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Guidelines, identity and competing needs: The effect of signage design guidelines on uniformity and variety in urban retail business districts

by

Nanhee Kim

A thesis submitted to the graduate faculty in partial fulfillment of the requirements for the degree of

MASTER OF FINE ARTS

Major: Graphic Design

Program of Study Committee:
Lisa Fontaine, Major Professor
Debra Satterfield
Ferruccio Trabalzi

Iowa State University
Ames, Iowa
2009

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For Hyunseo and Hyunhu, two best kids in the world
For their grand moms
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ABSTRACT

This study examines the competing needs of business owners and urban districts in communicating their respective graphic identities to potential customers, and explores how the implementation of design guidelines and design regulations can impact which identity is emphasized. *Identity* has been defined as “the fact of being whom or what a person or thing is.” Graphic identity is the means by which we recognize businesses or districts. When we speak of urban retail identity signage, we mean signage that helps us determine the nature and name of either a store or a district. This study seeks to define an effective balance between uniformity and variety in urban retail signage systems that would allow both the district and the business owner to communicate their message through graphic identity.

A balance of unity and variety within an urban signage system is highly desirable, but rarely occurs in the right mixture so as to benefit both the district and the individual business. In order to benefit both stakeholders, the development of design guidelines that create a balance between uniformity of the system (or district) and variety (or individuality of individual businesses) should be the goal.

This study has shown how the design guidelines control design factors to create the systematic (unifying) quality of these districts. Highly controlled design guidelines are effective in producing uniformity, and a unified identity for the district as a whole. Unity is useful in creating a sense of a place within the district. Urban retail sign systems give the district a sense of unity and character. Without systems, store signage results in a diverse, disordered, inconsistent and even chaotic impression of the district. A pleasing and unified community or district identity may very well attract visitors to the area, and visitors are
potential customers.

The problem, however, is that visitors will only become customers if an individual store catches their attention. When uniformity is emphasized too much, each individual retail store must struggle to maintain its identity. On the other hand, variety is useful to create points of distinction for each individual business. While the retail sign system gives the district unity and character, it may cause stores to lack individuality because there is little differentiation between one store and another. It appears that an excess of consistency in a sign system can interfere with the identity function of signage. However, an excess of variety can produce a chaotic and cluttered look in the district; a chaotic look does not attract visitors.

Without some aspects of unity, districts become chaotic and “unreadable” in a hurry. Without some elements of variety, the urban landscape is monotonous and uninteresting, even boring. It is a fragile balance. To provide for overall uniformity and individual identity, signage guidelines must achieve a balance between individual identity and overall district character. Guidelines should be written so as to leave creative opportunities open to the individual retail store within the context of the district.

This study examines the design guidelines for urban identity signage in four urban districts, in order to determine how the controlled and uncontrolled design factors affect the balance of individual and district identities. By comparing the level of uniformity required within a district, and the resulting retail signs, a correlation can be seen that points to the need for a more balanced approach in guideline development.

Achieving a balance between uniformity and variety in urban retail sign systems is vital to the development of successful retail districts. This issue should be of interest to those who prepare urban design guidelines and to anyone engaged in the design or redesign of
urban retail signage.
CHAPTER 1. INTRODUCTION

Some buildings call attention to themselves by their size or architecture while other buildings are less distinctive visually and architecturally. Understandably, a sign may be more necessary to the recognition of a business when the architecture is less memorable. Once the buildings in the neighborhood are in place, however, the viability of architectural change is reduced, while the possibility of new signage continues to exist as a practical approach to district and storefront improvement. A sign has a functional relationship to the structure on which it is mounted; it serves to announce the main entrance and becomes the exterior representation of what is inside. The sign communicates the name and nature of the business to potential customers. In traditional thinking, signs are quite unattached to buildings.¹ This tendency is also been reflected in signage guidelines which tend to be indifferent to design issues and the communicative role of signage. It is time to focus on signs and signage systems as identity, design and as communication.

An urban retail sign system must function as both a unifying system and as an identity for a particular district. The system creates unity that is for a variety of reasons desirable. If one is unsure where he or she is located, recognition of the place or district becomes important. A well-designed district provides a sense of place and creates a recognition value for a specific locale.

While the sign system that unifies a district may communicate an identity for that

¹ John A. Jakle, Signs in America’s Auto Age: Signatures of Landscape and Place, American Land and Life Series (Iowa City: University of Iowa Press, 2004) xxii.
district, it does nothing to help the individual business to communicate their unique story. Highly controlled design guidelines are effective in producing uniformity, and a unified identity for the district as a whole. Unity is useful in creating a sense of a place within the district. A pleasing and unified community or district identity may very well attract visitors to the area, and visitors are potential customers.

The problem, however, is that visitors will only become customers if an individual store catches their attention. When uniformity is emphasized too much, each individual retail store must struggle to maintain its identity. On the other hand, variety is useful to create points of distinction for each individual business. While the retail sign system gives the district unity and character, it may also cause the stores lack individuality because there is little differentiation between one store and another. It appears that an excess of consistency in a sign system can interfere with the identity function of signage. However, an excess of variety can produce a chaotic and cluttered look in the district; a chaotic look does not attract visitors.

The identity function must enable people to recognize individual stores or locations. An important part of business identity signage is differentiation, the ability to distinguish one store from another. A shop owner may also want people to recognize what kind of store it is and remember where it is located. The problem is that the more unity there is in the system, the more the stores resemble each other, and the more difficult they are to identify. Highly controlled design guidelines are effective in producing uniformity, and a unified identity for the district as a whole. Unified retail sign systems give the district a sense of unity and character. A pleasing and unified community or district identity may very well attract visitors to the area, and visitors are
potential customers.

The problem, however, is that visitors will only become customers if an individual store catches their attention. When uniformity is emphasized too much, each individual retail store must struggle to maintain its identity. While the retail sign system gives the district unity and character, it may also cause the stores lack individuality because there is little differentiation between one store and another. It appears that an excess of consistency in a sign system can interfere with the identity function of signage.

This problem can be seen in a recent example from Seoul, South Korea. In central Seoul, there is a business district, 3.6 miles in length, which in 2005 was the site of an urban signage project. The Seoul city government decided to renovate the signage along the street using green environmental materials. The city invested the equivalent of 3.2 million US dollars in the project. Each store owner was eligible to receive up to $5,000 in financial assistance from the Seoul city government for signage renovation. As it turned out, the project was not a commercial success. The citizens of Seoul disliked the design of this project because it was difficult to tell one store from another.

The Seoul experiment indicates that we do not know nearly enough about the functional properties of urban retail signage systems. The Seoul project focused on the systematic and aesthetic qualities of urban signage. It seems clear that identity signage must be more than a visually pleasing design system. It must also facilitate human behavior by providing relevant information in a clear way. The problem is that we know relatively little about the impact of unity and variation in urban retail signage systems.

Signage must be able to communicate with customers clearly and effectively regarding the business’ products or services. Communication design, of course, is the
rightful role of the graphic designer. Signage guidelines have tended to ignore issues of design and communicative effectiveness because graphic designers are seldom, if ever, involved in guideline development.

This study will explore the belief that we can design fully functional urban identity signage systems that serve the needs of both the district’s message and the messages of the individual businesses. A fully functional urban identity signage system would designate some factors that serve to create unity, while at the same time leave sufficient variation to facilitate individuality.

A balance of unity and variety within an urban signage system is highly desirable, but rarely occurs in the right mixture so as to benefit both the district and the individual business. In order to benefit both stakeholders, the development of design guidelines that create a balance between unity of the system (or district) and variety (or individuality of individual businesses) should be the goal.

This study examines the design guidelines for urban identity signage in four different urban distracts, in order to determine how the controlled and uncontrolled design factors affect the balance of individual and district identities. By comparing the level of uniformity required within a district, and the resulting retail signs, a correlation can be seen that points to the need for a more balanced approach in guideline development. The results of the case study can then used to produce new recommendations relevant to the development of guidelines for urban identity signage.
CHAPTER 2. LITERATURE REVIEW

Literature from both the design field and the sign industry seem to concur on the importance of several design factors - color, font, shape, etc - but there is a difference in their approach to the topic. While the design sources stress issues of identity, the industry sources seem to view signs as a structural phenomenon.

2.1 Definition of Retail Signage

The word “sign”, has two common meanings. According to Berger, the first meaning is anything that stands for something else from the semiotic perspective.\(^2\) The second meaning of sign is a shorter version of ‘signboard,’ which is a board mounted structure on which advertisements can be posted.\(^3\) This second definition includes retail signs which identify a business or similar entity, and help people to find their way, or invites customers. For purposes of this study “sign” refers to retail signage. According to the Oxford English dictionary\(^4\), signage is the collective of signs, especially when we are speaking of retail or public display signs.

Just as each person has a name, each store has a business name. When we meet people, we introduce ourselves to others by exchanging names. Signage is the means by which the store introduces itself to the public. In addition to the name, signage communicates relevant information about the store; the variety of business types contributes to the broad range of signage we find in a retail setting.

\(^3\) George A Miller, "Wordnet," (Princeton University, 2006).
Claus and Claus have suggested that the phrase “place-based communication and graphic devices and systems” may well be a better explanation of today’s complex on-premise retail communication than the term “signage.” It is necessary to expand our understanding “signage,” because we have come to realize that there are more ways to communicate retail messages than by traditional on-premise signage, such as freestanding, wall, roof, canopy and projecting signage.

Claus and Claus explain that a free-standing sign (also called a pole sign or a ground sign) is one which is positioned on the premises of the business it advertises, but is not actually affixed to the building itself. A free-standing sign is held up by one or more columns, braces anchored to the ground.

![Common freestanding sign types](image)

**Figure 1. Common freestanding sign types (Bertucci, 2001)**

The wall sign is a sign which is attached parallel to the exterior or interior wall of a building and projects. Usually, it has only one face. We sometimes also refer to these as storefront signs.

---

6 Ibid.
A roof sign is erected on or above the roof line of a building and is wholly or partially supported by the building.
Conroy, director of the NYS SBDC’s Research Network, explain canopy sign and projecting sign. Canopy sign is attached to the visible surface of an attached or free standing canopy. It can also include awning signs. A projecting sign is adhered at building face or wall and commonly double-sided.\(^8\) This type of signage is known less formally as perpendicular signage.

Some businesses are small, individual establishments, with only one building on which to establish their identity using one or more of the general sign types. On the other hand, a global franchise corporation such as McDonald’s has diverse and interchangeable forms of signage which may go far beyond the general sign types.\(^9\) As shown in Figure 5, this McDonalds has arches and angles as well as a wall sign, a free standing sign, and a roof sign. All of them are known brand identities for McDonald’s. For purposes of this study, the term, “retail signage,” includes the signature characteristics of a building over and above the display of corporate colors or logos, even including free standing structure and sculpture elements (Figure 6).

---


2.2 Role of Signage in Retail Environment

In today’s retail environment, retail signage encompasses a diverse and varied
communication system.

The retail signage is the face of the store, and that face makes a first impression to the store’s potential customers. People tend to form opinions about the value and nature of a business based on that first impression.

According to Conroy, signage should perform at least the following three functions: 10

- Attract new customers
- Brand your site in the minds of consumers
- Create “Impulse” sales

2.2.1 Attracting new customers

Generally, the local business owners rely upon their signage to attract customers because they cannot afford the costs of other media, such as large newspaper advertisements or television retails. On-premise signage is an efficient advertisement that is displayed 24 hours a day, 7 days a week.

The sign company Signtornix has advocated a survey begun by a number of independent small businesses in its community. 11 The signage of each business had been installed during the previous 30 to 45 days. They then asked a random sampling of first-time customers this question: “How did you learn about us?” Half of the customers answered that they learned about business because of its sign. The results of the survey suggest that signage is an effective way to attract to new customers.

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11 Ibid.
2.2.2 Branding a business in the minds of consumers

Graphic designers are visual communicators. We design images and use type in ways that convey a meaningful message. Our role in branding is to create a message that identifies the business to the consumer.

Brand is the promise, the big idea, and the expectations that reside in each customer’s mind about a product, service, or company. A brand must communicate the name/nature of the business effectively, clearly, and efficiently.

Carter contends that brands are intangible assets of astonishing value because they define a company’s holdings within a realm where competing messages make the attention of customers a precious commodity. Brands that grab consumer attention sell products and services.

Most business owners consider the sign is a necessity, but many do not fully understand all the ways a sign contributes to their success. A sign does more than just “identify,” the business. Pedestrians want to know more than the name, they need to know something about the business. Among retail businesses, signage is perhaps the most powerful advertising option in branding the business.

Retail business owners rely on the visual communication potential of signage as an advertising staple, because they know well implemented signage can positively impact the success of a business.

When designed successfully, signage can combine with other media to help “brand” a business in the mind of consumer. If a store has a trademark or a logo, it should

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appear on the sign along with the business’s name. If the business is part of a global franchise or chain, business owners then also have the benefits of major media advertising. The franchises repeat a trademark image at diverse places in the store, and also combine the trademark with global media campaigns. A consumer’s recall (how well message is remembered within a short period of time) and recognition (how quickly a message is correctly identified) of the brands increase by application of these powerful psychological tools.

Figure 7. The bottle shape tells clearly the brand identity. (Popsign 2009 June, p.140)

It is also unique, how many huge pop bottles do you see? No other bottle is shaped like the Coca Cola bottle. Unique is that which we seldom see. It contains the French work ‘une,’ or one, meaning that what is unique is one of a kind.

Small businesses, which are not franchises, also benefit from good signage. In

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15 Ibid.
fact, with their modest budgets, they often haven’t invested in advertising or other media to communicate themselves as a brand. This makes their sign even more important to their success than the sign of a franchise business. The sign of a business helps to develop “top-of-the-mind” awareness in the target population. Through appropriate text and graphics, good signage conveys a message about the service or product to people who pass by the store’s location. ¹⁶

Figure 8 and Figure 9 demonstrate the effectiveness of having a symbol with logo and name displayed on the sign.

¹⁶Ibid.
2.2.3 Creating “Impulse” sales

Consumers buy products and services both by habit and by impulse. Studies have
shown that the majority of sales come from impulse buying.¹⁷ For example, the research from University of California at Berkeley shows the result that 68% of purchases were unexpected during major shopping and 54% on smaller shopping.¹⁸

Effective signage will create “impulse” sales by attracting the consumer’s attention even though those consumers are not initially planning to visit the store.

The intention of every business is to grab the attention of potential customers and create sales. Retail signage plays an important role in persuading the potential customer to enter the store. Often, an on-premise business sign is the only means by which a small business owner communicates to the public that the business is located within those walls.¹⁹

Sign industry professionals and store owners, therefore should capitalize on the impulse potential of signage.

### 2.3 What is an Urban Retail Sign System?

“System” means a set or collection of entities connected, associated, or interdependent; a whole composed of parts in orderly arrangement according to some scheme or plan.²⁰

When we speak of a Retail sign system, we mean a set of intentional uniformities or guidelines which direct how each sign fits into the overall design of the street or business district.

Urban retail sign systems that are regulated or recommended by a local district are

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¹⁸ Ibid.
not only designed to help people locate a business, but also to give store owners direction about how to design their retail signage. Retail signage is essential as an identifier of the business and provides an important expression of image for the business. In order to deal with the problem of sign clutter or unattractive signs along city streets, many cities have adopted graphic design guidelines for signs and developed visually consistent sign systems. Signage is a critical element in the quality and character of the visual environment and the urban landscape, so the need to control its quality is certainly understandable. More and more cities are choosing to exercise some form of control over this important part of the urban visual environment by adopting signage ordinances which now go beyond safety and visibility concerns.

