



**Bilingual Street Signage at Three Religious Hajj Sites in Makkah:  
A Linguistic Landscape Translation Perspective**

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**Abstract**

This study investigates the translation strategies adopted in bilingual street signs at the religious sites of Arafat, Mina, and Muzdalifah in Makkah, Saudi Arabia. This linguistic landscape research incorporates an in-depth perspective on religion, culture, and communication, significant gaps in the literature. The study provides a descriptive analysis of signage, employing Edelman's translation-oriented framework (2010) alongside three of Newmark's translation strategies (1988). Forty-six digital sign images were collected and analyzed qualitatively from the three sites. Results indicate that most strategies tend to perform a single primary function. However, single (couplets) and combined (triplets) strategies function as layered solutions that serve several communicative purposes at once. These combinations highlight this strategic blending as a systematic practice in Hajj site signage. Such translation practices help preserve religious meaning and linguistic familiarity and may contribute to reinforcing Islamic identity. This study also finds that signs use translanguaging by mixing languages and semiotic elements, which can support meaning-making and navigation. Practically, the study recommends standardizing bilingual wording and visual cues and strengthening proofreading and consistency checks to reduce linguistic errors and improve navigation for diverse pilgrims. By highlighting the intersection of translation, culture, and communication in the linguistic landscape of Hajj sites, the study advances research in this underexplored area and deepens understanding of how bilingual signage supports pilgrims' experience.

*Keyword:* Bilingual street signs, Makkah, Saudi Arabia, holy sites, Hajj, linguistic landscape, translation strategies, translanguaging

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## Background

The city of Makkah, in the western region of the Kingdom of Saudi Arabia, is the birthplace of Islam and the most significant destination for Muslims due to its religious importance. Each year, the city hosts the Hajj, one of the world's largest pilgrimages, which takes place over several days and serves as the central focus of this study. Annually, millions of Muslims, the majority of which are non-Arabic speakers, travel to Makkah during this season (Farahat et al., 2021). Thus, in this context, effective communication becomes crucial. Aljadani and Alsolami (2020) emphasize the role of English in facilitating interaction at holy sites, noting that service staff and volunteers require foreign language skills to carry out their duties and to assist pilgrims efficiently. Therefore, the use of a shared lingua franca becomes essential. English, as the most widely spoken international language, plays a vital role in this regard (Dash, 2022). Its global reach has positioned it as a dominant medium for fostering intercultural communication (Bhatia & Ritchie, 2012). Bilingualism, however, extends beyond spoken and written communication to include signs and symbols in public spaces. Mantel and Kellaris (2023) describe bilingual signage as a common practice in tourist areas and in regions where legal requirements mandate its use to serve linguistically diverse communities. Therefore, they form an important part of inclusive communication and come under the field of linguistic landscape (LL), which examines texts and symbols in public spaces (Landry & Bourhis, 1997). Furthermore, it explores how multiple languages appear in both public and private signs, as well as images and symbols that convey meaning in ways that allow people to engage with and interpret them (Shohamy, 2019; van Mensel et al., 2016). Consequently, bilingual signage is a vital component of LL.

Additionally, public signs play an important role in LL. They offer insights into linguistic diversity and the identity of a place (Zhang & Guo, 2020). Qiu (2023) emphasizes that these signs constitute visible written language in public areas. She argues that signage forms one of the most common and practical uses of language in daily life and thus serves as a communication genre with specific purposes. The inclusion of other languages or foreign phrases on public signs aims to enhance the accessibility of information for visitors, especially foreigners, by guiding them to their intended destinations (Mahayana et al., 2023). This view is supported by Wang and Zhou (2023) who argue that shared signage plays a key role in helping people understand (and adhere to) the rules of open-access areas. Many signs include visual elements that complement the text, a phenomenon studied in semiotics (Chandler, 2007). Translation is also closely tied to LL because it supports public communication (Hopkyns & Hoven, 2022) and reflects cultural and social identities (Napu, 2024). Song (2024) extends this concept by viewing translation in public signs as a part of a broader translational landscape, mediating how urban spaces are encountered by multilingual audiences.

In religious sites specifically, LL research shows that signage in and around places of worship is key to understanding how language, power, and identity are used in sacred spaces. According to Landry and Bourhis (1997), signs fulfil both communicative and symbolic functions. This is reflected in studies of mosques, churches, temples, and pilgrimage centres across China (Zhan, 2024), Ghana (Boamah-Boateng & Anderson, 2024), Indonesia (Harahap et al., 2025), Japan (Nambu, 2025), India (Begum & Sinha, 2021), Malaysia (Coluzzi & Kitade, 2015), and the Philippines (Esteron, 2021). They consistently find that one high-status language (national or global) tends to dominate, while minority and local languages are given secondary or purely symbolic roles. This creates a mismatch between the spoken repertoires and the written codes used in religious sites (Nambu, 2025). In Islamic settings, Arabic Qur'anic verses and

supplications on signs reinforces faith, identity, and sacredness (Arifianto et al., 2025), whereas multilingual signage helps international visitors but keeps national languages dominant, which supports the idea of inclusion and sacredness. Beyond text, religious LLs also incorporate multimodal resources. These mark identity and distinguish sacred spaces from other ones (Harahap et al., 2025). Signage language choices also show authority and language policy as well as everyday use. When indigenous and minority languages are absent or less visible, it may suggest marginalization and raise questions about whose identities are recognized in sacred spaces (Boamah-Boateng & Anderson, 2024; Zhan, 2024).

However, despite growing work on language choice, multilingual practices, and semiotic resources in religious settings, translation strategies in bilingual and multilingual religious signage remain underexplored. Most studies classify signs as mono-, bi-, or multilingual and focus on prestige and ideology rather than offering a systematic, translation-oriented analysis of how meaning is transferred in sacred sites (Boamah-Boateng & Anderson, 2024; Nambu, 2025; Zhan, 2024). They rarely explain how religious and practical messages are translated for international pilgrims. Translation is very important in Islamic settings because signage may include religious texts that must be accurate, culturally sensitive, and respectful (Alhaddad & Abdullah, 2023). Wang and Zhou (2023) state that public sign translation should prioritize simplicity, accuracy, standardization, cultural adaptation, and memorability to promote a clear communication of rules, safety instructions, and messages. Other LL work identifies specific translation strategies such as transference, literal (word-for-word) translation, generalization, and omission (Algryani, 2021). Against this background, the present study examines the latter but in bilingual street signs at Arafat, Mina, and Muzdalifah in Makkah, Saudi Arabia. It uses a LL lens informed by religion, culture, and communication. By doing this, it extends LL research beyond language distribution and symbolism to the translation processes that shape meaning in Hajj spaces.

Building on research on religious LL and the underexplored role of translation, the Saudi Arabian context provides a relevant case. For example, there have been studies examining LL use by Muslim pilgrims visiting the country such as the Shoaib and Abu Al-Samh (2019) study that examines bilingual advertising on the Jeddah-Makkah Highway where Arabic is often combined with English through translation or transliteration. Their analysis shows English functions as a lingua franca for international pilgrims. They also find that multilingual interactions in this setting may involve adopting shared or mixed language practices among speakers with different L1s. From another perspective, Aljohani (2019) examines minority language representation in the LL of Madina. He illustrates how public signage shows the city's diversity and its importance for religious tourism. Arabic remains the primary language, but there are other languages on official and informal signs that suggest governmental use of multilingual communication to educate and to inform international pilgrims. In LL terms, these studies treat the language situation as translanguaging practices which include a multilingual and multimodal repertoire that communicates to people moving through these public spaces, rather than as isolated languages on separate signage (Pennycook, 2017). Most importantly, the combination of multiple languages with multimodal and semiotic elements is evident in signs, which produce a translanguaging space that draws a range of multilingual, multimodal, and multi-semiotic practices (Wang, 2025).

