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## **Museum Text Translation through Multimodal Discourse Analysis: A Case Study of the Wooden Screen at Guangzhou Museum**

Yan Dong<sup>1,2\*</sup>, Intan Safinaz Zainudin<sup>1</sup> & Kesumawati A. Bakar<sup>1</sup>

<sup>1</sup>Center for Research in Language and Linguistics, Faculty of Social Sciences and Humanities,  
Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

<sup>2</sup>School of Foreign Languages, Guangdong AIB Polytechnic College, 510507 Guangzhou, China

\*Corresponding Author: [P118006@siswa.ukm.edu.my](mailto:P118006@siswa.ukm.edu.my)

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**Abstract:** With the increasing prominence of multimodality in museum exhibitions, museum text translation is no longer simply an interlingual transformation but rather a complex process involving multiple semiotic resources and modalities. However, museum translation practice has yet to fully respond to the new trend, and previous studies have largely followed a monomodal, language-oriented paradigm centered on source-target equivalence, while scholarly engagement with multimodal discourse analysis in museum translation remains scarce. Against this background, this study aims to investigate the multimodal dimensions that shape museum text translation by drawing on the five-layered analytical framework proposed by Zhang Delu in his Synthetic Framework for Multimodal Discourse Analysis. This study selects a carved wooden screen at the entrance of a permanent exhibition in Guangzhou Museum (China) as the single case for qualitative analysis. The findings demonstrate that museum text translation is not solely a linguistic act but a multimodally situated practice shaped by layered semiotic dimensions: cultural narratives, semantic choices, visual conventions, spatial constraints, and material affordances. This study carries significant theoretical implications in that it bridges multimodal discourse analysis and translation studies, advancing their integration and offering a structured lens for examining museum text translation within multimodal environments. On a practical level, the findings inform curators and designers working to enhance intercultural accessibility and coherence in multimodal museums.

**Keywords:** Museum text translation; multimodal discourse analysis; five-layered analytical framework; Guangzhou Museum; bilingual museum communication

### **Introduction**

In recent years, Chinese government has promoted a strategic narrative in international communication, with museums serving as key venues for international visitors to experience China's history and culture. To attract more international visitors, bilingual or multilingual service has been a common practice in Chinese museums (Turnbull, 2018). Therefore, museum translation plays an essential part in enhancing the inclusivity, diversity, and accessibility to international tourists, justifying academic investigation. Meanwhile, the increasingly prominent multimodality in museum exhibitions signifies that museum text translation is no longer merely an interlingual transformation but a complex process involving multiple semiotic resources and modalities and particularly synergies between them (Johnstone, 2024; Liao, 2019; Randaccio, 2018).

However, museum translation has yet to fully respond to the new trend. In practice, problems arising from insufficient attention to multimodal environments are evident, especially in smaller museums in less developed cities, where foreign language services remain limited (Neather, 2012a; Yu & Hirzel, 2022). Academically, previous studies have largely followed a monomodal, language-oriented paradigm centered on source-target equivalence, while scholarly engagement with multimodal discourse analysis in museum translation remains relatively limited. Against this backdrop, this study aims to address museum text translation from the perspective of multimodal discourse analysis and answer the following two questions:

- i. What are the dimensions that influence museum text translation from the perspective of multimodal discourse analysis?
- ii. How do the dimensions shape museum text translation in a multimodal context?

To answer these questions, this study employs a qualitative case-based analysis grounded in Zhang Delu's (2018) five-layered framework for multimodal discourse analysis. While earlier models in multimodal discourse analysis, such as Kress and van Leeuwen (1996, 2006), Martinec and Salway (2005), which focus mainly on semantic or representational dimensions, Zhang's framework explicitly incorporates media and material layers, making it especially relevant for examining text translation in museum spaces. The case selected is a carved wooden screen at the entrance of a permanent exhibition in Guangzhou Museum (China), and the data analysis is limited to its bilingual panel texts, with Chinese as the source language and English as the target language.