2.3.1 Role of regularity among signs in retail districts

Signage is a necessary element in any retail district. However, signage often becomes visual clutter in the urban landscape. We see lots of anonymous, oversized, and ill-positioned signs ruining the urban landscape. Owners often assume that large and gaudy signage would bring in more customers. On the other hand, bureaucracy is likely to want uniform signage because it creates a better urban landscape. Both viewpoints are each partially correct, but too much of either approach causes problem for the other group. Obviously, these two forces are moving in opposite directions. Debate and awareness have been increasing in both public and private sectors on the design, legal concerns, and economic issues related to local government adoption of sign guidelines or graphic
2.3.2 Sign system guideline approach

Many cities or retail districts have guidelines or regulations for retail signs which tend to create a system. According to dictionary definition, “guideline,” means a general rule, principle, or piece of advice. Some city signage system guidelines are more binding than others. We might characterize some guidelines as rules, and others as advice.

2.3.3 Stakeholders of sign systems

The population affected by a sign system can be divided into three groups (Table 1). The first group is made up of advertisers, store owners who want to emphasize their business rather than other competing businesses. They want their signage to be more eye-catching than others. The second groups are city planners or government officers who focus on how the signage is appropriate for the neighborhood. They are likely to approach signage as a component of an overall urban landscape rather than as an advertisement for each store. Third are the pedestrians; signage gives them information about the business and provides the possibility of visual pleasure in the urban environment.22

Retail sign system guidelines will be most effective if they satisfy all of the stakeholders. Therefore, understanding the interests of each affected group, and achieving a balance between these diverse interests are fundamental considerations in

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developing a retail sign system.

![Diagram of Stakeholders]

Table 1. Stakeholders of Sign System (illustrated by the author)

2.3.4 Designing commercial signage

Recommendations about the most important factors in sign design differ based on the source; design sources tend to include communication factors and identity, while sign industry sources treat signs as a simple structural phenomenon.

Essential design factors

Commercial signage is fundamental to a mobile, consumer-oriented society. It helps people find where they need to go, it identifies the business for those who seek it, and it communicates to customers what they do and who they are.\(^{23}\)

Business analyst Conroy points out signage is generally treated as if it is a simple structural phenomenon. Figure 10 illustrates their considerations in choosing the right

signage for a business.  

Figure 10. Consideration Commercial Signage design (illustrated by the author)

Various authors in the sign industry have outlined basic concerns for designing for signs, but these never include a concern for the communication process: It is noteworthy that "communication factors" are not included here. These four considerations seem to be the focus in the literature. Included here is a summary of how the "design factors" are addressed in industry sources.

Most are limited to analyses of lighting, visual acuity, legibility and many other factors.  

Conroy provides an important list of what he considers to be essential design factors:  

- Visibility/Conspicuity
- Legibility/Readability
- Size, Scale and Location
- Cone of Vision and Angle
- Graphic Considerations (Color, Contrast & White Space)
- Contrast/Brightness
- Letter Style and Capitalization
- Letter Heights
- Length of Message
- Illumination/Lighting

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24 Ibid.
25 Ibid. 19.
26 Ibid.
In the design literature, there are additional factors mentioned, such as content and identity. The discussion is divided into two sections: the graphic system and the hardware system. Calori explains relationship of graphics elements to content:

The graphic system for a signage program is part of this great cultural legacy of visual communication. The sign graphic system makes the sign information content system tangible, in that it embodies and conveys the sign program’s informational content. The graphic system gives structure, form, and style to the information being communicated on signs.27

Calori’s statement about the elements of a signage system is noticeably similar to art educator and design theorist, Wucius Wong’s statement about the Elements of Design. The graphic system includes typography, symbols, diagrams, color, and layout. The graphic system may communicate through both graphic devices used for signage and how the graphic elements are arranged into layouts. The objective here is to introduce the basics of graphics for the various sign types and messages in the signage program. The hardware system of a sign program is all the physical “stuff” people can actually touch or bump into; it’s tangible, three-dimensional component of a sign program.28 The hardware part includes shape, form, size, lighting, and materials.

There are several different views about the effective elements of a sign system. This author illustrates the effective elements as follows:

28 Ibid.
Branding and corporate identity

One of the most important ways for a company to consolidate itself in the market and differentiate itself from the competition is through branding. Brand identity is very important for retail signage. Any company that confuses its identity is in for trouble.

Corporate identity is a combination of more than the sum of these parts: mission statements and corporate philosophies; logos, letterhead, and annual reports; advertising; internal perception programs; and external communication and public perception of company image.

One researcher conducted two tests (recall and recognition) to determine the value of a communication construction or device and the message it is delivering. Recall tests reveal how well a retail message is doing by testing a customer’s recollection of a

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31 Clausing, Clausing, and Clausing, *The Economic Context of on-Premise Business Signs and How to Establish Value in the Marketplace*. 
particular message. Recognition is measured by testing memories before and after a specific advertising or marketing campaign. Similar testing is used comprehensively in political campaigns, to evaluate “face” recognition. 32 Signage is the “face” of the store. Recall and recognition are very critical issues in signage design. If the signage has a brand identity or a corporate identity which communicates a clear message in a creative way, people can not only recall what the store or businesses are, but also remember their experience with the store.

Urban Identity

Urban areas also have identity; they also present a “face” to the public.

Fleming contends place is not merely what was there, but also the interaction of what is there and what happened there.33

According to the Oxford English Dictionary, “Identity” means: “the fact of being whom or what a person or thing is.” Lynch maintains that to function as identity a workable image must first be identified as an object. This implies it must be distinguished from other things, in order to be recognized as a separable entity.34 In other words, identity is not in the sense of equality with something else, but in its quality of individuality or uniqueness. Every individual has characteristics and distinctive elements by which it can be identified. So does a city.

Relph explains:

32 Ibid. 27.
A deep human need exists for associations with significant places. If we choose to ignore that need, and follow the forces of placelessness to continue unchallenged, then the future can only hold an environment in which places simply do not matter. If, on the other hand, we chose to respond to that need and transcend placelessness, then the potential exists for the development of an environment in which places are for man, reflecting and enhancing the variety of human experience.\textsuperscript{35}

Lynch says one of the roles of urban landscape is something to be seen, to be remembered, and to delight in. Districts are the components of an urban landscape.\textsuperscript{36} The thematic unit and typical features of a district produce visual images that are recognizable and serve to make the district memorable.

Urban landscape design is the art of giving visual coherence and organization to the collage of buildings, streets, and spaces that make up the urban environment.\textsuperscript{37}

An important function of a sign system is creating a sense of place for a given site and for its power to reinforce a brand image.\textsuperscript{38}

Signs can be very effective in helping to build a unique identity for a community. Every person who walks down the strip in Las Vegas (Figure 12) definitely knows where they are. The brilliant and colorful signage of Las Vegas serves as the ultimate realization of the urban identity. In \textit{Learning from Las Vegas}, Venturi contends that “ugly and ordinary items in culture represent the democratic segment of society, as they embody mass consciousness.”\textsuperscript{39} Las Vegas, which has been described as the only “architecturally

\textsuperscript{36} Lynch explains "districts are the medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters 'inside of', and which are recognizable as having some common identifying character".
unified” city in the United States, is the most obvious example of a city in love with its signs.\textsuperscript{40}

Figure 12. Las Vegas, Nevada (Signline issue 37, 2002)

Signage is absolutely part of architecture, where it announces the building’s identity and main entrance.\textsuperscript{41} Observers, as their familiarity increases, seem to depend less and less on gross physical continuities to organize the whole, and delight more and more in contrast and uniqueness which vivify the scene.\textsuperscript{42}

There are definite advantages to creating a street ‘gestalt.’ The whole – as highlighted by Gestalt psychologists – is greater than the sum of the parts. For the designer, it is the study of how people see and understand the relation of the whole to its component parts.\textsuperscript{43}

According to the principles of \textit{Gestalt} theory, people are naturally sensitive to

\begin{itemize}
\item \textsuperscript{40} \textit{Sign Design: Contemporary Graphic Identity}, (New York: PBC International, 1986) 11.
\item \textsuperscript{42} Lynch and Joint Center for Urban Studies., \textit{The Image of the City} 105.
\end{itemize}
geometric forms, and to different levels of complexity of such forms.  

Identity is ultimately as much about a process of distinction as it is about identification. It is about relating to, but then – importantly - distinguishing oneself from a given background. One can therefore understand identity in terms of gestalt, as a figure/ground relationship, a sense of separation that cannot be enacted without first establishing a sense of connection.

Signage is a media that pedestrians constantly confront on the street, therefore it plays an important role in shaping the pedestrian’s impression of the city and establishing its identity. Because signage has this tendency to profile a city or locale, government and city planners try to get rid of nonconforming signage that seems inappropriate for the particular locale or excess signage that may be seen as visual clutter.

While signage is part of the architecture, it contributes to an urban landscape and the urban landscape becomes more than the sum of the individual signage. This is true whether signage becomes visual clutter, or when a pleasing signage system produces a neighborhood aesthetic. Accordingly, a cohesive urban identity is produced by regulating each retail signage instance. Regulating each retail sign can ensure a harmonious urban landscape, especially in cases where there is already strong visual “message” in the district’s architecture itself. For example, when we think McDonald’s, a large yellow “M” with red background is the first thing that comes to mind. What if a McDonald’s is surrounded by historical architecture, for example if it is located in Rome, Italy? Should

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46 Talarico and Smith Maran Architects, *Graphic Standards Details : Openings* 80.
it be same as other McDonald’s? Figure 13 shows one example of how a global brand identity store maintains their brand identity while harmonizing with the urban landscape.
Figure 13. Adaptations of McDonald’s brand identity according to location: theater district, Chicago, Illinois (above, Signline issue 37, 2002); Pella, Iowa (middle, photo by the author); Rome, Italy (below, Popsign, August 2008).
Before putting signs on the architecture, we need to be concerned about how the signage will fit into the surrounding community. Signage can and often should reflect the existing character of a city, its culture and its history. The sign system should be intended to build or support the character of the street.

**Aesthetic and comfort**

_Aesthetic_ is the opposite of _anesthetic_. When a person is given an anesthetic, a state of unconsciousness or insensitivity is falsely induced. On the other hand, aesthetic involves the enhancement of feeling.

In _The Act of Creation_ Koestler contends:

... at moments of intense aesthetic experience we see not only with our eyes but with our whole body. The eyes scan, the cortex thinks, there are muscular stresses, innervations of the organs of touch, sensations of weight and temperature, visceral associations, feelings of rhythm and motion—all sucked into one vortex... 47

Donald Norman believes that products designed for more relaxed, pleasant occasions can enhance their usability through pleasant, aesthetic design. Aesthetics matter, attractive things work better - their attractiveness produces positive emotions, causing mental processes to be more creative, more tolerant of minor difficulties. 48

Behrens has argued that _Aesthetic design_ is anything characterized by an approximate mixture of unity with variety. Encounters with aesthetically designed objects can be pleasant or unpleasant, enthralling or disturbing, but generally they encourage a

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heightening of our ability to perceive the kind, location, and timing of things. 49

Lidwell adds the concept that aesthetic designs are perceived as easier to use than less-aesthetic designs.

Aesthetic designs appear easier to use and have a higher potential of being used, whether or not they really are easier to use. Aesthetic designs are more successful at developing positive attitudes than less aesthetic designs. 50

Streets which are covered with meaningless, gaudy, tacky, undesirable, and chaotic signage repel the pedestrian. Some signs oppress the pedestrian by shouting their message without consideration for aesthetic points. This signage becomes a stressful environment, and the stress increases fatigue while reducing cognitive performance. In addition to basic information, signage also conveys an intuitive sense about the business. If the signage provides aesthetic satisfaction to pedestrians, the business is easily remembered and will leave consumers with a positive attitude about the business. Furthermore, aesthetic signage design will enrich the urban landscape and give comfort to the passing pedestrian.

Claus contends that aesthetics and economics are not necessarily in opposition to one another. Instead, they can work together to implement a design concept or respond to specific sign codes which may augment community atmosphere. 51 A retail sign system does not have to be a matter of aesthetic vs. economics; rather it should reflect a

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51 Claus, Claus, and Claus, *The Economic Context of on-Premise Business Signs and How to Establish Value in the Marketplace* 5.
comprehensive approach to a complicated, versatile problem. Figure 14 and Figure 15 show that signage is more than an indexing system. The research demonstrates that signs which have an appealing aesthetic presentation impart a positive impression of the business as well as attracting the consumers’ attention.

52 Ibid.
Figure 14. FAO schwarz, upscale specialty toy retailer headquartered in New York City (photo by the author)

Figure 15. Chez Clement restaurant in Paris, France (Popsign, Dec. 2008)
Economics

Retail or business owners need to consider the return on investment possible on their signage investment. Retail business signs function as an optimum advertising and marketing device in this environment, offering both affordability and availability with excellent return on investment.\(^{53}\)

Advertising agencies and retail property owners can assist these retail or business owners in determining how much a sign is worth in terms of the business revenue its presence may generate. On the other hand, the signage developer provides information about how much a sign may cost to produce, place, and lease. Those two economic factors, cost and revenue, are considered when owners plan to put up a sign.\(^{54}\) A different point of view is that signage facilitates competition among businesses, which, in turn, benefits customers by increasing the information available about products and services, or facilitating choice in terms of which businesses to support. Facilitating choice and increasing information often leads to lower prices which benefits the customer.\(^{55}\)

Well planned signage can produce benefits that far outweigh the installation cost of the signage. For example, urban retail signage guidelines control or help business owners to design signage rationally.

Signage is not a temporary advertisement; it is expected to last more than one year. When choosing the material for the signage, it should be durable and easy to maintain or repair. Store owners who want to use specific materials or shapes to make the signage

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\(^{54}\) Claus, Claus, and Claus, *The Economic Context of on-Premise Business Signs and How to Establish Value in the Marketplace* 29.

\(^{55}\) Ibid. 3.
attractive find that it will increase the cost.\textsuperscript{56} Money spent on quality signage, however, is usually money well spent. One of the most important goals of a sign is to help its business. If improved signage increases business and profits, the signage is economical.

\textbf{Legibility}

Legibility is the ease with which information is perceived by the senses.\textsuperscript{57} We might summarize it by saying that signage should be easy to read and understand. The overall legibility of signage is essentially determined by the font characteristics, color, and height of the letters making up its message component. Information that is blocked, badly located, too busy, confused or, too small to be perceived is not legible. To avoid legibility problems, it is important to understand applied graphic standards and be aware of layout, sight lines, distance, lighting levels, and message content. These factors are significant for an effective retail signage system whether for pedestrian or others.\textsuperscript{58}

Legibility is good when the sign’s letters, symbols and graphics are clear and understandable so that the meaning can be adequately interpreted.\textsuperscript{59} Legible signage depends on many attributes, such as spacing of letters and words, the amount of negative space, color combination, letter size, font, and others.\textsuperscript{60} Conroy maintains that when designing signage it is more effective to keep the message very simple than to include as much as information as possible.\textsuperscript{61}

\textsuperscript{56}Conroy, \textit{What's Your Signage?} 8.
\textsuperscript{58}Ibid.
\textsuperscript{60}Conroy, \textit{What's Your Signage?} 20.
\textsuperscript{61}Ibid.
The U.S. society is very mobile, consumer-oriented and communication driven.\textsuperscript{62} The most important considerations in designing vehicle-oriented signs are; first, the distance from which a sign should be read when the vehicle is parked. Second, reaction time when the car is moving-the time it takes a driver to see a display, read its message, and respond to that message by preparing a turn.\textsuperscript{63}

Since 1996, the United States Sign Council (USSC) has funded comprehensive studies into the legibility of on-premise signs and the manner in which motorists react to these signs in various roadside environments.\textsuperscript{64} These groundbreaking studies make it possible to determine the size of the letters as well as the size of signs necessary to ensure motorist legibility.\textsuperscript{65} The results, however, are also useful in broader applications, particularly when they define general legibility values.