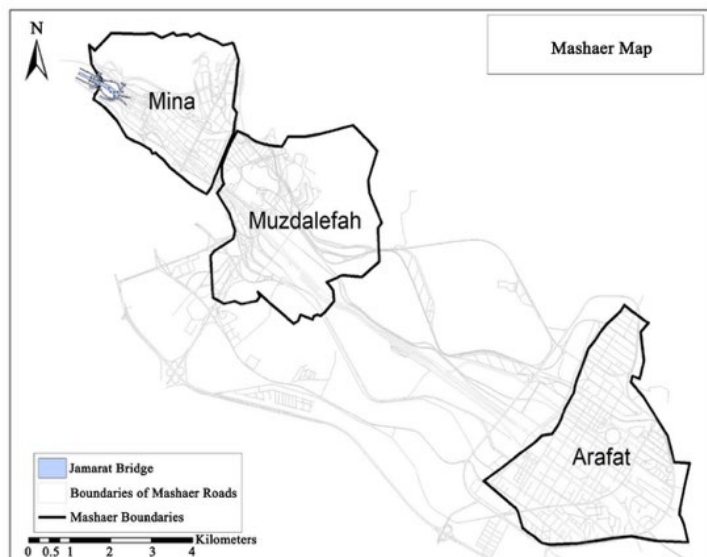
At a more micro level, research has examined the LL of Makkah's Grand Mosque itself. Alsaif and Starks (2018), for example, analyze language use and signage across a number of domains. Their findings reveal that "Classical Arabic" is used in holy sites and is usually

presented, reserved, and engraved on stone and metal while Modern Standard Arabic (MSA) is used in other locations. That said, English and Urdu are primarily used in temporary or electronic signs to accommodate international visitors. Additionally, the authors (2020), in a more recent study, further explore how different elements coexist in the Grand Mosque's LL to create semiotic assemblages, especially the use of Classical Arabic in the mosque's signage as opposed to other dialects/languages such as MSA, English, or Urdu, which are used as transient tools targeting international pilgrims. This aligns with Pennycook's (2017) argument that translanguaging should focus on meaning making across semiotic modes, not only across specific languages, since the mosque's signage uses different languages and formats to communicate with different audiences. These studies provide valuable insights into the LL of Islamic locations and highlight how they shape language visibility and diversity.

Despite this body of research, there is, to our knowledge, no study that specifically examines street signage across the three religious sites of Arafat, Mina, and Muzdalifah which are a part of the Hajj pilgrimage rites (see Figure 1), and how they play a vital role in guiding millions of pilgrims each year. Consequently, examining these signs is crucial, as translation choices can influence navigation, comprehension, and the overall Hajj experience. Therefore, providing a descriptive analysis from a translation perspective, this study investigates the translation strategies used in bilingual road signs at these three locations. The research contributes to the field of LL, which remains underexplored in Saudi Arabia, particularly in religious locations. Moreover, the growing prevalence of bilingual signage in Arab countries, where Romanized Arabic and Arabicized English reflect processes of globalization and linguistic glocalization (Alomoush, 2021), further highlights the need for such work. By focusing on the three holy sites of Hajj, this study addresses a significant gap in knowledge by examining how translation strategies in signage may help accessibility, cultural representation, and communication for international pilgrims.

### Figure 1

*Arafat, Mina, and Muzdalifah Locations (Alotaibi et al., 2020).*



Accordingly, theories are needed to study such contexts. Among the available frameworks, Edelman's (2010) model is one of the most widely used in LL research. Building on Reh's (2004) Multilingual Writing Framework, which classifies signs as duplicating, fragmentary, overlapping, or complementary, it reframes these categories through a translation-focused lens. Therefore, this study adopts this translation-oriented model as the main framework for bilingual signage. In operational terms, his model is used to code the relationship between Arabic and English on each sign. It does this by identifying whether the English part functions as a word-for-word translation, a free translation, a partial translation, or no translation. This classification shows whether translation occurs and the degree to which meanings are shared across both languages. However, many signs also retain Arabic lexical items within the English segment through transliteration, especially for religious place names and culturally specific terms. Because this lexical pattern is not captured by the sign-level relationship alone, the study also draws on Newmark's (1988) translation procedures at the lexical/segment level. In Newmark's terms, transference involves carrying a source language (SL) item into the target language (TL) text with minimal change, often via transliteration. Accordingly, it is operationalized by coding any Arabic item appearing in the English text in transliterated form (e.g., sacred sites, ritual terms, proper names). To capture cases where more than one procedure co-occurs within the same sign, the study also uses Newmark's combination labels. When two strategies occurred on the same sign, it was coded as a couplet, but when three occurred, as a triplet. Thus, Edelman's framework captures the sign-level relationship between languages, while Newmark's procedures capture how specific lexical items and mixed procedures operate within translated or partially translated segments. Guided by this theoretical foundation, the present research addresses the following question:

- How do translation strategies in bilingual street signage across Arafat, Mina, and Muzdalifah during Hajj in Makkah, Saudi Arabia shape the clarity, accessibility, and cultural/religious representation of information?

### **Methodology**

This study adopts a qualitative research design to examine how bilingual street signage communicates meaning and serves diverse audiences in multilingual religious spaces. According to Khan (2023), it is appropriate when investigating how linguistic choices shape social realities and influence diverse audiences in multilingual contexts. He claims that they emerge through interpretations, perceptions, and communicative effects that cannot be reduced to quantifiable variables. Moreover, signage in religious contexts functions as more than text. They combine linguistic, visual, spatial, and material elements that effectively communicate and collectively construct meaning (Pütz & Mundt, 2018). Thus, signs are treated as textual and visual data, so the focus is on how translation strategies work alongside semiotic features to convey information to diverse audiences in a multilingual context (Creswell & Creswell, 2018). Moreover, data are collected through purposive sampling, which supports qualitative inquiry by selecting information-rich examples that best represent the phenomenon under investigation (Stratton, 2024). Overall, this methodology supports a socially driven multimodal analysis of how language choices and design features (Ledin & Machin, 2017) work together in public signage to serve various purposes (Gorter, 2018).

## Data Collection

Photographic data are collected and analyzed to produce rich, contextualized examples of signage. The study utilizes this type of documentation as a research tool by using a smartphone camera (iPhone 13 Pro). The use of photography as a research method within the field of LL is supported in the literature (Gorter & Cenoz, 2024). This corresponds with the increasing visibility of these signs that are now increasingly present in our environment through traditional and new media platforms. This data was collected during the Hajj pilgrimage off-season to allow for easier and more efficient sampling. Primary data was obtained by photographing specific social spaces (Ferreira & Serpa, 2020) across the three main religious sites identified above. While some areas were fully accessible, others were restricted and could only be reached during the pilgrimage itself.

To address this issue, the researchers adopted a two-phase data collection process. Initially, street signs in accessible areas were photographed during a single four-hour visit, yielding 36 images. In the second phase, additional samples were obtained through Google Maps, where user-uploaded images provided access to otherwise restricted areas. This stage produced 33 sign images, of which only 10 were excluded because they were unclear, of low-quality, or duplicate photos. Overall, purposive sampling was applied to focus exclusively on bilingual street signage. A sign was treated as “translated” only when it displayed two or more languages on the same sign (e.g., Arabic + another language) or showed clear cross-language equivalence (e.g., parallel-text bilingualism). Signs that were purely visual or contained only Arabic, with no visible evidence of translation, were coded as visual or monolingual, respectively, and excluded, even though translation may have occurred earlier during the design process. Therefore, after removing duplicates, unclear photographs, and items that did not meet the inclusion criteria, 46 bilingual signs remained for analysis.