## Literature Review

Although museum translation has long been a subject of academic inquiry, previous studies-both in China and internationally-have predominantly adopted a linguistically-oriented, monomodal perspective, with a strong focus on equivalence between source and target texts. This approach often overlooks the multimodal and cross-cultural dimensions inherent in museum contexts. This tendency is particularly evident in studies on museum translation in China over the past decades, where researchers have been devoted to exploring such topics as the translation errors and techniques, principles and criteria, strategies and methods, for example, El Muarrifa (2016), Li (2009), and Zhang (2021), to name but a few. These studies adopt a monomodal perspective, generally treating museum texts as linguistic data to examine how much of the Source Text (hereinafter ST) is conveyed in the Target Text (hereinafter TT) (Liao, 2018). Multimodal perspectives in museum translation have long remained underexplored, though they tend to be on the rise in recent years (Pan et al., 2023).

Multimodality is defined by Kress and van Leeuwen (2001, p.20) as "the use of several semiotic modes in the design of a semiotic product or event". Such semiotic products or events are referred to as instances of multimodal discourse. Multimodal discourse analysis (MDA) emerged as a key field, focusing on the analysis of meaning-making in different individual modes and the complex interaction among modes (Bahrudin & Bakar, 2022; Kress & van Leeuwen, 2006; O'Halloran & Smith, 2011; Wan Abdul Halim et al., 2022). Also situated within the social semiotic tradition and building upon previous frameworks (Martinec & Salway, 2005; Kress & van Leeuwen, 2006), Zhang's (2018) framework offers a valuable lens for analyzing the dimensions influencing museum text translation in multimodal contexts, even though it was not initially designed for translation research.

Fortunately, great achievements in multimodal discourse analysis and visual analysis have nourished the development of multimodal translation studies. The rising scholarly interest in multimodal translation in the past two decades is particularly reflected in AVT translation (audiovisual text translation) (Pan et al., 2023; Zhang & Feng, 2021). Limited in number though, some studies seek to explore museum communication by drawing on the major findings from semiotics, visual analysis and multimodal discourse analysis, such as the multimodal features of museum translation (Liu, 2018; Xu & Mo, 2021), museum communication and translation as a multi-semiotic event (Liao, 2023; Neather, 2012b), spatial constraints in museum text translation (Neather, 2008, 2024), among others. These studies show a rising awareness of the sophistication

of museum translation due to the proliferation of multimodal presentation and thus are quite insightful for this study.

However, limited attention has been paid to employing multimodal discourse analysis as an analytical tool in the study of museum text translation. Building upon these insights and gaps, this study adopts Zhang's (2018) Synthetic Framework for Multimodal Discourse Analysis to systematically examine the multimodal dimensions that have an impact on the translation of the physical texts in bilingual museums.

## Methodology

This qualitative case-based study is grounded in Zhang's (2018) Synthetic Framework for MDA and follows a product-oriented model proposed by Saldanha and O'Brien (2013, as cited in Zuo & Zainudin, 2025), investigating the bilingual texts on a wooden screen at the Canton export exhibition in China and analyzing how multimodal dimensions influence translation strategies. Although the product-oriented approach does not capture the decision-making process of translators, it remains appropriate for museum contexts, since only displayed translations are accessible and they can fully reflect multimodal constraints on text translation in museum space.

### 1. An Overview of the Case

The case selected for analysis is a wooden screen at the entrance of *Gems Left by Overseas Trade: Export Arts and Crafts from the 18th to the Early 20th Century*, a permanent exhibition at Guangzhou Museum, China. Located in Yuexiu Park, the museum is a national first-class institution housed in the three-story Zhongyuan Building (1930) in classical Chinese style. The exhibition, themed around commerce and trade, presents export arts and crafts from the 18th to early 20th century and reflects Guangzhou's history as a "Millennial Commercial Metropolis". It offers rich multimodal resources, strong cultural connotations, and high-quality English translations, meeting the research objectives.

The semi-folding, intricately carved screen has seven hinged panels: the two central panels bear the exhibition title in Chinese and English, while the side panels display the subtitle "FOREWORD" and an introductory bilingual text. While a single-case design inevitably restricts the generalisability of findings, the screen's multimodal features, adequate bilingual texts and representation of Guangzhou's commercial identity make it a valuable case for in-depth exploration, offering insights that may inform wider museum translation practices.

