

Resonance rather than Solo: Shaping a Regional Image with Soundscape

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Abstract

As times change, industrialization and urbanization transform the structure of traditional rural society and result in imbalanced development between urban and rural areas. Then, as a result of population outflow and change in industries, rural distinctiveness gradually disappeared. Given that visual text was normally used to shape a regional image, this study further added audio text to enrich rural expression and also adopted the soundscape concept proposed by Murray Schafer (1973). Other than artificial sounds and natural sounds, soundscape also covers memory sounds, image sounds, cultural sounds and social sounds. The study incorporated the ecological triangle developed by Tilly (1974) – humans, space and activities, to analyze the urban and rural social structures; as well as the soundscape triangle developed by Schafer (1978) – soundmark, signal, keynote, to analyze the sounds in the environment.

This study utilized environmental marketing to transform sounds that are regarded as noises from negative exchange phenomenon to positive exchange of environmental resources. By using in-depth interviews, the study filtered out the scenic spots of Tongshiao Town, Miaoli County featuring mountainous or oceanic uniqueness and conducted a field survey to collect visual and audio text data. The text analysis method was used to analyze the data contents and meanings, and explored the derived interactive relation between humanistic emotions and the rural image. The study designed a soundscape shaping region prototype- Sonic Vison, which blended visual and audio test data into audio-visual interactive creation, in an attempt to help the study subject better promote the region's tourism industry and reinforce marketing applications. The results can also be used as a reference for future research on shaping a regional image in other rural regions.

Keywords

Soundscape; ecological triangle; Soundscape triangle; regional image

Introduction

Following its economic growth, Taiwan is now experiencing an imbalanced development between urban and rural areas. The lack of job opportunities in rural areas, the replacement of labor force by agricultural machines, and the shortage of social resources, have caused the widening gap between urban and rural areas, the outflow of rural population, and the gradual disappearance of rural features (Ding, 1999). Besides, many rural towns, which used to maintain traditional agricultural life due to restrictions of landform, location and transportation, have shifted the developmental focus to the tourism by means of the rich resources well-preserved because of difficult exploitation in the past, as the social structure changes in the rising tourist tide and now are gradually forming into famous tourism towns (Chen, 2000). It is necessary for these towns to build new images to attract tourists. Chiang (2001) pointed out that the "Image of the City" refers to the "memory" and "meaning" resulted from the "knowledge" of these urban and rural areas. Given that visual text was normally used to shape a regional image, this study further added audio text with local distinctiveness so that the image could be perceived and remembered both visually and aurally and then be transformed into special regional memory. The early industries were predominated by agricultural society and handcraft industries such as straw mat weaving and wood carving once thrived in the 1930s, which, however, declined soon due to the changing time and population outflow, and the characteristics of rural towns gradually disappeared. The high audience rating of the Taiwanese idol drama, *Lavender*, broadcasted in 2001, successfully marketed the Flying Crow Ranch in Tongshiao, which caused a whirlwind at that time and

indirectly made the Flying Cow Ranch popular overnight and gradually promoted the development of scenic spots in the vicinity of Tongshiao Town, and the unexploited natural landscape of Tongshiao Town was developed into agricultural recreation areas in recent years. The town has shifted its developmental focus to tourism industry, which further attracts artists who brought to the town an artistic and cultural atmosphere. The disintegration of traditional social and urban structures causes the confusion of the image of the city, and since people gradually lose their “memory” and “emotion” about the urban environment, it is actually an important step to value and rebuild the image of the city (Chiang, 2001).

Wang (2001) views the city as an organism and studies the city expression with five-sense association method: soundscape, tastescape, smellscape, touchscape and mindscape. The research on soundscape, a concept proposed by Murray Schafer in 1973, launched a series of world soundscape projects, which paid special attention to the auditory feeling under the contemporary visual current. The soundscape of a city is an important environmental reference of quality of life in the urban setting (Pereira, 2003). Since each region owns special soundscapes of its own, this paper selected a rural region, whose tourism industry just getting started with its tourism resource of mountains and sea, as the study subject, and shaped the regional image by means of the soundscape triangle proposed by Schafer (1978), and the ecological triangle proposed by Tilly (1974). Then via the sounds and images created by the local landscape, this study aims to discover local characteristics from the perspective of environmental marketing and shapes a local image. In addition to establishing self-awareness and a sense of identity among locals, this study can also be served as a reference for future researches, and thereby successfully markets Tongshiao Town.

