Geo-Codes
GIS and Coding/Marking-up Databases, Images, and Texts

Lawrence W. Crissman
Australian Centre of the Asian Spatial Information and Analysis Network (ACASIAN)
Griffith University, Nathan, Q 4111 Australia
http://www.asian.gu.edu.au
ECAI and Geographical Information Systems

An **ELECTRONIC** Cultural **ATLAS** Requires GIS

Establishing and Maintaining a GIS is a Highly Technical and Expensive Undertaking

Most ECAI Contributors Will Not be GIS Experts

Few ECAI Users will know what GIS Means When They Tune In
How Can ECAI Make GIS Accessible?

Utilise Experts
Acquire a ‘User Friendly’ WWW ‘Front-End’
   TimeMap and TMView Are Available
Produce Basic ECAI GIS Coverages
Use Geo-Coding
Geographical Information Systems Requirements

- Hardware
- Software
- Spatial Data
- Attribute Data
- Expertise
- Lots of Money!
- And More Time than You Would Believe
Why Bother with GIS?

A Potentially Revolutionizing Technology
Organizes Spatially Distributed Resources
Objects, Activities, Sources, and Information
Enables Geographical Analysis of Variation
Avoids Aggregation of Data
Essentials of GIS Databases

Spatial Objects
Unique Identifiers
Linked Attribute Data
Geo-referencing
Representations of Spatial Objects

Pixels in Raster GIS

In Vector GIS:
- Points
- Lines
- Polygons
- Complex Spatial Objects
Identifying Spatial Objects

System Generated Identifiers
  Transparent or Non-Transparent
Names
Codes
  Actually, names and codes are the same thing!

Codes, Like Names, Need Not Be Unique!
Attributes

Anything Known About Spatial Objects
Name, including code in some system
Location, such as Latitude/Longitude coordinates
Time, as in when in existence
Qualities, such as importance
Measurements, such as statistical data
Geo-Referencing

Location in a Real World Coordinate System

Map Projection Problems
- Inherent Complexity
- Unknown Projections

Digital Cartography is Not GIS!
Leave It to the Experts

GIS Only a Means to an End
Time and Expense Probably Not Worth the Trouble for ECAI Unless:
Useful Base Map Material is Readily Accessable
Spatial Objects are Usefully Geo-Coded
Contributed Databases use the same Geo-Coding

The ECAI Vision
Geo-Coding Is the Solution

Inherited Georeferencing
- ‘Dunhuang Problem’ Avoided
- ‘Authority’ over Spatial Data Maintained

Multiple Versions of Spatial Objects Allowed
Useful Geo-Coding

Hierarchical Codes
Official Codes (Guobiao System for PRC)
Multiple Codes (or Names)
Expandible Codes
  For Shi and Zhen, plus Xiang
    (Or anything else: Mountains, Temples, Sites, Etc.)
For Dynasties and/or Empires
For the World
Uses of Geo-Codes

Multiple Attribute Databases
Links to Other Resources
  URLs to Documentation, Resources, Texts, Images, Etc., Etc.
  Even to Mark-ups in Texts
And Vice-Versa!
Examples of Geo-Codes and Their Advantages

‘Demonstration of Clickable and Non-Clickable Maps of China’
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