SIGNS IN URBAN SPACES IN ETHNIC ENCLAVES:
A CASE STUDY OF MANHATTAN CHINATOWN

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ABSTRACT

This study focuses on signage as an element of physical urban culture, and its role in the development of ethnic enclaves, using Manhattan Chinatown as a case study. The study area is bounded by Canal Street, Baxter Street, Worth Street and Bowery, an area known as the historic core where Chinatown began and still continues to this day. This research takes a closer look at signage in Manhattan Chinatown and its relationship with different stages of development in Chinatown by analyzing the spatial distribution, appearance and additional statistical information on signs in the historic core area across three time periods: 1940, 1980, and 2017. Signage provides direct insight into the struggle between internal and external images of the neighborhood: when there are more commodified, expressive signs, they contribute to how people perceive the space, which further helps external forces shape the community. The shifting characteristics in Manhattan Chinatown’s streetscapes further contributes to the image of the neighborhood and influences the market by changing how the place is perceived by visitors and consumers. This study suggests that in order to preserve or develop the ethnic enclave, one must first understand the conflicting external and internal forces that have been influencing the area. By understanding the balance of these forces, planners can eventually take the image and authenticity of the neighborhood into consideration in the planning process more effectively and with better consideration for the needs and desires of the ethnic community.
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1. INTRODUCTION

1.1. Background Summary - Manhattan Chinatown as an ethnic enclave

Chinese ethnic enclaves in US cities mainly formed after the passing of Chinese Exclusion Act in 1882 (Li 2005). The discrimination, ethnically-motivated violence, and lack of job opportunities that followed caused many Chinese immigrants to congregate collectively in urban centers, forming early Chinatowns. These ethnic enclaves, what Peter Marcuse described as “a spatially concentrated area in which members of a particular population group, self-defined by ethnicity or religion or otherwise, congregate as a means of enhancing their economic, social, political and/or cultural development” (Marcuse 1997, 242), were isolated socially and economically from the rest of the city. While the Chinese immigrants were excluded from participating in much of mainstream urban life, leaving them with fewer resources and poorer living conditions, the community tried to make a living by forming a self-supporting inner-economy providing cultural goods, services, and some less than savory amusements (prostitution and opium) to the community as well as to outsiders (Beck 1898). After the repeal of the Chinese Exclusion Act in 1943, many Chinatowns in big cities began to experience rapid growth, forming into the dense enclaves that are still present today (Li 2005).

In 1965, the passing of the Immigration Act allowed more immigrants from China to join their families in Chinatowns in the United States (Fan 2003). The garment and the Chinese restaurant industries in Manhattan Chinatown began to bloom as the
Chinese population grew. This also marked the moment when more well-off immigrants started to move outside this downtown settlement and form “satellite” Chinese communities such as the booming Flushing Chinatown in Queens (Kwong 1987). This trend continued into the 20th century as the ever more globalized economy developed, and the demand for more skilled immigrant labor grew in the United States (Li 2005).

Immigrant groups tend to form localized communities and ethnic businesses in cities dominated by another culture or ethnic group. One reason for this may be to provide a buffer from the pressures of discrimination from the dominate culture. Another may be that enclaves provide space to foster cultural bonds within ethnic groups, allowing individuals to remain part of a distinct identity group that they can draw support from when they’re exposed to a different, dominating culture. Additionally, as the development of the global economic marketplace has increasingly prioritized ethnic ‘authenticity’, ethnic groups have begun to brand their culture as products to tourists and others living in the city (Terzano 2014). The tourist economy, including local tourists thus becomes another force that shapes the economic and spatial makeup of ethnic enclaves (Santos et al. 2008).

Chinese immigrants, whose cultural backgrounds differ significantly from the dominant Anglo-American culture in the United Stated (Santos 2008), make Chinatown an outstanding cultural space in western society. This has manifested most directly in the visual and spatial makeup of the streetscape. Manhattan Chinatown is one of the oldest and most continuously existing Chinatowns in the United States, and has a rich
Manhattan Chinatown’s growth and development has had a profound influence on the built environment in the area. The historic core of Manhattan Chinatown has been consistently recognized through all the developments in the area, and is recognized as part of Chinatown in all the studies of Chinatown despite differences in defining the boundary of the enclave. The rich history of the ethnic enclave is distinctively coded in the streetscape of the historic core, making it the most complex urban space within the neighborhood boundaries.

Signage is an important element of streetscapes in ethnic enclaves. Not only does it serve to define the boundary of the neighborhood, it also contributes to the creation of a unique urban environment for ethnic groups. Further, signage denotes areas with cultural goods, and helps to provide a comforting and familiar urban environment for new immigrants. Additionally, signage reacts to and reflects the economic, social and political forces that shape and serve community needs inside the neighborhood. The study of signage in this paper analyzes the urban environment according to two frameworks: ‘linguistic landscape’ and ‘semiotic landscape’. Linguistic landscape refers to the language and verbiage present on signs. Semiotic landscape refers to the visual imagery and aesthetic aspects of writing in signage in urban spaces (Papen 2015). For this research, the semiotic landscape includes all signage that exists within the Manhattan Chinatown study area, including commercial and non-commercial signs.

This study of signage in Manhattan Chinatown contributes to our understanding of the ways immigrant groups and their economies affect and are affected by the
physical makeup of their built environment. It also provides insight into the ways in which immigrant communities use signage in the (re)construction of ethnic, urban and communal space.

1.2. Research Question

The research question of this thesis is:

“What is the role of signage in urban spaces in ethnic enclaves as it relates to the development of local ethnic economy in the community, and how does signage influence the community’s cultural and socio-economic environment?”

Using Manhattan Chinatown historic core as the study area, this research addresses the broader dynamics that affect ethnic enclaves at large, but most directly other Chinatowns. One section of the conclusion is a discussion of how and to what degree the findings made here are applicable to other ethnic enclaves. Another section of the conclusion is dedicated to how and to what degree these findings are applicable to planning policy.

Focus of Study

This study focuses on signage as an element of physical urban culture, and its role in the development of ethnic enclaves, using Manhattan Chinatown as a case study. Cultural identity plays an important role in neighborhoods and affects how people perceive, arrange and use the built environment. In Manhattan Chinatown, it has been, and remains important for Chinese immigrants to the United States to create places with particular culturally-influenced characteristics, whether they be for the purpose of fostering certain social and political lifestyles, or for commercial
development. Signage is also a way for immigrants to communicate within their own cultural group, particularly when first arriving and attempting to settle into a new environment. Another significant role of signage in ethnic enclaves is as a tool to signify and foster cultural exchange with other ethnic groups, and as means of exporting “cultural goods” in order to foster the growth of the tourist economy inside the neighborhood. One important and literal way of providing this communication and cultural exchange is through calibrated signage in the built environment.

This research will take a closer look at signage in Manhattan Chinatown and its relationship with different stages of development of Chinatown using archival studies and analysis of historical photographs.

Goal of Study

The goal of this study is to contribute to our understanding of the impact of signage as it relates to cultural identity and semiotic landscapes in ethnic enclaves. A wide range of research has been conducted on ethnic enclaves, but most doesn’t examine signage and its role in the urban or cultural context. Sociological research on semiotic landscapes amongst ethnic groups has failed to link them directly to the ethnic community and to how semiotics can affect people’s lives in the neighborhood. The study will focus on bridging the gap in the understanding of signage as cultural expression and as it relates to socio-economic changes in evolving ethnic enclaves.