Literature review

The soundscape is any acoustic field of study. We may speak of a musical composition as a soundscape, or a radio program as a soundscape or an acoustic environment as a soundscape. We can isolate an acoustic environment as a field of study the characteristics of a given landscape (Schafer, 1994). The concept of soundscape was originally developed by Murray Schafer, a Canadian composer, in early 1970s, who launched a series of survey researches with the “World Soundscape Project” as the core. The idea of soundscape is “to employ the natural sound, the urban rhythm, the memory of artificial sound, and the sound within impression on this planet to take the image of landscape while catching its sound”. This can be viewed as a special emphasis on auditory feeling in the contemporary visual current. Each region owns its special soundscape and since the sight and sound coexist with each other, and the missing of either will render the environment unnatural, the visual representation shall not be the only one employed to shape the regional image. Schafer (1977) proposed that other than artificial sounds and natural sounds, soundscape also covers memory sounds, image sounds, cultural sounds and social sounds, and since environmental sounds influence the locals imperceptibly, the analysis of environmental sounds can be applied to discover those of positive values, which can even serve as regional marketing strategy. Besides the sound as physical phenomenon, soundscape also covers the environmental space that transmits sound and the feelings of recipients; that is, soundscape is a method and an idea to study the interrelation among sound, environment and human and therefore, the harmony among those three is absolutely necessary for good soundscape (Shi, 2004). Among human, sound and environment, they supplement and complement the others and it is human that feels, thinks and remembers the sound and environment and then feeds back to the sound and environment. In other words, sound and environment transmit feelings to human, who will unconsciously returns sound and create environment of the same quality. (as shown in Fig. 1)

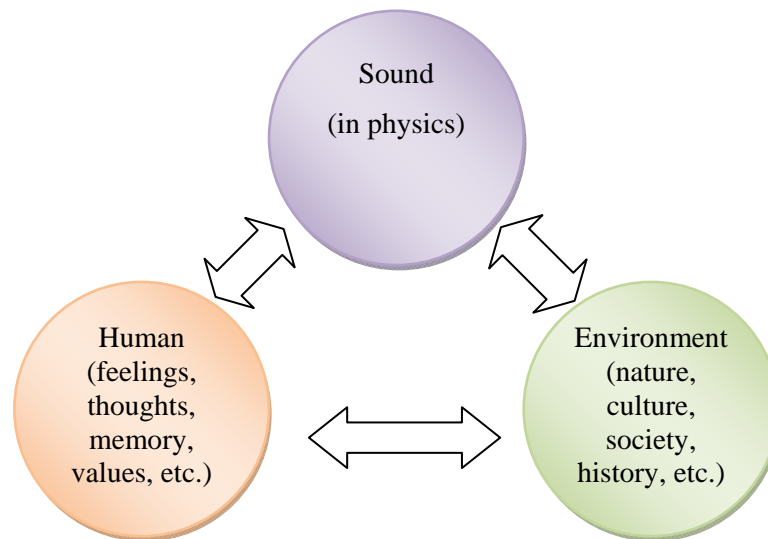


Figure 1 Relationship between sound, human and environment (Data Source: Shi, 2004)

The majority of soundscape studies in recent years focus on environmental noise, human perception about environmental sound and sound management. In such studies, noises are typically described by a quantitative metric such as sound pressure level and people's responses to noises are represented by a single evaluation of annoyance (Kawai, 2004). The point is to master its physical characteristics and analyze via the quantitative methods such as the measurement or calculation of decibel value, sound frequency characteristic and reverberation time, rather than its social, historic, environmental characteristics (Shi, 2004). The study on sound from the perspective of soundscape shall conduct comprehensive consideration about the multiple characteristics of sound and attach different values and cultural contents based on individual differences. Therefore, soundscape is not only a pure physical concept resulted from acoustic measurement and spectral decomposition, but also a social and cultural existence attached with distinct personal emotions.