## Data Analysis

The analysis followed a two-stage coding procedure in which the two frameworks were applied at different levels of analysis. First, each bilingual sign was assigned an Edelman (2010) code to capture the sign-level Arabic–English translation relationship (single strategy: word-for-word, partial, free, or no translation). Second, relevant segments within the same signs were coded using Newmark’s (1988) model to capture procedure-level choices, particularly transference (transliterated Arabic items in the English text), and where more than one procedure occurred on a single sign, the combination labels couplet and triplet (combined strategy) were used. Because the dataset is small ( $n = 46$ ), relying only on raw “instance” totals can be misleading, as sites with longer signs may generate more coded occurrences without necessarily using the strategy more often. To address this, Table 1 reports sign-level frequencies (the number and percentage of signs in which each strategy occurs). This allows comparisons across sites using the same unit and reducing inflation from lengthy or repetitive sign text (see Table 1).

**Table 1***Distribution of Translation Strategies in Bilingual Street Signage by Site and Overall (n=46)*

<b>Translation Strategy</b>	<b>Arafat (n= 20)</b>	<b>Muzdalifah (n=12)</b>	<b>Mina (n=14)</b>	<b>All sites (n=46)</b>
<b>Single Strategy</b>				
Word-for-word	12 signs (60%)	9 signs (75.0%)	6 signs (42.9%)	27 signs (58.7%)
Partial translation	5 signs (25%)	3 signs (25.0%)	3 signs (21.4%)	11 signs (23.9%)
Free translation	3 signs (15%)	3 signs (25.0%)	2 signs (14.3%)	8 signs (17.4%)
No translation	4 signs (20%)	1 sign (8.3%)	1 sign (7.1%)	6 signs (13.0%)
Transference	9 signs (45%)	8 signs (66.7%)	4 signs (28.6%)	21 signs (45.7%)
<b>Combined Strategy</b>				
Couplet	5 signs (25%)	3 signs (25.0%)	8 signs (57.1%)	16 signs (34.8%)
Triplet	0 sign (0%)	0 sign (0%)	1 sign (7.1%)	1 sign (2.2%)

In addition to strategy coding, instances of non-standard English, spelling, punctuation, and transliteration inconsistency were noted as quality issues and identified separately from translation procedures. Finally, sign text is reproduced exactly as it appears in the photographs (including capitalization and spelling). However, because the same place name sometimes appears in different English spellings across signs, the study preserves the original sign wording but uses one consistent name to refer to the same place when spellings vary (see Table 2). This step allowed different spellings to be treated as referring to the same entity when summarizing patterns, while still preserving the original sign forms in the examples.

**Table 2***Reference Labels and Observed Sign Variants Used for Analysis*

<b>Reference Label</b>	<b>Sign Wording Examples</b>	<b>Analysis Treatment</b>
Masjid al-Haram	“MASJID AL HARAM”; “AL MASJID AL HARAM”	Counted under one place name label; spelling variation inconsistency issue
Jabal al-Rahmah (Rahmah Mountain)	“JABEL AL REHMAH”; “TO RAHMAH MOUNTAIN”	Treated as the same location; compared as different translation choices
King Faisal Road	“KING FAISAL RD. 50”; “KING FAISAL ROAD 50”	Treated as the same referent; abbreviation inconsistency practice
Mashaar Muzdalifah	“MASHAAR MUZDALIFAH”	Reported using the sign’s original wording; grouped under one label

Al Wadi Al Akhdar (company name)	“TO ALWADI AL AKHDAR”	Treated as a proper name; coded as transference
Majar al-Kabsh	“MAJAR ALKABSH”	Treated as a place-name item; grouped under one label
Mina boundary signs	“MINA STARTS HERE”; “MINA ENDS HERE”	Treated as boundary-marking items; grouped as one functional type

To support the coding process, the qualitative data analysis tool NVivo 15 (QSR, 2023) was used to manage the data, organize the ideas, and the visualize information (Jackson & Bazeley, 2019). Feng and Behar-Horenstein (2019) highlight NVivo’s strengths with multiple data formats that help identify patterns and relationships. In this study, the software was applied to organize the photographs of street signs, identify themes, and examine overall distributions and co-occurrence patterns. The collected data was catalogued for both content and semiotic analysis.

Moreover, a peer-coding process was adopted whereby the first researcher initiated preliminary coding while the other independently coded different subsets to allow for collaborative coding and independent coder perspectives. Analytic procedures followed an iterative coding development process. This was supported by regular peer-review meetings to refine categories and document any decisions. Inter-rater verification was implemented through the coding of the same samples independently and then researchers met to discuss and resolve discrepancies. Cross-checking included the re-examination of the photographic evidence and the side-by-side comparison of coded extracts. The researchers also consulted a translation expert who functioned as an external validator by reviewing selected parts of the data coding, clarifying lexical ambiguity, and advising on readings of multilingual signs. An audit trail recorded research decisions, analytic steps, and methods. All this added external validation to the triangulation approach and enhanced the rigor and the trustworthiness of the study’s interpretations. Regarding ethical considerations, all data were gathered from public spaces within the three identified religious sites, which eliminated the need for permission.

## **Results and Discussion**

Using Edelman’s (2010) and Newmark’s (1988) frameworks, the examination of the three religious sites identifies the translation strategies most frequently used, their key characteristics, and the semiotic features of the signs. As suggested by Algryani (2021), this categorization of translation methods contributes to a deeper understanding of how signage translation is done. The study results reveal six significant translation procedures: word-for-word, partial translation, free translation, no translation, transference, and combined strategy (couplet/triplet). The results show that each of the three holy sites has its own translation strategy preferences with some overlap occurring.

### **Arafat**

In Arafat, the dataset contains the highest number of coded instances (71), which may reflect a greater volume of signage in this site within the collected sample (see Table 3). Five single strategies and one combined strategy are identified, with word-for-word being the most frequent (35 instances). However, some cases, such as “CLINIC UNIT,” highlight the limitations of literal translation, as the phrase sounds awkward or ambiguous compared to more natural

terms such as ‘Health Clinic’ or “Medical Centre.” Sign 1 is also noteworthy from a multimodal discourse perspective because the language order shifts across the two signs: Arabic appears above English on the top sign, while English appears first/left of Arabic on the bottom one. This placement can function metonymically, where the language positioned on top (or first) can index importance or authority and signal the intended audience (Przymus, 2017; Przymus & Huddleston, 2021). An alternative explanation is that this ordering reflects script directionality and layout conventions, particularly on the lower panel, rather than a deliberate hierarchy of value. Overall, this site mainly uses word-for-word translation, which usually keeps the meaning but might cause confusion in some cases.

### Sign 1

*Word-for-word*



**Table 3**

*Translation Strategies of Arafat Street Signs*

Translation Strategy	Instances	Total
<b>Single Strategy</b>		
Word-for-Word	35	58
Partial Translation	5	
Free Translation	3	
No Translation	8	
Transference	7	
<b>Combined Strategy</b>		
Couplet	13	13
		<b>71</b>

Also, in this site, the “no translation” strategy was used more frequently than transference, which is unexpected since street signs usually rely on transliteration. This may be because many terms in Arafat do not require transference; for instance, [ma.sa:r wa:hid ?alif] was left untranslated, likely intended for Arabic-speaking service staff and/or volunteers rather than pilgrims (see Sign 2). Transference, though less common (seven instances), remains significant, especially for key Islamic terms. For example, “JABEL AL REHMAH” was transferred rather than translated. It is important to note that this place name appears on the signs as “JABEL AL

REHMAH” and “RAHMAH MOUNTAIN”; both refer to the same location, yet they differ in wording because they employ distinct translation strategies. In this example, transference reflects the term’s dual role as a geographical label and a religious reference that many Muslim visitors know well (see Sign 3). This aligns with Algyani (2021), who notes that transference is often used for proper nouns. Similarly, Metwally and Asiri (2025) argue that this procedure helps preserve the cultural and religious significance of Islamic terminology. Thus, although no translation dominates, transference still contributes to maintaining meaning and identity in the signage of this holy site. Partial translation is also used in Arafat, though only in five instances. Most probably it serves to make signage easier for pilgrims to understand while avoiding awkward English translation. For example, “PILGRIMS AREA” reflects partial translation, as the SL word [nuzu:l] (“stay”) is omitted to avoid a direct translation such as “Pilgrims stay area,” which would sound unnatural in English (see Sign 2).