Another goal of this study is to examine, reflect upon, and consider the application of signage as it relates to cultural identity in urban planning and urban design decision making processes. To build upon the understanding of cultural expressions in
urban spaces in ethnic enclaves, a better understanding of the role and influence of signage can inform policy and regulations in planning and design.

1.3. The Shifting Socioeconomics of Manhattan Chinatown

The area known as Manhattan Chinatown has had a rich history of shifting socio-economics and demographics. Throughout the early to mid-19th century, the area was populated by Irish, German, Jewish, Italian, and Puerto Rican immigrant groups. Chinatown’s story began at the dawn of the 19th century, when merchants arrived from China looking for business opportunities. They settled on Mott, Pell and Doyers Streets (see Figure 1-1), known as the Chinatown historic core today (Beck 1898).

Significant population growth came after the California Gold Rush from 1848 to 1855 (Brown and Pannell 1985), and the construction of the Transcontinental Railroad a decade later. Chinese laborers were instrumental in the construction of the Railroad, but by 1882, the Chinese Exclusion Act and similar laws restricting immigration from China were enacted. These limits on Chinese migrants were not lifted until 1965 (Li 2015; Fan 2003). Under the threat of exclusion and violence, Chinese immigrants began to cluster in large urban areas, forming enclaves to “congregate as a means of enhancing their economic, social, political and/or cultural development” (Marcuse 1997). The repeal of the Exclusion Act resulted in significant physical expansions and larger socio-economical developments in the Chinatown community. In the 1970s, new global capital investment was attracted to Lower Manhattan. Chinatown received a significant portion of its investment interests due to its cultural and social affiliations to Asian investors, resulting in an increase in land value and growth in industries such as
Figure 1-1  Study area – also known as historic core of Chinatown
banking, restaurants, and garment factories. Such changes led to increased employment opportunities as well as higher cost of living (Robison 1976; Glynn and Wang 1980; Wang 1979). The boom in garments, banking and restaurant businesses compounded by attracting further foreign investments. Peter Kwong (1987) points out that reliably cheap labor was the central pretense for Chinatown’s economic development, allowing for economic growth without contributing noticeably to improved living condition in Chinatown.

Another change that followed after the annual quota for Chinese immigrants was lifted was the expansion of the Chinese population into the outlying neighborhoods of New York City. Those with higher incomes were able to move out of the Manhattan enclave into neighborhoods with better living conditions, while those who has lower income stayed behind. This indicates that although there was some mobility within the Chinese population, the permanence of the enclave community was maintained by the continuous influx of incoming immigrants who replaced those moving out (Loo and Mar 1982). Kwong (1997) also notes that business owners intentionally maintain ethnic solidarity within the enclave to keep their employees, decreasing the likelihood that they will seek out outside jobs, which are often more well-paying. Liu, Miller and Wang (2013) have noted the contributions of local ethnic business development, which brings economic, social, physical and political gains to their communities. These include shaping neighborhood identity, giving voice to local businesses and improving access to goods and services.
Chinatown is more than a place of settlement, it is a social construction with cultural histories and material reality (Anderson, 1987). The community, with an inner socio-economic and physical apparatus, provides new immigrants with degrees of social, economic and cultural security from the difficult challenge of facing a new American culture and society alone (Loo and Mar 1982).

1.4. Urban Spaces and Economic Activity in Ethnic Enclaves

Physical elements play a key role in an ethnic enclave’s environment. Active spaces of consumption lead to both the standardization and diversification of the urban landscape. Commercial signage engages with these elements by contributing to the “symbolic economy” which shapes many modern urban areas. Partly in response to declines in major production industries, the new “symbolic economy” trades in abstract, cultural products such as tourism and “authenticity” (Zukin 1998). To foster more tourism, ethnic communities have, and continue to use symbols that links their environment to ethnic culture and histories, creating certain narratives in the urban space that in turn encourage the consumption of ethnic products in the context of the global market (Li, 2015 Santos et al, 2008). Language and visual design elements used on signs with other urban design elements contribute to the neighborhood’s social meaning – together they shape how a place is perceived and talked about (Aiello 2011). Manhattan Chinatown, through the processes of community building and self-orientalization in 20th and 21st centuries, has developed an urban landscape that displays both signs of cultural, traditional living experience and signs of neo-liberal global capitalism (Lin 1998). The urban space and streetscape in Chinatown reflects the
dynamics created by interactions within and between power structures of cultural identity, economics and politics within ethnic enclaves (Li 2015). Ward (1998) points out that in addition to being the product of inner socio-economic and political influences, physical signs also became a tool for the municipality and local business owners to brand themselves to a tourist market. An example of this is in Washington D.C.’s Chinatown, which is no longer occupied by a majority of ethnically Chinese residents. City planners and business owners intentionally preserved the streetscape to include and highlight elements of Chinese heritage in building designs and signage to maintain the tourism value of the area (Pang and Rath, 2007).

Umbach and Wishnoff (2008) discuss the split between everyday residents and merchants in Chinatown, comparing to the efforts made by business owners to attract outside consumers to everyday residents who are reluctant to initiatives that “exoticized” the urban space. This is why the residents opposed the planning proposal for a Chinese-inspired gateway arch for Manhattan Chinatown, which they considered as catering to tourists instead of residents. Another sign of the shifting focus of the internal economy from residents to tourists is the rising number of restaurants and falling number of grocery stores and markets (Hackworth and Rekers 2005). Terzano (2014) argues that city officials and business owners in ethnic communities may seek to commodify the neighborhood’s identity as the ethnic population diminishes over time, a process similar to gentrification.

The physical elements in urban spaces are one of the tools used to commodify ethnic identity and shape the built form of the community. The relationship between an
ethnic community and the physical environment is thus a reflexive set of spatial, social, and economic interactions.

1.5. Signs in The Built Environment

Harvey (2006) states that because human activities have the power to command and produce public space, they therefore can continue to reproduce and enhance their own power. The majority of research regarding signage in ethnic neighborhoods focuses on linguistic landscapes and on surveys of languages found on signs. In more recent studies of the linguistic landscape, public signage has been viewed mostly qualitatively. It is difficult, therefore, to draw a clear line between these two research focuses, but, as stated by Jaworski and Thurlow “all landscape is semiotic” (Jaworski and Thurlow 2010). Research on language found on public signs also has more recently begun to focus on their visual elements and semiotic meanings (Pennycook 2010). Importantly, human activities give meaning to spaces (Harvey 2006), and public spaces with visible responses to human interventions are given meaning by activities (Scollon and Wong Scollon 2003). From this definition, any public space which displays cultural imagery and written language is part of the semiotic landscape.

Kevin Lynch’s early research looked into what the urban environment contributes to residents’ “image of the city”, stepping into investigating the social meaning of built environment (Lynch 1960). Later Gottdiener and Lagopoulos defined urban semiotics as including both physical elements of the built environment and social content such as demographics, cultural background, social class and property
ownership, expanding the subject beyond just the physical form of the city (Gottdiener and Lagopoulos 1986).

The visual makeup of an urban space reflects the changing dynamics within a neighborhood. Hiller and Goodbrand (2016) argue that external forces also compete in defining the use and meaning of community spaces inhabited by existing populations through processes of interpretation and reinterpretation of urban semiotic space. Barabantseva suggests that Manchester (England) Chinatown is functioning within a different timeline compared to the rest of the city. She analyzes the development of Manchester Chinatown within two time scales: the one of the city and the one of the Chinatown itself, indicating that the community is under both internal and external pressures (Barabantseva 2016).

Similar to the commodification of urban space in the Washington D.C. Chinatown, cities are now competing in a global competition where economic development is linked to the ‘authentication’ of community urban spaces (Hiller and Goodbrand, 2016 Zukin, 2009).

