
unique				
functional				
beautiful				
ambiance				
recreational			A	
high tech			V	
dynamic	V	V	V	V
Neo-Hispanic				
Southwestern/ Spanish				
natural				
efficiency	V	V		
indigenous	S			
economy	V			
elegance	A			
prestigious	V			
luxury		V		
garden office		I		
corporate		V		
cosmopolitan		V		
superior design		V		
prominent		A		
executive		V		
durability		T		
worth		V		

APPENDIX D continued

distinguished	A	
productive	V	
energetic	V	
care		
lush		M
distinctive		A
aesthetic		A
dramatic		A
exotic		
showcase		
vitality		
paradise		
gracious		
country club		
graceful		
handsome		
casual		
formal		
stunning		
premier		
playful		
groomed		
residential		
exclusive		
extravagant		
lavish		
exquisite		
exceptional		
romantic		
spectacular		
grand		
fanciful		
classic		
intimate		
Mayan		
Greek allee		
Egyptian aquifer		
enchanting		
primitive culture		
unpretentious		
urbane		
pastoral		
post modern		
special		
conservation		
desert		
timeless		
brillance		

APPENDIX D *continued*

stature
retreat
unearthly
gorgeous
opulent
inviting
untouched
shangri-la
superb
chic

OFFICE
TOTALS:

Abstract	(T)	7
Space	(S)	8
Matter	(M)	3
Intellect	(I)	6
Volition	(V)	46
Affection	(A)	28

ATTRIBUTE TALLY BY BUSINESS TYPE
AND THESAURUS CATEGORY

Corporate Headquarters

Attribute	Sentry	S.W.Frst	Best Wst	Am.West
value			V	
regional	S		S	S
quality	A	A	A	A
homey	A		A	
friendly			A	
top quality				
stylish				
innovative	T			T
modern	V			V
service	V			V
excellence				V
attractive				
environmental	S	S		
life style				
resourceful	V	V		

APPENDIX D continued

stable	V			
credible				
mean business				
high end				
up scale				
progressive				
successful				
sophisticated	V			V
conscientious	A		A	A
people place				A
open				
class (A,world,lst)	V			
park-like				
healthful	V			
amenities	A			
water conserving				
escape				V
convenient				
consistent				
spirited				
renaissance				
genuine				
personality				
warm				
cordial/courteous				
artsy	I			
tropical				
neoclassic				
fun				
stately				
oasis				
Hanging Garden...				
Victorian				
professional	V			V
knowledgeable	I			
trusted	I			
old/traditional	V			
fair	A			
secure	I			
unobtrusive	A	A	A	A
confidence		I		
loyalty		A		
pleasant			A	
comfortable			A	
quiet/peaceful			V	V
hospitable			A	
leader			V	
clean			V	

APPENDIX D continued

individual			V	
unique			A	
functional			V	
beautiful			A	
ambiance				
recreational	A			
high tech				
dynamic				
Neo-Hispanic	I			
Southwestern/Spanish	S		S	S
natural	V			
efficiency				V
indigenous				
economy				V
elegance				
prestigious				
luxury				
garden office				
corporate				
cosmopolitan				
superior design				
prominent				
executive				
durability				
worth				
distinguished				
productive				
energetic				
care				V
lush				
distinctive				
aesthetic				
dramatic				
exotic				
showcase				
vitality				
paradise				
gracious				
country club				
graceful				
handsome				
casual				
formal				
stunning				
premier				
playful				
groomed				
residential				

APPENDIX D continued

exclusive
extravagant
lavish
exquisite
exceptional
romantic
spectacular
grand
fanciful
classic
intimate
Mayan
Greek allee
Egyptian aquifer
enchanting
primitive culture
unpretentious
urbane
pastoral
post modern
special
conservation
desert
timeless
brillance
stature
retreat
unearthly
gorgeous
opulent
inviting
untouched
shangri-la
superb
chic

CORPORATE HEADQUARTER TOTALS:

Abstract	(T)	7
Space	(S)	8
Matter	(M)	1
Intellect	(I)	10
Volition	(V)	27
Affection	(A)	26

APPENDIX E

MANAGEMENT MAIL-IN QUESTIONNAIRE OF COMPANY IMAGE

The following words are attributes of various businesses derived from recent interviews. Each group of attributes has a sematically similar meaning that may or may not communicate your company's image.

Please circle a value for each group of attributes according to the importance the group has in communicating your business image or identity. Zero represent low importance. Ten is high importance.

For example, with item #1, if you feel your business emphasizes a chic sophisticated image that also includes a cosmopolitan and urbane focus, you would circle a high value for that group.

Please use the full range of scaling from 0 through 10 and provide a value for all 12 groups. Thank you again for your time and cooperation.

1

chic sophisticated cosmopolitan urbane	low									high	
	I	I	I	I	I	I	I	I	I	I	I
	0	1	2	3	4	5	6	7	8	9	10

2

up-scale opulent lavish luxurious	low									high	
	I	I	I	I	I	I	I	I	I	I	I
	0	1	2	3	4	5	6	7	8	9	10

3

traditional groomed formal classic	low									high	
	I	I	I	I	I	I	I	I	I	I	I
	0	1	2	3	4	5	6	7	8	9	10

4

western	low										high
desert-like											
Southwestern	I	I	I	I	I	I	I	I	I	I	I
Spanish	0	1	2	3	4	5	6	7	8	9	10

5

gorgeous	low										high
beautiful											
handsome	I	I	I	I	I	I	I	I	I	I	I
attractive	0	1	2	3	4	5	6	7	8	9	10

6

modern	low										high
hi-tech											
progressive	I	I	I	I	I	I	I	I	I	I	I
innovative	0	1	2	3	4	5	6	7	8	9	10