### Sign 2

*Transference*



### Sign 3

*No Translation*



### Sign 4

*Free Translation*



At the sign level, this indicates partial transfer of meaning from Arabic to English. Separately, the English text also shows a punctuation/standardization issue because the phrase is missing the possessive apostrophe (i.e., “PILGRIMS AREA”), whereas standard usage would be “PILGRIMS’ AREA.” This suggests that in addition to translation choices, some signs show editing inconsistencies that may affect linguistic accuracy, even when the intended message remains clear. Free translation is the least frequently used strategy in Arafat, appearing only three times. One example is “ARAFAT STARTS HERE,” which conveys spatial meaning more effectively than a literal translation such as “the beginning of Arafat,” which implies time rather than place (see Sign 3). Although infrequent, free translation is applied when direct or partial strategies risk producing awkward or misleading results. This highlights its value in enhancing clarity and ensuring that pilgrims interpret signs correctly.

### Sign 5

*Combined strategy (couplet)*



### Mina

In Mina, street signs are fewer than in Arafat and Muzdalifah, yet signs employ a range of translation strategies (39 instances; see Table 4). Word-for-word translation is the most frequent, appearing in 15 instances, as it conveys direct meaning for terms without strong cultural or religious weight. For example, “CAMPS” is translated literally from [mu.xaj.ma:t], reflecting clear linguistic equivalence (see Sign 6). This pattern mirrors Arafat and Muzdalifah, where word-for-word translation is also used for non-religious terms. In contrast, transference occurs in eight instances, particularly in place names such as “MAJAR ALKABSH” (see Sign 7), preserving religious and cultural associations. Since many pilgrims may already recognize these Arabic names through religious knowledge and Hajj preparation, transference can support linguistic continuity and retain sacred meaning. Overall, Mina demonstrates a dual approach: word-for-word translation can improve clarity for functional terms, while transference maintains the religious and cultural identity of key expressions.

### Sign 6

*Word-for-word*



### Sign 7

*Transference and Partial Translation*



**Table 4**

*Translation Strategies of Mina Street Signs*

Translation Strategy	Number of Instances	Total
<b>Single Strategy</b>		
Word-for-word	15	30
Partial Translation	3	
Free Translation	2	
No Translation	2	
Transference	8	
<b>Combined Strategy</b>		
Couplet	8	9
Triplet	1	
		<b>39</b>

The least used strategies in Mina are partial translation, free translation, and no translation. Regarding the first strategy, it appears only three times, as in “MAKKAH,” where the noun [mak.kah] is translated while the adjective [al.mu.'kar.ra.mah] (“Honored/Noble”) is omitted. This might be because “Makkah” is widely recognizable on its own (see Sign 7). This choice supports clarity and avoids unnecessary complexity, which reflects Mahmud et al.’s (2024) view that partial translation can simplify text by removing redundant or unclear elements. Moreover, free translation occurs in only two cases, “MINA STARTS HERE” and “MINA ENDS HERE,” which mark area boundaries (see Signs 8 & 9). As in Arafat and Muzdalifah, this

strategy conveys the functional meaning more naturally than a word-for-word translation and may help readers identify where the site begins and ends. Regarding no translation, it also occurs in two instances in Mina, mostly in signs aimed at internal use rather than guiding pilgrims. In these cases, the Arabic text is not translated into English, which suggests that the message is not intended for international pilgrims. For example, items such as [ˈhaː.tif atˤ.tʕaˈwaːriː] (“emergency number”) and [ra.qam al.law.ħah] (“licence number”) remain in Arabic, while only the numbers are provided in digits (see Sign 10). This pattern implies that the information may be aimed at local staff and/or volunteers rather than pilgrims. However, Zhang and Guo (2020) caution that leaving text untranslated can reduce clarity and create confusion for non-Arabic readers, and they recommend using additional or brief explanatory cues to indicate that such details are intended for specific audiences. Generally, in Mina partial translation, free translation, and no translation are the least used strategies.

### Sign 8

*Free Translation (Google, 2022a)*



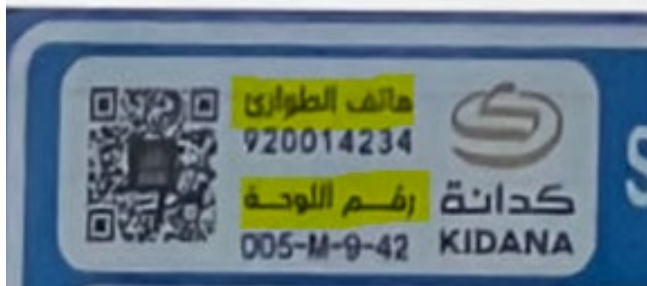
### Sign 9

*Transference and Partial Translation*



### Sign 10

*No Translation*



In Mina, two combined strategy patterns are observed in the instance counts (see Table 4). Newmark’s couplet is the most frequent, appearing eight times, while triplet occurs only

once. These combinations allow sacred terms to be retained while functional information remains clear. For example, in “JAMARAT GROUND FLOOR,” “JAMARAT” is transferred to preserve its religious significance, while “GROUND FLOOR” is translated word-for-word, as it has a direct match in English (see Sign 11). A full semantic translation of “JAMARAT” (e.g., “Stoning of the Devil”) may be less recognizable for many pilgrims who already know the Arabic term through religious instruction and common usage. The single triplet example appears in “TO MINA 3 (JAMARAT) STATION 3.5 KM” (see Sign 18). Here, “TO” is translated directly, “MINA” and “JAMARAT” are transliterated, and [ma.hatʕ:at al.qi.'ta:r] is partially translated as “STATION.” This combination may reflect an effort to conserve space while still conveying key directional information. In summary, these combined strategies show flexibility in blending procedures to communicate religious, cultural, and practical meanings.

### Sign 11

*Combined Strategy (Couplet).*



### Sign 12

*Combined Strategy (triplet) (Google, 2023a)*



### Muzdalifah

Muzdalifah is the second largest religious site, with 43 translated instances, and all translation strategies are represented across its street signs (see Table 5). Transference and word-for-word strategies appear with equal frequency, illustrating the significance of transference in this location, unlike in Arafat where it was less common. Transference works well for proper nouns and religious place names familiar to pilgrims, such as “ARAFAT,” since these are widely recognized from Hajj-related religious texts (see Sign 13). As Algryani (2021) notes, transference preserves local identity by transliterating cultural terms and place names, though it can sometimes create ambiguity if not applied carefully. In this study, transference may support

comprehension, as many of these terms are likely familiar to international pilgrims, making the strategy more helpful than confusing.

### Sign 13

Transference



**Table 5**

*Translation Strategies of Muzdalifah Street Signs*

Translation Strategy	Number of instances	Total
<b>Single Strategy</b>		
Word-for-word	13	34
Partial Translation	2	
Free Translation	4	
No Translation	2	
Transference	13	
<b>Combined Strategy</b>		
Couplet	9	9
		<b>43</b>

### Sign 14

*Word-for-word*



### Sign 15

#### *Partial and Free Translation*



### Sign 16

#### *Free Translation*



Moreover, in this site, the word-for-word strategy is equally significant, particularly for informational and special-purpose signs. For instance, “SERVICE CENTER” is translated literally, which is appropriate since it carries no cultural or religious meaning and is widely recognized across contexts, making transference unnecessary (see Sign 14). Word-for-word translation is valuable here as it conveys direct meaning and can help people navigate the area with ease. By contrast, partial translation and no translation occur far less frequently in Muzdalifah than in Arafat. This contrast may be linked to Muzdalifah’s smaller size, which limits the number of signs. It could also suggest a preference for strategies that preserve original religious text to maintain spiritual authenticity.

