

# **Apply the GIS to Study on the Chinese Traditional Culture**

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It is very common problem how to depict the distribution of figures, events in relationship with the Chinese history when we engage lectures and researches.

For example: The concept of "routes" is one which is central to the UNESCO Silk Roads Project. Dr. D.Diene, Director of Division for International Projects, said "Each route in history is seen as a mechanism for contact between peoples and civilizations. It is along these routes that, since time immemorial, the movement of peoples has taken place, giving rise to fruitful encounters and mutual enrichment."

"The history and culture of each people stems from a dynamic process of movement, contacts, influences, and transformations. There have been moments in time when geography and the genius of peoples have combined, gradually transforming these different influences until they fused into one specific cultural identity."

To try to find out the roads of people's communication in Ancient times, to interpret the cultural characteristics in different regions which have been already contact, and to reveal civilization achievements along the roads are also important problems that must be searched and researched the current. Its role will be to construct the defenses of peace in the minds of people, different regions and complexion, and thus to build a culture of peace next century. It must be very perfect if we can draw assistance from GPS to decide the location of the old route and from GIS to draw maps.

For another instance:

If we would study on the situation and change of literature from the point of view of regional geography, we may analyze its static as well as inspect its development. Thus, the social phenomenon of literature activity seems a place in fact. The people behind the works of writers are a crowd but not one person. The region summarizes the active place of the crowd, so that it will be even more significance to study on literature region with time and space.

The regional study on the Chinese traditional culture may be investigated from four aspects, as follows:

1. Distribution It is not only to draw maps but also to raise question on the basis of regional distribution of literature and art, and to inspect change of regions and to attend to forward contact between different civilization, culture and art.

2. Locus The focus is in search of the way to transmit literatures and artists as well as their works and literary style, and to inspect behavior of people and development of literature and art in the background of combining time and space.

3. Fixed-point It must investigate the site where one school of literature and art has concentrate developed in a long period.

4. Dissemination The object may be a style or school whose locus to disseminate all over the country is still not understand, and yet a mode that appear repeatedly or form with the same theme or structure in different areas.

If you want to make clear the question about traditional culture and space on the surface of the earth and to provide a satisfied explanation, you must draw assistance from maps to be able to express clearly. In the past time, it is the old method that lecturers draw circles and spots on the teaching maps, requiring a lot of labor for tedious as well as seeing hardly for students. There is a problem that effects for teaching and learning are so disappointment. Since acquisition of media mix with computer in the classroom, this problem is beginning to solve to some extent. However, we immediately face to new touch problem because a great quantity data and information from historical documents present in what way by geography. This must organize distinct category of computer database by taking amount of historical information, then to draw assistance from GIS give showing on the basis of various maps.

GIS is merely a means of making use of computer technique in the domain of geography. If you want to come true GIS in the domain of historical culture, you have to depend on the human and social scholars, literator, historian, philosopher, archaeologist and anthropologist, to participate in actively. Supposing depended on constructing a geographical information system of history and culture in the city of Beijing, we would show descriptively the city location moved, the city landscape and society developed in history, and come true going on a pleasure trip of grand city walls in three dimensional display. We can also gain a vision experience to imperial palace, prince mansion and *sibe* courtyard and so on. The practice is impossible by common writing to describe. This vision experience must be composed a main

framework in advance by scholars of the Chinese history, urban history and architectural history. It is impossible to construct the GIS about the old Chinese City only by technique content without human & social scholars.

I am not a computer specialist. I merely attempt how to use the "Digit Map" to present the historical and cultural landscape of Peking City by GIS, as well as express my intention of researching on the urban historical geography of this city with my experience.

The first six maps present the layout of Peking City since 14<sup>th</sup> century (Yuan dynasty), 16-17<sup>th</sup> century (Ming dynasty) and 18<sup>th</sup> century (Qing dynasty) and the regional maps in 1928, 1936 and 1947.

And then, I display a digit map of the northern area in this city that was made by the Mapinfor software system to show historical cultural landscape.

By a media mix in computer I show you one area is based on a part of an old 1916' map of Peking City to present the historic sites on old town of the Beijing City.

This area is formed with three lakes, Jishuitan, Houhai and Shichahai, which were shaped from an old river course since million ears ago. Since Yuan Dynasty it has finished in the 13<sup>th</sup> century and became a commercial market area according to the canal across the city, and then here was changed into a very fine dwell district to suit to the imperial relatives, rich people and monks built their houses since the Ming and Qing dynasties.

The towers of drum and clock, Culou and zhonglou, established one central axis line in the city, Dian Bridge and Dianmen dajie, to keep stable foundation of city.

This is a city wall with an entry gate, Deshengmen.

This is one old commercial street, Yandai Xiejie, with bridge, Guangfu guan (Daoist), old shopping buildings and bathroom.

These are lanes, *hutong*, along the bank of lake with common courtyards, siheyuan, and some Buddhist temples.

In this area, there are Imperial palaces, prince mansions with their memonial temples that were built in Qjng dynasty.

And also some university and middle schools were established in this area after 1911.

The last is present one new street, *Pingan dajie*, with temples and many courtyards that has been enlarged and re-built in 1999. Until today, the area around lakes still is the most beautiful and concentrates traditional culture with the old architectures.

By means of geographical information to break through, developing new generation of information technique would be a necessity of history. Constructing the Geographical Information System of the Chinese historical culture will reveal directly and conveniently the process of the Chinese civilization formed, evolved and developed since 5000 years toward the global. It will also spur a overall development of information skill, space technology, environment science and geoscience within the human and social science. People will gather, handle and transmit abundant news about the space culture in China by means of the Geographical Information System of the Chinese Historical Culture (**GISCHC**). The **GISCHC** will be consist of news of history, culture, population and society in China and will be able to free scholars of human and social science from generous, annoy and heavy traditional labors. Also it will make scholars to be engaged in furthermore creative work and come true increase the value of information and bring new ideas of knowledge in efficiency.

The CIS is impossible to have only contents with technique. Accompanying popular of World Wide Web, the civilization of developed countries are spreading with an unprecedentedly speed and scope, and influence other cultural tradition of nations deeply. For this reason, protecting and developing the national tradition to boycott unfavourable influence politics culture from outside will be faced with huge challenge in course of construction of the contemporary civilization in 21th century.