7

utopian	low										high
paradise-like											
fanciful	I	I	I	I	I	I	I	I	I	I	I
Shangri-la	0	1	2	3	4	5	6	7	8	9	10

8

park-like	low										high
pastoral											
natural	I	I	I	I	I	I	I	I	I	I	I
oasis-like	0	1	2	3	4	5	6	7	8	9	10

9

playful	low										high
spirited											
pleasant	I	I	I	I	I	I	I	I	I	I	I
friendly	0	1	2	3	4	5	6	7	8	9	10

10

conscientious	low										high
trusted											
stable	I	I	I	I	I	I	I	I	I	I	I
credible	0	1	2	3	4	5	6	7	8	9	10

11

	low									high
quality first class prestigious successful	I 0	I 1	I 2	I 3	I 4	I 5	I 6	I 7	I 8	I 9	I 10

12

	low									high
utilitarian practical functional economical	I 0	I 1	I 2	I 3	I 4	I 5	I 6	I 7	I 8	I 9	I 10

APPENDIX F

PANEL TESTING INSTRUMENT

	1	2	3		4	5	6	
chic sophisticated cosmopolitan urbane	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	chic sophisticated cosmopolitan urbane	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	chic sophisticated cosmopolitan urbane
up-scale opulent lavish luxurious	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	up-scale opulent lavish luxurious	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	up-scale opulent lavish luxurious
traditional groomed formal classic	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	traditional groomed formal classic	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	traditional groomed formal classic
western desert-like southwestern Spanish	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	western desert-like southwestern Spanish	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	western desert-like southwestern Spanish
gorgeous beautiful handsome attractive	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	gorgeous beautiful handsome attractive	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	gorgeous beautiful handsome attractive
modern hi-tech progressive innovative	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	modern hi-tech progressive innovative	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	modern hi-tech progressive innovative
utopian paradise-like fanciful Shangri-la	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	utopian paradise-like fanciful Shangri-la	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	utopian paradise-like fanciful Shangri-la
park-like pastoral natural oasis-like	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	park-like pastoral natural oasis-like	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	park-like pastoral natural oasis-like
playful spirited pleasant friendly	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	playful spirited pleasant friendly	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	playful spirited pleasant friendly
conscientious trusted stable credible	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	conscientious trusted stable credible	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	conscientious trusted stable credible
quality first class prestigious successful	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	quality first class prestigious successful	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	quality first class prestigious successful
utilitarian practical functional economical	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	utilitarian practical functional economical	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	low 0 1 2 3 4 5 6 7 8 9 10 high	utilitarian practical functional economical

	7	8	9		10	11	12	
chic sophisticated cosmopolitan urbane	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	chic sophisticated cosmopolitan urbane	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	chic sophisticated cosmopolitan urbane
up-scale opulent lavish luxurious	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	up-scale opulent lavish luxurious	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	up-scale opulent lavish luxurious
traditional groomed formal classic	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	traditional groomed formal classic	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	traditional groomed formal classic
western desert-like southwestern Spanish	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	western desert-like southwestern Spanish	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	western desert-like southwestern Spanish
gorgeous beautiful handsome attractive	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	gorgeous beautiful handsome attractive	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	gorgeous beautiful handsome attractive
modern hi-tech progressive innovative	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	modern hi-tech progressive innovative	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	modern hi-tech progressive innovative
utopian paradise-like fanciful Shangri-la	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utopian paradise-like fanciful Shangri-la	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utopian paradise-like fanciful Shangri-la
park-like pastoral natural oasis-like	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	park-like pastoral natural oasis-like	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	park-like pastoral natural oasis-like
playful spirited pleasant friendly	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	playful spirited pleasant friendly	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	playful spirited pleasant friendly
conscientious trusted stable credible	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	conscientious trusted stable credible	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	conscientious trusted stable credible
quality first class prestigious successful	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	quality first class prestigious successful	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	quality first class prestigious successful
utilitarian practical functional economical	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utilitarian practical functional economical	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utilitarian practical functional economical

	13	14	15		16	17	18	
chic sophisticated cosmopolitan urbane	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	chic sophisticated cosmopolitan urbane	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	chic sophisticated cosmopolitan urbane
up-scale opulent lavish luxurious	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	up-scale opulent lavish luxurious	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	up-scale opulent lavish luxurious
traditional groomed formal classic	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	traditional groomed formal classic	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	traditional groomed formal classic
western desert-like southwestern Spanish	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	western desert-like southwestern Spanish	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	western desert-like southwestern Spanish
gorgeous beautiful handsome attractive	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	gorgeous beautiful handsome attractive	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	gorgeous beautiful handsome attractive
modern hi-tech progressive innovative	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	modern hi-tech progressive innovative	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	modern hi-tech progressive innovative
utopian paradise-like fanciful Shangri-la	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utopian paradise-like fanciful Shangri-la	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utopian paradise-like fanciful Shangri-la
park-like pastoral natural oasis-like	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	park-like pastoral natural oasis-like	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	park-like pastoral natural oasis-like
playful spirited pleasant friendly	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	playful spirited pleasant friendly	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	playful spirited pleasant friendly
conscientious trusted stable credible	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	conscientious trusted stable credible	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	conscientious trusted stable credible
quality first class prestigious successful	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	quality first class prestigious successful	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	quality first class prestigious successful
utilitarian practical functional economical	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utilitarian practical functional economical	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utilitarian practical functional economical