Regarding partial translation, it is used twice on street signs, such as “PEDESTRIAN 1” (see Sign 15). This strategy likely aims to reduce the amount of text displayed on signs, allowing for larger font size and easier readability from a distance. However, translating it simply as “pedestrian” shows limited knowledge of the TL and culture, since such usage is uncommon in English. The internationally recognized phrase is “Pedestrian Crossing,” which is clearer and more widely understood.

In Muzdalifah as well, free translation appears slightly more often than in Arafat, with five instances mainly used to indicate entry and exit points. For example, [bi'da.jat muz'da.li.fa] is translated as “MUZDALIFAH STARTS HERE” rather than the literal “Beginning of

Muzdalifah,” which would sound awkward in English (see Sign 16). Although this phrasing may sound slightly unusual in some varieties of English, it can be interpreted as a functional choice that emphasizes the precise beginning of the religious site boundary, which is important for pilgrims who need clear spatial cues during ritual movement. In this context, “starts here” foregrounds the boundary-marking function more explicitly than a greeting such as “Welcome to Muzdalifah,” which is more interpersonal than directive. This supports Ghazala’s (2008) observation that translators sometimes move beyond literal wording to convey the intended function of the source text.

### Sign 17

*No Translation*



### Sign 18

*Combined Strategy (Couplet) (Google, 2021).*



In Muzdalifah, most signs are translated using a range of strategies, with the exception of Sign 17, which remains untranslated. Interestingly, the no-translation strategy appears only twice on a single sign, suggesting that these untranslated items (highlighted in red) were likely intended for Ministry of Hajj service staff and/or volunteers, who are expected to be Arabic speakers, rather than for international pilgrims. Some signs also use a combined strategy (couplet), particularly transference alongside word-for-word translation, which occurs nine times. This allows sacred terms to be retained while the surrounding information remains clear for readers. Arafat and Muzdalifah show similar couplet use in examples such as “MASHAAR MUZDALIFAH,” where the religious place name is transferred while the remaining wording is translated directly, which can support both cultural specificity and accessibility for non-Arabic readers (see Signs 5 & 18).

Compared to Arafat, however, fewer examples are found in Muzdalifah. One explanation is that it is a temporary transit area where pilgrims spend only a few hours before proceeding to Mina, in contrast to Arafat’s status as a major pilgrimage station. An illustrative example of combined strategy (couplet) appears in Sign 18, “TO ALWADI AL AKHDAR.” The function word “TO” is rendered through word-for-word translation, while “ALWADI AL AKHDAR” is transferred rather than translated literally as “Green Village.” Since it is the name of a Saudi construction materials company, transliteration preserves its identity and avoids confusion. This example demonstrates how combining two strategies can convey the intended meaning of the SL accurately while maintaining clarity. Finally, in addition to strategy choice, some signs contain proofreading issues (e.g., “MUZDALIFA END HER”), which may reduce clarity and hinder comprehension due to linguistic inaccuracy (see Sign 9). This highlights the need for careful editing, so signage remains accessible to diverse audiences.

### Collective Results for the Three Religious Sites

The analysis shows clear differences in translation strategies across the three locations. In Arafat, literal (word-for-word) translation dominates, reflecting the fact that most terms used there have direct linguistic equivalence in the TL (see Table 6). By contrast, Muzdalifah favours transference since many of its signs contain religious or culturally specific terms that are better preserved through transliteration rather than literal translation. Signage in Mina employs a combined strategy (couplet) approach that includes transference, partial translation, and word-for-word translation. The use of multiple strategies likely reflects an effort to balance accuracy and clarity, making the signs easier for pilgrims to understand and follow. Together, these patterns highlight how each religious site prioritizes different translation techniques to convey meaning while respecting cultural and religious significance.

**Table 6**

*Translation Strategies of the Three Religious Sites Combined*

<b>Translation Strategy</b>	<b>Number of instances</b>	<b>Total</b>
<b>Single Strategy</b>		
Word-for-word	63	122
Partial Translation	10	
Free Translation	9	
No Translation	12	
Transference	28	
<b>Combined Strategy</b>		
Couplet	30	31
Triplet	1	
		<b>153</b>

Word-for-word translation is the most widely used strategy at the sign level (Table 1) and also the most frequent in instance counts (63 instances; Table 6); however, non-standard English forms and occasional spelling/grammar issues occur across strategies. In contrast, transference appears 28 times and retains Arabic terms, which may signal religious identity. Partial translation (10 instances) and no translation (12 instances) occur at similar rates; the former involves selective omission that avoids awkward English, while the latter is more common in signs that

appear to target local service staff and/or volunteers. Free translation is used nine times, reflecting flexibility in adapting expressions to cultural and linguistic norms and supporting clearer communication for visitors. The overall pattern of translation strategies suggests an effort to convey meaning while balancing accuracy, cultural preservation, and intelligibility.

The analysis also shows that combined strategies (Newmark's couplet) are used across all three sites. They are the most frequent, appearing 30 times in the dataset. This approach balances two priorities: preserving the religious and cultural significance of Hajj-related terms through transference and ensuring linguistic equivalence through literal translation. Finally, in only one case in Mina, three strategies (i.e., transference, partial translation, and word-for-word) are combined into one sign. As Metwally and Asiri (2025) mention, a multi-method approach can improve accuracy and clarity while enriching readers' understanding of Islamic culture. Generally, mixed strategies can support the understanding of religious terminology while maintaining the authenticity of the source material.

### **Translation Characteristics**

Beyond identifying the strategies used in signage across the three religious sites, this study also examines how texts appear on street signs. These features highlight both translation choices and design decisions that affect readability, consistency, and cultural representation. For comparison, they are grouped into three categories—similarities, differences, and unpaired—to highlight shared practices, inconsistencies, and isolated cases. This offers a deeper understanding of the linguistic and semiotic patterns that emerge in the signage system.

#### ***Similarities***

Similar characteristics refer to features that the signage share. These include abbreviation styles and orthography systems. Some street signs use abbreviations within phrases, which is universally recognized. This is one of the translation characteristics often shared across the three holy sites which suggests that utilizing it can facilitate reading street signage. Interestingly, some signboards include both abbreviated and full-word forms. This practice, which was observed across all three sites, suggests abbreviations might serve a functional role, particularly when space on a sign is limited. Another similar characteristic is the widespread use of uppercase lettering. Most street signs appear entirely in capital letters, with lowercase usage being rare even in word-for-word translations. While this departs from English writing conventions, where only initial letters are capitalized, the choice of uppercase seems deliberate. Capital letters enhance legibility, especially at a distance, by reducing confusion between visually similar letters such as [m] and [n]. This indicates readability and ease of recognition are prioritized over strict adherence to standard orthographic norms. This makes uppercase a practical design choice for signage in crowded and high-stakes environments like the Hajj sites.

## Sign 19

### *Lexical Differences*



The second translation characteristic is difference, which refers to elements that vary either within a single site or across all three. These differences include discrepancies in naming, lexical variation, shifts in religious terminology, and inconsistent use of abbreviations. For instance, two signs read “TO MASHAR MUZDALIFAH” and “TO MUZDALIFAH,” yet both refer to the same location (see Signs 5 & 16). The addition of “MASHAR” (Sacred Monument) in the first sign lends a religious nuance which reinforces Islamic identity and can resonate with pilgrims familiar with Hajj-related terminology. The placement of the two signs also appears purposeful. Although they share a similar design, the version with “MASHAR” (see Sign 5) is positioned within the holy site, which may emphasize its sacred role, whereas the shorter version (see Sign 16) is located further away. Still another example of difference is found in signage designed for pedestrian routes. All three sites include pathways for pilgrims traveling on foot, yet the terminology used to label these routes varies.

