An IWEB-based Study of Shaanxi Cultural Image*

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Abstract—Based on IWEB corpus, this paper studies the overall image and cultural image of Shaanxi province in China, so as to find out the cross-cultural transmission effect of Shaanxi culture. The significance of the study is to promote a corpus-based study of Chinese cross-cultural transmission and provide a feedback for project design and policy-making in cross-cultural transmission of Chinese regional culture.

Keywords—Corpus-based; cross-cultural transmission; Shaanxi culture

I. INTRODUCTION

The international influence of China has been seen in recent decades with the improvement of its global competitive capacity. For a better worldwide communication, China has been endeavoring to promote its global cultural transmission, such as through setting up Confucius Institutes, encouraging Chinese teaching and constructing international websites.

Within this background, most related researches have been focusing on cultural transmission strategies, while cultural transmission effect are not much emphasized [1]. Besides, corpus-based researches about Chinese cultural terms and transmission are rare [2]. The author retrieved the word Corpus within the discipline of culture on CNKI net (China National Knowledge Infrastructure). Only 6 relevant articles were found. Researcher He investigated the features of Chinese culture transmission through analysis of 40 Chinese cultural terms [3]. Zhang & Liu analyzed the American perception of 17 Chinese cultural terms [4]. The other 4 articles are about Chinese regional cultural transmission in the English world, concerning Guangxi province [1], Henan province [5], Anhui province [6] and Jiang’nan area [7]. Shaanxi province is world famous for its abundant historical and cultural heritage, and its capital city, Xi’an, has been ancient capitals for 13 dynasties. Many researchers as well as Shaanxi government have been working hard on effective strategies in the promotion of local cultural transmission. However, the author hasn’t found any research dealing with Shaanxi cross-cultural transmission effect on a corpus basis.

In this paper, the author aims to find out the global transmission effect of Shaanxi culture based on IWEB corpus. The author first retrieves the lemma Shaanxi, selects its noun collocates by frequency, and classifies those collocates into categories so as to figure out the overall image of Shaanxi province in cross-cultural transmission. Next, within the culture-related category, the author specifies Shaanxi cultural image. Particularly, Shaanxi folk culture is studied, since folk culture concerns the life style of local residents, which is most likely to arouse outsiders’ interests and thus has an important role to play in cultural transmission. The significance of the present work is to promote the study of Chinese cross-cultural transmission effect on a corpus basis as well as provide a feedback for project design and policy-making in Chinese regional cross-cultural transmission.

II. IWEB CORPUS AND RETRIEVAL METHOD

The series of corpora from Brigham Young University now have the largest group of users worldwide. IWEB corpus, as one of the most efficient one from BYU, was released in May, 2018. The reasons why the author chooses IWEB as the study corpus are as follows. First, IWEB corpus is web-based. Website is seen as the best carrier of cross-cultural transmission information for its fast speed, convenient click and abundant users, so a web-based corpus is capable of revealing the transmission effect. Second, IWEB has brilliant capacity of words. It contains about 14 billion words in 22,388,141 web pages from 94, 391 websites, which makes it one of only 3 large web-based corpora. Besides, those websites were chosen in a systematic way instead of the random way that other large corpora have typically done. Third, the retrieval speed on IWEB is fast. In less than 10-20 seconds, the results would be shown or the virtual corpora could be created. The last reason is that IWEB is online free of charge and easy access is possible anytime.

On the retrieval page of IWEB, the author searches for the noun collocates of the lemma Shaanxi. The span range is 5 words from both sides which is the maximum for a free search. Results show there’re only 3 words with per million frequency reaching 0.01(province 0.05; museum 0.01; capital 0.05), and the rest remain as 0. So the author chooses 47 nouns collocates of Shaanxi with a raw frequency above 10 and classifies them into 6 categories as shown in Figure 1. Within each category, the lemmas are written in brackets and the number after each lemma refers to its raw frequency.

*Fund: Shaanxi Social Science Fund — Corpus-based Analysis of Shaanxi Folk Culture Transmission Effect from a Cross-cultural Perspective (2018M27)
The principle of categorization is first by classifying those lemmas with explicit references, such as [mountain], [culture] and [university], and for those with implicit connotation, the author reads the KWIC lines and classifies them by their reference in the context. The categorization of the following lemmas needs to be mentioned. KWIC lines of most of the words [home] in the 1st category refer Shaanxi to the home of Chinese historical culture, so the lemma [home] is classified into the category of history & culture. The lemma [part] in the 2nd category, [point], [game] & [rebound] in the 3rd category and [development] & [group] in the 5th category are all classified in the same way as what the author does with the lemma [home] (“Table I”).