	19	20	21		22	23	
chic sophisticated cosmopolitan urbane	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	chic sophisticated cosmopolitan urbane	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	chic sophisticated cosmopolitan urbane
up-scale opulent lavish luxurious	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	up-scale opulent lavish luxurious	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	up-scale opulent lavish luxurious
traditional groomed formal classic	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	traditional groomed formal classic	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	traditional groomed formal classic
western desert-like southwestern Spanish	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	western desert-like southwestern Spanish	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	western desert-like southwestern Spanish
gorgeous beautiful handsome attractive	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	gorgeous beautiful handsome attractive	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	gorgeous beautiful handsome attractive
modern hi-tech progressive innovative	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	modern hi-tech progressive innovative	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	modern hi-tech progressive innovative
utopian paradise-like fanciful Shangri-la	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utopian paradise-like fanciful Shangri-la	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utopian paradise-like fanciful Shangri-la
park-like pastoral natural oasis-like	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	park-like pastoral natural oasis-like	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	park-like pastoral natural oasis-like
playful spirited pleasant friendly	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	playful spirited pleasant friendly	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	playful spirited pleasant friendly
conscientious trusted stable credible	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	conscientious trusted stable credible	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	conscientious trusted stable credible
quality first class prestigious successful	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	quality first class prestigious successful	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	quality first class prestigious successful
utilitarian practical functional economical	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utilitarian practical functional economical	low high 0 1 2 3 4 5 6 7 8 9 10	low high 0 1 2 3 4 5 6 7 8 9 10	utilitarian practical functional economical

APPENDIX G

OPENING VERBAL INSTRUCTIONS TO RESPONDENTS

Thank you for participating in this study. I'm gong to read the following instructions in order to communicate the same information to all respondents. I'm a graduate student in Landscape Architecture. The focus of my study is business imagery in the outdoor environment. For the next 45 minutes you will be seeing a slide show of twelve business sites in the Phoenix area. These sites include four resorts, four office parks and four corporate headquarters. I'll now show you slides which are representative of the sites in this study.

SHOW INTRO SLIDES.

Managers from these businesses have been interviewed. A list of descriptive words was obtained from these interviews. These words describe the image the managers of these businesses wish to communicate to their publics. What I would like for you to do is to provide your own opinions of these sites. You will be seeing ten slides viewed two at a time. Each set of ten slides are different views of the same site and are intended to establish a contextual reference for the overall look of the site. After viewing the ten slides, you will evaluate those slides according to twelve groups of words. Take a look at your evaluation sheet. You will notice these twelve groups of words. Each group represents a particular concept and is not intended to be exactly similar in meaning. Thinking then of each group of four words as a concept of business image, please circle a value from 0 to 10 which represents how strongly you feel the slides communicate the concept. Zero represents no communication. Ten represents highest communication. In order for you to become familar with the process, let's run through the first set of slides.

SHOW FIRST GROUP SLIDES.

If you look again at your evaluation sheet, you'll notice that column one represents this first set of slides. Each set of slides will be evaluated for all twelve groups of words. For example, the first group of words in column one lists chic, sophisticated, cosmopolitan and urbane. If you feel these first ten slides together communicate a strong

sense of this type of business image, you would circle a high value for that group. Please use the full range of scaling from 0 through 10 and provide a value for all groups. Are there any questions? Now go ahead and complete the values for the rest of column one.

APPENDIX H

TEST FOR AGREEMENT SCORES*

Session 1 & 2 Psychology Students

Concept #		BstW arch	Hytt arch	Gate arch	SWF l/s	Bldr l/s	Sent l/s	Shrt both	BstW both	Sent both	ASU both
1	T	1.6	3.3	-1.6	.9	1.1	.8	-.1	.5	1.8	1.0
	[T]	.1	.0	.1	.4	.3	.4	.9	.6	.1	.3
2	T	1.6	4.5	-1.8	- .2	.8	.7	- .6	2.3	1.0	1.0
	[T]	.1	.0	.1	.9	.4	.5	.6	.0	.3	.3
3	T	.4	.6	.7	.2	- .1	.2	1.0	.3	.5	.1
	[T]	.7	.6	.5	.9	.9	.8	.3	.7	.6	.9
4	T	- .7	-1.3	1.2	.1	- .5	- .3	-1.2	- .5	- .8	-1.6
	[T]	.5	.2	.2	1.0	.6	.8	.3	.6	.4	.1
5	T	1.9	2.5	-1.9	1.3	.7	.3	.9	2.5	1.6	.2
	[T]	.1	.0	.1	.2	.5	.8	.4	.0	.1	.9
6	T	1.1	2.5	-2.0	.9	2.2	.3	- .3	1.5	2.1	1.0
	[T]	.3	.0	.1	.4	.0	.8	.8	.2	.1	.3
7	T	1.2	2.3	- .2	.1	-1.0	.2	.1	1.7	.7	- .0
	[T]	.2	.0	.8	.9	.3	.8	.9	.1	.5	1.0
8	T	- .5	.3	1.3	.4	-1.0	1.9	.1	.5	- .6	1.0
	[T]	.6	.8	.2	.7	.3	.1	.9	.7	.5	.3
9	T	1.3	.9	1.0	.5	-3.1	.3	.1	1.6	.8	- .7
	[T]	.2	.4	.3	.7	.0	.8	.9	.1	.4	.5
10	T	1.3	.6	- .7	- .5	-2.8	.0	1.0	1.8	.9	.4
	[T]	.2	.5	.5	.6	.0	1.0	.3	.1	.4	.7
11	T	2.6	2.1	-2.0	.1	1.5	- .3	2.0	3.3	2.2	.4
	[T]	.0	.0	.1	.9	.1	.7	.1	.0	.0	.7
12	T	.7	.3	-1.3	1.1	.4	.7	- .4	1.0	1.6	- .2
	[T]	.5	.8	.2	.3	.7	.5	.7	.3	.1	.9