The driver who detects and reads a roadside on-premise sign completes a complex sequence of events, both mental and physical. According to USSC studies, these events include: message recognition and processing; intervals of eye and head movement, alternating between the sign and the road environment; and finally, active maneuvering of the vehicle as required in response to the stimulus provided by the sign.\textsuperscript{66} The dynamic of the viewing task is a complicated process involving the detection of a sign through the limited view provided by the windshield of a rapidly moving vehicle. The USSC studies say that for a driver on the highway traveling at 40 miles per hour, the rate at which the viewing distance decreases is 58 feet per second, and at 60 miles per hour, it becomes an

\textsuperscript{62} Small business notes, \textit{Sings for Your Business} ([cited]).
\textsuperscript{65} Ibid.
\textsuperscript{66} Ibid.
impressive 88 feet per second. Another issue is the relative position of the sign to the eye of the motorist, whether the position of the sign is perpendicular or parallel to the line of motion. If a sign is parallel to the motorist’s view, detecting and reading is more restricted than would be the case for the perpendicular orientation. Perpendicular signs can include free standing signs, projecting signs, and flat wall signs placed on building walls that directly face on-coming traffic (Figure 16).

Figure 16. Perpendicular sign types (USSC, 2006)

Cone of vision and angle

According to Signline, the human eye is created to focus in one direction, with peripheral vision expanding out on both sides to form a fan shaped zone of visual awareness. The “cone of vision” is a sub-portion of that zone. While reports differ on

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67 Ibid.: 3.
the exact angle, this cone is limited in width to somewhere between 18 to 24 degrees. 69 Placing the sign within an arc of 20 degrees in relation to the focus of the driver is recommended for commercial roadside signage. Outside of that visual cone, signage is not likely to be noticed.70

![Diagram](image)

Figure 17: A driver has a 20° range, or “cone,” of vision. (Conroy, 2004)

According to *Signline*, the cone of vision is seriously diminished at night, often to only the area illuminated by the vehicle’s headlights.71 If signage is not either internally illuminated or lighted by exterior flood lamps, it is essentially invisible at night.

Perpendicular signs are usually placed closed to property lines so that they fall into the driver’s “cone of vision.” The cone of vision is a view down the road encompassing ten degrees to the right or left of the eye, or twenty degrees total viewing angle. Drivers can view signs within this cone comfortably and without excessive eye or head movement (Figure 18).

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69 Ibid.  
70 Ibid.  
71 Ibid.
Perpendicular signs need to be designed and sized to provide for viewing time sufficient to allow for detection, reading, and necessary driving maneuvers. In providing for sufficient viewing time, Viewer Reaction Time and Viewer Reaction Distance are important considerations. These factors must be computed to provide sufficient letter heights and sign size relative to various traffic conditions and vehicle speeds. Even in urban areas legibility and cone of vision merit consideration. Motorists may be trying to read the signs in order to locate a business, and even pedestrians move parallel to the storefronts and therefore benefit from perpendicular signage.

Conroy refers to Richard N. Schwab’s research which demonstrates the distance at which a sign first becomes legible, contingent on how fast a car is moving, as shown in Table 2. Table 2 illustrates the minimum distance at which a sign must be legible to the standard driver of 20/40 visual perception. It assumes many things, such as placement of signage in relation to the road, its readability and conspicuity, the complexity of the message, and others, but is still helpful in common sense.

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Table 2. The standard relationship between vehicle speed and legibility distance in feet and meters. MRLD: Minimum Required Legibility Distance (Signline issue 51, 2007)

<table>
<thead>
<tr>
<th>Vehicle Speed</th>
<th>MRLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 mph (88 kph)</td>
<td>81'/sec (25 m/sec)</td>
</tr>
<tr>
<td>50 mph (90 kph)</td>
<td>73'/sec (22.25 m/sec)</td>
</tr>
<tr>
<td>45 mph (72 kph)</td>
<td>66'/sec (20 m/sec)</td>
</tr>
<tr>
<td>40 mph (64 kph)</td>
<td>59'/sec (18 m/sec)</td>
</tr>
<tr>
<td>35 mph (56 kph)</td>
<td>51'/sec (15.5 m/sec)</td>
</tr>
<tr>
<td>30 mph (48 kph)</td>
<td>44'/sec (13.4 m/sec)</td>
</tr>
<tr>
<td>25 mph (40 kph)</td>
<td>37'/sec (11.3 m/sec)</td>
</tr>
</tbody>
</table>


In thinking about legibility, it is essential to determine how large the letters should be at a given distance to be legible to the regular driver of 20/40 visual acuity. Sign researchers, Forbes and Holmes developed a Legibility Index (LI) to illustrate the relative legibility depending on various letter sizes used on highway signs. They determined that a person with 20/23 visual acuity needs an increase of one inch the height of lettering for every 50 feet of distance. A person with 20/40 visual acuity needs one inch of letter of height for every 28.6 feet of distance.\(^{73}\)

The reality of commercial signage is unlike highway signs, however they are extremely varied in size, color, font, and design. Garvey, et al researched legibility of a range of commercial signage under real life environmental situations. Their study found that even under the best conditions (daytime and low complexity), the LI was 30feet/inch. In high complexity circumstances, the LI decreased as low as 7feet/inch.\(^{74}\) Although the eventual size of lettering depends a lot on the selected font, an increase in letter height


\(^{74}\) Ibid.
will increase the range of distances from which the sign is legible. The most graceful and interesting fonts are less legible, and the most legible fonts are rather plain block.\textsuperscript{75}

Table 3 displays the minimum letter heights dependent upon standard highway-style fonts for 20/40 visual acuity and a variety of speeds of traffic.

<table>
<thead>
<tr>
<th>Speed Limit (mph)</th>
<th>Speed Limit (kph)</th>
<th>MRLD (Feet)</th>
<th>MRLD (meters)</th>
<th>Letter Height (Inches)</th>
<th>Letter Height (Centimeters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>40</td>
<td>200</td>
<td>61</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>35</td>
<td>55</td>
<td>280</td>
<td>85</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>45</td>
<td>70</td>
<td>360</td>
<td>110</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>55</td>
<td>90</td>
<td>445</td>
<td>136</td>
<td>15</td>
<td>38</td>
</tr>
</tbody>
</table>

Table 3. Standard Letter Height Guidelines for Commercial Signage according to speed of driver (Signline issue 51, 2007)

Readability

Readability is the ultimate goal of any signage, and it speaks to the ability of the viewer to comprehend the message.\textsuperscript{76}

Engel found that recognition relied on cognition as well as on sensory and visual prominence.\textsuperscript{77} In other words, the driver’s psychological state, motivations, and familiarity with the signage and its contents greatly influence the ability of that driver to recognize and comprehend the message.\textsuperscript{78} Signline notes that the more familiar an entity or form on signage is to the driver, the fewer glances he or she will require recognizing it.

\textsuperscript{75} Ibid.
\textsuperscript{76} Ibid.
\textsuperscript{78} International Sign Association, "Conspicuity and Readability," 7.
Familiarity, therefore, reduces recognition time. The normal driver will rapidly extract the information he or she needs to attend to the driving task and ignore everything else. *Signline* also notes that it takes 0.33 seconds to be aware of a familiar single word or symbol for an average person.\textsuperscript{79}

![Starbucks symbol](image)

Figure 19. Starbucks symbol is familiar to us. The familiar signage is recognized rapidly by driver with fewer glances. (news.starbucks.com)

Distance, speed, circumstance, and letter size are not the only considerations. The length of time to recognize and understand the message on the signage is also important.\textsuperscript{80}

Studies have revealed that when test subjects are allowed to glance briefly at words and then asked to recall the meaning, a level of 75% accuracy in 0.7 seconds can be anticipated.\textsuperscript{81} Accuracy increases to 100% when the subject has 1 to 2 seconds to read the word. Table 4 can be adopted as a guideline when the 0.7 second time factor is used.

\textsuperscript{79} Ibid.
\textsuperscript{80} Ibid.: 6.
The normal reader requires 0.7 seconds of observation time per word in order to adequately comprehend the message. According to Table 4, for instance, 2.1 seconds (3x0.7=2.1) is the length of time required to comprehend a sign with three words.\(^{82}\) It should be expected that individuals with literacy difficulties such as dyslexia or LEP (Limited English Proficient) will need more time to recognize a word.\(^{83}\)

<table>
<thead>
<tr>
<th>Number of Words</th>
<th>Normal Reader</th>
<th>Nonfluent or Dyslexic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.7 seconds</td>
<td>3 to 13 seconds</td>
</tr>
<tr>
<td>2</td>
<td>1.4 seconds</td>
<td>6 to 16 seconds</td>
</tr>
<tr>
<td>3</td>
<td>2.1 seconds</td>
<td>9 to 19 seconds</td>
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<tr>
<td>4</td>
<td>2.8 seconds</td>
<td>12 to 22 seconds</td>
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<tr>
<td>5</td>
<td>3.5 seconds</td>
<td>15 to 25 seconds</td>
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<tr>
<td>6</td>
<td>4.2 seconds</td>
<td>18 to 28 seconds</td>
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<tr>
<td>7</td>
<td>4.9 seconds</td>
<td>21 to 31 seconds</td>
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<tr>
<td>8</td>
<td>5.6 seconds</td>
<td>24 to 34 seconds</td>
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<tr>
<td>9</td>
<td>6.3 seconds</td>
<td>27 to 37 seconds</td>
</tr>
</tbody>
</table>

Table 4. Readability Time per Number of Words (Signline issue 51, 2007)

Aesthetics play an important role in the readability of a sign.\(^{84}\) People who many only glance at signage will understand a message about the business within few seconds based on visual information applied to the signage such as fonts, colors, shapes or images; and will then decide to take a second look in attempt to read the words on the sign. Signline gives a useful example to illustrate this point: a person trying to find a fast food restaurant will probably not bother to read a lavender colored sign with a lovely script font. Therefore, the graphic impression created by the sign contributes to the effectiveness of message. The formation and decoding of meaning is not considered or

\(^{83}\) Ibid.
\(^{84}\) Ibid.: 7.
explained in these industry sources, but will be discussed in the next section of this paper.

Figure 20. When a script font is applied, the size of the signage must be increased to make certain readability. (Signline issue 51, 2007)

Copy area

United States Sign Council\textsuperscript{85} notes that an appropriate balance between sign copy information and background space is essential to enhance legibility. If the signage has too much visual clutter, then the eye will skip over all of it, yet the business owner wants to make use of every available spot.\textsuperscript{86} As shown in Figure 21, an industry standard guideline is 60% of the copy area should be blank space.\textsuperscript{87}

\textsuperscript{86}Conroy, What's Your Signage? 25.
\textsuperscript{87}Ibid.
Visibility/Conspicuity

Visibility is defined as the physical characteristics of signage and its contents that allow for recognition at a given distance.\textsuperscript{88}

Size is not an essential component of the visibility. The main issue in visibility is the placement of a sign. If it is not designed and placed carefully, large signage can be ignored.\textsuperscript{89} Signage cannot be contemplated independent of its environment. There will be many visible objects along the road (e.g., other signage, wayfinding systems, traffic lights, bus stops, shrubbery, etc.), that can and will compete with planned signage. A sign may well merge into the background to the point that it becomes indistinguishable.\textsuperscript{90}

Other factors also affect visibility. For example, signage should be illuminated at night to be visible and signage placed parallel to the roadway can become essentially

\textsuperscript{88} International Sign Association, "Conspicuity and Readability," 1.
\textsuperscript{89} Conroy, \textit{What's Your Signage?} 19.
\textsuperscript{90} Ibid.
invisible (Figure 22).

Figure 22. Parallel signage can be invisible compared to perpendicular signage. (Signline issue51, 2007)

Conspicuity is defined as those characteristics that help pedestrians distinguish a sign from its surroundings.\textsuperscript{91} Signage must be brief, clear, legible and distinguishable from the surroundings for the best effect.\textsuperscript{92}

\textbf{Size, quantity, and sign position}

The location of signage is critical to the success of the business. A well-designed sign can promote awareness and add noticeably to the visual impression of a business. A well-placed signage communicates the true flavor of the business to ideal consumer.\textsuperscript{93}

The characteristics of a business and its location may determine the style, size, and kind of signage. Local sign regulations in an area may provide very firm limitations on business signage.\textsuperscript{94} In a historic district, business owners may be restricted according

\textsuperscript{91}Ibid.  
\textsuperscript{92}Ibid.  
\textsuperscript{93}Ibid.  
\textsuperscript{94}Ibid.  
\textsuperscript{21}Ibid.
to the style and period of surrounding architecture. The point is not to undervalue the significance of the “face” to the public and to make the most of the particular individuality of the location and architecture. 95

Interestingly, they don’t address the significance of the individuality of each business.

The purpose of commercial signage is to draw attention and provide pedestrians with a focal point. Typically, larger buildings locate their signage above the entrance. It may be tempting create signage for everything store owners want to communicate; however, the greater the number of signs, the greater the visual clutter for the customer’s eyes. A single, well-placed sign retains the clarity of the business’s primary message. 96

On the other hand, some businesses need more than one sign to communicate successfully; for example if business relies on conveying frequently changing information.

According to Conroy, for the business relying on foot traffic, the signage should be clearly visible to a person standing or walking by the building. Signage that alerts drivers is critical, but signage that directs the pedestrians to the store is also necessary. 97

Conroy says that being located in a multi-tenant office building or a mall becomes problematic for many businesses. Multi-tenant signage is more effective when individual businesses can display their identifiable colors and fonts.

Again, however, he do not discuss the unique message that each of these businesses must express about their nature.

95 Ibid.
96 Ibid.
97 Ibid.
Figure 23. For multi-tenant signage, differentiation from the other stores is important. (Conroy, 2004)

Graphic Considerations (Color, Contrast & White Space)

Conroy offers some very rudimentary design tips for the creation of attractive and effective signage:

- Choose a typeface that is legible and readable and one that fits the type of business.
- Make the message clear and simple
- The Sign industry suggests text should be three to five words in length
- 30%-40% of the signage area should be blank space
- Consider color carefully
- Be consistent with color
- Maintain consistency among the design elements

As is evident on the list, these recommendations are vague, and would not offer much
assistance to the sign developer if they did not hire an experiential designer.

**Contrast/Brightness**

Conroy notes that contrast is the difference between the lighter and darker areas on the signage itself. Contrast ensures that message is discrete from its background. Having strong enough contrast between the legible elements of the sign and the background is essential.

![Figure 24. Color contrasts are likely to enhance conspicuity. (Signline issue 51, 2007)](image)

**Illumination/Lighting**

Mace and Pollack stated that sign conspicuity increases with increased signage illumination.\(^9^8\) Lighting enables signs to act as effective advertising in darkness as well as

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during daylight hours. Almost one-third of all traffic moves at nights. The business owners who wish to use their sign as effectively as possible would be helpful to use some form of illumination. As shown in Figure 25, businesses with unlit signs often do not attract enough customers to remain open during evening and nighttime hours because people cannot look at the store and readily discern whether or not it is open – an especially harmful situation for restaurants, theaters and motels.

Furthermore, signage illumination helps people’s sense of safety at night. Pedestrians simply will not go to a dark area at night, even if the stores are open. Figure 26 shows that illuminated business signs increase the publicly funded street lighting system to improve public safety and help prevent crime.

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101 Ibid.: 12.
Accessibility

Signage should be accessible to everyone since signage is not directed only at specific consumers (active information seeker), but also may influence anonymous passersby (passive information receiver).

Federal statistics indicate that more than 32 million adults in the U.S., or about 14 percent of population, have low literacy skills. These low literacy people cannot read anything more complicated than an easy children’s book with pictures. ProLiteracy is an administration that works with adult learners in cooperation with local, national, and international organizations. ProLiteracy also notes that 63 percent of prison inmates cannot read, 774 million people worldwide are illiterate, and two-thirds of the world's

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illiterate are women. To the illiterate, walking on the street will be painful since they cannot read the signage and don’t know what the businesses are. Signage affects everyone who walks on the street. If the signage uses difficult to read type, it is not equal and informative to everyone. It is essential to approach signage design with an inclusive outlook.