### 2. Data Collection and Processing

The data needed for this research were collected by the first author during two field trips to the museum in January and April in 2025, covering the entire exhibition area of *GEMS LEFT BY OVERSEAS TRADE*. The instruments utilized in data collection include a smart phone for photos and videos recording, and a paper notebook for on-site observations.

Two sets of data were obtained. First, 56 photos documented wall panels, labels, exhibits, bilingual texts, and layout, along with three video clips and four audio recordings. Although audio guide texts and video subtitles were excluded from direct analysis, they informed the authors' understanding of the exhibition's historical and cultural context. Second, one page of field notes was compiled from on-site observations and reflective insights during the field trips. The raw data collected is complete and sufficient for the present study.

The photos were screened and categorized. The classically styled wooden screen at the exhibition entrance was ultimately chosen as the sole case for in-depth analysis due to its integration of visual and verbal elements, rich bilingual content, and representation of Guangzhou's commercial identity.

Then texts from the picture of this wooden screen were extracted by using WeChat OCR and subsequently verified manually. All extracted texts, including both source texts (STs) in Chinese and target texts (TTs) in English, were compiled into a document for forthcoming analysis, as shown in Table 1. Additionally, the field notes, audio and video recordings were not used directly for data analysis but supported contextual understanding of the exhibition. Finally, the processed data were organized and re-examined to ensure its completeness, sufficiency, and reliability.

### 3. The Analytical Framework

The case analysis is guided by Zhang's (2018) Synthetic Framework for Multimodal Discourse Analysis. Situated within the social semiotic tradition and building upon previous frameworks (Kress & van Leeuwen, 2006; Martinec & Salway, 2005), Zhang's (2018) framework emphasizes the systemic nature of signs and their "affordances", or the meaning potentials that a sign holds. Crucially, it introduces two additional layers, media and substance, highlighting the role of technological and material affordances in shaping modal selection and intermodal interaction.

Table 1. Texts on the Wooden Screen

Text Type	ST(Source Text)	TT(Target Text)
Title	海贸遗珍：十八至二十世纪初广州外销艺术品	GEMS LEFT BY OVERSEAS TRADE: Export Arts and Crafts from the Eighteenth to the Early Twentieth Century
Subtitle	前言	FOREWORD
Introductory Text	明清时期，广州曾以“一口通商”的独特地位一枝独秀，成为东西方商品交流的重要门户。十八、十九世纪，欧洲掀起了一股“中国风”，广州手工艺人应欧美市场所需，创作和生产出各种具有浓厚中国色彩而又略带欧洲艺术风格的外销艺术品。这些驰名遐迩的“广货”是历代岭南手工艺人的心血结晶，无论是刺绣、牙雕、漆，还是瓷器，经千百年锤炼自成一派，又浓缩了东西方艺术、工艺精华，因此深受西洋人的喜爱，各国商人纷纷来粤订购。此次，我们从本馆藏品中甄选造型独特、工艺精湛的牙雕、刺绣、丝织、广彩瓷、漆器、外销画、玻璃刻画等艺术品，通过展示，为广大观众再现十八至二十世纪初广州口岸民间艺术品的外销历史，让我们感受数个世纪以前东西汇流的文化气息。	From 1757 to 1842, Guangzhou was the only port chosen by the Qing court to handle foreign trade activities, through which a large quantity of Chinese goods were exported overseas in an endless stream. This made Chinese goods a fashion in the 18th century Europe. Artisans in Guangzhou created and produced various arts and crafts which carried both Chinese and European characteristics, to be exported to the occidental market. These so-called Cantonese goods, well-known in the world, were the fruits of painstaking effort of Lingnan artisans. For this reason, Guangzhou arts and crafts had won adoration from western people for its combination of both Oriental and Occidental elements. Foreign merchants flooded to Guangzhou to order these goods. A selection from the collection of the Guangzhou Museum has been showcased in this exhibition to illustrate the export history in Guangzhou from the 18th to the early 20th century. Rather, they are gems left by overseas trade covering many categories, such as ivory carving, embroidery, silk textiles, enamel ware, porcelain, lacquer ware, oil painting, watercolor painting on either ordinary paper or pith, glass painting, and drawing as well. Organizers of this exhibition hope to provide to visitors a concrete experience in cultural exchanges of centuries ago.