* Scores rounded to the nearest tenth decimal

T-TEST SCORES*

Session 3 & 4 Business Students

Concept #		BstW arch	Hytt arch	Gate arch	SWF l/s	Bldr l/s	Sent l/s	Shrt both	BstW both	Sent both	ASU both
1	T	1.1	1.0	1.0	2.1	1.6	.1	2.0	1.8	.4	- .4
	[T]	.3	.3	.3	.0	.1	.9	.0	.0	.7	.7
2	T	.1	1.1	.0	2.1	1.0	.2	.3	- .3	- .1	- .1
	[T]	.9	.3	1.0	.0	.3	.9	.7	.7	.9	.9
3	T	2.4	1.4	2.8	2.7	.6	- .0	.4	1.6	1.7	.2
	[T]	.0	.2	.0	.0	.5	1.0	.7	.1	.1	.8
4	T	.2	1.5	-1.0	- .5	- .8	1.9	- .2	.4	.2	- .3
	[T]	.8	.1	.3	.6	.4	.1	.9	.7	.9	.8
5	T	.4	.9	- .4	2.2	.8	1.0	- .2	- .4	- .7	1.0
	[T]	.7	.4	.7	.0	.4	.3	.8	.7	.5	.3
6	T	.1	.4	.4	1.3	1.4	3.3	2.4	.5	.2	- .1
	[T]	.9	.7	.7	.2	.2	.0	.0	.7	.8	.9
7	T	-1.0	1.5	- .6	2.0	- .1	- .4	- .2	-1.9	.2	-1.7
	[T]	.3	.1	.5	.1	.9	.7	.8	.1	.8	.1
8	T	- .4	1.5	- .6	.6	-2.9	-1.3	.6	-1.7	-1.7	.2
	[T]	.7	.1	.6	.6	.0	.2	.6	.1	.1	.9
9	T	- .6	1.2	- .2	1.6	- .6	- .6	- .1	- .8	- .6	.3
	[T]	.6	.3	.8	.1	.5	.5	.9	.4	.5	.8
10	T	1.9	1.2	3.4	2.5	.7	.1	1.5	.7	1.1	1.0
	[T]	.1	.2	.0	.0	.5	.9	.1	.5	.3	.3
11	T	1.3	.3	1.2	1.2	1.4	.8	- .5	1.2	- .5	-1.5
	[T]	.2	.7	.2	.2	.2	.4	.6	.3	.6	.1
12	T	.3	1.9	1.4	- .1	.4	- .5	.0	1.2	-1.0	- .7
	[T]	.7	.1	.2	.9	.7	.7	1.0	.2	.3	.5

* Scores rounded to the nearest tenth decimal

CORRELATIONS

Concept #	Psychology Students	Business Students
1	.87473	.95927
2	.69406	.96874
3	.97978	.80672
4	.93629	.96154
5	.70070	.92185
6	.90521	.97050
7	.78357	.87297
8	.75565	.86974
9	.70172	.89155
10	.26777	.66363
11	.62471	.90619
12	.43914	.29621

APPENDIX I

Resort Means

Attribute	Variable	Boulder		Hyatt		Mt.Shadow		Sheraton	
1	B	5.07	BA	7.87	AA	7.00	AA	6.24	A
CHIC									
SOPHISTICATED	A	4.85	BA	7.63	AA	5.33	BA	4.95	BA
COSMOPOLITAN	L	5.87	BA	7.05	AA	6.03	A	6.40	A
URBANE	M	5.00	A	10.00	H	7.00	AA	8.00	AA
2	B	6.60	A	8.51	H	8.07	AA	6.54	A
UPSCALE									
OPULENT	A	5.56	BA	7.80	AA	6.80	A	5.28	BA
LAVISH	L	7.04	AA	7.28	AA	6.51	A	7.07	AA
LUXURIOUS	M	10.00	H	10.00	H	7.00	AA	8.00	AA
3	B	3.67	L	5.92	A	6.33	A	6.37	A
TRADITIONAL									
GROOMED	A	4.54	L	5.46	BA	5.73	BA	6.23	A
FORMAL	L	4.72	L	5.23	BA	5.56	BA	5.13	BA
CLASSIC	M	10.00	H*	7.00	AA	10.00	H	2.00	L
4	B	9.20	H	5.08	BA	4.93	BA	7.04	AA
WESTERN									
DESERT-LIKE	A	8.92	H	4.28	L	4.93	BA	7.59	AA
SOUTHWESTERN	L	8.69	H	4.74	L	5.64	BA	6.20	A
SPANISH	M	7.00	AA	4.00	BA	8.00	AA	5.00	A
5	B	7.33	AA	8.37	H	8.13	H	7.00	AA
GORGEOUS									
BEAUTIFUL	A	7.33	AA	7.69	AA	6.87	A	5.69	BA
HANDSOME	L	8.17	H	7.28	AA	6.80	A	7.20	AA
ATTRACTIVE	M	10.00	H	8.00	AA	5.00	A	10.00	H
6	B	4.60	L	8.51	H	5.00	BA	5.50	BA
MODERN									
HI-TECH	A	4.92	BA	8.22	H	4.20	L	4.03	L
PROGRESSIVE	L	6.37	A	7.10	AA	5.21	BA	4.93	BA
INNOVATIVE	M	4.00	BA	10.00	H	10.00	H*	3.00	BA