In addition to translation strategies, some signs show inconsistency in English wording. For example, the same pedestrian concept is labelled in different ways (e.g., “pedestrian line,” “WALK WAY 15,” “PEDESTRIAN WAY” and “PEDESTRIAN RD. 2,”), suggesting a lack of standardization that may reduce clarity for readers (see Signs 11, 17, 19, & 22). There are also variations in translating religious terms on some street signs. For example, “MASJID AL HARAM” and “AL MASJID AL HARAM” differ in whether the Arabic definite article “Al-” is included in the first element (see Signs 21 & 22). Although the difference is minor, it reflects inconsistency in transliteration and naming conventions across signs. In this example, omitting the initial

“Al-” gives a shorter form, whereas retaining it gives a fuller form that follows common Arabic naming practices for proper nouns. These variants suggest a need to standardize how key religious place names appear in English signage. Finally, some signs abbreviate the word “road” while others spell it out, as seen in “KING FAISAL RD. 50” versus “KING FAISAL ROAD 50” (see Signs 21 & 22). This variation reflects inconsistent formatting rather than a difference in meaning. While “RD.” is common in English, inconsistent use may confuse pilgrims who are unfamiliar with abbreviations.

### Sign 20

#### Religious Terminology Variations



### Sign 21

#### Religious Terminology Variations



### Sign 22

#### Religious Terminology Variations (Google, 2024).



### Unpaired Translation

The third type of translation characteristics is unpaired translation which refers to features found in street signs that do not clearly reflect either similarity or difference across the sites. Its characteristics include isolated and unpaired translation items, each representing a distinct case in the dataset. For the former, some instances appear only once and are not repeated on other signs, such as “SERVICE CENTER” in Muzdalifah (see Sign 14), “SAPTCO” in Arafat (see Sign 23), and “IRAN PILGRIMS” in Mina (see Sign 24). Another example of unpaired translation appears in the phrases “JABEL AL REHMAH” (see Sign 2) and “TO RAHMAH MOUNTAIN” (see Sign 25). Regarding the latter, it illustrates a combined strategy (couplet), whereas the former relies solely on transliteration. This shows that the same place name is translated through different approaches, resulting in inconsistent representations across signs. It

is also worth noting that the transliteration “REHMAH” does not reflect the commonly cited pronunciation with [æ] rather than [e] (i.e., [dʒæbæɫ ær:æhmæh]), suggesting variation in transliteration choices across the dataset.

### Sign 23

*Unpaired Characteristics in Mina*



### Sign 24

*Unpaired Characteristics in Mina (Google, 2022b)*



### Sign 25

*Unpaired Characteristics in Arafat*



### Street Sign Semiotics

It is evident that most signs incorporate visual elements that convey the same meaning as their linguistic counterparts. Alsaf and Starks (2020) point out that semiotics, which is a carrier of symbols and signs, actively shapes how people understand signboards. Two signs in the dataset include a mosque and a mountain symbol next to the texts “NAMIRAH MOSQUE” and “JABEL AL REHMAH” (see Sign 27). Notably, the mosque icon is in black while the mountain

icon appears in brown. Rather than treating these colors as carrying fixed meanings, they can be read as conventional visual cues that differentiate a religious site from a natural landmark. In Islamic visual culture, black is often associated with the Ka‘bah (the spiritual center for Islam in Makkah) and may index religious meaning (Namiri, 2017). By contrast, brown is commonly used to show natural terrain and may point to associations with the landscape (Lavrenova, 2023). However, since color use was not systematically coded across the full dataset, these observations are offered as interpretive readings of the examples rather than as generalizable patterns. According to Lavrenova, (2023), color may convey semantic associations with nature and ecological sustainability. Furthermore, arrows pointing different directions to indicate routes are the most prevalent icons on many of the signage because they help readers understand the direction of the roads (see Sign 27). This suggests that arrows serve not only as navigational aids but also as cues that may support ritual accuracy and reduce cognitive load during physically and emotionally demanding stages of the pilgrimage. This is emphasized by Pennycook (2017) who argues that focusing on semiotic resources helps explain how everyday life is dynamic because people, modes, and objects come together in specific times and places.

In addition, there are instances where the same icon is used in different contexts to make the meaning clearer, such as the depiction of three pillars with a hand throwing pebbles, which visually represents the Jamarat stoning ritual. The three pillars are shown with outlined borders and blank interiors, except for one that is filled in black to highlight the specific Jamarat site being indicated (see Sign 28). This contrast helps direct attention to the intended location and may also signal the site’s religious significance. From a visual grammar perspective, the throwing hand creates a clear “vector” (a directional line of action) that guides viewers’ attention and cues purposeful movement, and the left–right placement of elements can also carry informational value (Kress & van Leeuwen, 2006). Moreover, the ways in which icons are presented are important. They reveal that iconography can enhance both ritual clarity and cross-cultural accessibility. This can help pilgrims recognize and act upon the correct Jamarat site without relying solely on language. These types of non-verbal signs can play a supplementary role in conveying messages to people, especially pilgrims. Many Muslims speak neither English nor Arabic and some are illiterate, making it difficult for them to access the linguistic content of signs. This highlights the role of non-verbal design elements, such as icons and colour coding, for supporting inclusive and accessible navigation during Hajj. Thus, visual symbols can be as important as verbal ones because they can convey meaning even when the text is not easily readable.

## Sign 26

### *Mosque and Mountain Icons*



### Sign 27

*Arrows*



### Sign 28

*Visual Cues-Small Jamarah (Google, 2023b)*



### Conclusion

This study contributes to linguistic landscape and translation research by showing how bilingual street signage across Arafat, Mina, and Muzdalifah uses both sign-level translation relationships and procedure-level strategies, including transference and combined cases. The findings indicate that most strategies serve a single primary function, while some operate as layered solutions that achieve multiple communicative purposes within the same sign. Drawing on Edelman's (2010) and Newmark's (1988) frameworks, the study highlights strategic blending as a systematic practice in signage across all three sites. Word-for-word translation and transference are the most common strategies and are frequently combined to support clarity and linguistic familiarity. In addition, semiotic resources such as icons, arrows, and colors can enhance navigation and comprehension, especially for those who do not speak Arabic or English. Overall, these practices may help preserve religious meaning and contribute to reinforcing Islamic identity for diverse pilgrims. More importantly, they support practical recommendations for improving bilingual road signage and supporting pilgrims' experience.

Accordingly, the findings carry practical implications for improving bilingual street signage in the religious sites of Makkah. Firstly, the frequent use of literal translation and transference, together with recurring language-quality issues, suggests a need for standardized guidelines to promote accuracy, cultural sensitivity, and consistency across sites. Secondly, the presence of non-standard English highlights the need for specialized training and certification for translators of religious signage. Thirdly, the analysis of semiotic elements demonstrates the value of integrating standardized visual design features into signage to better serve the diverse needs of

international pilgrims, especially for illiterate pilgrims. Finally, the study highlights the importance of embedding signage planning within broader pilgrimage management policies. It emphasizes the need for the Ministry of Hajj and Umrah, municipal authorities, and urban planners to ensure that bilingual signage is clear and consistent to help international pilgrims navigate more easily and have a better Hajj experience.

Despite these contributions, the study has limitations. It focuses on translation without considering other perspectives such as tourism, economics, or policy, and it does not include pilgrims' perceptions. It also examines only three religious sites with a small dataset, which limits generalizability. Future research can expand to broader religious contexts, examining bilingual signage in mosques, significant Islamic landmarks, and other pilgrimage sites to compare translation practices across settings. It can also include surveys or interviews with pilgrims to capture their perspectives and evaluate how signage effectively supports their overall experience. In sum, the findings highlight the vital role of translation in Hajj holy sites in supporting navigation for millions of pilgrims and informing policymakers, planners, and translation educators.

