

Digital Gazetteer Service in context of Chinese Culture

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Outline

- **A review of gazetteer standards**
- **An approach of constructing Digital Gazetteer for Chinese Culture**
- **Achievements and examples**
- **Future work**

Snapshot₁ - ADL

- 1990s
- The most comprehensive gazetteer content standard in the world.
- ADL is a useful basis for information interchange.
- A set of Feature Type is also under development as another important standard to enhance digital gazetteer service, besides content standard.
- An XML-based standard.
- Category: 15 (more than 100 elements)

Snapshot₂ - TGN

- 2000 by the J. Paul Getty Trust
- A simple set of gazetteer for art, architecture and culture.
- Besides multiple variant names and place types, geo-spatial coordinates are also included.
- Name relationships are not constructed clearly, such as see and see also.

Snapshot₃ - MARC

- 1960s
- **Place-name heading in authority format.**
(MARC formats: bibliographic, authority, holding, and community formats).
- **Name relationships (i.e. see and see also) are built up apparently for the purposes of authority control.**
- **A geographic location is not recorded as an important label for GIS application.**

Snapshot₄ - A comparison

	ADL	TGN	MARC
Community	Geo-spatial DL	Museum	Library
Elements	15 categories 100 Elements or so	8 elements	10 often-used tags
Source Ref.	☆	☆	☆
Variant names	☆	☆	☆
Name relationship	☆		☆
Feature type	☆	☆	
Location	Administration – A Spatial Coordinate - S	A, S	A

Source of Acquisition

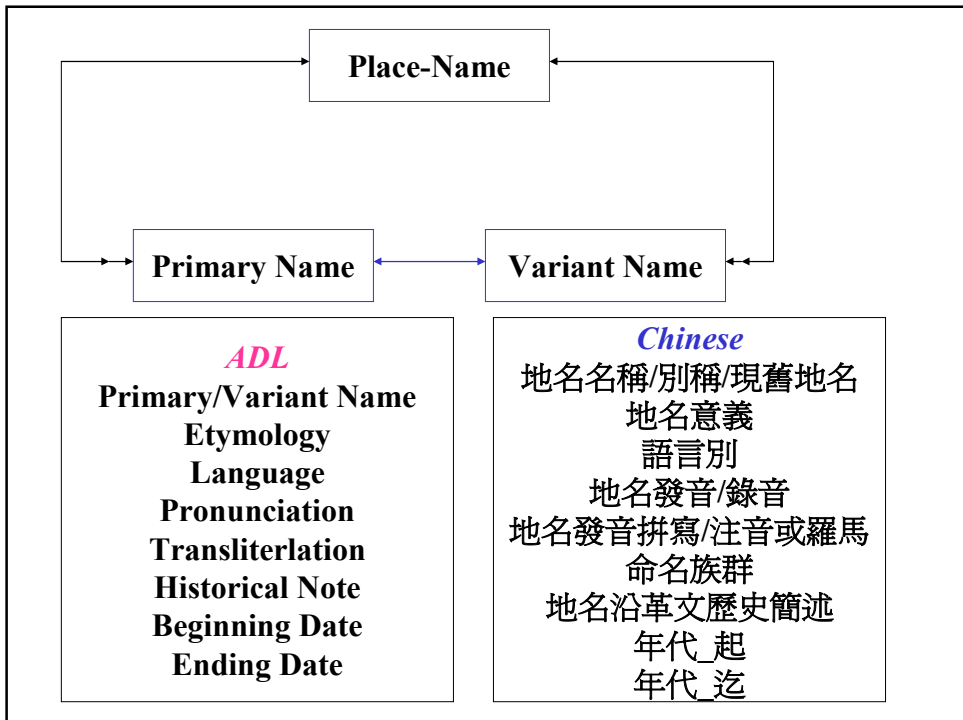
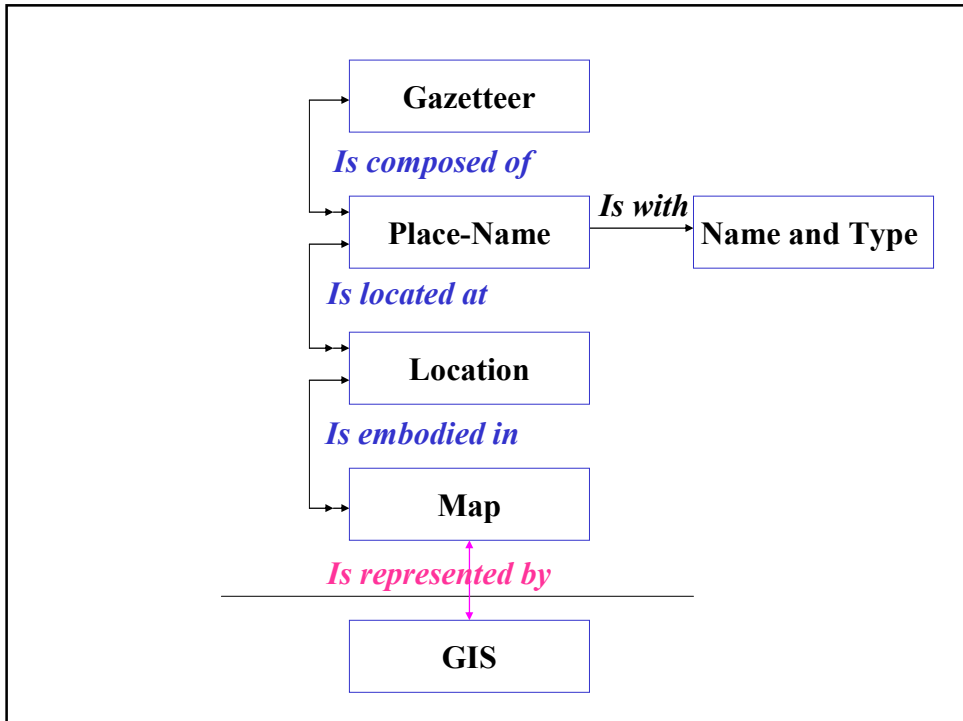
- **Maps**
- **Atlas**
- **Gazetteer**
- **Field reports**