**Safety**

Safety is another critical issue in sign planning. Hanging signage causes some accidents, especially, in bad weather. The dangers are more than one might imagine. Therefore, the signage developer has to be careful about the safety of the signage, and the government and the city planner need to scrutinize the accident potential of signage. Angular shapes and harmful signage materials may also threaten pedestrian safety. Confusing, poorly planned signage on the street is not only inconvenient; it is dangerous.

One of the major functions of signage is "wayfinding." Signage not only helps people find their way to a specific business, but also acts as a marker telling people where they are in relation to where they are going. Associated traffic accidents can occur because people are not afforded easy access to the information necessary for their purpose. When signage is too small, badly placed, poorly illuminated, or too inconspicuous, it cannot be differentiated from its background and frustrates the mobile consumer. It may even lead to unsafe driving in traffic.

103 Ibid. (cited).
105 Ibid. 43.
106 Ibid.
2.4 Fundamentals of Visual Communication for Signage

While the previously discussed design factors are no doubt important, they are only successful when applied with a clear understanding of visual communication.

For a large national franchise, such as McDonald’s or Kentucky Fried Chicken, it may not be necessary for signage to display anything more than the corporate logo to attract customers. The corporate logo has a high recognition value because these large corporations can afford to publicize their franchises widely, using a variety of other media. On the other hand, the local independent restaurant must depend on its signage to attract consumers since the owner generally cannot afford the costs of other media, such as newspaper advertisements or television. For many small businesses, such as specialty stores, hair salons, or local restaurants, signage may be the only means of communicating with new customers. This chapter will explore how visual communication is enhanced by retail signage and how retail signage can construct a strong and memorable brand identity for its business.

2.4.1 How meaning is formed

Meaning is formed when people see and interpret the “brand” of the business on its sign. The sign communicates something about the business from which people are able to extract meaning. The brand is made up of the name of the business and a visual identifier that provides some perception of what the name means. People want to see the brand identity on the sign. The idea that a brand is both a name of business and a perception comes from semiotic theory, and can be seen in the semiotic model (Figure

107 Ibid.
108 Ibid. 9.
27) devised by semiotician Saussure.  

According to the Saussure’s model, the sign has two aspects: signifier and signified. One must understand in this that in semiotics. The word sign does not mean signage, but rather any communicative visual. The two fundamental elements, ‘signifier’ and ‘signified’, make up a sign.  

![Signifier and Signified Diagram](image)

**Figure 27. Saussure’s model of the sign (Saussure, 1983)**

A signifier is the form in which the content is expressed-the word, sound, picture, smell, or gesture. As shown in Figure 28, Saussure used a tree and a drawing of tree to both function as signifiers for the concept of “treeness,” which he referred to as “arbor.”

![Signifier and Signified Diagram](image)

**Figure 28. Nature of the linguistic Sign (Saussure, 1983)**

Charles Sanders Peirce, philosopher known as the founder of the American semiotic tradition, was also interested in how we make sense of the world around us. Pierce’s perspective differs slightly from Saussure. The main difference is that Saussure

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was interested primarily in language and concept.\textsuperscript{112} Pierce allows for a physical ‘thing,’ known by theorists as a ‘sign vehicle.’ In the Peirce model (Figure 2), the *representamen* is the physical evidence of the sign-called by some theorists the ‘sign vehicle’. The *representamen* can be material such as a word, a painting, a photograph, or a sound. Saussure’s ‘signified’ is converted to an *interpretant* in Peirce’s model, which is a psychological concept of the sign which exists in the mind of the viewer and is contingent upon the user’s cultural experience of the sign. The sign stands for something. An object is the something to which it refers.\textsuperscript{113}

![Figure 29. Peirce's semiotic triangle (Chandler, 2007)](image)

Designer Hugh Dubberly has created a diagram that applies these semiotic concepts to the field of branding by mapping related concepts and examples.\textsuperscript{114} As shown in Figure 30, a brand name is a signifier and the perception of what it means is means is the signified. Retail and retail stores have signage to communicate what their businesses are. In the language of Saussure, the signage of a retail store is the signifier and the nature

\textsuperscript{112} Crow, *Visible Signs: An Introduction to Semiotics*  24.
of the business is the signified. In Figure 31, he also diagrams how the practice of branding relates to Pierce’s model. Incorporating the brand concept creates a triad, similar to Pierce’s triangular format: Dubberly’s Product, Name, and Perception compare to Pierce’s Object, Representamen, and Interpretant. In Pierce’s words, a sign or representamen is something that stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. The sign creates the interpretant of the first sign. The sign stands for something, its object.  

To illustrate these concepts using the shoe store pictured in Figure 32, the signifier would be name of business, ‘Stelly’ and the signified is that it is a ‘shoe store.’

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According to Pierce’s model, the object would be shoes, The representamen would be Stelly, and the interpretant is that the store sells women’s shoes; because the shoe image on the side wall represents the idea of women’s shoes.

Figure 32. Stelly shoes store in Seoul, S. Korea (Popsign, April 2008)

Semiotic theory has worked its way into the graphic design field, with many authors studying its impact on visual communication. Yet there has been no connection drawn in the literature between semiotics and the design of commercial signs. At best, the sign literature suggests 'appropriate' or 'clear' messages, but never examines how these messages are created.

**The transport of meaning**

Decoding may differ from encoding. Essentially this means that the message intended is not always the message received. In technical terms, the interpretant initiated by a particular representamen is not totally determined. The interpretant depends not
only on the *representamen*, but also on the context in which it is used and on the cultural background of the person interpreting the message.\textsuperscript{116}

Figure 33 shows a variety of pharmacy signage from around the world. The green cross symbol is the universal symbol for pharmacies (Figure 33-a). However different color and different shape crosses represent pharmacies in different places (Figure 33-b, Figure 33-c). The receiver may fully understand the shape of crosses but not react as the senders intends. The cross may remind the viewer of a religious symbol or a national flag. This is result of different of contexts in which symbol is used or the differing cultural backgrounds of the users.

As shown in Figure 33-d, "Rx" means "prescription for medicine." The letters abbreviate the Latin word for *recipie*, which is a form of the verb "to take." Although the “Rx,” mark is widely accepted, it would not decode clearly in a non English culture. In Seoul, South Korea, they use only letters for “medicine” rather than the symbol. South Koreans also use the color, red, for this letter (Figure 33-e). In complex a society, different interpretations to the same symbol are common, even likely.

\textsuperscript{116} Ibid.
2.4.2 Denotation and connotation

Applying the concepts of semiotics to urban signage, Gottdiener and Lagopoulos have noted that the semiotic system of signage which is socially constructed to reflect the values or ideologies of the street operates as a connotative code inseparable from
denotation. While Saussure saw linguistics as a part of semiology, Barthes, a French philosopher and semiotician, reversed this idea and suggested that, in fact, semiology, the science of signs, was in fact one part of linguistics. Barthes saw that the reader plays a significant role in the process of constructing meaning. His ideas focus on two different levels of signification; denotation and connotation.

Design educator Meggs explains that denotation is the straightforward meaning of a word, image, or sign; and connotation is the interpretation conveyed beyond the denotation. Meggs explains:

The words politician and statesman both denote an elected or appointed person who is actively involved in governmental affairs; however, the connotation of each word is very different. *Politician* connotes a person interested in personal gain who promotes narrow interests, and statesman connotes an individual who is concerned about the long-term interests of all citizens.

Images also carry powerful connotations. For example, Figure 34 show one photo which is presented in several different ways to produce different effects, and different messages. A black-and-white image recalls the past and produces a feeling of nostalgia. The negative presentation could refer to the process of photography or a crime scene. A cropped close-up draws attention to emotional aspects of the subject. The coarse dot replica produces a low quality look that reminds the viewer of printing processes, newspaper journalism or political images.

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118 Crow, *Visible Signs: An Introduction to Semiotics* 56.
119 Ibid.
121 Crow, *Visible Signs: An Introduction to Semiotics* 57.
Figure 34. One photo is presented in several different ways (Crow, 2003)

Figure 35 shows the signage for Zales, a diamond store. The signage of the store directly denotes the nature of their business by using the shape of a diamond. In addition, the golden color tone connotes gold, wealth, and prosperity. It is also a sign of honor and loyalty.¹²²

Figure 35. Zales Diamond store (Popsign, February 2009)

Figure 36 depicts a book shop on Manhattan’s Fifth Avenue. The lamp above the entrance of the store directly denotes ‘light’ because we recognize this as a device to produce light. However, the lamp on the signage of the Scribner’s Book Store also connotes a tool for reading a book. Furthermore, it represents the ‘enlightenment’ or

learning and the acquisition of knowledge.

![Figure 36. Scribner's book store, Manhattan (Salb, 1995)](image)

### 2.4.3 Typography

When it comes to signage for a global franchise such as *Nike*, the sign does not need to provide detailed information about the business, perhaps not even the name of the store(Figure 37). A small retail business, in contrast, needs its signage to provide more information: the name of the business, and the kind of business. Furthermore, this information must be communicated quite clearly. According to Calori, typography is the basis for the graphic systems of signs and signage.\textsuperscript{123} Carter also contends that typography must function as a dynamic representation of verbal language.\textsuperscript{124}

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According to author Ben Lieberman:

The typeface is the trigger part of that tool, so to speak, because it determines the way the message looks to the reader—pleasant, pretty, messy, painful or threatening—and this in turn affects the reader’s reaction to the printed message.  

Effective typographic messages come from the combination of logic and intuitive judgment. They can be effective in helping a business communicate their essence through font style and arrangement.

Logotypes use lettering or typography to describe the name of an organization to make it memorable by creating a distinctive visual image. When it comes to retail signage, a logotype is a way of representing the nature of the store. Selection and use of

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126 Carter, Meggs, and Day, *Typographic Design : Form and Communication* 70.
an effective logotype on the signage is a way to create a unique identity for the business, an identity that will differentiate it from other stores. The signs for two restaurants that have the same name, ‘Chez Bebert’ (Figure 38) demonstrate how typography describes the business. The sign on the left gives the restaurant a feeling of classical elegance while the one on the right has a more modern and fresh look.

![Chez Bebert](image1)

**Figure 38.** Chez Bebert (Popsign, Dec. 2008(left) and Flickr (right))

Figure 39 is a restaurant in Germany that has an authentic Old World feel. A classic manuscript style type is used on the sign to communicate the restaurant’s traditional quality and harmonize with the rock facade of the building.
2.4.4 Images (symbols)

Claus and Claus contend that the human brain seems to respond better to symbols than to words. The pictorial can be a powerful form of communication.\(^\text{128}\)

A modern business district would include an ample assortment of signage that displays a variety of images and symbols. Images are pictures of all kinds, from simple pictograms to illustrations and photographs.\(^\text{129}\) Images are important since they are can mean something other than themselves. An image can be an alternate reality, an artificial reality, or a new reality.\(^\text{130}\) For example, a crown image could mean either, ‘crown,’ or, ‘king.’

Figure 40 illustrates the concept of ‘bird,’ using a range of the imaging potentials that progresses from simple notation to full color representation. Although all these images denote a bird, each one is different in style and becomes a different communication. For example, notation (Figure 40-a) is minimal, linear, and characterized

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\(^{129}\) Meggs, *Type & Image: The Language of Graphic Design* 19.

\(^{130}\) Ibid.
by economy and brevity. It is simplest level of image making. A pictograph, (Figure 40-b), uses a geometric abstraction to represent the shape and mass of a bird. The primary forms of the subject reduced to elemental geometry become universal rather than particular. Each stage in the progression represents the bird in a different way, next in silhouette, then in linear outline and then finally with color and tonality.

Figure 40. Image has possibilities from simple image to full tonal and color representation. (Meggs, 1989)

Figure 41 presents two examples of how universal imagery can work in signage design. These simple pictograms convey information what the store is selling even to viewers who cannot read the letters. Furthermore, these images produce strong communications which make the stores more memorable.

131 Ibid.
2.4.5 Brand Identity

Typography and image can combine to create a brand identity, even for a small business. The most common elements of brand identity are a name and a mark.\footnote{Rose DeNeve, \textit{The Designer's Guide to Creating Corporate I.D. Systems}, 1st ed. (Cincinnati, Ohio: North Light Books, 1992) 7.}

As Marta Serrats explains in her book, \textit{Sign Graphics}, a brand identity becomes the visual representative of a company. The hardest-hitting factors in the competition for customers are the power and luster of the brand.\footnote{Otto Riewoldt, \textit{Brandscape: Worlds of Experience in Retail Design} (Basel ; Boston, MA: Birkhauser-Publishers for Architecture, 2002) 13.} The design and management of a brand identity is very important when we consider the massive quantity of information that we perceive and the lack of time we have decode it.\footnote{Serrats, \textit{Sign Graphics} 9.}

Brand identity creates immediate recall and recognition, but only if it communicates an accurate and distinct message. Recognition refers to the ability of an
advertisement to be known or identified by a viewer. Brand identity must be grounded in who the client is: The nature of the company’s business, its traditions and culture, its products, services and markets.

Paul Rand, a pioneer of identity design, quoted architect and visionary Le Corbusier: “If you don’t build a thing right, it’s going to cave in. And in a sense you can apply this philosophy to graphic design.”

Carter, who is writer and pioneer of corporate identity, contends that being a quality company is not enough in order to achieve maximum success; a company must look successful in order to become successful. Figure 42 shows examples of bicycle shops. James bicycle shop (above) provides an illustration of a poor visual image using large type and primary colors which produce a cheap repair store image. On the other hand, LEVELO bicycle shop (below) uses the symbol of a bicycle wheel as their visual image. The name and typography imply direction and it convey speed of bicycle.

Although both stores would have same quality bicycles, the consumer will think that LEVELO’s bicycles are more reliable and higher quality than James bicycles.

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137 Ibid.  37.
Figure 42. Above is James Bicycle shop in San Antonio, TX (charlesajamesbicycle.com) and below is LEVELO bicycle shop in Seoul, S. Korea (Design Log, 2008)

Peter Lawrence, a founder and chairman of the Corporate Design Foundation, has said “clarity in expressing the brand may be the final frontier.”\(^{139}\) If the business owners are fortunate enough to have signage that conveys the brand identity of their businesses, that brand consolidates their businesses and differentiates it from the competition. Visual communication is a critical part of signage. The sign should communicate what the business is and what it does to potential customers. It has proven difficult, however, to find informational resources that address visual communication relating to signage. This

scarcity of resources suggests that the signage industry has not been focused on communication issues.

2.5 Uniformity vs. Variety

2.5.1 Repetition and uniformity

Art educator and design theorist, Wucius Wong, said that we see visual elements because they have shape, size, color and texture. He defines these elements as;

Shape – Anything that can be seen has a shape which provides the main identification in our perception.

Size – All shapes have size. Size is relative if we describe it in terms of bigness and smallness, but it is also physically measurable.

Color – A shape is distinguished from its surroundings because of color. Color here is used in its broad sense, comprising not only all the hues of the spectrum but also the neutrals, and also all their tonal and chromatic variations.

Texture - Texture refers to the surface characteristics of a shape. This may be plain or decorated, smooth or rough, and may appeal to the sense of touch as much as to sight.¹⁴⁰

Signage also consists of visual elements such as shape, size, color, and texture. Wong has also said that all visual elements constitute what we generally call “form,” which is the primary concern in our present inquiry into visual language.¹⁴¹ When a design is made up of a number of forms, those that are of identical or similar shapes are

“unit forms” which appear more than once in the design. When the same form is used more than once, it is used in repetition. Usually repetition of unit forms creates an immediate sense of harmony or uniformity.\textsuperscript{142} A composition made by the repetition of like or similar instances will exhibit a good deal of consistency throughout. In other words, when the form is repeated at the same intervals of space or time, it creates uniformity.\textsuperscript{143}

At an architectural scale, Lynch contends that consistency of surface, form, or use and repetition of rhythmical intervals are qualities that promote the perception of a complex physical reality as one or as interrelated. Repetition, then, is a quality that can suggest a single identity.\textsuperscript{144}

This unified identity can be seen in Figure 43, a mall sign system in Rome, Italy. Each store has the same hexagon shaped perpendicular signage and the shape is repeated using the same logotype/typeface and the same color combination on each sign. The repetition gives pedestrians a quick sense that each store is part of the one mall.