Source: Extracted from pictures by the authors

Specifically, this study employs Zhang's (2018, pp.733-734) five-layered analytical framework, including five interrelated layers: context of culture, meaning system, lexis and grammar, media, and substance. The context of culture addresses the macro-social background and ideological environment of multimodal discourse. The meaning system refers to the semantic resources of different modes (verbal, visual, auditory, etc.). Lexis and grammar focus on the mode-specific structural systems that realize semantic meanings. Media are the semiotic channels or technologies through which meaning is conveyed and can be generally divided into verbal and non-verbal media. Substance deals with the physical materiality of semiotic forms, such as sound waves, ink, color, image resolution, or tactile textures. This framework provides a comprehensive tool for investigating multimodal dimensions in museum text translation.

Each layer is systematically applied to the case of the wooden screen to uncover how multimodal factors affect text translation. The cultural context layer considers how the exhibition constructs Guangzhou's identity as a "Millennial Commercial Metropolis" and how this informs translation choices. The meaning system layer examines how verbal and visual elements jointly realize ideational, interpersonal, and textual meanings,

and how these are reshaped in translation for clarity, coherence, and audience engagement. Lexis and grammar layer analyzes how linguistic and visual structures-such as syntax, lexical density, and layout-support meaning-making and guide bilingual coordination. The media layer addresses how the screen's fixed structure and limited surface necessitate spatial and typographic adjustments in translation. The substance layer considers how physical features like texture, ink, and carving influence text density, visual hierarchy, and overall readability, highlighting the need to align translations with material constraints.

Following the thorough multimodal discourse analyses of the wooden screen, key findings are synthesized, and a discussion is provided on the study's contribution to the existing literature and its broader implications. Lastly, the conclusion is drawn from the preceding analyses to offer guidance for Chinese-English translation practices in multimodal museum contexts.

## The Findings

The case selected for data analysis in this study is a finely carved wooden screen in classical Chinese style with a semi-folding structure and seven hinged panels, which is positioned at the entrance of the exhibition to greet visitors and provide a general introduction to the exhibition. The bilingual texts on the wooden screen include three components: (1) the title of the exhibition, *GEMS LEFT BY OVERSEAS TRADE: Export Arts and Crafts from the Eighteenth to the Early Twentieth Century*; (2) the subtitle, *FOREWORD*; and (3) the introductory text, which elaborates on Guangzhou's exclusive role in Sino-foreign maritime trade, the stylistic features of Canton export arts and crafts, the intercultural aesthetics of Lingnan craftsmanship, the historical background of the 18<sup>th</sup> to 20<sup>th</sup> century export trade, and the main categories of Cantonese export artworks. This wooden screen foregrounds the legacy of cultural exchange and evokes the enduring story of Guangzhou as a "Millennial Commercial Metropolis". Drawing on Zhang's (2018) five-layer analytical framework for MDA, this study examines the wooden screen across the dimensions of cultural context, meaning system, lexis and grammar, media, and substance. Based on this analysis, five interrelated findings are identified, each corresponding to one analytical dimension. Taken together, the findings illustrate how cultural meanings are strategically shaped and conveyed through the multimodal design and translation of the screen's texts, responding to spatial constraints and communicative demands.

### 1. Cultural Narrative and Translation of Guangzhou's Commercial Identity

From the perspective of context of culture, the wooden screen at the entrance of the exhibition functions as both a spatial and semiotic gateway to Guangzhou's maritime legacy. Its traditional form and carved motifs, such as auspicious clouds and dragons, embody Lingnan aesthetics and reinforce the city's identity as a "Millennial Commercial Metropolis" (Yu, et al., 2024). At the same time, the bilingual layout further embodies this outward-facing identity. Vertical Chinese calligraphy in gold clerical script conveys tradition and solemnity, while horizontally arranged English text follows international norms for readability. These design choices balance aesthetic appeal with intercultural communicative needs. The introductory text foregrounds Guangzhou's role in foreign trade, and translating culturally loaded terms, for example, "一口通商" as "the only port chosen by the Qing court to handle foreign trade", enhances accessibility for international visitors.