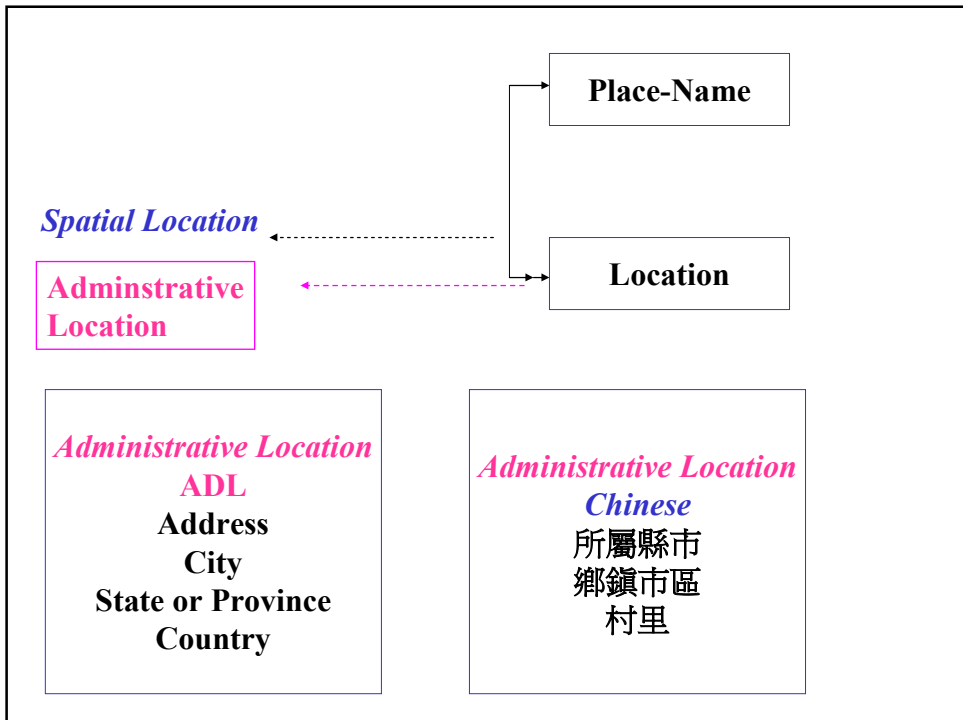
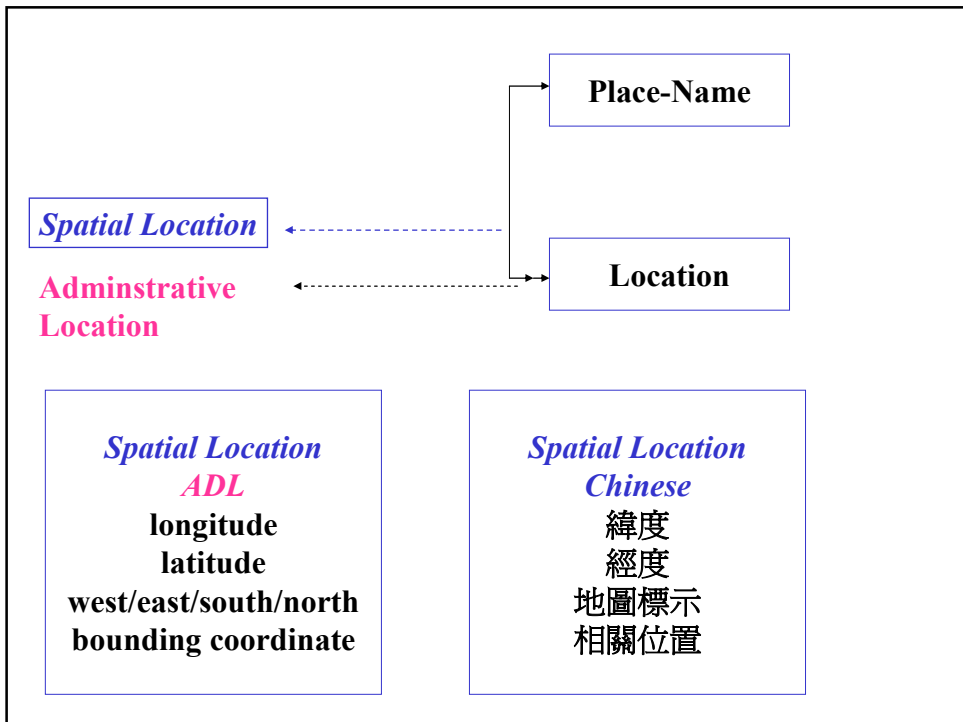
This approach is very similar to TGN.