Hjelmslev (1961) establishes the model of the decomposition of spatial signs, claiming that signs consist of two key elements: signifier and signified, which connect to social and cultural environment and material artifacts. These two elements can be further broken down to their “form” and “substance”. According to this model, not only do the signifier and signified relate directly to each other, they are also individually attached to the respective cultural and material contexts of the neighborhood.
Uta Papen views commercial signs in urban spaces as contributing to the semiotic landscape and as reflecting the neighborhood’s identity through the course of change in the area. Commercial discourse, as defined by Papen, describes ideas about products and consumer groups aimed for. Such discourses are expressed by the visual images and signs. An examination of this discourse helps to understand how the commercialization of public space shapes the community through physical marketing and advertisement. In this study, Papen examines the neighborhood of Helmholtzkiez, which is undergoing gentrification in Berlin. Papen used photographs and written records to survey all signs on the streets. She carefully chose signs to further analyze, noting details such as colors, location on the building, and relation to the business and commercial activity that the sign represented. These all contribute to Papen’s categorization of signs. Another approach to categorization is according to meaning. Jakobson categorizes the functions of signs into two main areas: the expressive and the phatic. Expressive signs speak for themselves. They act as part of a cultural identity in the everyday life of urban spaces. They often have distinct colors or languages with cultural references to origin countries. Phatic signs are meanings that facilitate social relations. They indicate a sense of belonging and community. Phatic signs can be used to representing ethnic spaces (Jakobson 1960).

Lou (2016) in her study of linguistic landscapes in Chinatown compares the signs of Chinese and non-Chinese stores. Regardless of the similar signs they present, there are subtle differences in the content, color scheme and code preference according to the categorization.
Another study of the spatial presentation of socio-economic meanings of signs, by the architects Venturi, Brown and Izenour (1972) put plans and elevations of the Las Vegas Strip together with images of their entrances, sculptures and signage. They divided signs into two categories: signs of information and signs of heraldry. This presents an alternative approach to the symbology of the physical environment, treating signs as architectural structure and buildings as signs.

Research by Krase and Shortell on visual images in neighborhoods analyzes how they differ in 40 global cities using online archive photos. The authors argue that visual data reveal the social meanings of a neighborhood that is both the context and product of ethnic and class transformations. The study subject is not limited to signs, but also other elements in the physical environment such as architectural details and graffiti. They use the two categories defined by Jakobson to label the photos and analyze the signs that appear in them. They see phatic signs as a decisive marker of a space as ethnic, whereas expressive signs are more of “attention catchers” for city residents. The paper further analyzes two aspects of their visual appearance: the ethnicity and class indicated by phatic signs. The authors indicate that phatic signs are usually seen for intra-cultural communications, found on businesses such as grocery stores and markets. However, expression signs are usually for outside consumers, such as souvenir stores. Additionally, phatic signs tend to be aimed at more working-class communities and expression signs at more “hipster” and middle-class audiences (Krase and Shortell 2011).
2. RESEARCH DESIGN

2.1. Methodology

Building on methodologies of previous studies, specific research steps to answer the research question: “What is the role of signage in urban spaces in ethnic enclaves as it relates to the development of local ethnic economy in the community, and how does signage influence the community’s cultural and socio-economic environment?” are as follows:

This study begins with collecting archive photos of the study area. The study area consists of the historic core of Manhattan Chinatown bounded by Canal Street, Bower, Worth Street and Baxter Street. Photos are arranged by their years and locations. Three main generational times are being considered: the 1940s, 1980s and 2010’s. Locations are arranged by their lot numbers on the tax lot map.

To analysis the changes in signage and to understand the expressions of the signage, a system to arrange and categorize them is needed. Each photo will be analyzed and given its own entry in a database. The entries and their categories are as following:

<table>
<thead>
<tr>
<th>Category</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>BBL number</td>
</tr>
<tr>
<td>Borough</td>
<td>Borough number (Manhattan)</td>
</tr>
<tr>
<td>Block</td>
<td>Block number according to tax map</td>
</tr>
<tr>
<td>Lot</td>
<td>Lot number according to tax map</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Year</td>
<td>Year Taken</td>
</tr>
<tr>
<td>Address</td>
<td>Lot Number</td>
</tr>
<tr>
<td>Zoning</td>
<td>Zoning according to Zoning map</td>
</tr>
<tr>
<td>Use</td>
<td>Commercial / Non-commercial – (Religious / Political / others)</td>
</tr>
<tr>
<td>Language</td>
<td>Chinese / English / Chinese and English / Other languages</td>
</tr>
<tr>
<td>Sign</td>
<td>Phatic / Expression/ Phatic and Expression / None</td>
</tr>
<tr>
<td>Other</td>
<td>Decorations on building / Graffiti / None</td>
</tr>
</tbody>
</table>

**Table 2-1 Category Index**

As shown in Table 2-1, each photo has been given a name in order to better arrange the vast number of photos. The name consists of borough code, block number and lot number, according to the New York City tax map. The Borough, Block and Lot number correspond to the numbers of the lot as existing in the years being studied. Year marks the year the photo taken. Since the main resource is tax photos, the years are 1940, 1980 and 2017. Location means the address of the lot, as shown on the map. The entries above include all the basic metadata of the photos.

Use means the use of the signage, mainly commercial or non-commercial. Religious and political lots will be marked separately inside the non-commercial category. If the use does not fit one of the above, it will be labeled as “other”.
Since the study area is in Manhattan Chinatown, the category Language includes “Chinese”, “English”, “Chinese and English” and “other languages”. Note that if the sign appears to be another language mixed with English, it will fall into the “other languages” category.

Following Jakobson and Krase and Shortell’s work, the Sign category denotes whether the sign is phatic or expression or both or neither. Phatic signs indicate the business that the sign is aiming to sell in the form of unique cultural goods and necessary groceries to the ethnic group. Chinese grocery stores and pharmacy signs are examples of such category. Expressive signs, on the other hand, are aimed primarily at outsiders and tourists instead of community members. Signs that show messages to both customers from the ethnic group and customers from the outside are defined as “both”. The categories are determined by the researcher according to the “signified” and the “signifier”: the message of the words written on the sign, and visual elements appearing on the sign. This category is important in relation to other categories, such as “use” and “language”.

The category Other will include information on other elements that contribute to semiotic landscapes: decorative architecture style, graffiti etc.

After the photographic category system is established, analysis focuses on the year and relationships within and between the years, using quantitative and qualitative methods. The categories are analyzed in the year for their spatial distribution and quantitative characters. They are also compared with times to track changes and trends.
Additionally, a matrix is used to show the appearance of individual signs across different times. The matrix contains categories of “Chinese-only signs”, “English-only signs”, “signs with both languages” and “Symbol on signs”, and information regarding the location of the signs on the street, such as “Front of the store”, “side of the building” and “on windows”. Different locations can contribute to varying layers of streetscapes. The matrix contributes to the understanding of the streetscape across different times and assists with the analysis of how their semiotic meanings have changed over time.

More detailed qualitative analysis is applied to previous research results such as characteristics of certain years, in order to investigate how these characters of signage have affected social activities and ethnic economies. This is also a way to examine the effects on signage of certain political events and socio-economic trends happening in Chinatown.

2.2. Limitation

The limitations of this study lie in the categorization and qualitative analysis. While doing the photographic categorization, the standard is set by the researcher and is determined by the researcher. Certain biases from the researcher are built in the research methodology and may yield specific interpretations, particularly regarding the semiotic meaning of the signs observed.