The analysis demonstrates that the construction of Guangzhou's cultural identity as a "Millennial Commercial Metropolis" is achieved through a multimodal strategy that integrates spatial arrangement, traditional aesthetics, and bilingual presentation, achieving a balance between local cultural heritage and global communicative needs. Translation functions as a key mediating practice in this process, enabling meaning to travel across linguistic and cultural boundaries. Accordingly, museum text translation should be viewed as a multimodal and culturally situated practice. This finding challenges monomodal, language-focused approaches that reduce translation to textual equivalence, showing instead how translation contributes to the cultural narrative of Guangzhou's long-standing commercial civilization.

### 2. Meaning System and Meaning Reconstruction through Translation

At the level of meaning system, the wooden screen activates ideational, interpersonal, and textual meanings



across verbal and visual modes, offering insight into how multimodal meaning-making shapes translation strategies in conveying Guangzhou's historical narrative. Ideationally, key notions, such as “外销艺术品”, are recontextualized in English as “Cantonese goods” or “arts and crafts with both Chinese and European characteristics” to make the trade narrative intelligible across cultures. Interpersonally, vertical gold clerical Chinese conveys tradition and solemnity while horizontally arranged English aligns with international reading norms to address diverse visitors (El-Sharif, 2023). Textually, both the ST and TT follow a coherent structure: historical background, description of artworks, and curatorial intent, while the translation employs cohesive devices such as “for this reason” and “to illustrate” and simpler sentence structures to maintain coherence within spatial constraints.

These analyses reveal that museum text translation in multimodal settings involves the systematic reconstruction of meaning at the ideational level, interpersonal level and textual level. Rather than merely transferring propositional content, translation in this context operates as a process of multimodal meaning-making, shaped by the interplay of verbal content, visual presentation, spatial arrangement, and audience positioning. This finding underscores that textual equivalence alone is insufficient to explain museum translation; meaning is renegotiated across semiotic systems to sustain cultural intelligibility and intercultural accessibility. It also highlights that translation in bilingual museums should be understood not merely as a linguistic operation but as a process of semiotic choices embedded in multimodal configurations, thereby challenging monomodal approaches and broadening the understanding of meaning reconstruction in translation studies.

### 3. Linguistic–Visual Coordination and Translation Choices

In Zhang's (2018) framework, the lexis and grammar layer examine the formal conventions through which each mode constructs meaning, including linguistic syntax and lexis and visual grammar organized by representational, interactive, and compositional meanings (Kress & van Leeuwen, 2006).

Linguistically, the Chinese source text adopts more literary and clause-dense formulations typical of formal museum discourse, e.g., four-character expressions such as “琳琅满目” and “匠心独运”, whereas the English translation recasts them into shorter clauses with explicit connectors, such as “rather”, “for this reason”, “to illustrate”, to improve clarity while retaining cultural nuance. Visually, centrally and vertically arranged Chinese in gold clerical script evokes tradition and solemnity, while horizontally arranged English flanking the central panel follows international reading conventions; the symmetrical composition maintains balance and guides both domestic and international visitors into the narrative.

Overall, translation in this multimodal museum context involves both linguistic reformulation and visual coordination. The shift from idiomatic, syntactically dense Chinese to streamlined English reflects a strategy to improve clarity without eroding cultural meaning, while alignment with visual layout secures coherence across modes (Jewitt et al., 2016; Zhang, 2018). This finding challenges the translation paradigm solely focusing on linguistic lexis and grammar, highlighting instead that effective museum translation demands equal consideration of visual design and semiotic choices.

### 4. Spatial Constraints and Media-Specific Translation

In Zhang's (2018) framework, the media layer refers to the material carrier of semiotic modes, which simultaneously enables and constrains meaning-making. In this case, the carved wooden screen at the exhibition entrance operates as both medium and artefact. Its fixed, semi-folding hinge structure, classical rosewood material and coloring and limited surface area, together with a right-to-left vertical Chinese layout contrast the left-to-right horizontal English norms, which necessitates spatial and typographic accommodation. Accordingly, the English text is restructured and condensed, with adjustments in text density, line breaks and alignment to ensure legibility while retaining cultural salience.

The analysis shows that media affordances are not a post-hoc design matter but a constitutive condition of translation: orientation, layout, and condensation are translational decisions made in response to the screen's spatial and material constraints. This finding challenges the text-centered and equivalence-based

accounts by demonstrating that, in museum contexts, translation outcomes are co-produced by linguistic choices and the semiotic affordances of the display medium and translation must respond not only to linguistic and cultural factors but also to the semiotic affordances of the material medium that frames the message (Pan et al., 2023; Zhang & Feng, 2021).