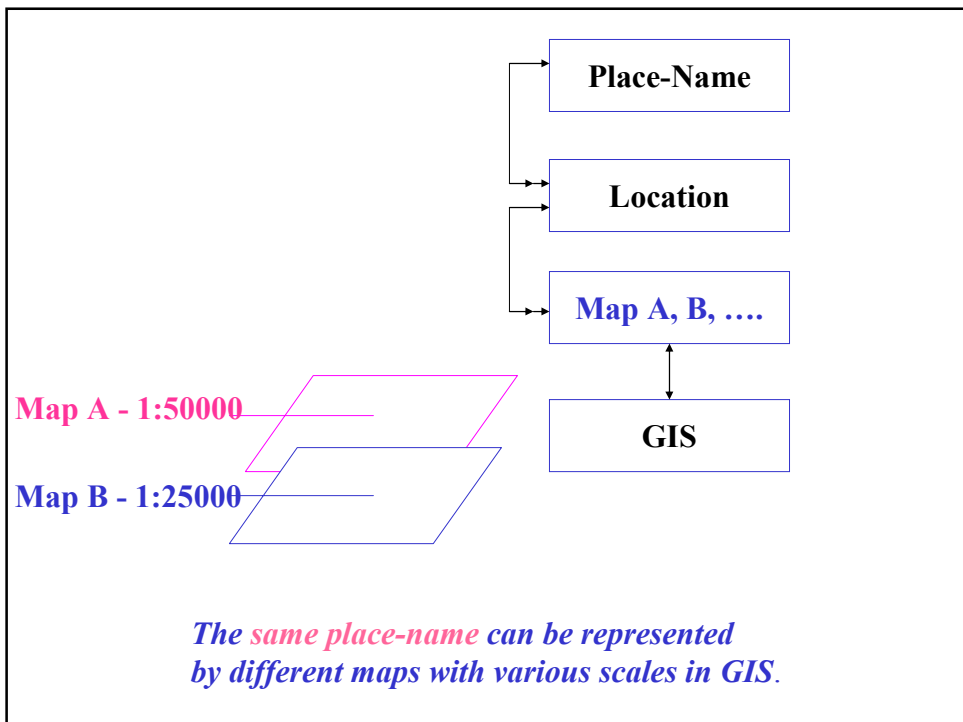
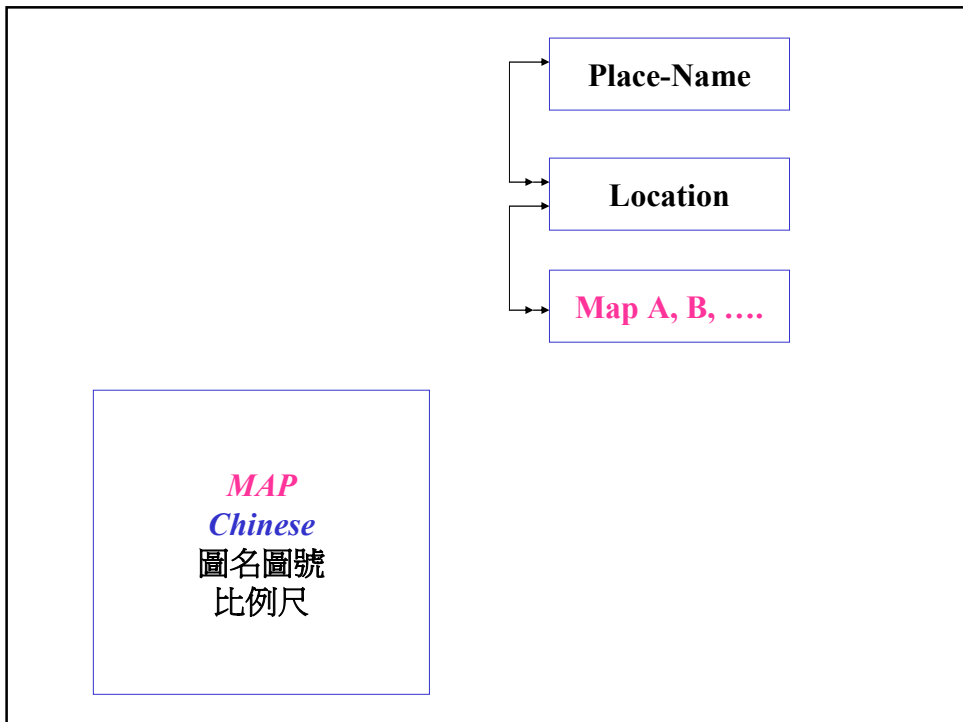
Features of Chinese Culture