Another limitation is that some of the archived photos are not completely within the study area, which will be further discussed in Chapter Three.
3. FINDINGS AND DISCUSSION

3.1. Quantitative Analysis of Urban Semiotics

3.1.1. Signs and semiotics in Chinatown historic core in the 1940s

In the 1940s, more than half of the signs in the study area displayed English writing only (59%). 3% of the lots observed appeared to have had Chinese only signs, and a further 9% were in both Chinese and English.

![Figure 3-1 Chinese Immigration to the U.S. by decades, 1951 – 1980](source)

Source: INS Statistical Yearbook 1986

As shown in Figure 3-1, the 1940s saw the lowest level of Chinese immigration into the United States between 1850 and 1980. According to the Immigration and
Naturalization Service (INS) yearbook, this is also a low point for all immigration to the United States. During this time, due to the Immigration Act, the population of Chinese
immigrants in the United States was relatively small, falling within the category of “Others”. They were given the choice to mark down their race which included Chinese, but the final statistics show only “Whites”, “Black” and “Others” as racial categories. According to this categorization, the Census tract that included the Chinatown historic core had a population that was 25% “Other”.

These statistics reveal that the study area in 1940 had a mixed population, and that Chinese immigrants weren’t the dominant population. This mirrors the lower percentage of signs in the area with Chinese writing.

Another important observation is that there were more bilingual (Chinese and English) signs than there were only in Chinese.

Looking at the semiotics, 50% of the lots observed in the study area had signs with phatic uses. Another 20% of the lots had expressive signs, and 1% of the lots had signs that were both phatic and expressive. The remaining lots did not contain signage. Importantly, all phatic signs referred to their own culture, regardless if they were
Chinese or Italian or Jewish. All these cultural groups made Lower Manhattan their home during this time period. The same self-referencing was present in the expressive signs.

Figure 3-4 shows that the majority of phatic signs were English only. The same was true for expressive signs. For Chinese and bilingual signs, most were phatic. For English only signs, there was a more significant share that were phatic and expressive.

In summary, signage in the study area in 1940 was mainly in English, with only small traces of Chinese signs, and a moderate amount of Chinese-English bilingual signs. Concerning semiotics, most signs were phatic, with a noticeable number of expressive signs and a small number of signs that had both meanings. This was during the time when Chinese immigrants made up a small but noticeable portion of the local population.

3.1.2. Signs and semiotics in Chinatown historic core in the 1980s

The signs in the study area in the 1980s showed a significant decline in English-only signs, falling from 59% to 11%. In tandem with that, the percentage of Chinese-only signs increased from 3% to 20%. 51% of the lots in the study area contained bilingual signs with both Chinese and English.

As noted in Figure 3-1, we can tell that from 1940 to 1980, the number of Chinese immigrants entering the United States increased significantly, particularly
Figure 3-5 Language on signs in 1980

Figure 3-6 Semiotics on signs in 1980

<table>
<thead>
<tr>
<th>Semiotics</th>
<th>Phatic</th>
<th>Expressive</th>
<th>Both</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>41</td>
<td>3</td>
<td>9</td>
<td>53</td>
</tr>
<tr>
<td>Chinese</td>
<td>13</td>
<td>2</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Chinese and English</td>
<td>54</td>
<td>8</td>
<td>35</td>
<td>97</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>13</td>
<td>49</td>
<td>170</td>
</tr>
</tbody>
</table>

Figure 3-7 Language and semiotics on signs in 1980
following the repeal of the Exclusion Act. The 1980 census also shows that the population of the census tract that includes in the study area was 85% “Asian”.

Looking at semiotic meanings in the study area in 1980, there is a decrease in the number of expressive signs since 1940, but an increase in signage that is both phatic and expressive. Phatic signs cover more than half (56%) of the study area lots. Counting signs that are both phatic and expressive, 81% of the lots in the study area have signs with phatic meanings. Figure 3-7 shows that in the category of phatic signs, most signs are either Chinese only or Chinese and English. Further most Expressive signs are bilingual, and so are most signs that are both phatic and expressive. In addition, most Chinese only signs are phatic.

By 1980, most signs in the study area were bilingual. Further, there were more Chinese-only signs than English-only signs, and signage is mostly phatic. Within each category, Chinese-only signs and English-only signs were mostly phatic, Bilingual signs were more evenly distributed between being only phatic and both expressive and phatic.

3.1.3. Signs and semiotics in Chinatown historic core in 2017

In 2017, 68% of the lots in the study area had Chinese and English bilingual signs. 10% of these signs were Chinese-only signs and 14% of them English-only.

According to the 2016 census, the census tract with the study area has a population that was 73% “Asian”.
Figure 3-8 Language on signs in 2017

Figure 3-9 Semiotics on signs in 2017

<table>
<thead>
<tr>
<th></th>
<th>Phatic</th>
<th>Expressive</th>
<th>Both</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>17</td>
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<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Chinese</td>
<td>5</td>
<td>9</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Chinese and English</td>
<td>72</td>
<td>20</td>
<td>36</td>
<td>128</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>29</td>
<td>40</td>
<td>163</td>
</tr>
</tbody>
</table>

Figure 3-10 Language and semiotics in lots in 2017
Comparing semiotics, 47% of the lots had phatic signs. Meanwhile 16% had expressive signs, with 20% having signs that were both phatic and expressive. The remaining 8% of lots had no signage. Collectively 67% of the study area had signs that have phatic meanings, 36% had expressive meanings.

As noted in Figure 3-10, most Chinese-only signs were phatic, and most English-only signs were expressive. For signs that are both Chinese and English, the semiotic meaning category shows that most bilingual signs were phatic, with moderate levels of expressive and both expressive and phatic signs.

In 2017, most of the signs in study area were bilingual. Among those bilingual signs, 72 out of 128 were phatic. Among all the lots in the study area, over half had phatic signs. The number of expressive and both expressive and phatic signs were 16% and 20%, respectively.

3.1.4. Changes over time

3.1.4.1. Language use

Across these time periods, the percentages of various types of signs changed drastically in the study area, the historic core of Manhattan Chinatown. The amount of bilingual signage (both Chinese and English) had a meteoric 482.3% increase during the period from 1940 to 1980. In 1980 and 2017, there was a 36.3% rise. The number of English-only signs dropped by 80.5% from 1940 to 1980, followed by a 22.7% rise from 1980 to 2017. Chinese-only signs rose 783.3% from 1940 to 1980, and then fell 62.2% from 1980 to 2017.
In 1940, 11.9% of building lots had Chinese signage. In 1980, this number had risen to 78.7%. It remained steady from 1980 to 2017, when it was 77.8%. However, although the percentage of lots studied with Chinese appearing in signs remained steady from 1980 to 2017, the percentage of Chinese-only signs dropped from 27.4% to 10%, while the presence of English-only signs rose slightly from 11.3% to 13.5%. The proportion of English appearing in signs rose.

While the Chinese population in Chinatown remained at a roughly steady level, the rise in English appearing in signs indicates an increased physical and social connection with the surrounding neighborhoods in the city. It also indicates a decline of Chinese-only signs. More Chinese appears to be on bilingual signs, suggesting that fewer goods and services are being aimed exclusively at Chinese customers.