Repetition, therefore, has produced an impression of unity.

\textsuperscript{142} Wong, \textit{Principles of Two-Dimensional Design} 15.
\textsuperscript{144} Lynch and Joint Center for Urban Studies., \textit{The Image of the City} 106.
Just as music creates rhythm by repeating musical elements at planned intervals, design can also use interval to create visual rhythm. Visual rhythm makes the eye to move quickly and easily from one element and another. A rhythmic repetition of a unit form is shown in Figure 44. The different direction and size variation between the storefront signage and repeated perpendicular signage produce a visual rhythm as well as imparting information to the people on the street.

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2.5.2 Contrast and variety

Too much repetition can create monotony. We live in a complicated society. Every life is not always coherent and uniformly arranged. Lauer explains: to express this aspect of life, many artists have intentionally chosen to minimize the unifying aspects of their work and let various elements appear.\textsuperscript{147} When different elements are placed one next to another, they create contrast.

Wong says that contrast happens all the time; contrast of surface, form, intensity, complexity, size, use, or spatial location.\textsuperscript{148} Lynch explains that the contrast is to the immediate visible environment or to the observer’s experience. In Figure 45, a red perpendicular sign produces a contrast with the environment. It is very visible.

\textsuperscript{147} Ibid. 18.
\textsuperscript{148} Wong, Principles of Form and Design 105.
Figure 45. Red perpendicular sign produces a contrast with the environment (Signline issue 37, 2007)

Variety is the quality that identifies an element, makes it remarkable, noticeable, vivid, and recognizable. Variety gives delight by exercising the mind, and by exciting its awareness to one thing after another in a constant train of impression.

An example of this visual excitement is shown in Figure 46. The variety of signage, with a multitude of decoration—sculptures, carvings, stained glass, plastic, chrome, domes, arches, porticoes, curlicues, paint, plaster and neon, ranging from rococo to rock and roll—demands the attention of the pedestrian and makes the bar recognizable. This is an extreme example of contrast in signage; seldom do we see this amount of variation.

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149 Lynch and Joint Center for Urban Studies., *The Image of the City* 105.  
150 Loudon, "The Architectural Magazine, and Journal of Improvement in Architecture, Building, and Furnishing, and in the Various Arts and Trades Connected Therewith," 221.
2.5.3 Balance and harmony

In uniformity, a form is simply repeated or doubled, without reference to the formation of a whole.\textsuperscript{151} In variety, forms give us unexpected pleasure; however, without some aspects of unity, an image becomes chaotic and quickly “unreadable.”\textsuperscript{152}

Dondis contends the most significant psychological as well as physical influence on human perception is man’s desire for balance.\textsuperscript{153} Balance is a psychological sense of equilibrium. As a design principle, balance places the parts of a visual in an aesthetically pleasing arrangement.\textsuperscript{154} Dondis argues that the lack of balance and regularity is a disorienting factor for both the sender and the receiver of visual information.\textsuperscript{155}

\begin{footnotesize}
\begin{enumerate}
\item Ibid., 322.
\item Lauer, \textit{Design Basics} 18.
\item Dondis, \textit{A Primer of Visual Literacy} 25.
\end{enumerate}
\end{footnotesize}
In visual images, balance is formal when both sides are symmetrical in terms of arrangement. Balance is informal when sides are not exactly symmetrical, but the resulting image is still balanced. Lauer contends that informal balance is more vibrant than formal balance and normally keeps the viewer's awareness focused on the visual message.\footnote{Lauer, Design Basics 49.}

### 2.5.4 Balancing unity & variety

Figure 48 depicts the sign system of a mall in Switzerland. This signage system repeats the same oval shape as a succession of perpendicular signs. The repeated unit form conveys an immediate sense that the stores make up one group. Meanwhile, each store identifies itself with its own logo and typeface. This series of signs has achieved a balance between uniformity and variety.
Figure 48. Repeated perpendicular signage and identified logotype in a mall, Switzerland (Popsign, July 2008)

Figure 49 provides another good example of unity with variety. Here circle shaped signage provides uniformity, while the individual signs have variety of style of armature, of color, and of logotypes. The signage system has a balance of unity and variety.
The literature demonstrates that variety and repetition are both significant design considerations. Repetition produces unity without which the viewer might easily look away, and variety produces interest, both initial and ongoing. A balance must therefore be achieved between repetition and variety.

If each individual store emphasizes its own unique characteristics, the stores on the street will have variety among them, except perhaps if the entire street is filled with stores selling the same merchandise. This variety gives personality to each store and a dynamic look of the neighborhood. Variety can become excessive so that it looks unplanned and chaotic damaging the urban landscape. In terms of visual communication, variety communicates the uniqueness and viability of each store in the district.

On the other hand, repetition of the same single shape or pattern, will give the district a unique identity and a sense of unity. This uniformity produces a sense of place.
and creates a visually pleasing streetscape. Thinking about the visual message, however, similarity in the identifying signage of individual businesses also communicates that the businesses are all similar and therefore unremarkable.

Arriving at a balance between unity and variety in a sign system, therefore also necessitates arriving at a balance between the individuality of stores and the identifiable character of the urban landscape. Unless the urban landscape establishes a base level of emphasis, through balanced regulation, the result will be urban clutter and no store will be able to communicate its individuality.
CHAPTER 3. METHODOLOGY

If urban signage system guidelines create an excess of consistency, there will be a proportionate reduction in functionality. This is consistent with the design precept that good design finds a balance between repetition and variety. It is the hypothesis of this study that the need for a balance between uniformity and variety is also relevant to signage systems and the development of signage system guidelines. Uniformity produces consistency while variety produces individuality. The greater the consistency, the more all the signs will look the same. The opposite may also be true; too much variation may create confusion and reduce functionality. This study will explore and define the delicate balance between consistency and inconsistency as it relates to urban retail identity sign systems.

3.1 Problem Statement

The purpose of this case study is to explore the effects of different kinds of signage system guidelines and to envision new approaches to the writing and interpretation of signage system guidelines.

The successful urban retail sign system would enable residents and visitors to appreciate the history of the city and to enjoy urban life. But this can be difficult to achieve. The Chung-gae Stream Project, the topic of an earlier case study, was a failure because all the identity signs were too similar (Figure 50). While there was unity among the signs, it was boring and not reflective of Seoul’s urbanism. From the Chung-gae Project we can learn that too much similarity may make a consistent system, but it isn’t a
very good approach to identity signage.

Figure 50. Chung-gae Street after applying uniform guidelines (Chung-gae Newspaper, Oct. 2004)

The character of everyday architecture gives a city a sort of vernacular quality. The most important function of identity signs is that they communicate with people. Identity signs deliver information about the region, and its buildings, and the nature of the businesses inside the buildings. As an environmental factor, identity signs construct information systems that contribute to everyday urbanism. They complement the vernacular information systems of the environment and deliver informative, easily understandable information. Quality signage should increase the quality of everyday urbanism by supplying beautiful identity sign structures.

3.2 Comparative Case Study: District Guidelines

A balance can be defined and achieved between unity and variety as they are used in urban identity signage systems. The purpose of this study will be to define that balance and apply it to the production of useful guidelines and the design of an urban signage system. In order to assess the potential for balance, the following steps were taken:

1) Four sets of guidelines were studied that are currently serving to establish
system specifications in their respective locations (Table 5).

2) From the guidelines, a chart was developed identifying controlled and uncontrolled factors in each design system,

3) The signage systems in these districts were ranked according to degree of control.

<table>
<thead>
<tr>
<th>Type of District</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Business District</td>
<td>Chung-gae, Seoul, S.Korea</td>
</tr>
<tr>
<td>Specialized Business District</td>
<td>Kang-dong, Seoul, S.Korea</td>
</tr>
<tr>
<td>(Stationery street)</td>
<td></td>
</tr>
<tr>
<td>Historical Oriented Business</td>
<td>Pella, Iowa, U.S.A.</td>
</tr>
<tr>
<td>District</td>
<td></td>
</tr>
<tr>
<td>Business District</td>
<td>Saint Paul, Minnesota, U.S.A.</td>
</tr>
</tbody>
</table>

Table 5. Case study districts and locations (illustrated by the author)

3.2.1 Observation of current design guidelines

Table 5 shows the four districts that were selected for this research project. All of the districts studied have design guidelines:

Each of the four design guidelines has been deconstructed in order to fully evaluate the information in each guideline.

From the information collected by the guideline analysis, a final evaluation matrix
was constructed in which seven critical factors have been evaluated.

1. Color
2. Typeface
3. Lighting
4. Size
5. Materials
6. Shape
7. Layout

When examining these factors, it is important to note how the factors are being controlled. How much is the color controlled? Are the factors obvious in the guidelines? How many typefaces are being used? Are the typefaces being controlled? What colors are used, and is there a color system? Is the guideline easy to understand or is there either information overload or a lack of clarify?

The information collected from the matrixes then served as a model for a final evaluation matrix where each of the four case study guidelines is rated on a scale of 1 (most regulated design guideline) to 5 (least regulated design guideline). This process determined how much control is appropriate to provide the most effective guidelines. The end goal of the process was to determine optimal design recommendations based on four case studies.

3.2.2 Seoul design guideline analysis

Background

Seoul is the capital of South Korea. It is most populated city in the world with more than 10 million residents.\textsuperscript{157} Seoul has undergone continuous urban reconstruction

\textsuperscript{157} Josef Gugler, \textit{World Cities Beyond the West : Globalization, Development, and Inequality} (Cambridge ;
to accommodate the developing of industries and the growing population.

The rapid development has resulted in a flood of signage crowding every bit of available building surface. Every store owner wants to have more and bigger signage. (Figure 51)

More than 490,000 of the 890,000 signs in Seoul are illegally installed, which means that 54% of the signage in Seoul is illegal. Because of this problem, a new sign system guideline was announced in April 2004 to manage signage as public design rather than allowing signage to be managed by the sign developer.158

Figure 51. Seoul Commercial District (kangsign.com)

When the signage is too dense, it loses its informational function, and becomes “Visual pollution.” Because of this problem, the Seoul government developed the Seoul Sign System Guideline. The basic concept of the Seoul guidelines is to encourage a

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visual environment which makes the city a more desirable place to live and promotes business and industry within the city. To meet this goal, the recent direction in signage regulation has been to prohibit uncontrolled signage covering too much of the building surface and give an identity to each district within the city. Seoul is proud of its design industry, and wants the visual message of the city to reinforce its reputation for good design. Seoul was selected the “2010 World Design Capital” by The International Council Societies of Industrial Design (ICSID).

**Observations on the Seoul guidelines**

As we might expect in a large metropolitan area such as Seoul, the city has many different districts. Seoul has historical, commercial, residential, business, and tourist districts. The Seoul guidelines are divided into five specific functional areas each of which denotes a different kind of urban landscape: Central, General, Commercial, Preservation, and Specific districts, which are represented in Table 6.

The diversified guidelines address the many different kinds of districts inside of the city. The guidelines are divided into 5 sections to provide different requirements for different districts, depending on the characteristics of the area. As shown on the table below, the districts are classified: central district, general district, commercial, preservation, and specific district (Table 6).
### Table 6. Comparison of each district of guidelines (Seoul design guideline, 2008)

<table>
<thead>
<tr>
<th>District</th>
<th>Allowed signage number</th>
<th>Location of signage</th>
<th>Blinking lights</th>
<th>Business district type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>1</td>
<td>Below third floor</td>
<td>Do not permit</td>
<td>Medium width street</td>
</tr>
<tr>
<td>General</td>
<td>2</td>
<td>Below third floor</td>
<td>Do not permit</td>
<td>Medium width street</td>
</tr>
<tr>
<td>Commercial</td>
<td>2</td>
<td>Below third floor</td>
<td>permit</td>
<td>Medium width street near high tech commercial area</td>
</tr>
<tr>
<td>Preservation</td>
<td>1</td>
<td>Below second floor</td>
<td>Do not permit</td>
<td>Historical preservation area</td>
</tr>
<tr>
<td>Specific</td>
<td>2</td>
<td>Under discussion</td>
<td>permit</td>
<td>Tourist area</td>
</tr>
</tbody>
</table>

The Seoul Signage Guideline gives direction to the style and design of signage in a given area according to the characteristics of that area.

**Central district**

The Central district is a business area, which has many buildings. Both new town and redevelopment areas may be included. Central districts are strongly controlled by the government.
The Seoul guidelines use keywords to help describe the ambiance of the area. The keywords for Central districts are: organized, modern, busy, and various. The Design concept statement calls for a minimalist style that reduces the use of available space. The guidelines recommend a sculptural approach using elevated visuals and a simple style of design. The guideline recognized the current feeling of the district as hard and dynamic and set a goal to move toward a soft and static. The suggested color palette is gentle, elegant, and modern (Figure 53).
Figure 53. Design style recommendation of central business districts: design goal (left) and color guide (right) (Seoul design guideline, 2008)

Figure 54. Recommended examples for central business districts guideline (Seoul design guideline, 2008)

General district

General districts are mostly residential areas. These districts are characterized by stable populations and fewer people coming and going. The buildings tend to be low-rise structures.
As design keywords for General districts, the Seoul signage guidelines recommend; friendly, small, and static. The desired design style, again, is simplistic with minimal sign size. The emotive quality of signage in these districts should promote a quiet, static space. In terms of style, for the General districts, a comfortable and free style of design is recommended. The guideline again recognizes the current feeling of the general district to be hard and dynamic and set a goal to move toward a soft and static feel. The suggested colors fall into the natural, quiet and mild sectors (Figure 56).
Commercial district

Commercial districts are areas where retail interests tend to concentrate. These are areas which have many visitors. Usually these districts consist of low-rise building from 3 to 7 stories.
For commercial districts, the Seoul guidelines assign the design keywords; pleasing, various, and dynamic. The design concept is energetic and the streetscape is dynamic. The style recommendation is a playful and free style of design. The guideline determined that the current feeling of the district to be hard and set a goal soften the look. The color range suggested is brilliant and light as well as dynamic (Figure 59).
Figure 59. Design style recommendation of commercial districts: design goal (left) and color guide (right) (Seoul design guideline, 2008)

Figure 60. Recommendation images for commercial districts guideline (Seoul design guideline, 2008)

**Preservation district**

A Preservation district is an historic place where traditional features and decoration are to be preserved. These areas include culturally significant or traditional properties and low-rise commercial businesses.
The Seoul guidelines designate the design keywords; traditional, natural, and historical for Preservation districts. The design concept is a balance between traditional and modern. The guideline determined the current feeling of the district to be dynamic and set a goal to move toward static, appropriate to the historic quality of these districts. The suggested color palette is natural and quiet as well as noble (Figure 62).

Figure 61. Current streetscape of preservation districts (Seoul design guideline, 2008)

Figure 62. Design style recommendation of preservation districts: design goal (left) and color guide (right) (Seoul design guideline, 2008)
Specific districts

Specific districts are places that have special purposes such as tourism, shopping, and entertainment.

Design concept

For Specialized areas, the Seoul guidelines designate the design keywords; dynamic, interesting, and brilliant. The Design concept is an eye-catching space and the
guideline determined the current feeling of the specific districts to be hard and recommended moving to a softer look. The suggested colors fall into the cute, brilliant and light ranges (Figure 65).
Figure 65. Design style recommendation of specific districts: Left is design goal and right is color guide (Seoul design guideline, 2008)

Figure 66. Recommended examples for Specific districts guideline (Seoul design guideline, 2008)

The images below (Figure 67) illustrate the effect of the guidelines by depicting individual locations of the same restaurant chain as they appear in different districts of the city. Each image depicts essentially the same restaurant, the differences between the signage in these images demonstrates the effect of the guidelines.
Figure 67. Applied examples of Seoul guideline (Seoul design guideline, 2008)
Design factors

Color

Although the Seoul guidelines do not give exact colors, they recommend different color palettes according to the characteristics of district. The guidelines for many districts do not allow vivid colors and images (Figure 68).