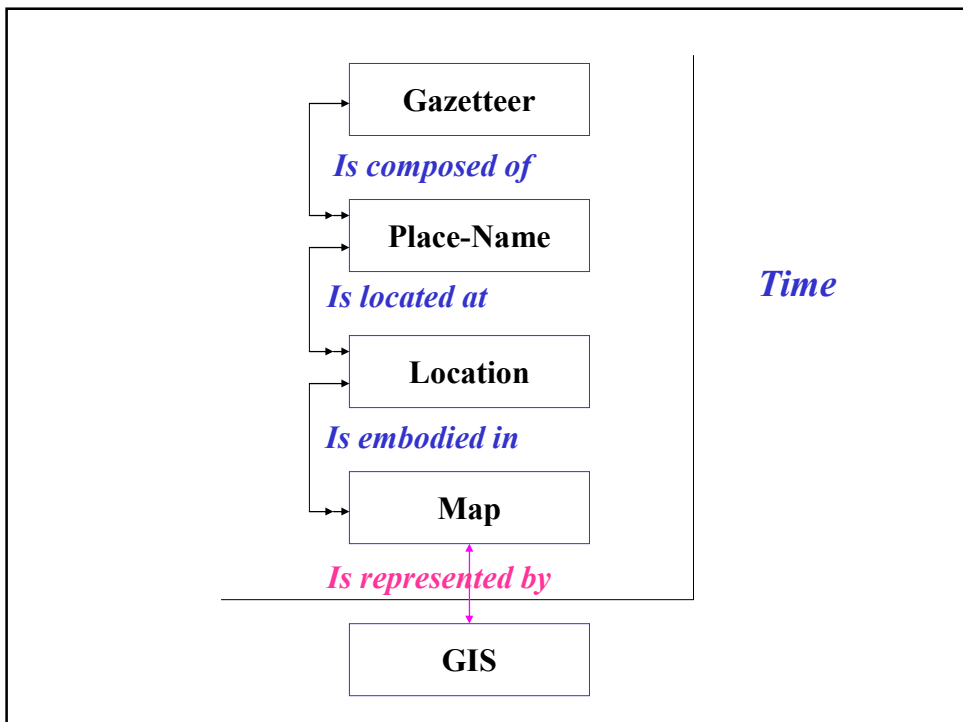
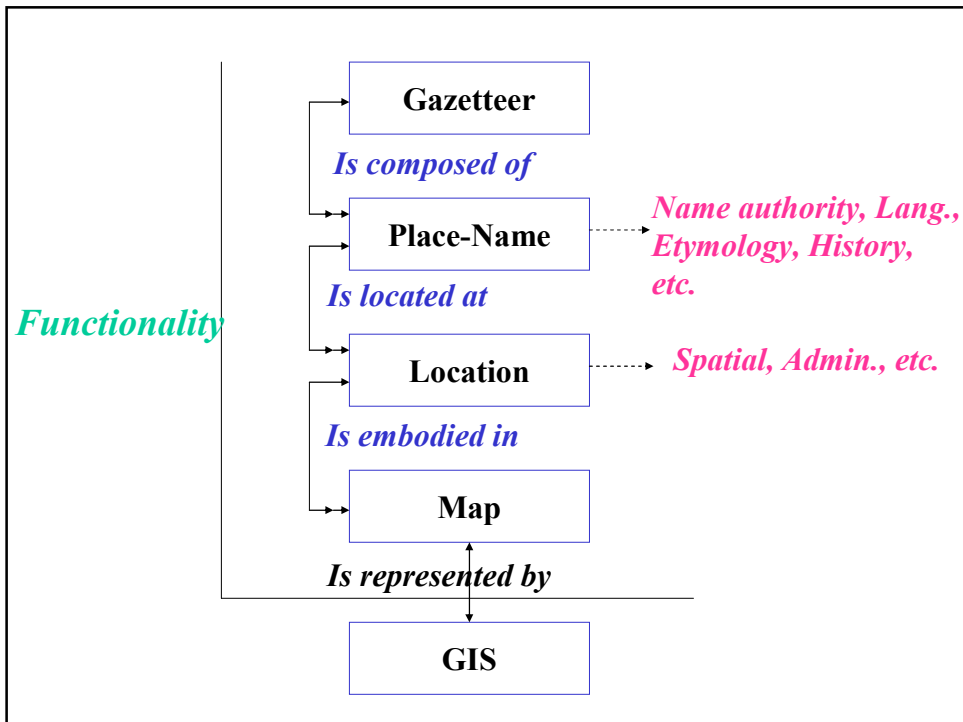
Geographic spatial is the key information, but the temporal factor is also complicated the digital gazetteer construction and service as follows:

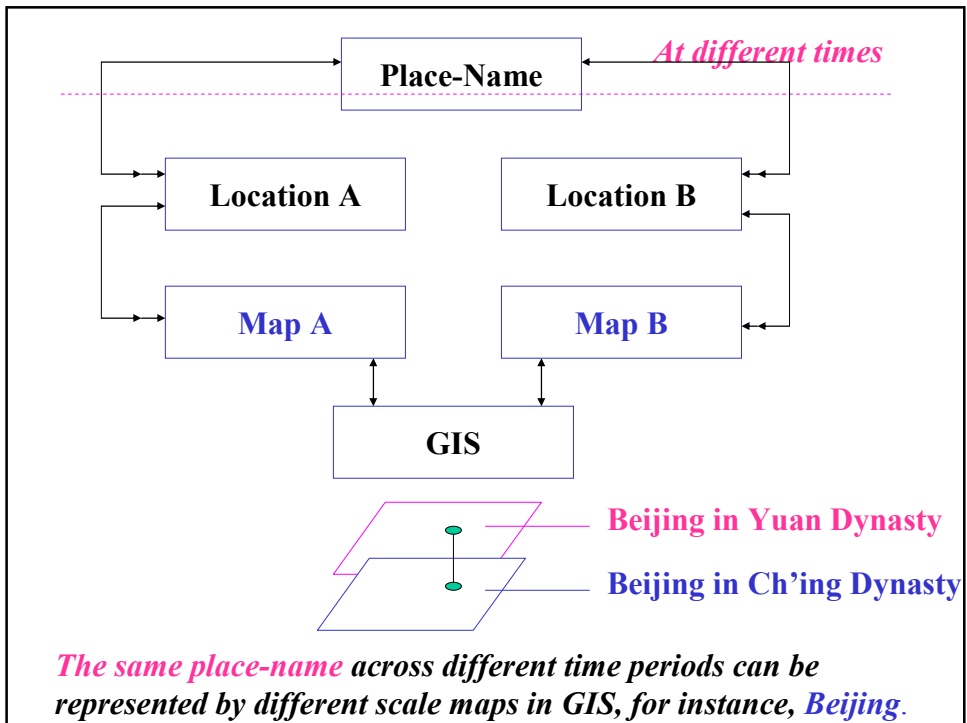
- **Multiple variant names and their complicated relationships.**
- **The same name means for different places.**
- **The same name is across various time periods with different locations.**