Resort Means Continued

Attribute	Variable	Boulder	Hyatt	Mt.Shadow	Sheraton
7	B	6.13 A	7.92 AA	8.00 AA	5.52 BA
PARADISE-LIKE					
SHANGRI-LA	A	6.41 A	6.72 A	6.27 A	4.23 L
FANSIFUL	L	7.74 AA	7.28 AA	7.15 AA	7.00 AA
UTOPIAN	M	4.00 BA	9.00 H	2.00 L*	7.00 AA*
8	B	7.33 AA	6.64 A	8.25 H	5.26 BA
PARK-LIKE					
PASTORAL	A	6.00 A	4.54 L	6.67 A	4.38 L
NATURAL	L	7.91 AA	7.05 AA	7.36 AA	7.20 AA
OASIS-LIKE	M	9.00 H	1.00 L	10.00 H	10.00 H*
9	B	6.93 A	7.05 AA	8.25 H	5.51 BA
PLAYFUL					
SPIRITED	A	6.33 A	5.17 BA	6.87 A	4.72 L
PLEASANT	L	7.56 AA	7.54 AA	7.36 AA	7.27 AA
FRIENDLY	M	7.00 AA	10.00 H	9.00 H	10.00 H*
10	B	6.80 A	8.31 H	7.81 AA	6.72 A
QUALITY					
FIRST CLASS	A	6.28 A	7.94 AA	6.80 A	5.51 BA
PRESTIGIOUS	L	7.80 AA	7.36 AA	6.36 A	7.20 AA
SUCCESSFUL	M	10.00 H	10.00 H	9.00 H	10.00 H

Variable Codes:

B = Perception values of the photos of both the landscapeand architecture
A= Perception values of architecture photos only
L = Perception values of landscape photos only
M= Management perception values of business identity

Normative Value Rank Order Codes of Photos:

H = High:	8.10 - 9.20
AA = Above Average:	7.00 - 6.98
A = Average:	5.89 - 6.99
BA = Below Average:	4.78 - 5.87
L = Low:	3.67 - 4.77

* MANAGEMENT / TEST POPULATION DISAGREEMENT

Office Means

Attribute	Variable	ASU PK	GATEWAY	KAISER	PARK 1
1	B	6.44 AA	7.13 AA	6.67 AA	7.64 H
CHIC					
SOPHISTICATED	A	7.47 H	8.15 H	6.93 AA	7.13 AA
COSMOPOLITAN	L	5.59 A	6.21 A	5.18 BA	6.07 A
URBANE	M	10.00 H	5.00 A	3.00 BA*	7.00 AA
2	B	6.46 AA	7.00 AA	6.33 A	7.39 AA
UPSCALE					
OPULENT	A	6.73 AA	7.69 H	6.93 AA	7.33 AA
LAVISH	L	5.54 A	6.62 AA	5.03 BA	6.07 A
LUXURIOUS	M	9.00 H	6.00 A	4.00 BA	9.00 H
3	B	4.49 BA	5.27 BA	5.23 BA	5.59 A
TRADITIONAL					
GROOMED	A	3.80 L	4.89 BA	4.80 BA	4.67 BA
FORMAL	L	5.00 BA	6.56 AA	5.69 A	5.53 A
CLASSIC	M	4.00 BA	4.00 BA	5.00 A	2.00 L
4	B	3.48 L	3.87 L	3.59 L	3.41 L
WESTERN					
DESERT-LIKE	A	2.47 L	2.57 L	2.80 L	2.53 L
SOUTHWESTERN	L	5.10 BA	3.82 L	4.56 BA	3.13 L
SPANISH	M	7.00 AA*	1.00 L	1.00 L	0.00 L
5	B	5.94 A	7.07 AA	6.39 A	7.62 H
GORGEOUS					
BEAUTIFUL	A	5.73 A	6.85 AA	5.73 A	7.13 AA
HANDSOME	L	5.87 A	6.92 AA	5.49 A	6.67 AA
ATTRACTIVE	M	10.00 H	7.00 AA	8.00 AA	10.00 H
6	B	8.09 H	7.67 H	7.92 H	8.44 H
MODERN					
HI-TECH	A	8.53 H	8.85 H	7.87 H	8.40 H
PROGRESSIVE	L	5.62 A	5.95 A	5.13 BA	5.60 A
INNOVATIVE	M	10.00 H	7.00 AA	10.00 H	8.00 AA
7	B	4.41 L	6.53 AA	4.00 L	6.51 AA
PARADISE-LIKE					
SHANGRI-LA	A	4.33 L	4.44 BA	3.93 L	6.00 A
FANSIFUL	L	5.08 BA	6.50 AA	4.64 BA	6.87 AA
UTOPIAN	M	6.00 A	2.00 L*	0.00 L	7.00 AA

Office Means Continued

Attribute	Variable	ASU PK		GATEWAY		KAISER		PARK 1	
8	B	4.89	BA	5.44	A	3.95	L	6.58	AA
PARK-LIKE									
PASTORAL	A	3.33	L	3.20	L	3.20	L	5.13	BA
NATURAL	L	7.02	AA	7.13	AA	6.26	A	7.93	H
OASIS-LIKE	M	10.00	H*	6.00	A	10.00	H*	10.00	H
9	B	4.13	L	5.44	A	4.23	L	5.84	A
PLAYFUL									
SPIRITED	A	3.40	L	3.56	L	3.40	L	5.07	BA
PLEASANT	L	5.97	A	6.77	AA	5.21	BA	7.07	AA
FRIENDLY	M	10.00	H*	7.00	AA	5.00	A	6.00	A
10	B	6.54	AA	7.50	H	6.49	AA	7.84	H
QUALITY									
FIRST CLASS	A	6.87	AA	7.56	H	6.87	AA	7.87	H
PRESTIGIOUS	L	5.64	A	6.51	AA	5.18	BA	6.73	AA
SUCCESSFUL	M	10.00	H	10.00	H	10.00	H	7.00	AA