Another observation is that bilingual signs were more common than Chinese-only signs in 1940. This shows that while some Chinese-only signs promoted businesses that were selling cultural goods to the Chinese community, there were also more bilingual signs for businesses that were selling goods such as groceries to this ethnic group.
3.1.4.2. Semiotic Meanings

Looking at semiotic meanings among signs in lots observed in the Manhattan Chinatown historic core, there are distinct trends in the periods from 1940 – 1980 and from 1980 – 2017. First, in the category of “None” which means that either there is no sign in the lot observed or the sign is not subject to semiotic meanings (one example is parking signs and signs of Citibank in the study area), the number of lots without a sign is shown in Figure 3-12. The increasing number of signs without semiotic meanings that are significant to the construction of an ethnic enclave from 1980 to 2017 indicates that more public and institutional businesses have moved in, such as postal offices, branches of commercial banks or parking lots. The increasing number of this kind of modularized sign also shows that there are more connections between the local ethnic
economy inside Chinatown and larger city economy. The increase in parking lots is a particularly important indication of this.

Excluding the number of lots without signs as shown in Figure 3-12, the percentage of phatic-only signs in the study area decreased from 70.6% of all signs to 63.1% to 57.6% from 1940 to 2017. Overall, there is a clear trend of decreasing phatic signs in the study area. This means that a smaller proportion of businesses that only view local Chinese residents as customers exist in the area. The increase in expressive and both expressive and phatic signs in tandem with the decrease in phatic signs over time further indicates that more businesses are trying to attract a larger customer base outside the enclave. From 1980 to 2017, the decrease in expressive and phatic signs and the increase in expressive-only signs also may indicate that fewer businesses were
catering to neighborhood members. Figures 3-4, 3-7 and 3-10 show the detailed relationship between language use and semiotic signs in different years. These tables show that from 1980 to 2017, the increase in expressive-only signs mainly occurs in bilingual signs. In addition to that, there are also more English-only, expressive-only signs during 1980 to 2017, contrasting the 94.1% drop in English-only, expressive-only signs from 1940 to 1980. The reason behind this change might be the demographic shift in this time period from mainly Jewish and Italian enclaves to a mainly Chinese one. Chinese-only, expressive-only signs increased between 1940 to 2017. In the 1940s, the expressiveness observed was mainly in signs of non-Chinese ethnic groups. Another explanation of this high percentage of expressive signs in 1940 is the competition between ethnic groups in the area caused by outside pressures and increasing populations. From the 1940s to the 1980s, the area underwent a transition from predominantly Jewish and Italian communities to mainly Chinese communities. During the transition period, there was competition between ethnic groups for local businesses. While more ethnically Chinese businesses start to boom, the older ethnic businesses tried to compete by becoming more expressive in their own cultural appearance, hoping to stand out and show their existence among the new wave of freshly blooming Chinese businesses.

From 1940 to 1980, the focus of phatic signs shifted from English-only to Chinese-only and both English and Chinese. The shift indicates that the businesses were catering to more customers within the Chinese ethnic group with stores such as grocery stores and pharmacies gaining popularity while providing necessary goods.
exclusively to the Chinese group. From 1980 to 2017, while there were fewer phatic signs overall, a higher number became bilingual. The trend of increasing bilingual signage overall during that period might be one reason behind this change.
3.2. Qualitative Analysis

The matrixes showcase different types of signs in Manhattan Chinatown across the three time periods: 1940, 1980, and 2017. Photos of signs are categorized according to the location of their signs: front of the store, on the side of the building, and on the windows or doors of the store fronts. These are further divided by their contents: Chinese, English, Both and symbols.

The locations of signs relative to buildings contribute to different scales in the streetscape. Signs on the side of the buildings are more readable when the viewer is further away. Front-facing signs can be viewed when people are closer and on the street. Window signs are readable when the viewer is close to the window. Thus, they serve different purposes and carry different information.

Signs on the sides of the buildings are most readable when a person is observing from a distance. The effect they create collectively is a sense of place in Chinatown. Most of the famous photos of Chinatowns are of signs on the sides of the buildings. Layers of such signs condensed together form a visually stimulating, and unique overall image of an urban streetscape. When compared to Times Square and Little Italy, two of the special districts in Manhattan with policies to project signage, density of signage on the side of the buildings in Chinatown forms a similar, but more idiosyncratic streetscape. Other Chinatowns, such as in Flushing Queens and Sunset Park Brooklyn, also have similarly layered streetscapes. The streetscapes of Manhattan Chinatown, especially the layered side signs, often remind people of the streetscape in...
<table>
<thead>
<tr>
<th>FRONT</th>
<th>SIDE</th>
<th>WINDOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHINESE</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image1" alt="" /></td>
<td><img src="image2" alt="" /></td>
<td><img src="image3" alt="" /></td>
</tr>
<tr>
<td>ENGLISH</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image4" alt="" /></td>
<td><img src="image5" alt="" /></td>
<td><img src="image6" alt="" /></td>
</tr>
<tr>
<td>BOTH</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image7" alt="" /></td>
<td><img src="image8" alt="" /></td>
<td><img src="image9" alt="" /></td>
</tr>
<tr>
<td>SYMBOL</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image10" alt="" /></td>
<td><img src="image11" alt="" /></td>
<td><img src="image12" alt="" /></td>
</tr>
</tbody>
</table>
Hong Kong. While the signs on the side of buildings contribute to the broader character of the neighborhood, they appear most often to be either English-only or Chinese-only in 2017. Even when they do have both languages, one is almost always more present on the sign, while the other occupies only a small area. Most of these signs have large Chinese words with smaller English works below. However, in 1980 and 1940, similar building-side signs often had larger English words, or an even display of Chinese and English. The signs themselves have become larger over time, being noticeably scaled up in 2017 when compared to the signs of 1980 and 1940.

The signs on the front of a store mostly carry direct messages to the consumers and anyone who walks past the street. They can be best viewed when a person is walking on the street, and they are the first thing people look at for store information. Compared to the signs on the side of the buildings, front-facing signs are less uniquely placed: their locations on the building are not different from one another. Since the nature of location make signs at the front of the store relatively consistent in height and scale, they are not likely to create layers as complex as those fostered by building-side signs.

Additionally, larger front-facing signs provide more room for detail and specific information, as well as decorative details like patterns, symbols and unique fonts. A major difference in 2017 compared to the 1980 and 1940 is that there appears to be less information on front-facing signs. However, signs on the storefront that have both English and Chinese haven’t seen major changes to design and scale over time time.
Between 1940 and 1980, bilingual signs usually did not favor one language over the other, in terms of size, or placement. However, by 2017, there was an increase in signs that favored Chinese than English, especially front-facing and building-side signage. The shift from mainly English-only signage and bilingual signage that did not favor one language to the other to a more predominantly bilingual streetscape that favors larger and more prominent Chinese text reveals a shift in the goal of signage in Manhattan Chinatown.

The messaging on the store front signs generally consist of two parts: the nature of the business the sign represents and the brand of the business. This remains true for store front signs in all languages across all three time periods. However, side signs usually contain only part of the total messaging of front-facing signs, either the brand or the nature of the business. The rest is only revealed when visitors move closer to the location.

Window signage contributes to another layer of the streetscape in Chinatown. Considering that these signs are not usually large enough to be read from a distance, they are more likely aimed at people standing directly in front of the buildings. Since readers are viewing the window signs more closely, they are more likely to receive additional information than they might find on either front-facing or building-side signs. Under the assumption that a reader who approaches and engages with a window sign is more interested in a given store than someone looking from afar, they are able to absorb more details such as menus of restaurants, advertisements for suppliers, price lists and sales.
These three layers of signs on the streets together create the foundation for the image of Manhattan Chinatown. In this way, the visuo-spatial experience of this urban space can be divided into three scales: the broad complex of information displayed when first entering, the individual display when walking down the street, and the specific information displayed when stopping in front of a store. Because we are viewing the street as a collective entity, more focus will be put on store front signs and building-side signs, as they contribute to a broader streetscape and together send recognizable messages about the character of the ethnic enclave.