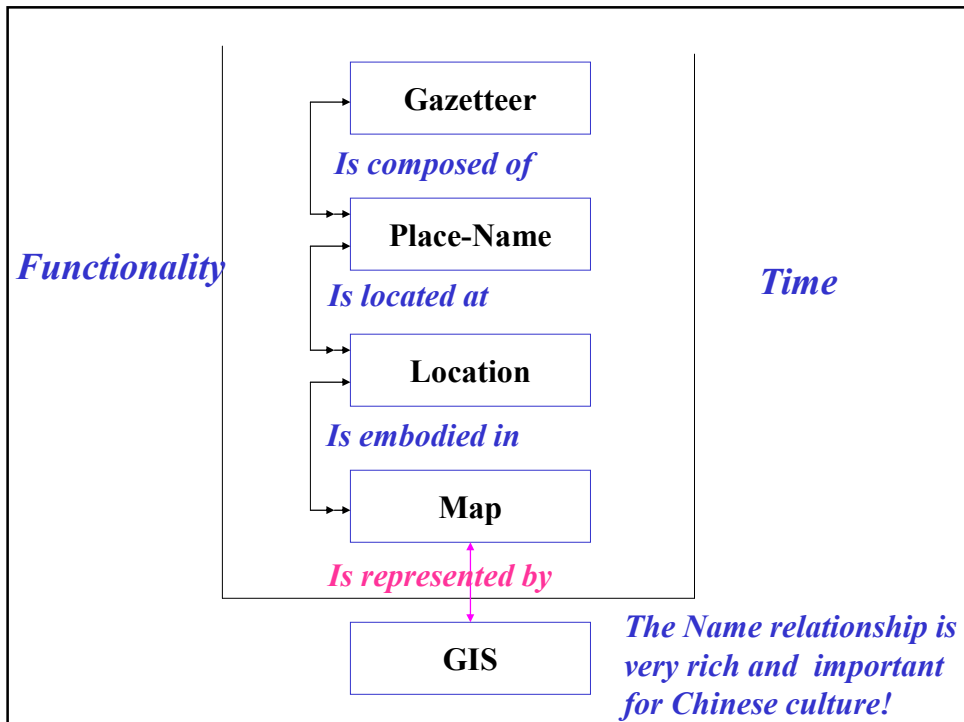






Example

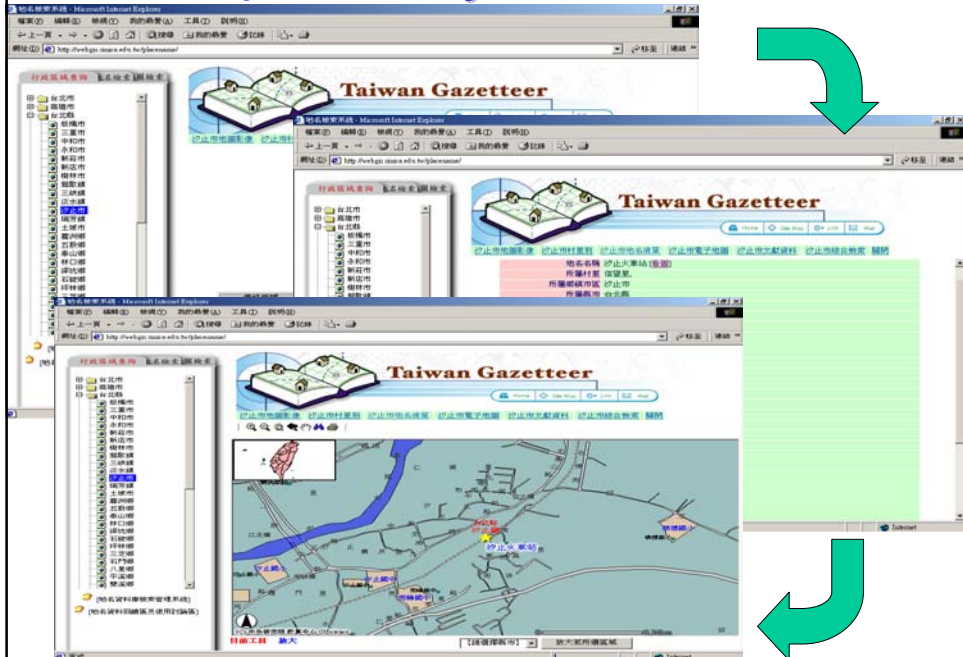
歷史上有『北京』的地名						
中文地名	英文地名	現今地名	開始時間	結束時間	所屬朝代、行政區	
北京	Beijing		936	946	五代十國_晉	Detail...
北京市	Beijing Shi	北京市	1911	0	北京市	Detail...
北京	Beijing		1115	1234	金	Detail...
北京	Beijing		960	1127	北宋_河北東路	Detail...
現今地名為『北京』的歷史地名						
中文地名	英文地名	現今地名	開始時間	結束時間	所屬朝代、行政區	
大興		北京市	1644	1911	清_直隸	Detail...
大興		北京市	1368	1644	明_京師	Detail...
北京市	Beijing Shi	北京市	1911	0	北京市	Detail...
宛平		北京市	1644	1911	清_直隸	Detail...
順天府		北京市	1644	1911	清_直隸	Detail...
京師		北京市	1644	1911	清_直隸	Detail...
宛平		北京市	1368	1644	明_京師	Detail...
順天府		北京市	1368	1644	明_京師	Detail...
京師		北京市	1368	1644	明_京師	Detail...
大都路		北京市	1271	1368	元_中書省	Detail...
幽州府		北京市	907	979	五代十國_遼	Detail...
幽州		北京市	386	534	北朝_魏_幽州	Detail...
燕都		北京市	386	534	北朝_魏_幽州	Detail...
薊縣		北京市	386	534	北朝_魏_幽州	Detail...
燕國		北京市	265	316	西晉_幽州	Detail...
薊縣		北京市	265	316	西晉_幽州	Detail...
廣陽郡		北京市	0	0	秦_廣陽郡	Detail...
薊縣		北京市	0	0	秦_廣陽郡	Detail...



Achievements

- **Taiwan Gazetteer**
<http://webgis.sinica.edu.tw/placename/>
- **Chinese Civilization in Time and Space**
<http://ccts.ascc.net/frame.htm>
- **An XML-based Testbed for ADL(Content Std.)**
<http://webgis.sinica.edu.tw/gaz/>
- **Chinese Version of ADL (Content Std.)**
- **A Feature Type Set of the Ministry of Interior Affairs in Taiwan**

Taiwan Gazetteer: Gazetteer → GIS



Gazetteer for Chinese History Chinese Civilization in Time and Space



Gazetteer for Chinese History Chinese Civilization in Time and Space

1. 歷史地名檢索
請輸入關鍵字: 南京

中文地名	英文地名	現今地名	開始時間	結束時間	所屬朝代、行政區
南京市	Nanjing	南京市	1911	0	江蘇省
南京	Nanjing	南京市	1368	1644	明_南京
南京萬戶府			1271	1368	元_開元路
南京			1115	1234	金
南京			960	1127	北宋_京東西路
南京			916	1125	遼_南京道

2. 歷史上有『南京』的地名

3. 西元1911年1月1日 → 清末帝宣統2年(歲次庚戌)12月1日

日	一	二	三	四	五	六
1 12/1	2 12/2	3 12/3	4 12/4	5 12/5	6 12/6	7 12/7
8 12/8	9 12/9	10 12/10	11 12/11	12 12/12	13 12/13	14 12/14
15 12/15	16 12/16	17 12/17	18 12/18	19 12/19	20 12/20	21 12/21
22 12/22	23 12/23	24 12/24	25 12/25	26 12/26	27 12/27	28 12/28
29 12/29	30 1/1	31 1/2				

GIS → Gazetteer → Fulltext

【資料庫】

檢索條件: 蘇州

目錄深度: 1

ASCC

【資料庫】

檢索條件: 蘇州

找到 795 段, 此為第 1 段

(略...)