### 5. Materiality and Translational Adaptation

In Zhang's (2018) framework, the substance layer refers to the material realization of meaning, such as ink, wood texture, or other sensory-perceptible forms. In this case, golden calligraphy engraved on rosewood panels convey permanence, solemnity, and ritual, marking the screen as a symbolic threshold to the exhibition. These material specifics, together with surface rigidity, non-editability, and limited space, constrain text density and visibility. Accordingly, the English translation addresses these constraints through high levels of lexical condensation and typographic adjustment, ensuring legibility and aesthetic coherence.

The analysis shows that substance is not a neutral carrier but a constitutive condition of translation, shaping how translation is realized and perceived (El-Sharif, 2023; Zhang, 2018). Material choices reinforce the exhibition's formal tone while constraining the presentation of translated information. The brevity, hierarchy, and layout of translated texts are responses to material affordances and constraints. This finding foregrounds the material dimension of translation which have long been overlooked in traditional micro-linguistically oriented approach, showing how physical properties such as texture, durability, and visibility condition translational choices in museum settings.

Together, these findings highlight that museum translation is a multimodally situated practice shaped by layered semiotic dimensions. They reveal how translation is not solely governed by textual equivalence, but by a coordinated response to cultural, visual, spatial, and material constraints embedded in the exhibition environment.

## Discussion

Building on the above findings, this study demonstrates that museum text translation in multimodal contexts is shaped by five interrelated dimensions: cultural context, meaning system, lexis and grammar, media, and substance. These dimensions directly address the first research question (RQ1), identifying the key multimodal factors that influence museum text translation. In response to the second research question (RQ2), the analysis shows that translation is not solely driven by linguistic equivalence, but also by an interplay of socio-cultural framing, modal semantic structures, multimodal lexical and grammatical resources, and the spatial, visual, and material affordances of the exhibition medium. This multimodal coordination shapes both the form and delivery of translated museum texts, highlighting the need for translation practices responsive to the cultural, semantic, linguistic, grammatical, spatial, and material dimensions underpinning multimodal meaning-making in museum contexts. By going beyond the view of translation as mere linguistic transfer, this study highlights the theoretical importance of treating museum translation as a multimodal process and questions the monomodal assumptions dominating existing scholarship.

While earlier studies on museum translation have largely adopted a linguistically-oriented, monomodal perspective, with a strong focus on equivalence between source and target texts (El Muarrifa, 2016; Zhang, 2021), this study contributes a more integrated, multimodal view that foregrounds the interplay of verbal, visual, spatial, media and material elements by employing Zhang's (2018) five-layered analytical framework for MDA. Rooted in the social semiotic tradition, Zhang's (2018) framework builds upon previous models, such as Kress and van Leeuwen's (2006), Martinec and Salway's (2005), by adding two additional analytical dimensions, media and substance, highlighting the role of technological and material affordances in shaping modal selection. Therefore, this study offers a structured and methodologically sound means of analyzing how museum text translation is shaped not only by linguistic concerns, but also by cultural narratives, modal semantics, layout constraints, media, and material affordances. The findings of this study extend Liu's (2018) and Xu & Mo's (2021) work on multimodal features of museum communication in China, while also affirming Liao's (2023) conceptualization of museum translation as a multi-semiotic event. Moreover, the analysis deepens Neather's (2008) insights into spatial constraints by illustrating how physical media, such as carved

wooden screens, shape the legibility and density of translated texts. Furthermore, the findings of this study echo in certain respects Neather's (2012b) argument in the co-spatial and non-co-spatial intertextuality in museum context and El-Sharif's (2023) view on the role of spatial semiotics in shaping visitor interactions and understanding. In doing so, this study underscores the value of multimodal discourse analysis in capturing the situated complexity of museum translation.