The fonts of English text on signs in 2017 appear to be mostly bold, capitalized, and sans serif. One bilingual window sign contained a non-capitalized, serif font. These appear more printed than the texts present in 1980. Compared to the text in 1940, both Chinese and English fonts look more calligraphic and more digitally designed in 2017.

The “Chop Suey” font, created and popularized in San Francisco Chinatown, represents the exotification of the “oriental” culture found in Chinatowns. This typeface is more commonly found in Manhattan Chinatown in 1940 than 1980 or 2017. However, it does remain present to small degree in 2017. The font was used by many Chinese stores and restaurant owners to identify themselves quickly to the American consumer. Nowadays the font, along with the dish it is best associated, is commonly regarded as an American invention and fetishized interpretation of the Chinese culture, and not a symbol of Chinese culture. However, this American-Chinese intervention is appropriated by some Chinese Americans in a “self-aware” mockery and reclamation of the stereotype (“Red Scare,” 2012).
Signs in 2017 appear to contain more diverse color palettes, including purple, blue, and green in addition to the more classic red, yellow, and gold that was common to signs of 1940s and 1980. Red, yellow, and gold are colors that strongly relate to China and traditional Chinese culture. In the 1940 and 1980, English signs used significantly less red and yellow, and followed design aesthetics unrelated to traditional Chinese culture. Signs that are English-only and do show connection with the Chinese background via color or decorations have text that appears to be less crisp and “printed”, favoring rounded edges. This may be another reference to Chinese characters, which do not have hard corners like many letters of the Latin alphabet in simple fonts. These signs, which are English-only but suggest some connection to the ethnically Chinese community, are an attempt to differentiate specific stores from their American counterparts by referencing Chinese culture and ethnicity through the use of color and font.

References to Hong Kong and Cantonese culture, the predominant Chinese culture in the United States, appeared in the usage of traditional Chinese writings, which can be seen in signs from all three times. However, the appearance of traditional Chinese written form - from right to left – is unique to the Hong Kong area, and has mostly disappeared in 2017’s observation of Manhattan Chinatown. This is, however, coded in the Chinese text on signs in 1980 and 1940, further communicating Cantonese heritage exclusively within the Chinese immigrant population.

Differing messages to Chinese readers and English readers indicates that while Chinese businesses want to express certain information to members of the Chinese
community, the existence of English communicates the message that these businesses are aware of and engaged in their operation within an ethnic enclave. In addition to having the Chinese characters to remind the readers of the context, the English words also appear to reveal the existence of another culture by using colors, symbols and literal message such as “Chinese” or “Canton”. This has become more significant in the use of English signs that more frequently denote words such as “Chinatown” or “Shanghai Cuisine” after 1980. The additional information was not usually included in the Chinese message. Rarely, for example, does a Chinese sign say: “Chinese restaurant”. The presence of such English signs shows a clear effort to continue the legacy of Chinatown as a distinct and unique part of the urban experience. This type of direct messaging provides a literal way to foster a sense of place in an additional way that was rarely, if ever, present in 1980 or 1940.

The appearance of Chinatown as a product in western countries, such as “Chop Suey” signs and dishes connects and reinforces a third cultural space between the ethnic culture and the mainstream culture. Such dishes, for example, utilize Chinese materials and techniques, but in a way that does not exist in any traditional or vernacular Chinese culture. Another example of this phenomenon is the American Italian dish Spaghetti and Meatballs, which utilizes Italian ingredients but does not exist as a dish in any vernacular Italian culture. The presence of signs in the “Chop Suey” style in 1980 and 1940 in the study area indicated that a restaurant had this “signature” dish in their menu. However, no trace of these signs can be found in 2017 in the study area.
3.2.1. Why the change?

The main changes derived from the matrices, and the general appearance of signs in the study area from 1940 to 1980 to 2017 are as follows:

- Fewer references to traditional Chinese culture
- Fewer strong presentations of American Chinese inventions
- Major changes in design
- Smaller changes in information
- Stronger efforts to self-brand

Important to this research is the understanding that the design of signage has changed over time throughout the city, not just in Chinatown. As part of lower Manhattan, the trend in urban design at a larger scale also influenced Chinatown greatly. From 1980 to 2017, signs in urban spaces have shifted from hand drawn designs to almost entirely digital design. The development of digital printing technology is the main reason behind this change. This change in design can also be seen in the ethnic enclave, revealing that enclaves are not entirely isolated from the outside society, and adapt to changes alongside other neighborhoods in the city.

Another reason behind these changes is the shift in generations. References to the Hong Kong streetscape mainly came from Chinese immigrants who came from Hong Kong and the Canton area. As they were one of the first groups to arrive in Manhattan Chinatown, these immigrants’ impression of streets had a great influence on Chinatown streetscapes all over the United States. This can be observed more clearly in Flushing, a younger Chinatown, and one that more closely resembles a
contemporary city in China. Additionally, immigrants from elsewhere in China began to arrive in Manhattan Chinatown. Fujianese immigrants are another big group in Chinatown today, having come from a part of China with a dialect, culture, food, and variety of customs that differ from those in Hong Kong and Canton. The change of ethnic origins fosters diversity inside the Chinese group in Chinatown. It also brings different aesthetics to the streets, where there are now fewer signs with Cantonese characters.

Another change inside the ethnic group is the change in generations. In Manhattan Chinatown, as immigrants settled and had children, first- and second-generation Chinese-Americans began to assimilate into Western culture more naturally. Second- and even third-generation Chinese-Americans make up a larger majority of the ethnic population, bringing with them assimilated Western cultural elements as well. Newer immigrants are coming from a modernized China that looks fundamentally different from the one that older immigrants came from. They in turn bring new traditions and aesthetics to Chinatown.

Shifting theories and practices regarding ideal urban spaces and images of streets also contribute to shifting priorities in the ethnic environment. In the 1960s, Jane Jacobs began to draw people’s attention to the idea of authenticity in neighborhoods. Cities nowadays are branding their urban spaces as “authentic experiences”. From this point of view, the exaggerated decorations and strong references to the stereotypical Chinese cultural elements might be deemed “inauthentic” to people within the Chinese culture. The “authenticity” of Chinatown is
not as a true representation of China. First generation immigrants living in the area do bring with them authentic Chinese culture and can more naturally embed themselves in an environment that provides them with comfort and convenient living. However, this shifts over time, and to Americans and Chinese-Americans, the amalgamation of Chinese cultures over time that has produced a Chinatown today that is authentic to itself. That is, authentically “Chinatown”. In this way, these spaces and cultures are Chinese-American inventions, foregrounding a Chinatown culture that does not exist in China, such as Chop Suey and fortune cookies. Such processes may be one of the reasons why streetscapes in Chinatown turn more “westernized” while simultaneously becoming more “orientalized” depending on differing views of authenticity.

These nuances and distinctions come to be represented, created, reinforced, and deconstructed through the signage that shapes the streetscape. Sign regulation only entered into New York zoning law in 1960, with size and content limitations. It also limited the location of an advertising sign for a business in certain zones to within the same zoning lot of that business. As of today, signs on the streets must be permitted and approved by the Department of Buildings.
3.3. Spatial Distribution Analysis

Figure 3-13 Spatial distribution of language on signs in the study area
When looking at the spatial distribution of language on signs (either Chinese-only, English-only, or Both), it is interesting to note that signs carrying both Chinese and English appeared in the very center of the study area near the corner of Mott and Bayard streets, early on. By 1980, and more so in 2017, signs with both languages had spread throughout the surrounding area. The appearance of Chinese-only signs increased both in the core and in the expanded surrounding areas between 1940 and 1980, as well as between 1980 and 2017. Beyond the fact that there has been an increase in total bilingual signage, the distribution of these bilingual signs appears to be both focused in the core area as well as spreading outward.