Variable Codes:

B = Perception values of the photos of both the landscapeand architecture
A= Perception values of architecture photos only
L = Perception values of landscape photos only
M= Management perception values of business identity

Normative Value Rank Order Codes for photos:

H = High:	7.44 - 8.44
AA = Above Average:	6.44 - 7.43
A = Average:	5.43 - 6.43
BA = Below Average:	4.43 - 5.42
L = Low:	3.41 - 4.42

* MANAGEMENT / TEST POPULATION DISAGREEMENT

Corporate Headquarter Means

Attribute	Variable	AM.WEST		BEST WST		SENTRY		S.W.FRST	
1	B	5.00	BA	5.74	A	4.39	BA	6.73	AA
CHIC									
SOPHISTICATED	A	3.40	L	4.48	BA	4.28	BA	5.47	A
COSMOPOLITAN	L	4.77	BA	4.93	BA	4.30	BA	2.87	L
URBANE	M	8.00	AA*	9.00	H	8.00	AA*	5.00	A
2	B	4.77	BA	6.61	AA	4.17	BA	5.67	A
UPSCALE									
OPULENT	A	3.60	L	5.43	A	4.13	BA	6.73	A
LAVISH	L	4.95	BA	5.67	A	4.09	L	3.28	L
LUXURIOUS	M	7.00	AA*	10.00	H	6.00	A	5.00	A
3	B	5.77	A	7.02	AA	4.72	BA	4.93	BA
TRADITIONAL									
GROOMED	A	4.80	BA	6.91	AA	5.10	BA	4.33	BA
FORMAL	L	5.18	A	5.60	A	5.11	BA	4.04	L
CLASSIC	M	2.00	L	9.00	H	7.00	AA*	6.00	A
4	B	6.33	AA	8.04	H	5.98	A	5.87	A
WESTERN									
DESERT-LIKE	A	5.93	A	7.85	H	5.03	BA	2.80	L
SOUTHWESTERN	L	4.64	BA	3.73	L	5.67	A	7.96	H
SPANISH	M	10.00	H	10.00	H	8.00	AA	7.00	AA
5	B	5.15	A	7.48	H	4.52	BA	5.47	A
GORGEOUS									
BEAUTIFUL	A	3.80	L	5.93	A	3.87	L	5.13	A
HANDSOME	L	5.18	A	6.07	A	4.78	BA	5.04	BA
ATTRACTIVE	M	9.00	H	10.00	H	7.00	AA*	5.00	A
6	B	4.33	BA	4.63	BA	4.91	BA	6.13	AA
MODERN									
HI-TECH	A	3.07	L	3.32	L	4.33	BA	8.20	H
PROGRESSIVE	L	4.38	BA	3.60	L	4.00	L	2.98	L
INNOVATIVE	M	10.00	H*	6.00	A	9.00	H*	6.00	A
7	B	4.28	BA	6.61	AA	3.15	L	4.33	BA
PARADISE-LIKE									
SHANGRI-LA	A	2.80	L	4.28	BA	3.15	L	3.47	L
FANSIFUL	L	4.26	BA	5.60	A	3.56	L	4.13	BA
UTOPIAN	M	5.00	A	8.00	AA	5.00	A	0.00	L

Corporate Headquarter Means Continued

Attribute	Variable	AM.WEST		BEST WST		SENTRY		S.W.FRST	
8	B	5.24	A	6.19	AA	4.39	BA	4.56	BA
PARK-LIKE									
PASTORAL	A	2.73	L	4.63	BA	3.26	L	2.80	L
NATURAL	L	5.74	A	6.93	AA	5.91	A	7.07	H
OASIS-LIKE	M	5.00	A	8.00	AA	7.00	AA*	1.00	L
9	B	4.66	BA	6.35	AA	3.83	L	3.81	L
PLAYFUL									
SPIRITED	A	2.73	L	4.63	BA	3.13	L	3.47	L
PLEASANT	L	5.18	A	6.47	AA	4.56	BA	5.52	A
FRIENDLY	M	5.00	A	8.00	AA	8.00	AA*	1.00	L
10	B	4.55	BA	6.89	AA	4.48	BA	5.88	A
QUALITY									
FIRST CLASS	A	3.87	L	6.20	AA	4.21	BA	6.47	AA
PRESTIGIOUS	L	4.80	BA	5.67	A	4.61	BA	3.91	L
SUCCESSFUL	M	9.00	H*	10.00	H	9.00	H*	8.00	AA

Variable Codes:

B = Perception values of the photos of both the landscapeand architecture
A= Perception values of architecture photos only
L = Perception values of landscape photos only
M= Management perception values of business identity