The image of a city is based on its residents' memory and meanings resulted from long-term observation, use and knowing about certain region in the surrounding environment (Chiang, 2001). The urban and rural citizens develop not only memories but also emotions about the place, and only the combination of urban appearance and personal and communal ideologies will form the image of the city. In the city, different groups develop different images based on their own social lives, and thus it is a must to master the nature of social experiences in order to know the structure of mutual urban and rural images. Kevin Lynch has published a classic work concerning the image of the city, *The Image of the City*, which simplifies the urban imagination into the physical form of the city, focuses on the readable spatial factors (such as paths, nodes and edges), proposes meanings of obtaining the urban experiences with mental map and represents the main tool for contemporary studies on urban connotations (Hsia, 1989). Since social practice plays a more important role than perception in form does, it is improper to apply the perception method to study the image of the city due to its incapability for symbol analysis of the image, and this study, besides using the perception method to discover images, applies soundscape triangle and ecological triangle in an attempt to find the environmental sound with local characteristics, and views soundscape as a non-physical exchange object for the urban environmental marketing according to the concept of soundscape proposed by Wang (2001) in the hope of transforming sound into positive exchange phenomenon of "environmental resources", rather than negative exchange phenomenon of noise, and applying the concept of soundscape as a special product for urban and rural marketing.

Method

Subject

This paper selected a rural region, Tongshiao Town, as the study subject, whose tourism industry is just getting started. This region is rich in tourist resources of mountains and sea. Taiwan lies on

the right side of mainland China and on the left below Japan(as shown in Fig. 2); and Tongshiao Town lies in the northwest of Taiwan (as shown in Fig. 3) predominated by hills descending from the southeast to the northwest, which forms a gentle slope to the coastal line so that it is characteristic of mountains and sea. The unexploited natural landscape of Tongshiao Town was developed into agricultural recreation areas in recent years, and the town has shifted its developmental focus to tourism industry, which further attracts artists, who come and bring the town with artistic and cultural atmosphere.

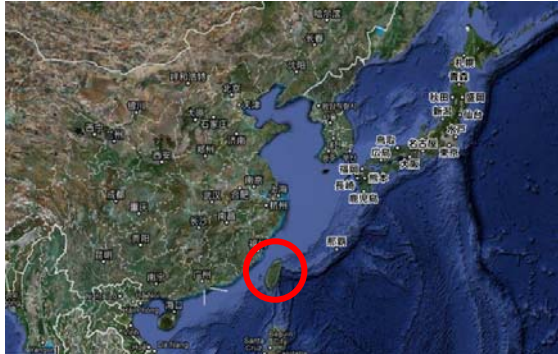


Figure 2 Location of Taiwan



Figure 3 Location of Tongshiao Town

The scenic spots of Tongshiao Town were decided through two means: questionnaire and online statistics. The semi-open questionnaires were given to local seniors in order to find out the scenic spots of local characteristics, and meanwhile the scenic spots survey is also conducted on hot tourism websites; and the most representative scenic spot is concluded from the statistics of those two means, and then the collection of sound and image started officially. The questionnaires were distributed to 30 local residents and seniors who have lived there for more than 20 years and the distribution of questionnaire was conducted on the street in a convenient sampling manner. Three representative tourism websites were also selected as the hot websites for survey (Taiwan Travel Information Net, Miaoli County Travel Information Net and Miaoli Travel Net). According to the result, the representative scenic spots are Flying Cow Ranch, Tongshiao Beach Resort, Mt. Hutou, Qiumao Garden, Salt Path, Tongshiao Shrine, Gongtian Temple, Taiwan Salt Factory, Tongshiao Thermal Power Plant, Flower Filed, and Coastal Windmills. Because of limits to environmental sound recording, only 8 of them obtained complete audio recording: A. Flying Cow Ranch, B. Tongshiao Beach Resort, C. Flower Field, D. Coastal Windmills, E. Tongshiao Salt Factory, F. Mt. Hutou, G. Qiumao Garden, H. Gongtian Temple. (Fig.4)

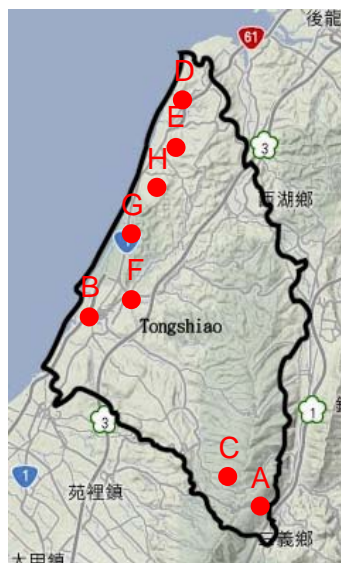


Figure 4 Location of Field Survey

Process

This study, mainly through means of literature analysis and interview, filtered the scenic spots of Tongshiao Town, Miaoli County and conducted field survey to collect visual and audio data in

order to explore the interrelation between derivative human emotions and images of urban and rural areas, and proposed tourism promotions and marketing applications about the study subject's area employing characteristic text to create soundscape prototype, which can serve as a reference for future research on shaping the image of other urban and rural areas. The study's process is as follows:

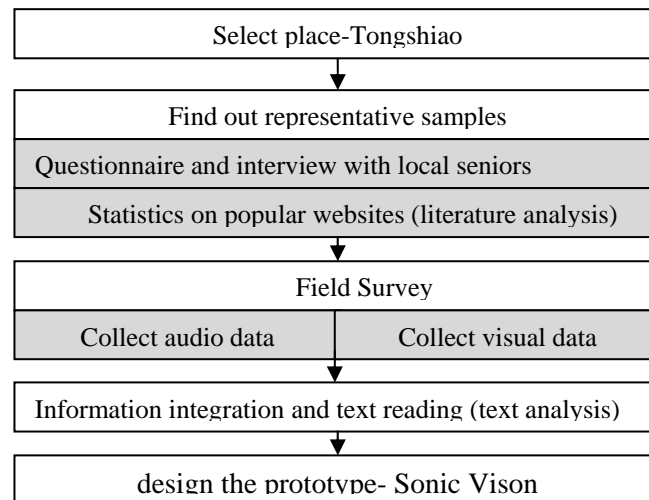


Figure 5 Structure of the study process

Analysis structure

As to the collection of sound and image, this paper directly observed and recorded in a manner of live field survey, where recording pens and digital cameras served as the collection means for this study to conduct collections of audio and visual data.




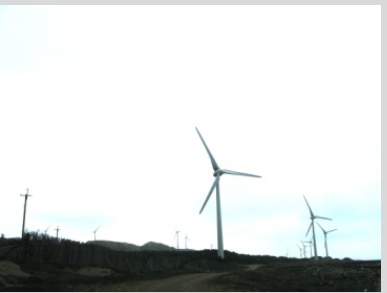
The study structure of soundscape proposed by Wang (2001) served as the analysis structure for data analysis. The ecological triangle of environmental ecology of Tilly (1974): human, space and activities, is employed to analyze social sound structure. Human serves as social actor, space serves as social container, and activities serve as social output. Since it is too narrow for human to serve as social actor of environmental sound, the data analysis structure of this study transformed the naming of human into social actor. Space stands for environmental sound in nature. Sound resulted from activities does not come from itself, a media is necessary for producing sound. This study employed social actor, space and activities as the horizontal axis for data analysis. The soundscape triangle developed by Schafer (1978) served as the vertical concept: soundmark, signal and keynote. The soundmark is a derivative word of landmark, which refers to the sound resource, and signal refers to the message transmitted by sound, and keynote refers to the representative sound or keynote sound in the environment. This is shown in the following table.

Visual Image	Ecological Triangle	Social Actor	Space	Activities
	Soundscape Triangle			
Fig.	Soundmark			
	Signal			
	Keynote			

Table 1 Soundscape study structure

Data Analysis

This study employed social actor, space and activities as the horizontal axis for data analysis. The soundscape triangle developed by Schafer (1978) served as the vertical concept: soundmark, signal and keynote. The soundmark is a derivative word of landmark, which refers to the sound resource, and signal refers to the message transmitted by sound, and keynote refers to the representative sound or keynote sound in the environment. This is shown in the following table.

Visual Image	Ecological Triangle	Social Actor	Space	Activities
	Soundscape Triangle			
 <p>A. Flying Cow Ranch</p>	Soundmark	tourists, children, ducks, insects and birds	stream and forest	mowing, moving car, human activities and goat activities
	Signal	sightseeing area, recreation area and rural area	open, rivers and leisure	liveliness, human stream
	Keynote	tourists' voices, sound of playing children, duck quacking, insects chirping and birds singing	wind, stream murmuring and tree leaves rustling	sound of car, sound from mobile loudspeakers, sound of walking on the cobbled road and jingling of goat bells
 <p>B. Tongshiao Beach Resort</p>	Soundmark	tourists	rivers and sea	tide splashing
	Signal	sightseeing area	leisure, open, peaceful and comfortable	*
	Keynote	tourists' voices	wind, sound of sea, and river murmuring	tide splashing
 <p>C. Flower Field</p>	Soundmark	tourists, children, birds and dogs	wind	old motorcycle, moving car, mobile loudspeaker
	Signal	sightseeing area, recreation area and rural area	open	rural area, high mobility, liveliness and human stream
	Keynote	tourists' voices and birds sound	wind	old motorcycle sound, sound of car stream and mobile music
 <p>D. coastal windmill</p>	Soundmark	tourists, children, peddlers, insects and birds	Sound of wind and sea	spinning windmills, motors of peddlers, tourists walking, car moving, locomotive and camera
	Signal	sightseeing area, recreation area and rural area	open, broad, peaceful and comfortable	liveliness and beautiful scenic spots