III. THE OVERALL IMAGE OF SHAANXI PROVINCE

By both frequency and number of lemmas, the category of Administrative Zone tops the list. Then follow respectively History & Culture, Nature & Landscape, Science, Education & Sports, Economic Development as well as Others. Results show that in cross-cultural transmission, Shaanxi is mentioned mostly as a province, area or part of China. The word province hits the list, because Shaanxi and province are a close collocation in the sense of administrative division. Its cities, counties, towns and neighbors like Gansu province are introduced as well. Then comes the mention of history, culture, nature and landscape in Shaanxi, among which, museum and history are mostly mentioned. Shaanxi Historical Museum has been mentioned very frequently since it’s a place for tourists to get an overview of Shaanxi history and culture. Though less frequently, famous rivers and mountains are mentioned a lot as well, such as Qinling Mountain, Hua Mountain, Yellow River and Wei River. Within the category of Nature and Landscape, the word earthquake hits frequently as well, because there was once a catastrophic earthquake in 1556 in Shaanxi province, killing 830,000 people. Another earthquake in Wenchuan, Sichuan province in 2008 was also reported a lot because the city Ningqiang in southern Shaanxi province was hit severely as a close neighbor of Wenchuan. Next follows the category of Science, Education & Sports. The word university hits the column and next comes the word institute, since Shaanxi is reputed for its more than 1000 research institutions, among which there are about 100 universities, Famous universities like Jiaotong University, Northwest Polytechnic University, Shaanxi Normal University, etc. are frequently mentioned. Except for the category of Others, the category of Economic Development remains the last, showing that economic development is not a prominent image of Shaanxi compared with its history, culture and research institutions. Within this category, the word aircraft is the most frequent one and Shaanxi Aircraft Company, Aircraft Organization, Aircraft Manufacturer are mentioned a lot. As we know, Yanliang District in Shaanxi province has been the largest Aviation Base in China for aircraft design, manufacturing, testing and research.

Two points need to be discussed from the results above. The first one is about the history and culture image of Shaanxi province. As shown in Figure 1, except that Shaanxi, as part of China, is naturally perceived as an administrative zone, the most prominent image of Shaanxi province in cross-cultural transmission is its history and culture. Besides, though the 3rd category is about Nature and Landscape, many words like mountain, valley and village are concerned with information of Shaanxi history and culture. Through observation of the lemmas in the 2nd category, it’s seen that Shaanxi is a place with lots of museums, relics, art, historical sites, cultural resources, and it has been an important place through many dynasties in Chinese history. Furthermore, one word needs to be noticed is opera, which is the only word referring to a specific form of art compared to other words with more generalized reference in the list. It indicates that Shaanxi opera or varieties of operas in Shaanxi province are welcomed and active in cross-cultural communication. However, the rare presence of specific cultural terms implies that in cross-cultural communication, the history and culture image of Shaanxi needs to be specified instead of mere generalization, and more typical cultural terms need to be shown in trans-cultural communication.

The second point is about information on economic development of Shaanxi province. There are names of

<table>
<thead>
<tr>
<th>Administrative Zone</th>
<th>History &amp; Culture</th>
<th>Nature &amp; Landscape</th>
<th>Science, Education &amp; Sports</th>
<th>Economic Development</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>[GOVERNMENT] 17</td>
<td>[ART] 10</td>
<td>[COAL] 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[PLACE] 14</td>
<td>[CULTURE] 10</td>
<td>[MOUNTAIN] 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[TOWN] 12</td>
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<tr>
<td>[CENTER] 10</td>
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<tr>
<td>[ROAD] 10</td>
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<tr>
<td>[BUREAU] 10</td>
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</tbody>
</table>

15 lemmas          9 lemmas     9 lemmas     6 lemmas     4 lemmas     4 lemmas
economic organizations, but the frequency of words like company, development and group are not high. In addition, the only word aircraft appears with a comparatively higher frequency within this column of list. This result shows that Shaanxi province doesn’t have a remarkable image of economic development in cross-cultural communication. And similar to its image of history and culture, more specified information needs to be shown except aircraft. Besides, compared to the 4th category of science, education & sports, both the frequency and the lemmas of the 4th category outnumber those of the 5th, which reveals that Shaanxi province has a more striking image in science, education and sports than in economic development.