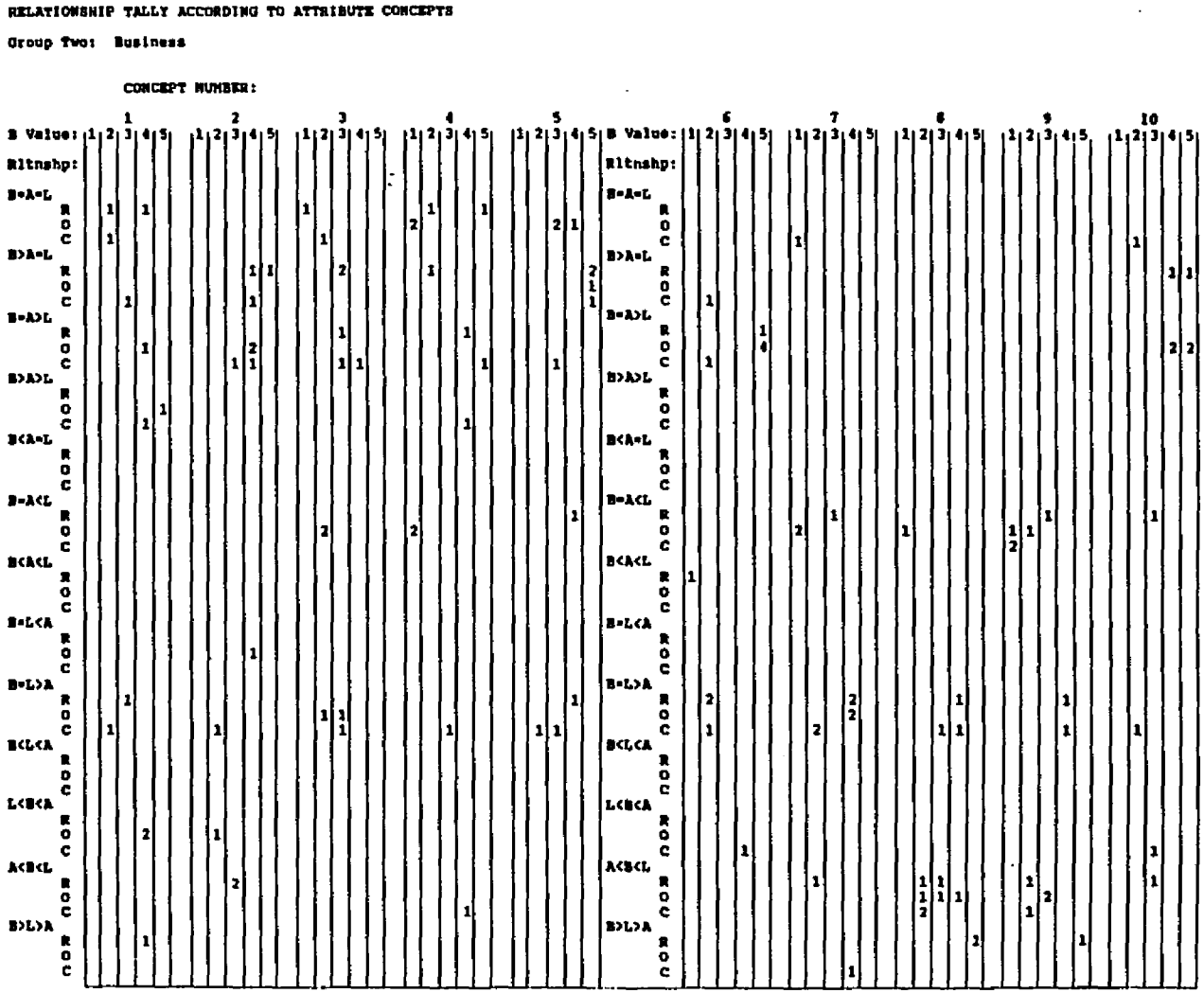
Normative Value Rank Order Codes for Photos:

H = High:	7.07 - 8.04
AA = Above Average:	6.09 - 7.06
A = Average:	5.13 - 6.08
BA = Below Average:	4.14 - 5.12
L = Low:	3.15 - 4.13

* MANAGEMENT / TEST POPULATION DISAGREEMENT

APPENDIX J

VARIABLE RELATIONSHIP TALLY



APPENDIX K

PERCENTAGE SUMMARY

Mean Values of 'Both' Photos

Group Two: Business

Concept #	Resort					Office					Corp.				
	lo				hi	lo				hi	lo				hi
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1	0	25	25	50	0	0	0	0	75	25	0	50	25	25	0
2	0	0	50	25	25	0	25	0	75	0	0	50	25	25	0
3	25	0	75	0	0	0	75	25	0	0	0	50	25	25	0
4	0	50	0	25	25	100	0	0	0	0	0	0	50	25	25
5	0	0	0	50	50	0	0	50	25	25	0	25	50	0	25
6	25	50	0	0	25	0	0	0	0	100	0	75	0	25	0
7	0	25	25	50	0	50	0	0	50	0	25	50	0	25	0
8	0	25	25	25	25	25	25	25	25	0	0	50	25	25	0
9	0	25	25	25	25	25	25	50	0	0	50	25	0	25	0
10	0	0	50	25	25	0	0	0	50	50	0	50	25	25	0

APPENDIX L

SITE PHOTOGRAPHS

Index to Photographs

Plate 1 — 4 photographs of resorts, beginning upper left and moving clockwise:

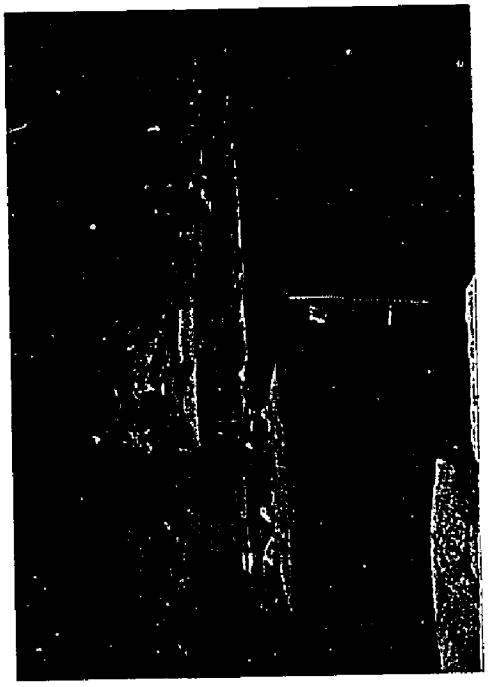
- Boulders
- Hyatt at Gainey Ranch
- Mountain Shadows
- Sheraton Scottsdale