Further, these signs appear to cluster, and often many signs with the same language type appear in close proximity to one another. Particularly, in 1980, numerous clusters of Chinese-only signs had appeared. However, by 2017 Chinese-only signs no longer seemed to cluster, and had become more evenly distributed in the study area.

One reason behind the changes in spatial distribution of language on signs in the study area is the general expansion of Manhattan Chinatown. The expansion of the Chinatown area can be observed directly by charting the expansion of bilingual signs. These shifts of the boundary has also caused a diffusion of Chinese-only and English-only signs. While single language signs are diffused and pushed further from the core of the study area, they also contribute to a fluid boundary of Chinatown. The expansion of bilingual signage is making Chinatown more connected to the city now than 1980.
Figure 3-14  Spatial distribution of Semiotics on signs in the study area
Looking at the distribution of semiotics in the study area, expressive signs tended to cluster around Mott Street in the 1980s, rather than being more evenly spread out around the edge of the study area as they were in 1940. By 2017, Expressive signs were evenly spread throughout the study area, but at an increased density.

Phatic signs remain similarly distributed from 1940 to 2017. However, since expressive signs concentrated along Mott Street in the 1980, phatic signs on the other hand remained more evenly spread. In 2017, they remained rather evenly distributed throughout the area. In 1980, when comparing the relative density and location of expressive and phatic sign locations, the core area was dominated by phatic signs. By 2017, more expressive-only signs appeared in the study area, particularly around Mott Street, and significantly fewer signs having both expressive and phatic meaning remained along Mott Street.

The spread of expressive signs over this time period shows a shift in the focus of commercial activity. This may be the result of the expansion of Chinatown, which generally led to the diffusion of phatic signs.
3.4. Discussions

Analysis of signs in the historic core area in 1940, 1980, and 2017 gives us images of what Chinatown looked like, and in what ways this has shifted over that near-80-year period. From the analysis above, we can see that many changes have occurred in relation to the state of this ethnic enclave’s streetscape, while others have remained the same.

In 1940, the study area was dominated by English-only signs, though Chinese signs and bilingual signs had started to make their appearance in the very center of the historic core of Chinatown. Most of the signs were phatic, especially among the Chinese-only signs. Almost all expressive signs were English-only. From the appearance of the signs in the study area, it is most interesting to see that these expressive signs contributed to the broader streetscapes by showing deference to traditional Chinese cultural iconography in their expression of colors, fonts, symbols and messaging in the words used. All of this was to market Chinese products to an English-speaking community.

Although Manhattan Chinatown was not dominated by the Chinese population in 1940, the image of a Chinese settlement had already begun to show. It was also a time when American productions of the streetscape that reference the orient begin to make their appearance. The use of red and gold coloring, images of oriental dragons, and the appearance of Chop Suey fonts and pagoda tops all illustrated this idea. The use of these expressions to brand the streets and cultural goods as being distinct from the
dominant American culture served to draw the attention of potential customers. This was present in 1940 when Chinatown was beginning to bloom.

In 1980, bilingual signs had become the dominant type in the study area. Significant growth of both Chinese-only signs and bilingual signs can be observed. The area was dominated by Chinese and bilingual phatic signs, with sparks of signs that were expressive and both expressive and phatic. The expressive signs appeared to be clustered around the center of the study area – Mott Street. Mott Street also marked the densest area of bilingual signs, which had spread out along Mott and pushed Chinese-only signs outwards. The appearance of signs that contributed to the broader streetscape furthered the expression of Chinese culture alongside the growth of phatic Chinese-only signs. More Chinese-inspired architecture such as pagoda tops were built, but so were more Chinese-only phatic signs to serve the community’s need.

By 1980, Chinatown was predominantly Asian. This certainly was reflected on the increasing number of Chinese-only signs. Even though Chinese-only signs had a higher growth rate from 1940, bilingual signs with Chinese and English still dominated the study area. Among these bilingual signs, most of them were either phatic or both phatic and expressive. Similarly, most Chinese-only signs in the study area were phatic. The shift from mostly English to a more diverse language profile did not contribute to an increase in the percent of expressive signs, but it did contribute to the growth of signs that have both meanings. This shows that the growth of the Chinese population led to the growth not only in Chinese-only signs but also in bilingual signs. The growth of phatic Chinese signs shows the development of Chinatown’s function as an
immigrant settlement. However, the continuing presence of expressive signs shows that the course of commodification also contributed to the changes in the area, having been present in 1940 and continuing to influence the area in 1980.

In 2017, the Asian population in the Chinatown area remained dominant, but to a lesser degree. This was reflected in the increase in the number of bilingual signs and a decrease in Chinese-only signs. While phatic signs remained steady, there were more expressive-only signs when compared to 1980. The appearance of the signs however, while contributing to a more complex and layered streetscape, showed less “expressiveness”. Fewer references to traditional Chinese culture are made, and the signage has more diversity in the design and color choices.

Bilingual signs, while increasing in number, remained more than half phatic. The rest of the bilingual signs grew to be expressive only. The concentration of expressive signs along Mott Street seem to be diffused in the study area when compared with the spatial distribution in 1980. Such changes show the expansion of Chinatown and the decentralization of commercialism along Mott Street.

Looking at the changes happening in signs in the study area between 1940 to 1980 to 2017, the number of Chinese-only signs increases when the Asian population increases and decreases when the Asian population decreases. Further, as Chinese signs increase, English signs decrease, and vice versa. During the time period observed, the number of bilingual signs increased at all stages of time. The growth of bilingual signs and the appearance of it alongside the single language signs shows the increasing connection between the ethnic enclave and the surrounding area. This
connection existed as early as 1940, and has grown more visible ever since. This also suggests that forces attempting to keep the ethnic community isolated and disadvantaged – major forces in the forming of an ethnic enclave in the first place – have weakened over time.

Another changing trend observed across each time period is in the messaging on signs and their semiotic meanings. From 1940 to 1980 to 2017, while the number of phatic signs did not change drastically, the number of expressive signs and signs with both meanings has been increasing. Overall this means more expressive signs in the broader streetscape in the study area. This change indicates that while the study area still functions as an ethnic enclave in providing cultural goods and services to the community members, the area has also been increasingly more commodified. More expressive signs are appearing to attract more business from the outside and to promote tourism. This process, in contrast to what Pang and Rath (2007) described as happening after the deconstruction of an ethnic enclave, existed early in Manhattan Chinatown, and has only become more significant recently. This change also indicates that the commercial potential of Manhattan Chinatown, which had existed before 1940, has become stronger over time. Chinatown has always been a tourist destination. Professional tours were offered at least as far back as 1940. But Chinatown was more than just a tourism destination. The main purpose of Chinatown as an immigrant settlement kept it vibrant. Manhattan Chinatown used to contain a significant manufacturing industry that provided jobs to the people inside the enclave. However, as Lower Manhattan has changed over time, the economic focuses within Chinatown
have shifted to real estate development and tourism (Li 2005). Chinatown is relying on its commercial potential now more and more. Deprived of the other functions, Chinese immigrants have moved to Flushing and Sunset Park Chinatowns, where the living conditions are better and property values are lower, though also increasing. Tourism has become the most dominant force in affecting the commercial potential of New York’s Chinatowns, and efforts to improve other conditions such as wages and property values have come from improving the tourism economy. Competition between Chinatown and surrounding tourist destinations has also led to more expressive signage. The growth of highly expressive signs is making Chinatown more visually distinct from the surrounding streets, but in another way. The commodification of these spaces produces a method of expressing unique and local cultural differences, but also preserves enough similarity to a simple commercial street so that visitors can experience the “exotic space” without being placed in an uncomfortably foreign world.