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【四】 蘇解孔宏圖曰：「震澤，吳南太湖名，言三江已入，致定為震澤。」案震澤，一作「振」，地理志會稽吳縣「故周泰伯所封國，其區在其西，古文以為震澤」。又左傳稱「震澤」，亦謂此也。其震澤在蘇州西南四十五里，三江者，在蘇州東南三十里，名三江口。一江西南上七十里至太湖，名曰松江，古笠澤江；一江東南上七十里至白蠟湖，名曰上江，亦曰東江；一江東北下三百餘里入海，名曰下江，亦曰震江；於其分處號曰三江口。顧輿吳地記云：「松江東北行七十里，得三江口。東北入海為震澤，東南入海為東江，并松江為三江」是也。當理三江入海；非六川匯也。按：太湖西南湖州諸溪從天目山下，西北宣州諸山有溪，並下太湖。太湖東北流，名至三江口入海。其湖無通彭蠡湖及太湖處，並距山陸，諸儒及地志等解「三江既入」皆非也。周禮鄭氏云：「揚州蘇白具區，川曰三江」，按：五湖、三江者，豈昭注非也；其源俱不通太湖，則斷「三江既

校本史記/本紀/卷二 夏本紀第二 ... 58

校本史記/本紀/卷三 殷本紀第三 ... 100

校本史記/本紀/卷四 周本紀第四 ... 115

校本史記/書/卷二十七 大畜書第九 ... 1343

校本史記/世家/卷三十一 吳太伯世家第一 ...

校本史記/列傳/卷六十六 伍子胥列傳第六 ...

校本史記/列傳/卷六十九 蘇秦列傳第九 ... 2255

校本史記/列傳/卷七十八 春申君列傳第十八 ...

GIS → Gazetteer → Union Catalog

聯合圖書查詢 By: ASCCC GIS Team W.L.Usg

關鍵字: 蘇州府 SEARCH

圖書館: 中央研究院, 全國圖書聯合目錄

中央研究院

蘇在 4419 筆資料。
州在 12137 筆資料。
府在 10997 筆資料。
"蘇"和"州"存在 190 筆資料。
增加 "州" 剩下 43 筆資料。
現有 43 筆資料存有 蘇、府及州。

序號	註記	關鍵字 (1-12 之 43)	出版年	筆數 43 筆
1	<input type="checkbox"/>	中華原編·年份誌事寶貴目錄(含蘇本)/外交部檔案可檢	民國50[1961]	1
2	<input type="checkbox"/>	佛羅/粵東戲劇團體誌		1
3	<input type="checkbox"/>	元曲選外編/珠樹齋編	1950[1948]	1
4	<input type="checkbox"/>	元曲選外編/珠樹齋編	民國71[1962]	1
5	<input type="checkbox"/>	全國第八次辭源研討會論文集/會州市政府, 蘇州學會合編	1996[1995]	1
6	<input type="checkbox"/>	[內閣異田]		1

GIS → Gazetteer → Person

您輸入「蘇州」共找到 363 人, 結果如下:

朱鑑 明嘉靖三十二年(1553)至崇禎五年(1632)江蘇蘇州

朱長文 宋仁宗寶元二年(1039)至宋哲宗元祐元年(1098)吳(今江蘇蘇州)。

康熙六十一年(1661-1722)

朱長文
Zhu Chang Wen

字號室名: 字伯原, 號樂圃, 潛溪隱夫。

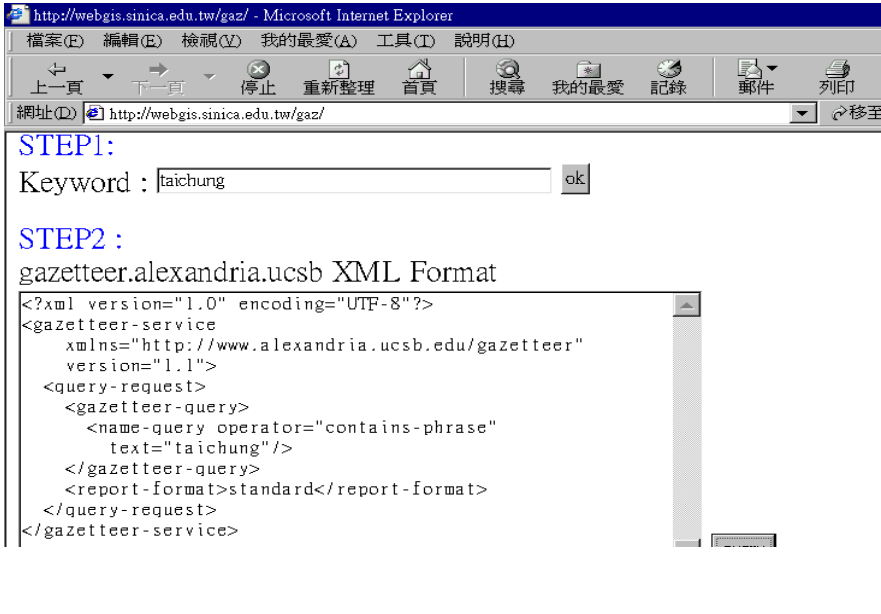
籍貫居地: 吳(今江蘇蘇州)。

活動年代: 宋仁宗寶元二年(1039)至宋哲宗元祐元年(1098)。

生平簡介:

著作: 聖學, 續資治通鑑長編, 聖學編, 聖學編, 聖學編

XML-based Testbed for ADL



STEP1:
Keyword :