![Unapproved signage: the guideline does not allow vivid color and image. (Seoul design guideline, 2008)](image)

Typeface

The Seoul guidelines also recommend certain typefaces. The typeface recommendations give the business owner or the sign designer a sense of direction which typeface would be more appropriate for certain business categories. The guideline goes so far as to explain some of the visual communication properties of the various typefaces. For example, the typeface categories are strong and modern, soft and classical, and free or unique style. This would be helpful to small business owner who may not know about the communicative properties of typefaces.
Figure 69. Korean - Recommended typefaces (Seoul design guideline, 2008)
Lighting

The Seoul guidelines do not allow signs which are fully illuminated from the inside, such as the Dunkin’ Donuts Sign in (Figure 71). Instead, they recommend using light indirectly. The guidelines also do not allow exposed bulbs (Figure 72). Lights should be used to illuminate only letters or symbols. Blinking lights are not allowed. Light restrictions are different depending on the districts: Central districts, general districts, and preservation districts are not allowed lighting. Commercial districts are
allowed to use light under consultation; specific areas can use light.

Figure 71. Unapproved signage: Internally lighted signboard (Seoul design guideline, 2008)

Figure 72. Unapproved signage: exposed bulbs (Seoul design guideline, 2008)

**Size**

More than any other factor, the Seoul guidelines regulate the size of the signage (Figure 73). The width is limited to 80% of the horizontal width of the store. The maximum height of signage is 18 inches when the sign has 3 dimensional lettering. When the sign is a rectangular type signboard, the maximum height of the signage is 32 inches.
Width and height of signage

Size and placement of multiple floor building

Figure 73. Examples of size and placement of signage (Seoul design guideline, 2008)

Materials

The guidelines prohibit board type signage on buildings that are made of glass. It recommends using a variety of materials. Although it does not mention specific materials, the guidelines recommend using signage materials that harmonize with the architectural materials.
Shape

The Seoul guidelines divide signage into two types of shapes. One is the 3-dimensional type and the other one is the rectangular signboard type. They recommend the 3-dimensional type (Signs with elevated visuals) when the store is more than two stories and the building is new.

Layout

The Seoul guidelines regulated layout of signage. In terms of 3-dimensional letter type signs, the regular height of main title was specified at 17.8 inches or less. On the signboard type of sign, the regular height of main title was specified at less than half of the signboard height.
Check list

The Seoul guideline includes a check list. This check list must be completed and approved before business owners can put up the signage.
4. 체크리스트(Check list)

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
</table>
| 색채 | - □ 원색 위주의 자극적인 색상을 과도하게 사용하여 주변경관을 해치지 않는가?  
       - □ 간접 외부미적색상과 조화로운 색상을 사용하였는가? |
| 표기요소 | - □ 표기 내용이 과도하게 크지 않은가?  
          - □ 문자폭이나 자갈을 풍부로 올리거나 줄여, 가독성이 떨어지지 않은가?  
          - □ 주요 표기내용과 보조 표기내용이 분명하게 구별되는가?  
          - □ 통과되지 않은 외부에 상표가 한글표기 없이 표기되어 있지 않은가?  
          - □ 한글표기시 글자의 크기는 입체 무리가 없는가?  
          - □ 미등장 숫자를 배치하는 문자나 그래픽을 담고 있지 않은가?  
          - □ 자석전 평가성 내용을 포함하고 있는가? |
| 재질 | - □ 건축의 재질이 주변환경 및 건축과 조화를 이루는가?  
       - □ 환경에 유해한 소재가 사용되지 않았는가?  
       - □ 기후 및 개발 변화에도 비릴 수 있는 내구성이 있는 재질인가? |
| 조명 | - □ 조명의 조도와 위도가 과도하게 높아 주변 환경을 해치지 않은가?  
      - □ 절제하는 조명이 주변 주거환경 및 약화환경에 피해를 주지 않는가?  
      - □ 신호등·교통안내데시 등과 같은 색의 조명을 사용하여 정보에 혼란을 주지 않는가? |
| 규격 | - □ 건축의 규격은 건축 품질법 기준에 부합하게 제작·설치되어 있는가?  
      - □ 물품구매의 경우 일부 건물의 건축과 맞닿아 표기면을 거리지 않는가? |

Figure 75-a. Seoul guideline check list; colors, visual elements, materials, lighting, and size (Seoul design guideline, 2008)
Critique of the Seoul sign system guidelines

This Seoul guideline emphasizes uniformity across the system. The Seoul sign system guidelines focus on reduction and minimization of the signage system. The guidelines allow each store to have two signs which are similar except for sign type. This

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<table>
<thead>
<tr>
<th>수량</th>
<th>□ 길판의 수량은 관객별 기준에 부합하는가?</th>
</tr>
</thead>
<tbody>
<tr>
<td>위치</td>
<td>□ 길판의 위치가 불필요하게 많은 위치 파악이 어렵지 않은가? □ 주변 상소를 철저히하거나 적절한 위치를 찾아나 설치되지는 않았는가? □ 공공 출입구, 계단설 등 공공 공간을 개인 용도로 독점하여 활용하고 있지 않은가?</td>
</tr>
<tr>
<td>허가</td>
<td>□ 적법한 허가 및 신고 절차를 거쳤는가?</td>
</tr>
<tr>
<td>제작 및 시공</td>
<td>□ 형태, 재질 등은 주변 길판과 어울리도록 제작·설치되었는가? □ 응접부, 조명부, 개폐부는 평판하게 마감되었으며, 도장상태는 양호한가? □ 길판 주변 건물 벽면은 파손 부위 없이 결합하게 마감되어 있는가? □ 전기배선, 안전기 등 원래의 욕목이 미준비되어 있는가?</td>
</tr>
<tr>
<td>안전</td>
<td>□ 건축물 건장부는 건고하게 설계되었으며 고장상태의 마감상태는 양호한가? □ 전기 시설 부착부의 벽들이 고이 누전의 위험이 없음을 가지고 있는가? □ 구조적으로 불안정한 부착물이나 고정물은 없는가? □ 길판의 설치 및 설치시 보행자 안전을 고려한 시설 및 안전이 배치되어 있는가? □ 길판의 설치 및 설치시 작업 안전수칙을 준수하고 있는가?</td>
</tr>
<tr>
<td>관리</td>
<td>□ 미관등 조정이나 수리가 필요한 조정이 없는가? □ 길판에 복이 손상이나 건축물 벽면에 복이 손상되어 있는가? □ 길판은 파손되거나 마름모 부분 없이 잘 관리되고 있는가?</td>
</tr>
</tbody>
</table>

---

Figure 75-b. Seoul guideline check list; number, position, permit, installation, safety, and maintenance (Seoul design guideline, 2008)
intention to reduce signage has developed because many store owners want to have more signage, as many signs as possible. The guidelines prohibit standing signage and signage that is integrated with the windows. They also do not allow signage with blinking lights.

The Seoul design guidelines control many design factors such as style, color, material, and lighting. In addition, the specifications divide Seoul area into 5 different kinds of districts: central, general, commercial, preservation, and specific districts. Depending on the characteristics of the district, blinking lights are permitted or not permitted. Although it seems flexible, these detailed requirements depend on quantitative measures of appearance and may have overlooked qualitative context that later surfaced in the comments of consumers and business owners.

In addition, the Seoul guidelines limit the number of signs and locations where signage can be placed. This helped to clear over used signage from the buildings. This regulation is mandatory because existing signage occupied too much space and obstructed views of pedestrians. If the owners of stores do not follow the guidelines, they have to pay a fine or the signage eventually if the guideline issue is not corrected, the sign will be removed.

While the guidelines seem successful in organizing the current signage, they have met with resistance from the store owners and the sign builders. The consistent sign system makes it difficult to differentiate one store from other stores. Store owners continue to complain that their visitors have struggled to find the store (Figure 76).
Figure 76. Before and after implementation of design guideline in general district (BANDILIGHT, 2007)

While Seoul guidelines are effective in reducing the number of nonconforming signs in the city, they do not necessarily ensure that the sign accurately reflects the identity of each store and district. The guidelines may well interfere with this vital signage function. The political and economic pressures combine with the signage guidelines to increase uniformity at the expense of individual store identity. The new signage is expensive and to obtain government subsidies store owners must comply with government expectations in addition to the guidelines. The government expectations have been shaped by the single design firm, and design formula that created the initial signage.

It is difficult to say that the guidelines encourage a concern for the visual
environment and therefore make the city a more desirable place to live, since excessively consistent street signage is also boring. The Seoul guidelines also limit moving signage and blinking lights. Although it helps not having discordant and distracting signage, the city does not look alive and vivid. The Seoul guidelines control type, color, size, and the materials used in signage. Even if the guidelines are easy to follow because they deal with virtually every feature of signage, they also impede innovative signage design and the use of new design styles. (Figure 77)

Figure 77. Jong-ro 1ga-6ga, Seoul 2004-2005: Before (left) and after (right) implementation of the guideline (BANDILIGHT, 2007)

The limited signage placed on the multi storage buildings demonstrates the problems that can develop between owners who want to have more space. The owners who have a basement level store on do not have space for their signage. Before making the rather arbitrary current regulations, Seoul City had more liberal guidelines for sign systems. The regulations were optional; consequently they were not observed by the store owners since the regulations were recommendations and not enforced.

For gas station regulation, the Seoul design guidelines prohibit freestanding pole
signage. The problem with this regulation is that it decreases the visibility of the gas stations. It causes more accidents when motorist change lanes suddenly to get to the gas station. One study shows the increased accident rate after removing the freestanding sign poles. This study reinforces what we noted earlier in the literature review; safety issues are directly related to signage.

Although the Seoul guidelines mention historical and traditional preservation for some places, the information given is not clear with regard to design style and color concept. If the business owner is a part of franchise, it will not be a problem to revise the corporative identity of the franchise, even within historical preservation districts. However, for individual small business owners who have limited time and funds, it is difficult to know how to develop signage that will be approved in these districts. Rather, the tendency has been to reduce design costs by following existing design formulas instead of exploring what else might be possible within the guidelines. It has been the case that industry sign developers place more emphasis on controlled factors because store owners face of limited time and funding. This has the effect of reducing store individuality and identity beyond what was originally required by the guidelines. It may also impact district identity.

This set of guidelines was developed by a city planner without enough input from other stakeholders such as store owners, pedestrians, and sign builders. It is critical that all relevant interest groups participate in the development of sign system guidelines.

The Seoul guideline controlled seven factors which have been explained

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159 Seoul City, Outdoors Advertisement Redesign" Sign pole" [EBN] 2008.3.12 This is part of article of Newspaper
previously. Control of these seven factors results in a consistent look within the district. Size and layout are the factors most effectively controlled because the size of signage and layout of a sign is quickly recognizable from a distance. This level of control encourages uniformity in the district rather than variety. The uniformity looks like a well planned and ordered cityscape. Overall, however, it produces a repetitious, dull and boring feeling.

### 3.2.3 Kang-dong Stationery-Toy Street design guideline, Seoul, S.Korea

**Background**

The Kang-dong Stationery-Toy Street is a specialized street within Seoul which sells only toys and stationery. The Street consists of 56 stores that deal in toys and stationery. (Table 7) The stores on the street have been assembled from other locations beginning in 1980 when it became the Kang-dong Stationery-Toy Street. Each store had large signage with big letters, and seen as a group, it seems competitive and chaotic. The signage was displayed all over the buildings. This random and excessive approach to signage did not attract customers who want to go a more comfortable and delightful shopping environment.
<table>
<thead>
<tr>
<th>Stores</th>
<th>Number of Signs</th>
<th>Number of buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Flush signs</td>
</tr>
<tr>
<td>Stationery-toy street</td>
<td>56</td>
<td>98</td>
</tr>
</tbody>
</table>

Table 7. Stationery-toy street number of signs (illustrated by the author)

Recently, the Seoul government initiated a project, which translated means, “making beautiful street.” Kang-dong Street was selected as an exhibition street for the project because its business potential was sufficient to attract more consumers. The Kang-dong government developed new design guidelines based on the Seoul design guidelines. The purpose of the guidelines was to stimulate the local economy by re-designing the street. This specialized district has unique opportunities for a consistent message, since the stores are limited to only two types of businesses. But this also makes it more difficult for each store to stand out as unique.
The guidelines address both the signage and the landmarks and architectural design for the street. The re-design project was done in April, 2009.

**Observations on the Kang-dong Stationery-Toy Street guidelines**

*Design concept*

The goal of the pilot project was to communicate the brand identity of the Kang-dong Stationery-Toy Street. Each sign was not only to harmonize with the street, but also attend to issues of safety and ease of maintenance. In addition, the guidelines recommended that the district have a creative night view.

*Design factors*

The stationery-toy street guidelines do not mention lights, shape, and layout, instead they emphasize maintenance, economy, and functional aspects.

*Color*

The guidelines set forth for the Kang-dong Stationery-toy Street project recommend appropriate color, depending on the businesses and the shape of signage. The regulations do not allow any of the three primary and/or black colors to cover more than 1/3 of the signage surface. Instead, the guidelines encourage the use of unified color schemes that harmonize with the building colors.

*Typeface*

The Kang-dong guidelines do not mention about colors, including color of type.
We can see that a variety of typefaces were used. Overall, the typeface is closer to a cute typeface than a heavy or traditional style because of the character of the street. The main audience is children and their mothers.

**Lighting**

The guidelines did not prohibit specific kinds of lighting. However, they do say that lighting should be economical and easy to maintain.

**Size**

The size requirements of Stationery-toy Street guideline are essentially the same as the Seoul design guidelines. They define the size of the signage for both storefront signage and perpendicular signage. The width of front signage is 80% of the horizontal width of the store. The maximum height of horizontal signage is 45cm when it uses 3 dimensional lettering. When the sign is of the rectangular signboard type, the maximum height is 31.5inch. The width of perpendicular signage is to be less than 31.5inch and the height allowance is 2 meters or less.

**Materials**

Although the Materials given for signage are very flexible it was the intention of the business owners that the materials should promote durable, firm, safe structures that were easy to maintain.
Shape

Shape is not also defined in guideline. However, observation of the applied signage quickly reveals that all of them use same rectangular shape.

Layout

Layout is also not defined in the guideline. However, because all of them use the same rectangular shape, all of the signs also have a similar format within which to design the layout.

Critique of Kang-dong Stationery-Toy Street sign system guideline

As we see in Figure 79, the re-designed signage has more individual characteristics. Before applying the design guidelines, each sign used only letters without any visual communication. After applying the design guidelines, each sign uses more distinctive colors instead of focusing heavily on primary colors. Every sign also has a symbol which is related to the business it represents. It is not mentioned in design guideline, but one developer developed this signage design and it tended to serve as a template for subsequent designs. This approach, while economical tends to create a continuing pattern of uniformity. Compared to the previous signage, the new signage makes it easy to understand the nature of the businesses. The letter size is smaller than before.
Using the same layout for each sign gives the overall district consistency. Although the guidelines did not control layout factors, the layout designed and perpetuated by one sign developer has tended to standardize the layout.

Limiting the number and size of signage opens more space on the buildings. Although each store sign has different colors, typefaces, and symbols, Figure 81
demonstrates that the stores have a noticeable consistency. This consistency is due to the fact that every sign has the same shape signboard, the same layout, and the same background arrangement. Also, every sign also uses the same materials. These common factors provide a strong feeling of consistency.