Contrary to such changes, the appearance of signs in 2017 show generally more diversity when compared to 1980 and 1940. Fewer references to the traditional Chinese symbols and colors can be observed. This marks a key shift in the presentation of authenticity in urban space, and a stronger connection with the surrounding areas as well as the development of technology that affects all urban areas. Such changes also mark shifts in the American-Chinese culture, where interventions such as Chop Suey and Chop Suey fonts are no longer commonly used to attract outside business. The idea of authenticity in the neighborhood has also changed the form of ethnic businesses. They have trended toward a more “authentic” appearance as they try to
attract more outside tourists. The modernization of China and the next generation of immigrants also contributes to the updated aesthetics in the ethnic enclave, and to changes in American-Chinese culture.

The urban space in an ethnic enclave in an increasingly globalized world is constantly affected by two forces: the economic and social forces inside the enclave, and the force from the dominate society that surrounds the enclave. Under such forces, there are consistently conflicts between economic and social drivers within the space, and these two forces forge the character of the enclave simultaneously.

One of the main conflicts is between the dominate culture’s idea of what is authentic to the ethnic culture, and the ethnic group’s idea of what is authentic to their culture. The complexity and dynamics of these two-conflicting ideas forges the urban spaces. New York’s Little Italy and Washington D.C.’s Chinatown, two ethnic enclave that are often considered as “dead” now, fell victim to the dominating culture’s idea of authenticity. Now these urban spaces act as “Disneyland” tourism destinations, artificial representations of the complex cultures that once operated there (Pang and Rath, 2007).

One example of the Manhattan Chinatown community force fighting off these external impressions occurred in 1960, when the community members voted against redevelopment plan that aimed at creating a “Chinese Broadway” (Umbach and Wishnoff 2008).

The external force on Chinatown has changed over time too. Before 1960 it was the force of discrimination and exclusion that kept Chinatown together. As those have
dwindled into the 21st century, social ties inside the community, and the potential of the market to brand the urban space and sell it as a tourist attraction has kept Chinatown functioning. Such economic forces are likely to grow stronger as we move deeper into a globalized marketplace (Santos et al. 2008).

A significant urban design element present in many US Chinatowns, but noticeably missing from Manhattan Chinatown, is a traditionally-inspired gateway. Comparing Manhattan Chinatown today to its image in 1940, it is also less expressively “Chinese” that the impression that many tourists have of an under-developed place, frozen in the 1940s. Of course, such a static and outdated streetscape is not natural in cities in either in western countries or in China. Compared to the imagined appearance of overtly classic references to the cultural background of an ethnic group (usually in earlier times), the contemporary diversity and modernization, and reduction of elements directly referencing older historical and cultural designs is, in fact, a sign of more vibrancy and resilience in an evolving enclave.

In the early stages, when an ethnic enclave has not had time to develop a mature inner economic and social system, the community will be under the force of the dominant cultures’ interpretation of the ethnic culture. As the ethnic community establishes itself, they can (re)produce conditions related to their cultural background and heritage, thus re-contextualizing and re-shaping what the dominant culture expects from the enclave. Early Chinese immigrants brought their culture background to New York, but were under the external power of American’s impression of China. This formed the image of “Chinatown”, not a “China-town”. But as Manhattan Chinatown
began to develop and to expand, their internal socio-economic development allowed it to challenge the image forced upon it by the American context. The urban spaces in the neighborhood were created during that process. Such “competition” will continue to happen in every ethnic enclave until, through either assimilation, dispersion, or other means, the enclave fades into the larger urban context. The competition, and this history, is reflected on the streets through signage.

The change in signs in urban spaces in the ethnic enclave is the clearest indication of its strength as an immigrant settlement and its role as a tourist destination in the broader city context. Furthermore, the fight between internal and external images of the neighborhood is also expressed by the signage in the streets: when there are more commodified expressive signs, they affect how people perceive the ethnic community and its urban experience, which further engages with the external forces to shape the community and so on. Changes in ethnic streetscapes influence the economics of these spaces by changing how they are perceived by consumers.

3.5. Implications

The analysis of how and why signs change in ethnic enclaves can contribute to our understanding of the urban spaces and the meaning in streetscapes formed by signs. The understanding of the connection between the development of ethnic enclaves and the physical environment is fundamental to any planning research and studies of ethnic enclaves.

Today, ethnic enclaves throughout the United States are struggling with the threat of disappearing, and of losing the authenticity they value for themselves. The
result of this is either the erasure of the enclave, or the “Disney-fication” of it. The commodification that is happening in ethnic enclaves does not happen in one day or one year. Instead it starts as one element in the enclave and grows over many years until it has become a dominant force in the neighborhood. When it becomes the only aspect left in the ethnic enclave, the enclave loses its social value as a safe environment for immigrant settlement, and it loses its “authenticity” from the perspective of members of that ethnic culture. This change is closely connected to the socio-economic development of the community. In other word, the streetscape and the socio-economic development of the ethnic enclave necessarily affect one another. This study points to the reflexive relationship between the two aspects and draws attention to it nature and effects.

By understanding the significance that signage plays in the process of creating urban experiences, and in shaping and being shaped by demographic, economic, and cultural shifts, planners can be more cognizant of past changes, as well as more sensitive to the effects and consequences of planning and preservation decisions. Further, by understanding the relationships between socio-economic environments and signs in an ethnic enclave, the progression toward commodification can be controlled, and reversed by making changes to the design policies of the ethnic streetscapes.

Many studies and reports have put forth suggestions relative to preserving and renewing Manhattan Chinatown, but they all have failed to gain support from the local community. For example, the Chinese community rejected proposals for a Chinese-inspired gateway in the neighborhood, which they viewed as aiming to cater to tourists
(Umbach and Wishnoff 2008). Furthermore, many proposals such as these tend to ignore the surrounding physical environment, specifically the unique streetscapes of the neighborhood. Without having the knowledge of the actual physical environment, a proposal regarding the urban space of the enclave is not well-rooted in the physical and socio-cultural landscape of that neighborhood, and thus is either rejected by the local community or fails to achieve benefits for it.

This study suggests that to preserve or develop an ethnic enclave like Manhattan Chinatown, one must first understand the conflicting external and internal force that have been influencing the enclave. By understanding how to balance these forces, planners can more effectively take the image and authenticity of the neighborhood into considerations in the planning process and provide opportunities that benefit current and future members of the ethnic enclave.

Knowing the relationship between signs and different aspects of the community can contribute to improving the proposals of future preservation efforts. This study attempts to bridge the gap between planning studies in ethnic enclaves and semiotic studies. Taking the streetscape and signs into consideration when doing planning studies will help planners and urban strategists to better understand the social and economic dynamics inside the enclave. The methodology established in this study can be further used in any historic neighborhood with different types of streetscapes other than signs, as semiotics in urban spaces engage more than just signage. Adding semiotics analysis using both quantitative and qualitative methods to any type of planning and urban research can strengthen the understanding of the vernacular urban
conditions present in that neighborhood, and allow local conditions to be better contextualized in relation to regional and global factors.
4. REFERENCES


Jones, Rodney H. 2015. The Routledge Handbook of Language and Creativity. Place of publication not identified: Taylor and Francis Ltd.