## References

- Algryani, A. (2021). On the translation of linguistic landscape: Strategies and quality assessment. *Khazar Journal of Humanities and Social Sciences*, 24(2), 5-21.  
<https://doi.org/10.5782/2223-2621.2021.24.2.5>
- Alhaddad, S. M. A. F., & Abdullah, G. M. A. (2023). Translating Islamic religious expressions: Problems and strategies. *Journal of Languages & Translation*, 3(2), 52–78.  
<https://doi.org/10.70204/jlt.v3i2.293>
- Aljadani, M., & Alsolami, T. (2020). Identifying English language needs of religious guides at the General Presidency of the Grand Mosque and Prophet's Mosque. *Journal of the Saudi Association of Languages and Translation*, 6(2), 340–362.  
<https://doi.org/10.24252/Eternal.V62.2020.A11>
- Aljohani, A. (2019). *Minority languages in the linguistic landscape: The case of Medina in Saudi Arabia* [Doctoral dissertation, University of Western Sydney]. Electronic Theses and Dissertations.
- Alomoush, O. I. S. (2021). Arabinglish in multilingual advertising: Novel creative and innovative Arabic-English mixing practices in the Jordanian linguistic landscape. *International Journal of Multilingualism*, 20(2), 270–289.  
<https://doi.org/10.1080/14790718.2021.1884687>
- Alotaibi, M., Clarke, G., & Malleson, N. (2020). Optimal service planning in a temporary city. *Journal of Service Science and Management*, 13(5), 709–728.  
<https://doi.org/10.4236/jssm.2020.135045>
- Alsaif, R. A. S., & Starks, D. (2018). Medium and domains in the linguistic landscapes of the Grand Mosque in Mecca. *Journal of Multilingual and Multicultural Development*, 40(1), 14-31. <https://doi.org/10.1080/01434632.2018.1461874>
- Alsaif, R. A. S., & Starks, D. (2020). The sacred and the banal: Linguistic landscapes inside the Grand Mosque of Mecca. *International Journal of Multilingualism*, 18(1), 153-174.  
<https://doi.org/10.1080/14790718.2020.1766048>
- Ariefianto, M. L., Aminah, S., Izzudin, I. F., Mujahidah, Z. A., Muthmainnah, F., & Rahma, H. L. (2025). The influence of Arabic in Malang: Exploring the role of linguistic landscapes in shaping religious and cultural identity. *The International Journal of Interdisciplinary Social and Community Studies*, 20(2), 91–114.  
<https://doi.org/10.18848/2324-7576/CGP/v20i02/91-114>
- Begum, N., & Sinha, S. (2021). The languages of the divine space: A case study from India. *Dialectologia*, 27, 33–48.
- Bhatia, T. K., & Ritchie, W. C. (2012). Bilingualism and multilingualism in the global media and advertising. In T. K. Bhatia & W. C. Ritchie (Eds.), *The handbook of bilingualism and multilingualism* (2nd ed., pp. 563-597). Wiley-Blackwell.  
<https://doi.org/10.1002/9781118332382.ch23>
- Boamah-Boateng, D., & Anderson, J. A. (2024). The linguistic landscape of places of worship in Accra: Religion and multilingualism in Ghana. *Language Matters*, 55(3), 96–125.  
<https://doi.org/10.1080/10228195.2024.2410273>
- Chandler, D. (2007). *Semiotics: The basics* (2nd ed.). Routledge.
- Coluzzi, P., & Kitade, R. (2015). The languages of places of worship in the Kuala Lumpur area: A study on the “religious” linguistic landscape in Malaysia. *Linguistic Landscape*, 1(3), 243–267. <https://doi.org/10.1075/ll.1.3.03col>

- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approach (5th ed.)*. SAGE Publications.
- Dash, B. B. (2022). Significance of globalisation and English language. *International Journal on Studies in English Language and Literature*, 10(5), 10–16. <https://doi.org/10.20431/2347-3134.1005002>
- Edelman, L. J. (2010). *Linguistic landscapes in the Netherlands: A study of multilingualism in Amsterdam and Friesland* [Doctoral dissertation, University of Amsterdam]. University of Amsterdam Digital Academic Repository. [https://dare.uva.nl/personal/pure/en/publications/linguistic-landscapes-in-the-netherlands-a-study-of-multilingualism-in-amsterdam-and-friesland\(a5a67b19-32b5-490b-82b1-f08247bb0216\).html](https://dare.uva.nl/personal/pure/en/publications/linguistic-landscapes-in-the-netherlands-a-study-of-multilingualism-in-amsterdam-and-friesland(a5a67b19-32b5-490b-82b1-f08247bb0216).html)
- Esteron, J. J. (2021). English in the churchscape: Exploring a religious linguistic landscape in the Philippines. *Discourse and Interaction*, 14(2), 82–104. <https://doi.org/10.5817/DI2021-2-82>
- Farahat, A., Chauhan, A., Al Otaibi, M., & Singh, R. P. (2021). Air quality over major cities of Saudi Arabia during Hajj periods of 2019 and 2020. *Earth Systems and Environment*, 5, 101–114. <https://doi.org/10.1007/s41748-021-00202-z>
- Feng, X., & Behar-Horenstein, L. (2019). Maximizing NVivo utilities to analyze open-ended responses. *The Qualitative Report*, 24(3), 563–571. <https://doi.org/10.46743/2160-3715/2019.3692>
- Ferreira, C. M., & Serpa, S. (2020). Photography in social science research. *Journal of Educational and Social Research*, 10(4), 62–69. <https://doi.org/10.36941/jesr-2020-0065>
- Ghazala, H. (2008). *Translation as problems and solutions (Special ed.)*. Dar El-Ilm Lilmalayin.
- Google. (2021). *Street View photo on Souk Al Arab Road 62 to Arafat, Makkah, Saudi Arabia* [Street View image]. Google Maps. Retrieved October 9, 2025, from <https://maps.app.goo.gl/PV mz4GAVNFCZph9M9>
- Google. (2022a). “Mina starts here” entrance sign, Mina, Makkah, Saudi Arabia [Photograph]. Google Maps. <https://maps.app.goo.gl/v57a8UsAEHaYvfYV7>
- Google. (2022b). *Directional sign for African and Iranian pilgrims at Mina, Makkah, Saudi Arabia* [Photograph]. Google Maps. <https://maps.app.goo.gl/6GL738xa8SxLMLaa9>
- Google. (2023a). *King Abdulaziz Road 38, Makkah, Saudi Arabia* [Street View image]. Google Maps. <https://maps.app.goo.gl/1MjfAXqKUN4rmpGt5>
- Google. (2023b). *Interior sign directing to Small Jamarah, Mina, Makkah, Saudi Arabia* [Street View image]. Google Maps. <https://maps.app.goo.gl/vfoik5Z8D8YRqak68>
- Google. (2024). *Directional sign on King Faisal Road 50 indicating distances to Mina, Makkah, Saudi Arabia* [Street View image]. Google Maps. <https://maps.app.goo.gl/Td9wcvQemch2tBxp7>
- Gorter, D. (2018). Methods and techniques for linguistic landscape research: About definitions, core issues and technological innovations. In M. Pütz & N. Mundt (Eds.), *Expanding the linguistic landscape: Linguistic diversity, multimodality and the use of space as a semiotic resource* (pp. 38–57). Multilingual Matters.
- Gorter, D., & Cenoz, J. (2024). Photography and other distinctive research methods. In D. Gorter & J. Cenoz (Eds.), *A panorama of linguistic landscape studies* (pp. 129–152). Multilingual Matters & Channel View Publications. <https://doi.org/10.2307/jj.6947033.9>