	Keynote	tourists' voices, sound of playing children, of cries of peddlers, sound of insects, and birds singing	sound and wind and sea	windmills spinning, mechanic sound of windmills, sound of peddlers' motors, tourists walking, sound of cars and chugging-by locomotives
 <p>E. Taiwan Salt Factory</p>	Soundmark	tourists and children	thermal spring	*
	Signal	recreation area	leisure	*
	Keynote	tourists' voices and the sound of playing children	murmuring of thermal spring	*
 <p>F. Mt. Hutou</p>	Soundmark	tourists and insects	Wind	*
	Signal	sightseeing area, recreation area and rural area	open and mountains	*
	Keynote	tourists' voices and sound of insects	sound of wind	*
 <p>G. Qiumao Garden</p>	Soundmark	tourists, children and peddlers	sea and wind	swing
	Signal	sightseeing area, recreation area and rural area	open, broad, peaceful and comfortable	happy tourists
	Keynote	tourists' voices, children's voices and peddlers' cries	sound of sea and wind	Swinging swing
 <p>H. Gongtian Temple in</p>	Soundmark	tourists, disciples and residents	*	people waking, sound of moving car, cup-dropping and paper-money burning
	Signal	pious pilgrimage	*	sacrificing ceremony

Baishatun	Keynote	tourists' voices, disciples' praying and residents' talking	*	people waking, sound of moving car, cup-dropping and paper-money burning
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Table 2 Study analysis of soundscape

In the table above, some blanks marked with * represent the state of silence rather than being drowned out by other louder sounds, which may render human unaware of its existence. In the following, the rural village soundscape of Tongshiao Town is summarized with characteristic illustrations of social actor, space and activities.

Soundscape of social actor

The social actor may cover orientations of ethnic group, class, sex and organization (Wang, 2001) including residents, tourists and the sound of animals. According to the background mentioned afore, since the population of Tongshiao Town outflows severely, only business talk is available in the scenic spot where collection is conducted, for example, the cry of peddlers. The tourist group is predominated by small families and lovers, and happy tone and sound of children's playing stand for the signal of sightseeing, which brings vitality and liveliness into the town. The sounds of insects and birds are the keynotes of the mountain area of Tongshiao Town, and as Tsai (2002) has proposed that people has a preference for sounds in the nature such as that of birds, cicadas, frogs, winds, stream, springs and stirring trees. Just as the relationship among sound, human and environment proposed by Shi (2004), Tongshiao Town possesses rich natural soundscapes, which will directly bring comforts to the locals and tourists, and then people will also feed back their happy feelings to the environment.

Soundscape of space

Space, as social container, covers natural or artificial structures, and the main study object is the soundmark of this place, which includes the sounds of sea, wind and stirring trees. The sound of water and sea is one of those important elements of soundscape in Tongshiao Town, and the connection with water is of quite an importance because that Tongshiao Town leans against the mountain and faces the sea with Taiwan being surrounded by sea, for example, there are murmuring streams in the mountain area, and the sound of sea and splashing tides in the coastal area. In the recent years, the beautiful coastal line has attracted many tourists and businessmen, which also invigorates the coastal line. In Tongshiao Town, the keynote of wind sound is loud and clear and the open rural area, comparatively low constructions and broad rural landscape together make it as reference note. And this broadness brings people with feelings of peace, leisure and comfort, and these special soundscapes of space have become unique to Tongshiao Town.