The required consistencies decrease individualities which would help visitors remember a specific store. The consumer will remember the overall layout first. As noted earlier, a clear visual communication message which has strong brand will be more effective in increasing signage memorability than mechanically formatted design. Not only will a strong visual message be more memorable, it will also improve recognition from a distance.
Figure 80. Kang-dong business signs showing unifying features (photos by the author)
The guideline allows one perpendicular and one storefront sign for each store. The height is also regulated, every store owner, of course, chooses to use the maximum height. The street is very narrow and crowded; it is hard to get into the street with a car. Because of the condition of the street, pedestrian traffic is the target audience. In terms of the visual range of a pedestrian, the height of perpendicular signage is not legible. In addition, using two of exactly the same sign, one in perpendicular format and one in storefront format, is quite repetitious and even boring. (Figure 82) The second sign may even detract from the main signage. Notice also in Figure 86, that the right store perpendicular sign does not align with its flush sign.
The use of white background for all signs, the use of small “logo” elements, the use of the exact same element on the right side of each sign, are all qualities that contribute to the impression of unity rather than variety.

3.2.4 Pella, Iowa, U.S.A.

Background

Pella is a city located in Iowa. It was founded in 1847 when eight hundred Dutch immigrants led by Dominee Hendrik (Henry) P. Scholte settled the area. To this day, the community has an intensely Dutch heritage, and retaining the historical identity of the city is fundamental to life in Pella, Iowa. This identity is also important to tourism for the city.

The Community Development Committee (CDC) was established by the City

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Council in 1978 to oversee a Dutch Architecture review. The CDC also oversees signage
design. The goal of the design guidelines in Pella is to retain the unique Old World Dutch
quality of the community, complete with its delightful and unique romantic character,
natural beauty and historical aspects. The guidelines are written to safeguard, encourage,
and perpetuate the character of the community as expressed by the buildings and signage
in their community.\textsuperscript{161} The design guidelines manual includes many of aspects of
architecture as well as signage. Certain zoning districts have special requirements for
signage design. This case study analyzes the CBD district design guidelines, which are
the guidelines governing the quaint central district of Pella.

When it comes to signage, context sensitive signage design is strongly encouraged
in Pella. Business owners are required to have a signage permit. The CDC (Community
Development Committee) reviews such aspects of signage design as general texture,
design, lighting, materials, colors, arrangement and placement. In addition, the business
owner is required to have the CDC review all applied signs with respect to
appropriateness of sign in relation to other signs and other structures on the premises and
in the nearby area. The Pella guideline is mandatory. If a sign does not comply with
guidelines, installation will not be permitted.

Design factors

Color

Color is the most delicate feature of Dutch Architectural expression.\textsuperscript{162} Signage colors, by requirement, must be chosen from the Dutch color palette. The most common color is dark green, with earth tones and/or white colors. The Community Development Committee does not permit bright or glossy colors, but other colors are allowed. Mainly, the typeface color of signage is white.

\textsuperscript{162} Ibid. 13.
Figure 84. Dutch color palette (Pella city design guideline) B= Body exterior T= Trim, doors, shutters (Pella design guideline, 2007)

**Typeface**

The guidelines did not recommend specific kinds of typeface.

**Lighting**

Exposed light bulbs, flashing, neon, blinking or rotating lights are not allowed in Pella. Window signs containing internal lighting are also prohibited. External illuminated or non-illuminated signs are encouraged for use throughout the city.

**Size**

Size is not defined in the guideline.
**Materials**

Plastic signage is not encouraged. Glossy, shiny, or rectangular cabinet plastic signs have been strongly discouraged.

**Shape**

Shape of signage is not defined in the guideline. However, shape of typical Dutch architectural elements is encouraged such as gables and roofs.

**Layout**

Layout is also not defined in the guideline.

**Checklist**

The Community Development Committee checks all proposed plans and building permit requests in the design review districts and issues or rejects a Design Permit. This examination is comprehensive; it includes suggested colors, texture, materials, typeface, and appearance. It also addresses the architectural design of the exterior, including sides, back and roof of the proposed building as well as any visual graphics, display, signs, outdoor furniture and appliances. Any repairs, modification or changes to a structure in the design review districts is also subject to review by the committee.\(^{163}\) (Figure 85)

\(^{163}\) Ibid. 2.
Design Review Checklist

Building Design
- Accurate, detailed scale drawings and elevations illustrating the proposed construction or alteration.
- Accurate, detailed drawings or photographs showing existing conditions of the building.
- Accurate detailed scale drawings of site plan (where site plan submittal required).
- Samples, specifications, photos of all materials i.e., door cut sheets, window/grille specs, siding, handrails, fencing, brick, etc.
- Accurate and sufficient samples of paint chips for primary and trim colors.
- Manufacturer’s cut sheet or specifications and locations for all HVAC units and other infrastructure (where such infrastructure will be located outside the building).
- Sample and/or specifications of roofing material.
- Narrative explaining the scope of work proposed.
- Additional drawing(s) or sections of details for trim and finish work.

Signs
- Accurate, scaled color rendering of proposed sign, or photograph if already existing.
- Material specifications; accurate and sufficient samples of each proposed color.
- Photograph or accurate scale drawing of building elevation showing proposed location(s) of wall signage, window signs, European signle signs, and other attached signage.
- Photograph or accurate scale drawing of site plan showing proposed location of freestanding sign.
- Type & location of all lighting fixtures.

Outdoor Fixtures
- Accurate, detailed scale drawing of fences, screening, benches, seating, tables, architectural ornamentation or other outdoor fixtures.
- Manufacturer’s cut sheets for all fixture(s); photos if available; specify colors.

Lighting
- Show numbers & locations of proposed lights on a site plan.
- Provide manufacturer’s cut sheets for all fixture(s) and/or pole(s); photos if available; specify colors.
- Specify types of bulbs and size/intensity for each type of fixture.
- Accurate, scale drawings or photographs of building elevations for wall mounted lights.

Awnings/Canopies
- Photo or brochure showing proposed design.
- Color sample or swatch of proposed material.
- Photograph or accurate scale drawing of building, showing where awning is to be installed.

Figure 85. District design manual checklist (Pella design guideline, 2007)
Critique of the Pella design guidelines

Pella’s guidelines emphasize uniformity but allow for some variety through shape and typography. The main purpose of this guideline is retaining the historical and cultural character of the community. Pella has been honored many times by the State of Iowa for its unique character and tourism value. This character is the direct result of the strong architectural cohesiveness guaranteed by the CDC. As we see, the guidelines are not optional but mandatory. It is uncommon for a design review to be a part of the zoning permit process. This strong guidelines control most aspects of the architecture in Pella. The city places a high value on community character, aesthetics, tourism and overall quality of community.

The strictly controlled brick texture of the buildings speaks to the origins of the City. The use of gables and shutters is a common element of Dutch architecture. The shapes of the buildings reflect the cultural background very well. The first view of the street is enough to leave a strong impression on a first time visitor.

While the powerful review process in Pella succeeds in producing overall consistency in the district, the visitor may be unable to find an individual personality for each store. Figure 87 shows how the brand identities were influenced by the guidelines.
Another issue is that the consistency of the signage design, white letters on brick materials, may contribute to consumer confusion because it is more difficult to differentiate one building from others. (Figure 88)
On the other hand, the Pella guidelines successfully convey the historical and cultural heritage of Dutch ancestry in the community. The unique characteristic of uniformity of the district identity brings visitors and tourism to the city.

3.2.5 St. Paul, Minnesota, U.S.A.

Background

Saint Paul (abbreviated St. Paul) is the second most populated city in Minnesota; it is also the capital. St. Paul lies on the north bank of the Mississippi River and adjoins Minneapolis. Together, Minneapolis and Saint Paul are known as “Twin Cities.”

According to the Metropolitan Council, in 2007, the population of this large metropolitan area was 2.85 million people. 164

Saint Paul has a rich history of vigorous and diverse neighborhoods. To support neighborhood participation in governance, the district council planning process was created over 30 years ago. Overseeing the Signage system guidelines is one of the

responsibilities of the district council.

An investigation of the signage guidelines for St. Paul reveals that the main purposes of the guidelines include: to promote an attractive visual environment which, in turn, makes the city a more desirable place to live; and to promote business in the city by providing, among other things, a good system of branded identities.

Figure 89. 7th street, St. Paul, MN (photo by the author)

**Observations the Design Guidelines of St. Paul**

**Regulation by zoning districts**

The location, size, and classes of signs are regulated, certified or accepted according to the zoning district in which they are located. The following are the zoning districts:

- Residential districts
- Traditional neighborhood and business districts
- Business and industrial districts
- Business districts
- Industrial districts
- Vehicular parking districts
- Planned development districts
- Special district sign plans

**Special district sign plan**

St. Paul is divided into seventeen planning districts in order to provide signage control for specific kinds of districts based on their specific needs. There is some intent to recognize and assist entertainment centers, shopping centers, historic districts and other specific developmental efforts in their efforts to build upon the particular and unique qualities that characterize certain sections of the city.

The city's seventeen Planning Districts are:

1. Sunray-Battlecreek-Highwood
2. Greater East Side
3. West Side
4. Dayton's Bluff
5. Payne-Phalen
6. North End
7. Thomas Dale (Frogtown)
8. Summit-University
9. West Seventh
10. Como (Como Park)
11. Hamline-Midway
12. Saint Anthony Park
13. Union Park
14. Macalester-Groveland
15. Highland (Highland Park)
16. Summit Hill
17. Downtown

Those districts are divided by regional sections, not strict categories. Each planning district is controlled by 2 overlapping guidelines. One is the guideline responds
to the type of activity that takes place in the district: residential, business, vehicular, developmental, special, and potentially others. The other guideline emphasizes the character of the district such as historical, cultural, modern, recreational, and others. Therefore the signage in a district might be characterized as modern business, historic business, special cultural and any number of combinations created by combining the two groups of guidelines.

**Design factors**

In the interest of consistency with the Seoul case studies, this study has chosen to focus on the St. Paul guidelines for business districts. The regulations studied, and presented earlier in this chapter, were those specifically applicable to business districts in Seoul. As we have noted, the St. Paul guidelines, like the Seoul guidelines, are divided into a number of different zoning areas. Time and space do not permit an exploration and comparison of the specifications for all eight zoning areas in St. Paul or all five zoning areas in Seoul. Therefore, the present study will be limited to a review of the guidelines for business districts. Studies of signage regulation in other zoning districts may be a topic for future study.

**Color**

Color is not defined in the guideline.

**Typeface**

Typeface is also not defined in the guideline.
**Lighting**

Illuminated signs are allowed but blinking signs and internally lit signs are banned. Revolving freestanding signs are permitted, but they may not be illuminated with flashing lights. Electric message signs are permitted.

**Size**

The total amount of outside display surface measured in square feet, including all business signs, on a given commercial property, may not exceed four times the lineal footage measurement of the frontal boundary of the lot on which the business stands. No sign may be higher than thirty-seven and one-half feet above grade, with the exception of wall signs and freestanding signs on zoning lots next to principal and middle arterial roads. Wall signs may extend to the height permitted by the height limit in the zoning code.

**Materials**

The guidelines advise that sign materials should be in harmony with the original construction materials and architectural style of the building facade. Display surfaces of signs are to be made of metal, plastic, wood or approved materials.

**Shape**

Shape is not defined in the guideline.
**Layout**

Layout is not also defined in the guideline.

**Etc.**

The St. Paul guidelines do little to control design factors and do not mention typeface or sign shape. Rather the St. Paul guidelines seem designed to ensure public safety and therefore emphasize safety issues related to signage. Signs will be repaired or removed if they appear unsafe or hazardous. This attitude toward enforcement is entirely different than in Seoul.

**Sign variance**

Sign variances are exceptions from regulations that are permitted by the sign code to allow for specific cases and circumstances. The Board of Zoning Appeals (BZA) has the authority to grant sign variances. The BZA holds a public hearing before deciding on each case. The Citizen Participation District Council as well as all property owners within 350 feet of the site participates in the public hearing.

**Critique of the St. Paul Design Guidelines**

Variety and eclecticism can contribute to the identity of a district, when store owners are aware of the purpose of signage and respect the culture and quality of the district, variety can become a unique district identity in its own right.

The St. Paul guidelines are very flexible in their approach to signage regulation as opposed to regulating specific factors such as size, materials, layout, and colors.
Enforcement, however, is vigorous when a sign does not follow the guidelines. St. Paul has a Zoning Administrator who enforces the provisions of the guidelines and who has the power to compel compliance with zoning ordinances and signage permits.

In St. Paul, there are 17 district councils. One of responsibilities of these councils is planning and direction of the physical, economic, and social development of their areas. They play the role of liaison between the City and the people in the district. For example, the District Council, affected by a business owner’s signage proposal, may make a recommendation to the City regarding a major signage application. A major application would be one that is controversial or that may be of neighborhood-wide concern. This kind of recommendation is usually based on information gathered in a public-hearing. This process of citizen participation not only helps the small retail business owner know how to develop a design, but also encourages the development of individual business identities and harmony with neighborhood.

The St. Paul guidelines are more liberal on the topic of lighting compared to other signage guideline such as those in Pella. Even the Seoul guidelines do not allow having exposed neon tubing on an exterior sign. The Pella guidelines do not permit any internally lighted signs at night. Meanwhile, the St. Paul guidelines allow illuminated signs as well as external neon tubing. This approach to nighttime lighting promotes the economic success of businesses and encourages more efficient use of electricity. Figure 90 and Figure 91 demonstrate how lighting can effectively promote business after dark and enhance the visual environment. Although this ice cream shop is located in a traditional neighborhood, the guideline says a sign should have light letters on a dark background. Indirect and subdued lighting is preferred; and except for neon, internally lit
electric signs are discouraged. When it comes to lighting, the St. Paul guideline tries to arrive at a balance between encouraging stores that conduct business at night and maintaining a traditional neighborhood atmosphere.
In St. Paul, there are many historical buildings in the business district. The signs on the buildings are not just individual advertisements, but should be considered parts of
the architecture. The Blair Arcade, shown in Figure 92, accommodates apartments and a wide range of businesses including a coffee shop, salon, and a restaurant.

Figure 92. The very heart of the Selby and Western intersection is The Blair Arcade. It hosts apartments and a variety of businesses including a coffee shop, a restaurant and a salon (photo by the author)

The signage is compatible with the historical quality of the building; even the awning colors blend with the coloring of the building. The overlapping effect of the two groups of St. Paul guidelines allow for neighborhoods to be defined by two descriptors, in this case traditional neighborhood in business district. The sign material should then be compatible with the original construction materials and architectural-historical style of the building. Natural material is recommended rather than plastic.

Historic buildings have so much visual interest to offer the neighborhood that this treatment of signage benefits both the business and the surrounding community.
Grand Avenue is an example of how guidelines allow for individuality. Grand Avenue has rich local history and charm, this long avenue stretches over 25 blocks and is lined with old homes, small shops and restaurants. Although St. Paul has signage guidelines, each storefront sign has its own specific characteristics and identity. A brief tour of the shops along Grand Avenue will illustrate how unique identities contribute to the character of the district.

The Lexington Restaurant (Figure 94) is one of the best restaurants in St. Paul. An antique and distinct sign beckons patrons to enter this classy St. Paul restaurant. Traditional trim and an elegant script font speak to the restaurant’s 75 year history. The Lexington restaurant has become a landmark of the district. This kind of individuality is possible because the St.Paul guidelines do not restrict material, shape, layout, or color. The flexibility of the guideline encourages individuality and allows each store to have unique identity.
The Lexington’s unique antique sign design is a landmark of St. Paul. (Flickr)

The Café Amore on Grand Avenue Figure 95 has highly wrought neon sign that looks like an artwork. The uniquely shaped perpendicular sign that is quite eye-catching despite its small size. In addition, the colorful signage does not look gaudy, perhaps because it is paired with a black awning also bearing the name of the store. The combination of the subtle awning and the colorful sign produces a modest and comfortable atmosphere which invites people to pause and sip their cappuccino.
Cooks of Crocus Hill is a store that deals in cookbooks and cooking equipment. Although the Cooks of Crocus Hill sign uses very small white letters, it gives clear information about what the patron will find inside (Figure 96). Even the simplest signage is an effective complement for the colorful window displays. This is a good example of how the store’s message can be communicated through more than just signs.
Grand Avenue is a business district filled with interesting independent shops and stores, restaurants, cafes and coffee shops, many of which are unique. From all appearances, no attempt has been made to create consistent signage along the Avenue, but uniqueness of the signage makes the street hum with shoppers.