- Harahap, F. J., Mulyadi, & Lubis, T. (2025). The linguistic landscape of tourist areas in Medan. *Leksema: Jurnal Bahasa dan Sastra*, 10(2), 277–297. <https://doi.org/10.22515/ljbs.v10i2.12761>
- Hopkyns, S., & van den Hoven, M. (2022). Linguistic diversity and inclusion in Abu Dhabi's linguistic landscape during the COVID-19 period. *Multilingua*, 41(2), 201–232. <https://doi.org/10.1515/multi-2020-0187>
- Jackson, K., & Bazeley, P. (2019). *Qualitative data analysis with NVivo*. (3rd ed.). Sage.
- Khan, C. (2023). From data to discourse: Interpreting social reality through qualitative and quantitative methods. *Research Journal of Social Sciences*, 1(2).
- Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design*. Routledge.
- Landry, R., & Bourhis, R. Y. (1997). Linguistic landscape and ethnolinguistic vitality: An empirical study. *Journal of Language and Social Psychology*, 16(1), 23–49. <https://doi.org/10.1177/0261927X970161002>
- Lavrenova, O. (2023). Color semantics of the cultural landscape. *Arts*, 12(3), 1–20. <https://doi.org/10.3390/arts12030111>
- Ledin, P., & Machin, D. (2017). Multi-modal critical discourse analysis. In J. Flowerdew & J. Richardson (Eds.), *The Routledge handbook of multimodal analysis (2nd ed.)* (pp. 60–76). Routledge. <https://doi.org/10.4324/9781315739342-5>
- Mahayana, I. M. A., Muliawan, M. S. D., & Susanthi, I. G. A. D. (2023). Public signs in Objek Wisata Candidasa (OWC): Linguistic landscape study. *Retorika: Jurnal Ilmu Bahasa*, 9(1), 54–62. <https://doi.org/10.55637/jr.9.1.5919.54-62>
- Mahmud, E. Z., Sobarna, C., & Bayusena, B. (2024). Between partial translation and summary translation in translating the Sundanese folklore into English. *International Journal of Asian and African Studies*, 3(1), 34–40. <https://doi.org/10.32996/ijaas.2024.3.1.4>
- Mantel, S. P., & Kellaris, J. J. (2023). Bilingual signs: How language influences shoppers. *Interdisciplinary Journal of Signage and Wayfinding*, 7(1), 5–20. <https://doi.org/10.15763/issn.2470-9670.2023.v7.i1.a134>
- Metwally, A. A., & Asiri, E. A. S. (2025). A descriptive corpus-based study of the translation of Islamic culture-specific expressions on the Ministry of Hajj and Umrah website. *Dragoman*, 17, 64–96. <https://doi.org/10.63132/ati.2025.adescr.93408973>
- Mu, S., Ma, P., & Han, L. (2025). Exploring digital translanguaging practices through Citywalk vlogging: Insights from Macao's linguistic landscape. *Language and Intercultural Communication*, 26(1), 1–17. <https://doi.org/10.1080/14708477.2025.2468889>
- Nambu, S. (2025). Multilingual practices in the linguistic landscape of historical religious sites in Japan as international tourist destinations. *Journal of Multilingual and Multicultural Development*. <https://doi.org/10.1080/01434632.2025.2583260>
- Namiri, M. E. (2017). *Symbolic meaning of colors in traditional mosques* [Master's thesis, Eastern Mediterranean University]. Mosqpedia.
- Napu, N. (2024). Linguistic landscapes in multilingual urban settings: Insights from translation perspectives. *Studies in English Language and Education*, 11(1), 620–638. <https://doi.org/10.24815/siele.v11i1.29559>
- Newmark, P. (1988). *A textbook of translation*. Prentice Hall.
- Pennycook, A. (2017). Translanguaging and semiotic assemblages. *International Journal of Multilingualism*, 14(3), 269–282. <https://doi.org/10.1080/14790718.2017.1315810>

- Przymus, S. D. (2017). The subliminal influence of street signs in schools: Elective vs. circumstantial reverse indexicality in a tale of two Tucsons. *Journal of Second Language Acquisition and Teaching*, 24, 4-24.
- Przymus, S. D., & Huddleston, G. (2021). The hidden curriculum of monolingualism: Understanding metonymy to interrogate problematic representations of raciolinguistic identities in schools. *International Journal of Multicultural Education*, 23(1), 67-86. <https://doi.org/10.18251/ijme.v23i1.2435>
- Pütz, M., & Mundt, N. (2018). Multilingualism, multimodality and methodology: Linguistic landscape research in the context of assemblages, ideologies and (in)visibility: An introduction. In M. Pütz & N. Mundt (Eds.), *Expanding the linguistic landscape: Linguistic diversity, multimodality and the use of space as a semiotic resource* (pp. 1-23). Multilingual Matters.
- Qiu, S. (2023). Translation studies on public signs from the perspective of eco-translatology. *Journal of Education and Educational Research*, 5(1), 170–174. <https://doi.org/10.54097/jeer.v5i1.11959>
- QSR International. (2023). *NVivo* (Version 15) [Computer software]. <https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home>
- Reh, M. (2004). Multilingual writing: A reader-oriented typology — with examples from Lira Municipality (Uganda). *International Journal of the Sociology of Language*, 2004(170), 1–41. <https://doi.org/10.1515/ijsl.2004.2004.170.1>
- Shoaib, A., & Al-Samh, D. (2019). A stylistic analysis of billboard advertising on the Jeddah-Makkah Saudi Arabian highway. *Albaha University Journal of Human Sciences*, (18), 310–323.
- Shohamy, E. & Gorter, D. (Eds.) (2009). *Linguistic landscape: Expanding the scenery*. Routledge. <https://doi.org/10.4324/9780203930960>
- Shohamy, E. (2019). Linguistic landscape after a decade: An overview of themes, debates and future directions. In M. Pütz & N. Mundt (Eds.), *Expanding the linguistic landscape: Linguistic diversity, multimodality and the use of space as a semiotic resource* (pp. 25–37). Multilingual Matters. <https://doi.org/10.21832/PUTZ2159>
- Song, G. (2024). Towards a translational landscape: A study of Coloane’s urban features through the lens of translational spaces. *Translation Studies*, 17(2), 352–373. <https://doi.org/10.1080/14781700.2023.2255607>
- Stratton, S. J. (2024). Purposeful sampling: Advantages and pitfalls. *Prehospital and Disaster Medicine*, 39(2), 121–122. <https://doi.org/10.1017/S1049023X24000281>
- van Mensel, L., Vandenbroucke, M. & R. Blackwood (2016). Linguistic landscapes. In O. García, N. Flores & M. Spotti (Eds.), *Oxford handbook of language and society* (pp. 423-449). Oxford University Press.
- Wang, J. (2025). *Translanguaging and multimodality in the linguistic landscape of a Chinese community in Johor Bahru, Malaysia*. *International Journal of Multilingualism*, 1-5. <https://doi.org/10.1080/14790718.2025.2517341>
- Wang, X., & Zhou, L. (2023). Discussion on the translation strategies of public signs. *Lecture Notes on Language and Literature*, 6(5), 8–13. <https://doi.org/10.23977/langl.2023.060502>
- Zhan, F. (2024). A comparative study of the linguistic landscapes in religious sites in China: Hong Kong and Guangzhou. *Proceedings of the 5th International Conference on*

*Language, Art and Cultural Exchange (ICLACE 2024)* (pp. 246-257). Atlantis Press.  
[https://doi.org/10.2991/978-2-38476-265-1\\_30](https://doi.org/10.2991/978-2-38476-265-1_30)

Zhang, L., & Guo, Y. (2020). A study on the English translation of public signs in Chinese destinations. *Journal of China Tourism Research*, 16(2), 248–260.  
<https://doi.org/10.1080/19388160.2019.1629367>