In all, the overall image of Shaanxi province in cross-cultural transmission is mostly as an administrative, historical and cultural zone. Also there’s pretty much information on nature, landscape, science, education and sports. As to economic development, there’s comparatively less information. In addition, more specified information concerning history, culture and economic development of Shaanxi province needs to be added in cross-cultural communication.

IV. THE CULTURAL IMAGE OF SHAANXI PROVINCE

Based on the results in Table I, the author continues to retrieve the culture-related 9 lemmas in the 2nd category so as to find out the situation of Shaanxi culture transmission. The author reads all KWIC lines of each lemma, selects information (mostly noun phrases) relevant to Shaanxi culture. The information concerning each lemma is summarized and classified in “Table II”. The capitalized words are lemmas from the 2nd category and the number after each lemma refers to the number of KWIC lines containing the lemma. Within the list under each lemma, the information is categorized and the number after each phrase refers to its raw frequency. One thing needed to explain is that the lemma History is not listed below, because almost every word of History appears together with the word Museum, and in most contexts, they refer simultaneously to Shaanxi History Museum. So the statistical information of the word History is omitted here so as not to overlap with that of the word Museum.

### TABLE II. CLASSIFICATION OF INFORMATION ON EACH LEMA IN THE 2ND CATEGORY

<table>
<thead>
<tr>
<th>Category</th>
<th>Example Lemmas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MUSEUM</strong> [81]</td>
<td>Shaanxi History Museum; The Forest of Stele Museum; Tang dynasty West Market Museum; Shaanxi Intangible Cultural Heritage Museum; Shaanxi Provincial Art Museum.</td>
</tr>
<tr>
<td><strong>HOME</strong> [16]</td>
<td>Shaanxi Museum</td>
</tr>
<tr>
<td><strong>SITE</strong> [9]</td>
<td>Shaanxi Grand Theater Performing Arts Company</td>
</tr>
<tr>
<td><strong>RELICS</strong> [9]</td>
<td>Emperor Qinshihuang's Mausoleum Site; Shaanxi Folk Art Theatre</td>
</tr>
<tr>
<td><strong>ART</strong> [9]</td>
<td>Shaanxi Museum</td>
</tr>
</tbody>
</table>

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1. **Names of museums**: Shaanxi History Museum (showed in almost every KWIC line); The Forest of Stele Museum (5); Tang dynasty West Market Museum (1); Shaanxi Intangible Cultural Heritage Museum (1); Shaanxi Provincial Art Museum (1).

2. **Places of interest**: Terracotta Warriors (15); Big Wild Goose Pagoda (10); Ancient City Wall (10); Little Wild Goose Pagoda (7); Emperor Qinshihuang's Mausoleum Site (5); Bell tower (1); Confucian temple (1); Wolong Temple (1); The Grand Mosque (1); The Eight Immortals Temple (1); DaMing Palace and Park (1); Intact castle of the Ming Dynasty (1); Banpo Neolithic Village (1).

3. **Relics/Crafts/Art**: Cultural Relics/Relics Restoration (14); Art treasures; Pottery animals; Bronze relics and wares; Dragon plate; Ancient sword; Ancient instruments; Gold/exquisite golden carvings; Splendid collection of artifacts; Cultural Heritage; Priceless coins; Bones of the Lantian Man; Fascinating sculptures; Priceless murals; Paintings; Historic inscriptions and stone-works; Stele carved with characters; Chinese characters and calligraphic art (1).

4. **Muslim**: Muslim Quarter/ Islamic food market (2); Muslim food (1); Muslim (1).

5. **Food**: Dumpling Banquet (2)

6. **Others**: Souvenirs (1); Tang Dynasty (1)

1. **Museums**: Shaanxi Museum (5); Tang dynasty West Market Museum (1); Shaanxi Intangible Cultural Heritage Museum (1); Shaanxi Provincial Art Museum (1).

2. **Places of Interest**: Little Wild Goose Pagoda (3); Terracotta warriors (2).