STEP2 :
gazetteer.alexandria.ucsb XML Format

```
<?xml version="1.0" encoding="UTF-8"?>
<gazetteer-service
  xmlns="http://www.alexandria.ucsb.edu/gazetteer"
  version="1.1">
  <query-request>
    <gazetteer-query>
      <name-query operator="contains-phrase"
        text="taichung"/>
    </gazetteer-query>
    <report-format>standard</report-format>
  </query-request>
</gazetteer-service>
```

Future Work₁

- **The hybrid approach based on the concept of Application Profile and RDF will be adopted for the use of ADL, TGN and USMARC.**
- **To extend XML-based ADL (content standard) as a sharing service framework for file exchange and distributed retrieval on digital gazetteer.**
- **A set of place-name relationship attributes is required to construct.**

Future Work₂

- **The mechanism and concept of thesaurus control will be employed for developing Feature Type of Chinese culture.**
- **A mapping connection of Feature Type between ADL and the Ministry of Interior Affairs in Taiwan will be conducted for extended use.**

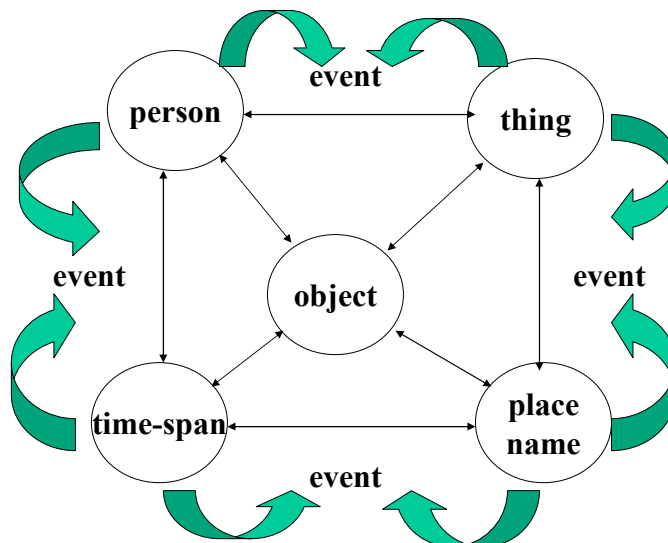
Future Work₃

- **Find a solution for solving multilingual issue of syntax and semantic for content standard and feature type, especially for a mapping between English and Chinese language.**
- **A clearinghouse for digital gazetteer service will be constructed for enhancing collaboration and interoperability, such as ADL and ECAI.**

Future Work₄

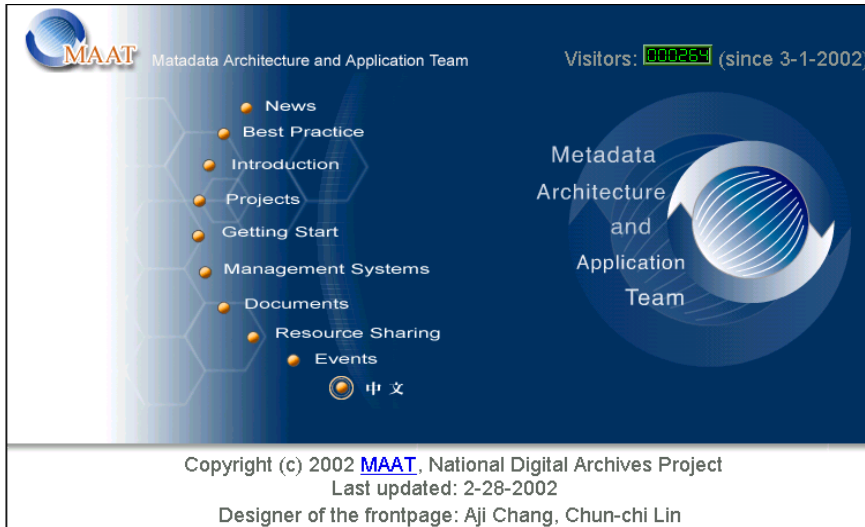
- More projects within the National Digital Archives Program in Taiwan are used as case study to build up the generic best practice for Chinese culture.
- More two-directional linking among generic metadata attributes will be established, and gazetteer is one of them.

Generic Metadata Attributes



Metadata Website

<http://www.sinica.edu.tw/~metadata>



The screenshot shows the homepage of the Metadata Website. At the top left is the MAAT logo, a blue globe with the letters 'MAAT' in orange. To its right is the text 'Matadata Architecture and Application Team'. Further right, it says 'Visitors: 000264 (since 3-1-2002)'. The main content area has a dark blue background with a hexagonal grid pattern. On the left, a vertical list of menu items is shown, each with a small orange dot: News, Best Practice, Introduction, Projects, Getting Start, Management Systems, Documents, Resource Sharing, and Events. Below these is a circular icon with the Chinese characters '中文'. On the right side of the main area, there is a large graphic of a globe with a circular arrow around it, and the text 'Metadata Architecture and Application Team' stacked vertically. At the bottom of the screenshot, there is a white bar containing the following text: 'Copyright (c) 2002 MAAT, National Digital Archives Project', 'Last updated: 2-28-2002', and 'Designer of the frontpage: Aji Chang, Chun-chi Lin'.

>Welcome your interest and participation!