While the St. Paul guidelines do not enumerate the requirements for signs, a city administrator is appointed to oversee signage. The assessment of signage is more subjective, which allows greater flexibility. However if a sign clearly violates the intent of the guidelines, and as such destroys the character of a neighborhood, the administrator is empowered to apply pressure to effect change.
CHAPTER 4. QUANTITATIVE ANALYSIS

Chapter 3 studied four sets of different design guidelines: Seoul, South Korea; the Kang-dong Stationary street in Seoul, South Korea; Pella, Iowa; and St. Paul, Minnesota. The signage guidelines were examined based on seven design factors to determine whether or not the guideline controlled color, typeface, lighting, size, materials, shape, and layout (Figure 97). The results of the guideline analysis were recorded in a table that identifies the controlled and uncontrolled factors in each design system. The table also ranks the signage system guidelines according to degree of control (table 8).

4.1 Controlled vs. uncontrolled factors

Table 8 presents the matrix of controlled and uncontrolled factors for each of the four guidelines studied. The number of dots indicates the degree of control, ranging from one dot (least controlled) to five dots (most controlled). For example, the Seoul guideline
strictly enforces the use of certain size signage, so it will have five dots opposite ‘size’ in the matrix. In case of Kang-dong Stationary design, they recommend “bright vivid colors” and prohibit the three primary colors, under Kang-dong, ‘color’ will, therefore, have three dots. In other words, level of control in assessing signage guidelines, then, is a product of specificity. Thinking about color; a general statement about color that does not name any specific colors, (for example, use appropriate colors) therefore earned one dot. A guideline that recommends a color or series of colors by name earned two dots, and a guideline that recommends a color or series of colors by name and specifically forbids others earned three dots. The three dot system was sufficiently simple to minimize confusing distinctions and generate a comparison.

Finally, if the guideline never mentions a certain factor, then the box opposite that factor is left blank. So, five dots mean a strongly regulated factor while one dot means a lightly regulated factor.
Table 8. Five guidelines controlled vs. uncontrolled factors (illustrated by the author)

<table>
<thead>
<tr>
<th></th>
<th>Seoul</th>
<th>Kang-dong Stationary Street</th>
<th>Pella (CBD district)</th>
<th>St. Paul</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colors</td>
<td>⬤⬤⬤⬤⬤</td>
<td>⬤⬤⬤</td>
<td>⬤⬤⬤⬤⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Typefaces</td>
<td>⬤⬤⬤⬤</td>
<td>⬤</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td>⬤⬤⬤⬤</td>
<td>⬤</td>
<td>⬤⬤⬤⬤⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Size</td>
<td>⬤⬤⬤⬤⬤</td>
<td>⬤⬤⬤⬤</td>
<td>⬤●</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>⬤⬤⬤⬤</td>
<td>⬤●</td>
<td>⬤⬤⬤⬤⬤</td>
<td>⬤</td>
</tr>
<tr>
<td>Shape</td>
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<td>⬤●</td>
<td>⬤⬤⬤⬤</td>
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</tr>
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<td>Layout</td>
<td>⬤⬤⬤⬤</td>
<td>⬤●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>16</td>
<td>20</td>
<td>4</td>
</tr>
</tbody>
</table>

●●●●● = strong controlled  ● = less controlled

4.1.1 Total amount of controlled factors

Using the matrix data, Table 9 compares the total amount of controlled factors for the four city guidelines. As Table 9 demonstrates, the Seoul guideline has most controlled accumulated factors (with a score of 24); St. Paul guideline has least controlled accumulated factors (with a score of 4).

Table 9 suggests how the level of controlled factors affects the uniformity of signage in the cities studied. Seoul, Kang-dong, and Pella, have a high level of control, resulting in strong uniformity of signage in those cities. St. Paul had relatively few controlled factors.
Table 9. Total amount of controlled factors (illustrated by the author)

This chart relates directly to the uniformity of signage of these cities. Seoul, Kang-dong, and Pella, which are shown to have a high level of control, will necessarily have strong uniformity of signage, while St. Paul, which shown least controlled factors will most likely have more varied signage than Seoul, Kang-dong, or Pella.

4.1.2 Amount of controlled factors

Table 10 demonstrates which factors are the most frequently controlled. Size and color are the factors most frequently controlled, which is to say they are controlled in more of the guidelines studied. The next most regulated factor is materials. Typeface is the least controlled factor among the four guidelines studied. Table 10 demonstrates the relative emphasis placed on color, size, materials, lighting, shape, layout, and typeface in retail business signage guidelines.
Table 10. Amount of controlled factors (illustrated by the author)

4.1.3 Most Controlled factors

Table 11 is the comparison chart showing the degree of control exerted on each factor by each of the four studied guidelines. The Seoul and Kang-dong guidelines have seven controlled factors. Both guidelines have one strongly controlled factor which noted at level 5 and six more lightly controlled factors. On the other hand, Pella the guideline has four strongly controlled factors and three uncontrolled factors.
The St. Paul guideline has three controlled factors, one less than Pella. However, the degree of control is quite different. Table 9 demonstrates how the strength of guideline and the number of factors controlled both interact to affect the uniformity of signage in these cities.

4.2 Other controlled factors in design guidelines

Table 12 presents controlled factors apart from the seven factors initially anticipated by this study. The chart demonstrates that the Pella guideline controlled many minor factors. While not included in the primary analysis, these additional factors have significance in the development of urban retail signs; more controlled factors make more uniformity.
<table>
<thead>
<tr>
<th></th>
<th>Seoul</th>
<th>Kang-Dong</th>
<th>Pella</th>
<th>St. Paul</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of signage</td>
<td>Number of signage</td>
<td>Architectural colors</td>
<td>Safety</td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>Safety</td>
<td>Variety in Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under third floor</td>
<td>Emphasize night scene</td>
<td>Gable-Architectural facades</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimal size</td>
<td>District uniform</td>
<td>Texture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recommending low price producing payment</td>
<td>Retail building element</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standardization of signage</td>
<td>Building shape</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Must be effective as advertisement</td>
<td>Window pattern</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inexpensive</td>
<td>Poll sign are not allowed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflect European village character</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Texture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roof</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exterior walls and Elevations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Building shape</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12. Other controlled factors not included in the analysis (illustrated by the author)

### 4.3 Discussion

As noted earlier, the retail district in Seoul applied the Seoul guideline to produce considerable uniformity. Each store fits into a pattern of color, size, materials, and layout, which overall produces a very consistent look.
Pella was the second most controlled city with regard to signage guidelines. A visitor to Pella would immediately be aware of the Dutch heritage, which was the purpose and vision behind the guidelines in that community. Similar color patterns on the signage combine with brick materials and a consistent architectural shape to convey the identity of community.

Kang-dong Stationery-Toy Street was the third most controlled city in terms of signage guidelines. Although signage on the street has different symbols and colors for each store, the consistent layout and back ground pattern give the stores a visual uniformity.

St. Paul had the least controlled guideline. Each storefront sign has its own specific characteristics and identity but the district does not have uniformity.

When it comes to individual retail stores, the uniformity of appearance diminishes the personality of each retail store.

4.3.1 Uniformity vs. Variety

The Seoul retail district applied design guideline produced a district that is very uniform in appearance. The design of retail stores in the district demonstrates consistencies in color, size, materials, and layout.

In this research, the strictest guidelines not unexpectedly result in the greatest consistency of signage. More regulation, therefore, results in more consistency. The Seoul retail district regulated size, color, materials and layout of signage resulting in considerable consistency of appearance within the district. The visitor in Pella city will recognize the historical identity of the City from the signage integrating Dutch colors and
Dutch architecture. In yet another instance, the consistent layout of signage in Kan-dong Stationary gives the district a recognizable character. Consistency, therefore successfully conveys the desired district message, but differences between stores are less obvious.

On the other hand, less controlled factors and uncontrolled factors found in the guidelines lead to greater variety of signage within the affected district. As discussed previously, St. Paul has the least controlled factors among four guidelines. The signage of retail stores regulated by the signage guidelines is not consistent. This research verifies that more controlled factors in signage guidelines produce more consistent signage systems. (Figure 98)

![Figure 98](image_url)

Figure 98. Impact of controlled factors on consistency and inconsistency (illustrated by the author)

The Seoul guideline was intended to clean up signage that had become an overwhelming visual clutter. It was successful in meeting its intended purpose; it also produced great uniformity of appearance among the retail businesses in the district. This uniformity made it hard to differentiate one store to the next, giving the district a
repetitious and sterile feel.

4.3.2 District Identity vs. Business Identity

The retail stores in St. Paul have their own identity while it is hard to find common design factors from one store to another. Historic and high-tech signage coexists, and it is hard to define a time period, style, or any kind of continuity within the district. It seems that the amount of individuality allowed each retail store is directly related to the degree of uniformity and variety allowed.

Figure 99. Impact of uniformity and variety on the individuality of retail stores (illustrated by the author)

The chart in Figure 99 demonstrates that variety occurs in districts simply because the guidelines are less regulatory. Theoretically, variety, and therefore individuality could also exist if there were something in the guidelines that actively encourages variety; none of the guidelines studied had such a statement, but it is an interesting possibility.

Dutch architecture, Dutch colors and Dutch buildings in Pella are intended to give
the pedestrian a sense of time and place. The historic and visual quality of the district invokes curiosity of visitors, and visitors will remember the district. On the other hand, the individual stores which all have the same materials, color, and architectural shape, making it difficult to remember a specific store.

The City of Pella’s strongly controlled guidelines creates a unified system and reinforces the theme of the district, but reduces individuality.

4.3.3 Balance between uniformity and variety

As discussed before, properly designed signage contributes to the economic wellbeing of a business. The ability to define the business and attract customers is part of the quality and functionality of signage. If the signage communicates the business identity effectively or correctly it will help the business to maintain customer awareness and increase the longevity of the business.

Signage is too often considered to be merely a structural phenomenon. Most of the guidelines emphasize the size, colors, materials, layout and lighting of the signage. These factors are regulated under the theory that if uncontrolled they can become a public annoyance.

Creating and retaining the character of the community identity is a critical challenge of any city government. A pleasing and interesting community or district identity may very well attract visitors to the area, and visitors are potential customers. The problem is visitors will only become customers if an individual store catches their attention. The sign guidelines help to protect the quality of the public environment and historic buildings. However, if the community wants a thriving business district, the
guidelines should also facilitate commerce by retaining the character and identity of community and allowing individual businesses to identify and define themselves. It is a fragile balance.

Results

This study has shown how the design guidelines control design factors to create the systematic appearance of signs in these districts.

The controlled guidelines are effective in producing uniformity and a unified identity for the district as a whole. Unity is useful in creating a sense of a distinct district. However, when uniformity is emphasized, each individual retail store must struggle to maintain its identity. On the other hand, variety is used to create points of distinction for each individual business. This study has also shown, however, that an excess of variety can produce a chaotic and cluttered look in the district; a look does not attract visitors. A balance of unity and variety within a signage system is highly desirable, but rarely occurs in the right mixture so as to benefit both the district and the individual business. A guideline that has or intentionally creates a balance between unity of the system or district and variety or individuality of individual businesses should be the goal. Such a guideline will enhance the character of the district and make the businesses attractive and memorable.
CHAPTER 5. DISCUSSION AND CONCLUSION

The main way to achieve uniformity is repetition. The element that repeats may be almost anything - a color, a shape, a texture, a direction or angle. In terms of signs, shape is probably more effective in producing uniformity than other factors. When we look a district, we first recognize the shape of the signs. If we at first see many signs of the same shape, this creates a sense of unity and similarity. For example, the Seoul guideline clearly produces uniformity in the district even though the signs have different colors. On the other hand, the St. Paul guideline results in more diversity because every sign is a different shape although some of signs have the same colors or materials.

Identity is one of the essential qualities of a good urban landscape. Cities and urban districts that have their own character give people a feeling, a ‘sense of place’ that gives residents a sense of belonging and also attracts visitors.

Since signage is one of the significant functional and visual factors contributing to urban quality, we need to consider the role of signage in creating a more identifiable urban landscape. The role of signage and other factors such as architecture in creating urban character should be determined by carefully written urban zoning regulations and signage guidelines.

Many controlled guidelines result in a problematic uniformity among the stores in the affected district. This was found to be true of the signage guidelines for Seoul, Kang-dong, and Pella. This uniformity is easily, and perhaps inadvertently, produced by the required repetition in size, color, material, layout, and other things. Unity gives the

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district a character and an ordered quality that is instantly apparent. It is also likely to be overwhelming. An excess of uniformity may distinguish the district from other urban landscapes, but it may also make the area difficult to navigate because distinctive landmarks have been eliminated.

On the other hand, less controlled signage guidelines encourages variety by allowing each store to develop a unique identity. The St. Paul guidelines are an example of less restrictive signage regulations. Allowing for variety of signage increases the potential individuality of each store. The sign design for the individual store can then create emphasis points using contrast of size, color, material, layout, etc to differentiate the store from its surroundings. Variety produces contrast from one business to another, but the spontaneous and unordered storefront and signage design decrease the identity of the district. An excess of variety produces a hodgepodge urban landscape that lacks a sense of place to distinguish itself from other districts. It may also have a cluttered feeling of sensory overload, depending on how many factors are left unregulated in the design guidelines.

Without some aspects of unity, districts become chaotic and “unreadable” in a hurry. Without some elements of variety, the urban landscape is monotonous and uninteresting, even boring. The ideal, then, is a balance between the elements of unity and the elements of variety, as shown in Figure 100.
Figure 100. Balance between uniformity and variety (illustrated by the author)

Guidelines should provide a unified base, but encourage variety in the signage of individual businesses. Designers of signage for individual stores should be able to find ways to differentiate the client business from others so as to attract clientele.

To provide for overall uniformity and individual identity, signage guidelines must achieve a balance between individual identity and overall district character. Guidelines should be written so as to leave creative opportunities open to the individual retail store within the context of the district.

5.1 Considerations for future research

With careful study, an appropriate balance can be defined and achieved between unity and variety as it relates to urban retail identity sign system. Future work will define that balance and recommend guidelines that produce a balance between unity and variety. This study aims to begin this process, by analyzing four regulated districts to determine how their design guidelines did or did not encourage this balance.

Most current guidelines only tell the business owners what they can and cannot do, but not why the regulations exist; this has made interpretation more difficult. Guidelines
should also provide some understanding of the reasons for the regulations, namely that they are beneficial to the success of the district and the businesses in it. If the purpose of the guidelines is explained, store owners and signage professionals will be able to make more appropriate choices in planning new signage.

Future study will also need to be done on districts that have no guidelines at all, to see how the lack of regulation affects their identity balance. Future studies will take the first steps toward producing guidelines for the design of effective signage systems that serves the needs of both stakeholders through visually unified design systems that also facilitate human behavior. These new recommendations will serve as a prototype for guidelines that create a functional balance between unity and variety in urban identity signage systems. Another goal for future work will be to apply the more balanced guidelines to the design of an urban retail sign system. Such a project would use the balanced guidelines as a base and then explore the creative opportunities within the framework of the guidelines.

Signs are not directed at any one individual, but stand in public view for the benefit of anonymous others. Written language and pictorial depiction make sign communication possible.166

For the small business owner, branding their business is difficult because they are not familiar with communication design. Future work might include a manual that would provide small business owners with examples of well designed signs and some basic concepts about color, typefaces, symbols, and branding. Guidelines could also provide some of this information.

166 Ibid. xxvii.
Ultimately this research in the area of retail signage systems will produce a more effective and easily manageable system for the pedestrian, business owners, city planner, and signage developer.
BIBLIOGRAPHY


Development Center, 2004.


Relph, E. C. *Place and Placelessness, Research in Planning and Design*. London: Pion,
1976.