3. **Relics/Art/Cultural sites**: Priceless reliefs (8); Fantastic folk singers (1); Local opera (1); More than 3,500 cultural sites (2); Caves in China (1); Historic Silk Road (1)

4. **Muslim**: Muslim (1)

5. **Food**: Shui Jiao (1)

1. **Relics/Crafts/Art**: Necropolis (2); Ancient sacrificial site/Royal altar of heaven (2); Emperor Qinshihuang's Mausoleum (1); Painted pottery; Paper-cuttings (1); Chinese writing; Wooden vehicle.

2. **Emperors**: Qin and Han emperors (1); Qin Shih Huang (2)

3. **Others**: Qin Dynasty (1); Yangshao culture (1).

1. **Crafts/Art**: Pottery animals (1); Dragon plate (1); Ceramics (1); Ancient sword (1).

2. **Places of Interest**: Emperor and His Terracotta Warriors (1); City Walls (1).

3. **Relics and food**: Islamic food market (1)

4. **Dynasty**: Tang Dynasty (1)

1. **Art**: Shaanxi Grand Theater Performing Arts Company (3); Painting and calligraphy (3); Animation art (1); Tomb art (1); Rod and shadow puppets (1); Folk Art (1); Shaanxi Folk Art Theatre (1).

2. **Culture**: Tang Culture (1); Chinese culture (1).

3. **Emperors**: The Legend of Emperor Qin (1)
Results in "Table II" show that 5 kinds of cultural elements are emerging out of all categories, of which, by the range of frequency, are respectively museums, places of interests, relics & crafts, Muslin and food. First, museums like Shaanxi History Museum, Shaanxi Provincial Museum, Shaanxi Intangible Cultural Heritage Museum, Tang Dynasty West Market Museum, Forest of Stele Museum are mentioned. Particularly, Shaanxi History Museum has the highest frequency among all the cultural elements retrieved. Next, places of interest come to the second place on the frequency list. Those mostly mentioned places are Terracotta Warriors, Big/Little Goose Pagoda, City Wall, Bell Tower etc. Third, the word relics, art and varieties of crafts are mentioned, such as bronze wares, golden carvings, coins, potteries, bones, plates, sculptures, murals, paintings, calligraphy, opera, etc. Fourth, the word Muslin is mentioned a lot as well, like Muslin Quarter in Xi’an, capital of Shaanxi province, a place for Muslin to live and work. Muslin food is introduced because there’re approximately more than 100,000 Muslin living in Shaanxi province and their food like mutton & bread, hamburger and spicy soup have greatly enriched Shaanxi cuisine. The last category is food. Though not for many times, dumplings and local noodles are mentioned.

The range of these 5 categories reveals that it has been fruitful in publicizing Shaanxi as a tourist attraction, particularly as one rich in historical and cultural heritage, since museums, places of interests and cultural relics & crafts are the biggest attraction for tourists eager to explore the historical and cultural background. Thus, for those who desire to know and learn typical Chinese culture, Shaanxi would be one of their first choices. However, the inadequacy in transmission of Shaanxi culture is its modern humanity. Outsiders would be eager to know what the people look like living in such a rich historical and cultural atmosphere, including their food, life style, local character, etc. Though Muslin, dumplings and noodles are mentioned, information about other groups or minorities of people and more varieties of food is needed so as to show a complete and more vivid picture of local culture. For instance, different kinds of noodles welcomed by local people like cold noodles, beef noodles, mutton noodles, fried noodles, Biangbiang noodles, Saozi noodles and Youpo noodles need to be publicized.

There’re various other local cuisines with spectacular flavors from north, south, east, west and middle part of Shaanxi province. Besides, though Muslim is the largest minority group in Shaanxi, other minority groups need to be introduced as well for an overall image propaganda. Except for minority groups, we need more information about other local groups of people in both history and modern times, for the sake of outsiders to wave a colorful and overall picture of Shaanxi province, such as stories of emperors and great figures in history (though mentioned but very limited), international teachers, doctors, politicians and ministers once serving here in modern times, and scientists from various fields since Shaanxi is reputed as well for its amazing scientific institutions and universities.

