



Developing concepts and methods for a digital cultural atlas

Ian Johnson

Archaeological Computing Laboratory, University of Sydney



So what is a DCA/ECA?

- Digital Cultural Atlas
- Electronic Cultural Atlas

Digital delivery

Interactive

Map-based

Cultural data



Why digital?

- Rich data
- Link resources
- Interactivity
- Manipulation
- Delivery
- Participation



Cultural data

- Not just historical ...
 - Contemporary
 - Information for individuals and community
 - Future
 - Information for planners

Archaeological Projects Index

Map Instructions:

Use checkboxes in the legend to turn layers on and off;

Select pointer, zoom or pan from the toolbox;

Navigate the map or, using the pointer, click on features on the map to link to more information (or drag a box around several features)

TimeMap

CHOOSE AREA: Startup extent

TOOL BOX: [Navigation icons]

KEY:

- Cultural Heritage Sites
- Natural Heritage Sites
- Virtual Heritage
- GIS Projects
 - Australian Archaeologists
 - Computer Archaeologists
 - GIS Archaeologists
- Countries

Full: 0/1/1 0:0:0 - 2002/1/1 0:0:0
 Sel.: 0/1/1 0:0:0 - 2002/1/1 0:0:0

35.86, 117.47
 Zoom: 39786 km

v2.0.35

Access our Online Databases:

[Australian Archaeologists](#)

[GIS specialists](#)

[Computing specialists](#)

[World Archaeological Sites](#)

[Archaeological GIS Projects \(primarily Australia / NZ at present\)](#)



The screenshot displays the 'TimeMap of World Heritage Sites' web application. The interface is divided into several sections:

- Navigation Menu (Left):** Contains links for WH Objectives, Convention Details, WH List, WH List in Danger, States Parties, What's Who, Global Strategy, Nominating Process, WH Fund, Operational Guidelines, Forms, Official Records, Bookstore, Convention Text, Periodic Reports, and a SEARCH function.
- Map Interface (Top):** Features a navigation bar with 'news', 'sites', 'convention', 'participate', and 'just for kids'. The title 'TimeMap of World Heritage Sites' is prominently displayed. Below the title is a toolbar with various map controls and the URL 'www.linemap.net'.
- Map Layers (Left):** A list of layers including Site Plans, Site boundaries, World Heritage Sites, Tentative List Sites, Ecological (Mediterranean, Tundra, Temperate, Flooded, Tropical, Medterran), and Cultural. A legend for the Ecological layer is also visible.
- Map Content (Center):** Shows a geographical map with a detailed architectural plan overlaid. The plan includes labels for 'India, Fatehpur Sikri, Plan' and 'India, Fatehpur Sikri, Harar'. A scale bar at the bottom indicates 0 to 100 meters.

DCAGWS

Digital Cultural Atlas of Greater Western Sydney



What is a Digital Cultural Atlas?

Geography and time offer untapped opportunities for indexing and presenting cultural information, ranging from historical data through present-day cultural resources to cultural planning for the future. Widespread connectivity and access to personal computers allows this information to be delivered more effectively through interactive time-based maps and map animation. This pilot web site explores these new possibilities, presents a pilot application and sets targets for ongoing research into digital collection and delivery of cultural information.

TimeLine

- [The Past](#)
The early history of western Sydney
- [Yesterday](#)
20th century history and population statistics
- [Today](#) 
Cultural resources for the contemporary community
- [Tomorrow](#)
Cultural planning and urban growth

Uses

- Cultural Planning
- Historical Studies
Animations of the growth of Sydney
- Education
- General Interest

The Project

The aims of the pilot project, partners in development and techniques employed.