This study carries important theoretical and practical implications for the field of multimodal translation, particularly within the context of bilingual museum communication in China. Theoretically, it demonstrates that multimodal discourse analysis, though often treated as distinct from translation studies, can be effectively applied to museum translation. By operationalizing Zhang's (2018) five-layered analytical framework for MDA, this study offers a structured and context-sensitive tool to analyze how translation is shaped not only by linguistic factors but also by cultural framing, semantic structures, media constraints, and material affordances. Compared to widely adopted MDA models such as Kress and van Leeuwen's (2006) or Martinec and Salway's (2005), Zhang's framework explicitly integrates media and substance dimensions, making it especially suited to rich multimodal spaces such as museums. Additionally, its emphasis on both macro-level socio-cultural context and micro-level modal realization supports a holistic account of translation in Chinese bilingual exhibitions. This application extends the framework's relevance beyond discourse analysis and bridges the gap between theoretical modelling and translation practice in multimodal public settings.

Practically, the study offers implications for translators, curators, and exhibition designers. For translators, the findings underscore the importance of considering spatial constraints, visual coherence, and material durability when producing target texts. For curators, the research highlights the need to integrate translation into the initial stages of exhibition planning, ensuring texts align with both content and display medium. For exhibition designers, this study provides a model for the effective coordination of verbal and non-verbal elements to enhance intercultural accessibility and clarity. More broadly, the study offers a structured approach that can guide bilingual service provision and inform policy development aimed at enhancing intercultural accessibility in regional museums across China.

While the present study offers great insights into museum translation, several avenues remain open for future exploration, including expanding the scope to multiple exhibition cases, incorporating visitor perspectives, and comparing cross-institutional translation practices. Studies could also investigate the role of digital interfaces, mobile media, and interactive technologies in shaping multimodal translation. Additionally, more empirical research is needed to test the applicability of Zhang's framework in non-Chinese contexts or multilingual museums beyond Chinese-English language. Further studies may also adopt mixed or corpus-based methods, explore comparative analyses of alternative MDA frameworks. Such work could inform bilingual display standards and translation policies in museum contexts. Additionally, further empirical research is needed to test the applicability of Zhang's framework in non-Chinese contexts or multilingual museums, as its feasibility beyond Chinese-English translation remains to be validated in diverse cultural and linguistic environments. Further studies may also adopt mixed or corpus-based methods, explore comparative analyses of alternative MDA frameworks. Such work could inform bilingual display standards and translation policies in museum contexts.

## Conclusion

This study has examined museum text translation through a lens of multimodal discourse analysis (MDA), investigating the multimodal dimensions that shape museum text translation in multimodal contexts. Zhang's (2018) five-layered framework for MDA was employed to form the analytical framework. The wooden screen at the entrance to the *Gems Left by Overseas Trade* exhibition at the Guangzhou museum in China was selected as the single case for qualitative data analysis, with the Chinese texts and their English translations carved on it serving as verbal texts examined. Data analysis found that translation is not solely a linguistic act but a multimodally situated process shaped by cultural narratives, semantic choices, visual conventions, spatial limitations, and material affordances. This confirms that museum translation requires sensitivity to the full range of semiotic resources rather than reliance on linguistically based equivalence. Particular attention should



be given to the crucial dimensions of media and substance as these shape how meaning is constrained and realized in multimodal museum contexts.

This study contributes to museum translation by demonstrating the analytical and practical value of applying Zhang's (2018) five-layered multimodal framework to bilingual exhibition contexts. Theoretically, it bridges multimodal discourse analysis and translation studies, offering a structured lens for the verbal-visual-spatial complexities shaping meaning across languages and modes. Practically, it provides recommendations for translators, curators, and designers seeking to enhance intercultural accessibility and coherence in Chinese museums. These contributions underscore the significance of multimodal approaches to both research and practice.

However, this study has limitations which inevitably constrain the scope and strength of its claims. Focusing on a single case from one exhibition may limit the generalisability of the findings, making the conclusions less easily transferable to other museums or multilingual settings. Additionally, the verbal texts used for analysis in this study are confined to physical written texts while excluding other linguistic resources such as audio-guide texts, video subtitles etc, which limits a fuller account of how multimodal resources jointly shape translation. Moreover, the absence of systematic comparisons across language pairs, exhibition types, text genres, or institutional practices restricts the breadth of the insights gained. Future research could address these constraints to produce broader and more comprehensive understandings of museum translation.

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