Despite of the 5 categories of cultural elements above, the author notices the noun phrases with a frequency over 10. Ranged by frequency, these are Shaanxi History Museum, cultural relics & crafts, Terracotta Warriors, Big/Little Goose Pagoda, City Walls, Muslin food market and opera. Results indicate that Shaanxi History Museum as the best place for outsiders to have a quick overview of local culture is in pretty good publicity. People are attracted as well by varieties of relics and crafts displayed here. Terracotta Warriors, Big/Little Goose Pagoda and City Walls have always been spectacular symbols of the capital city, Xi’an. Muslin food market in Xi’an has always been famous and welcomed by worldwide tourists. Besides, the word opera appears 10 times in the lines, showing that local operas are welcomed and well publicized in overseas communication. Nevertheless, there’re three kinds of inefficiency problems in the publicity of Shaanxi culture. First, observed from "Table II", except for Shaanxi History Museum, other museums are limitedly shown, since there’re numerous museums in Shaanxi province. Second, 4 places of interests are all from the capital city, without those famous ones from other districts, like Yan’an Pogada in Yan’an city and Famen temple in Baoji city. Third, opera is one of the prominent art performances in Shaanxi, but there’re many other kinds like musical, drama, dance and calligraphy show needed to be mentioned as well, and Shaanxi Art Festival is held every three years with varieties of art performances.
In addition, the author observes in "Table II" the words related with Shaanxi folk culture. By Wikipedia definition, folk culture is the expressive body of culture shared by a particular group of people, which include oral tradition like tales and proverbs, material culture like building styles and handmade toys, and customary rituals and celebrations. Shaanxi, as a place with very long history, has very rich folk culture, but they are not revealed much from the results in "Table II". In categories concerning art, crafts and relics, many handmade objects are mentioned like potteries, carvings, stone works, sculptures, etc., most of which come from historical sites centuries ago, but there’s a lack of products from modern times. For instance, Huamo, a kind of steaming bread decorated with colors and shapes, is a traditional food in modern festivals, especially in the countryside of Shaanxi province. Paper-cutting, as one of the most important styles of Chinese folk art, originates in North China around 3 B.C. and remains popular in Shaanxi till now. In present times, local people still cut out red papers in various shapes and images and put up on doors and windows during Spring Festivals or weddings. But it’s mentioned only once in "Table II". Another one mentioned once is rod and shadow puppet, which is a flat, articulated cut-out figure held between a source of light and a translucent screen, as a form of storytelling and entertainment popular in Shaanxi. Besides, phrases like folk art and folk art theatre are mentioned in reference of Shaanxi, but still with a frequency of one or two. As an exception, Shaanxi opera, a traditional and presently popular folk art, is in good publicity. To summarize, in the transmission of Shaanxi folk culture, very limited modern crafts, life style and traditions are mentioned.

V. CONCLUSION

This paper studies the overall image of Shaanxi province and Shaanxi cultural image based on IWEB corpus. Results show that the overall image of Shaanxi province is mostly prominent as an administrative, historical and cultural area, followed by its education and landscape, and there’s very less information on its economic development. The result of only 3 nouns collocates of the word Shaanxi with per million frequency reaching 0.01 shows that more work needs to be done to promote the publicity of Shaanxi Image. And more specific cultural terms need to be explored despite of the limited range in present publication. For example, Shaanxi opera is only one out of varieties of art performances in Shaanxi, and aircraft economy is only one out of many kinds of economic forms and advantages. For the cultural image, museums are publicized well, especially Shaanxi History Museum, followed by places of interests, cultural art, relics and crafts. However, Shaanxi folk culture is not in good publication, with very limited groups of people, food, modern crafts and traditions are mentioned.

There are implications from the present study. First, in the construction of an overall Shaanxi image, except for its historical and cultural heritage, more information on education, landscape, economy and other areas needs to be added. Second, for local cultural transmission strategies, more elements of folk culture need to be explored, specified and publicized. Folk culture reflecting local life styles, if combined with modern elements, such as computer techniques and fashion trends, would greatly arouse tourists’ interest and promote local tourism consumption, which sightseeing tourism strategies with only museums and places of interests as its focus would not achieve.

For further research, we could continue to investigate cross-cultural transmission effect of Shaanxi culture based on more varieties of corpora, and figure out more effective strategies in Shaanxi culture transmission, especially those combining traditional element and modern style, so as to refresh tradition, boost local economy and promote modern development.

REFERENCES