Soundscape of activities

Activities, as social output, cover various high-divided social interactions. The keynote of soundscape of activity in Tongshiao Town is the sound of human activities, such as traffic soundscape, tourists' walking, mobile loudspeakers, broadcast and so on. This activity soundscape refers to those continuously changing sounds in the environment, which bring the environment with different sound features. Besides, there are still other special sounds in the soundscape of activity such as sounds of spinning windmills and wind and sounds of cup-dropping of praying in the temple and paper-money burning. The windmill belongs to the wind power system established in recent years in a response to environmental protection, and there are about tens of windmills built off the shore of Tongshiao Town making special marine sight-construction. The cup-dropping sound and paper-money-burning sound transmit the local culture and belief and a grand sacrificing ceremony will be held annually in Gongtian Temple in Baishatun, in which the soundscape is much more multiple and abundant such as the firecracker sound and drumbeats. The traffic soundscape and the mechanic sound of motors are always classified as noise in the urban soundscape, however, the sound of car stream of traffic soundscape reflects the existence of mobility and vitality in urban and rural areas transmitting the signal of "sightseeing", and from the perspective of environmental marketing, the soundscape, a non-physical exchange object, will transform the sound deemed noises from negative exchange phenomenon to positive exchange

phenomenon of environmental resources so that the environmental noise will be of a positive image. The continuously changing sounds in rural activities beautify the countryside just like the cosmetics do.

Prototype design of soundscape for shaping regional image

This study designed the prototype with an attempt of shaping regional images with soundscape concept surpassing previous regional image shapings, which only employed vision-oriented products, and soundscape researches, which only employed auditory perception. The making of this prototype combined senses of sight and hearing so that the regional image shaping products can make the browsers experience personally, provide the region of study object with sightseeing promotion and marketing application and serve as reference for future researches on shaping the image of urban and rural areas.

The elements for making this prototype are divided into two groups. One is audio elements and the other is visual elements, which are kept as original as possible. The audio elements come from the live recording of field survey, and although the field recording of one scenic spot is conducted in several places, the representative sounds of each scenic spot mentioned afore are mixed into one sound track during the making of prototype sound, which will become the representative soundscape of that scenic spot. The visual elements are constituted of pictures of field photographing without many special effects added or other treatments and they are shown through revolving playing.

The form of presentation of prototype design employed the website as the platform in order to attract more browsers through its convenience and interaction. The map of Tongshiao Town is used as the background of the page with specific scenic spots scattered in different areas and there are guide buttons on scenic spots for the browsers to click upon and on clicking, the sound of the scenic spot is played first and then the revolving play of visual pictures followed. The creation of prototype is dedicated to timeliness and spatiality and the browser can not see the regional image immediately as the webpage opens so that with the timely combination of hearing and sight on clicking, the total impression during that time can become the image of that area. It is difficult for people to experience personally because of the usual depth of field of flat vision; however, with the key characteristic of spatiality, the sense of space is created by sight and sounds.

webpage	Webpage design	Comments
logo		Logo Sonic Vison

homepage		Index Sonic Vison
homepage guide		There is spot can guide user to chick.
revolving play of visual images		The sound of the scenic spot is played first and then the revolving play of visual pictures followed.

Table 3 Design of image commentary

Conclusion

Because of the preference for visual culture, more attention shall be paid to auditory feelings, and the missing of either will render the environment unnatural and audio orientation and visual orientation shall coexist with each other in the study of urban and rural soundscape. In the city, different groups develop different images based on their own social lives and it is a must to master the nature of social experiences in order to know the structure of mutual urban and rural image and the urban and rural citizens develop not only memories but also emotions about the place and only the combination of urban appearance and personal and communal ideologies can make the urban and rural image. It may require three important variables to explain the difference in environmental perception: social group values, life-style and culture, therefore, the discovery of urban and rural

images must start from the viewpoint of human and then study the reflection of values of local groups and humanity history on the perception and image of the environment. As the study developed, it found out that the study subject, Tongshiao Town of Miaoli County, although being a town “leaning against the mountain and facing the sea”, does not view this characteristic as a focus of marketing in the urban promotion and this paper has revealed the characteristics of mountains and sea in order to make marketing effects.

Since the image and characteristics of one region shall be jointly shaped by the locals and external tourists, it is suggested in this paper that in the future, the opinions of the locals and tourists be considered, and to discover the urban and rural image through the integrated analysis of residents and tourists. To sum up, the future executive direction of this study will be: to verify and modify this prototype with depth interviews with the residents in the hope that the soundscape shaping, through the effort of this study, the plan of local governments and cooperation of associations in place, will actively conduct the marketing and promotion in a direction suitable to the town itself and show a better urban and rural environment after follow-up implementations and this paper can also serve as the reference for future researches on shaping of other urban and rural images.

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