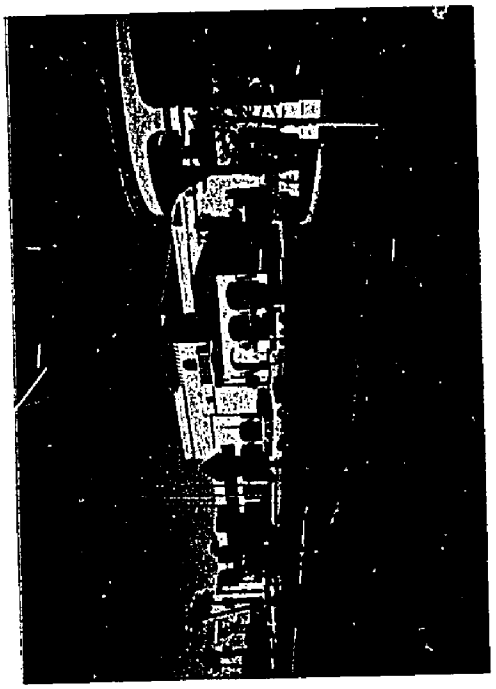
Plate 2 — 4 photographs of offices, beginning upper left and moving clockwise:

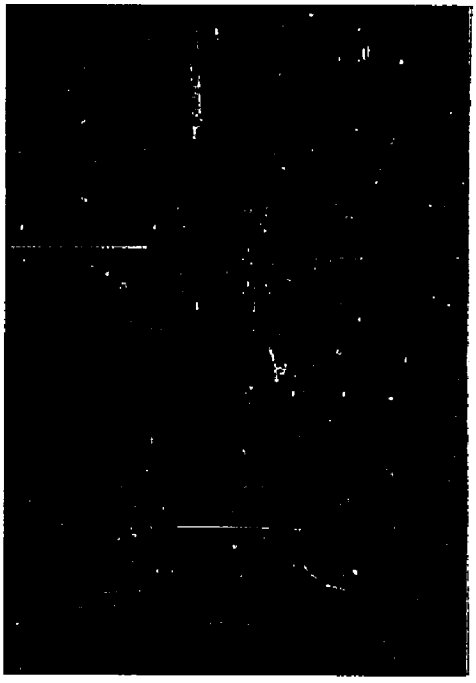
- A.S.U Research Park
- Gateway Center
- Kaiser Center
- Park One

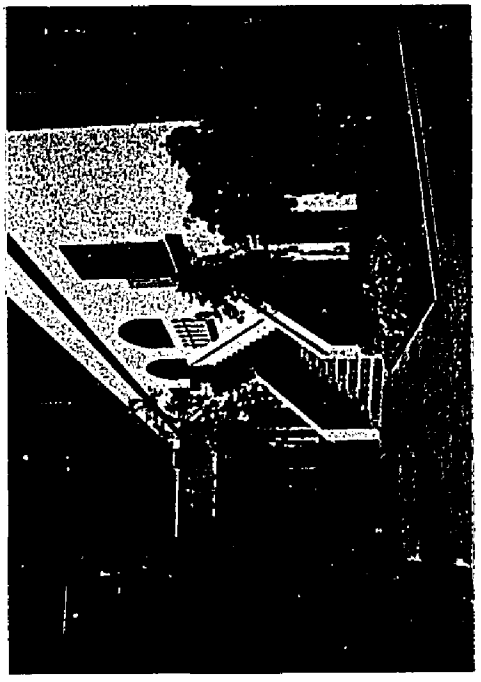
Plate 3 — 4 photographs of corporate headquarters, beginning upper left and moving clockwise:

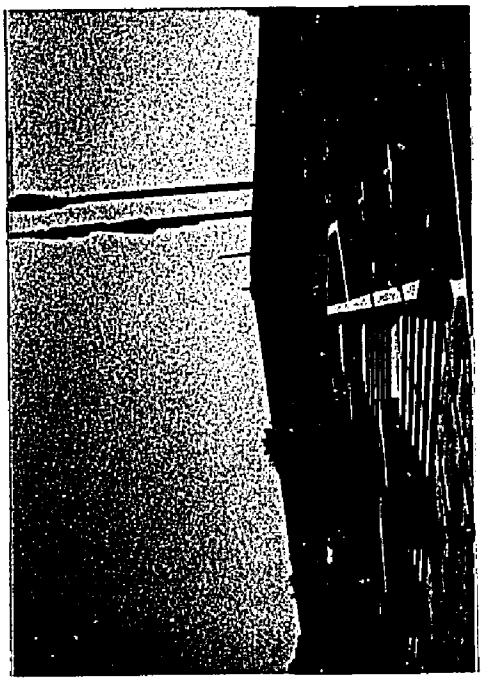
- America West Airlines
- Best Western International
- Sentry Insurance
- Southwest Forest Industries











APPENDIX M

CORRELATIONS OF PANEL MEANS AND MANAGEMENT RESPONSES

Correlations Across Sites for Each Concept

	CONCEPT	VALUE
1	chic...	-0.032
2	up-scale...	0.440
3	traditional...	-0.072
4	western...	0.630
5	gorgeous...	0.132
6	modern...	0.352
7	paradise-like...	0.317
8	park-like...	0.153
9	playful...	0.459
10	quality...	0.083

Correlations Across Concepts for Each Site

Site	Value
America West:	.707
Best Western:	.981
Sentry:	.943
Southwest Forest:	.760
ASU Research Park:	.882
Gateway:	.804
Kaiser:	.674
Park One:	.861
Boulders:	.745
Hyatt:	.854
Mountain Shadows:	.641
Sheraton:	.697

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