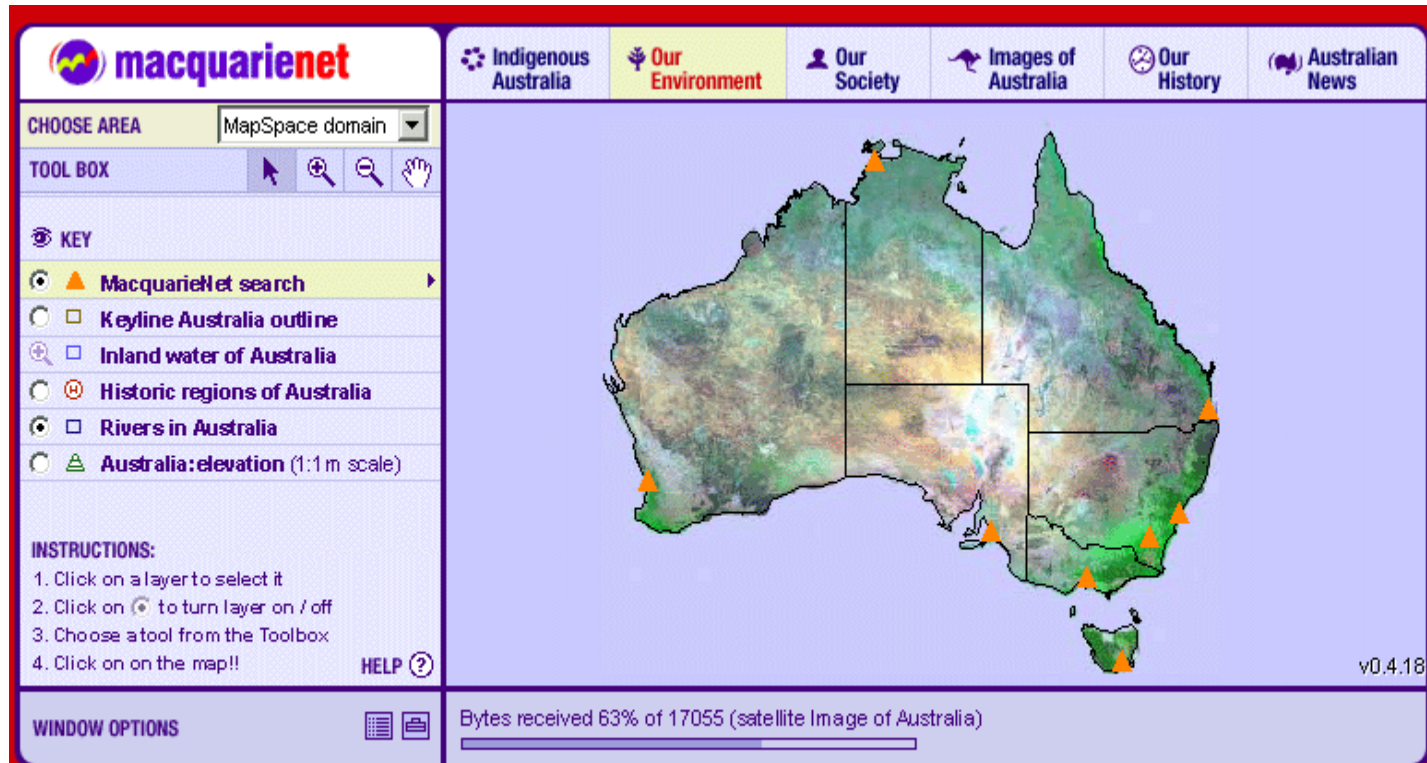
- [Aims of the project](#)
- [Partners](#)

Resource database

Interactive web-accessible data warehouse for Greater Western Sydney. The warehouse allows data collection and update through the WWW.

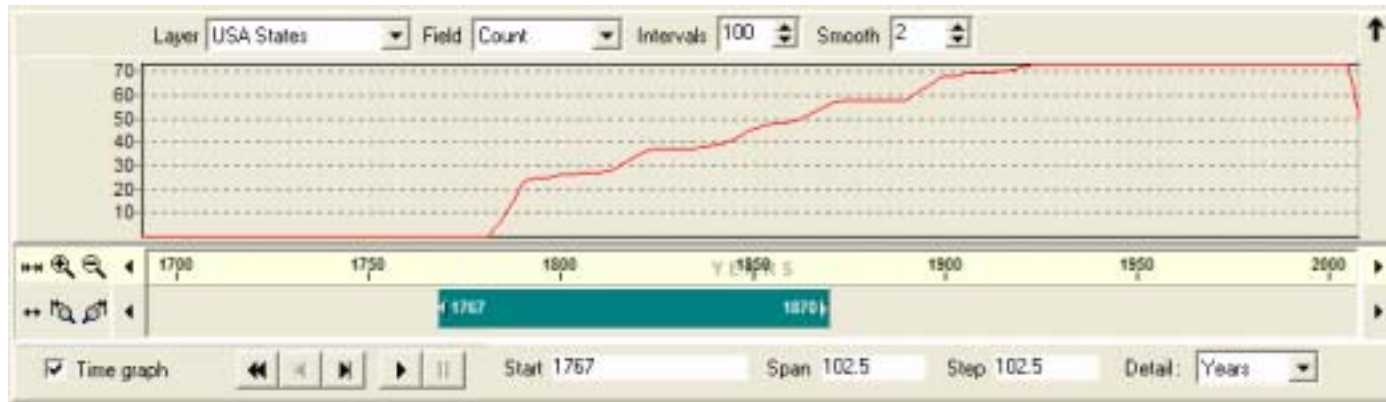
- [Technical description](#)
- [Access the database](#)

MacquarieNet

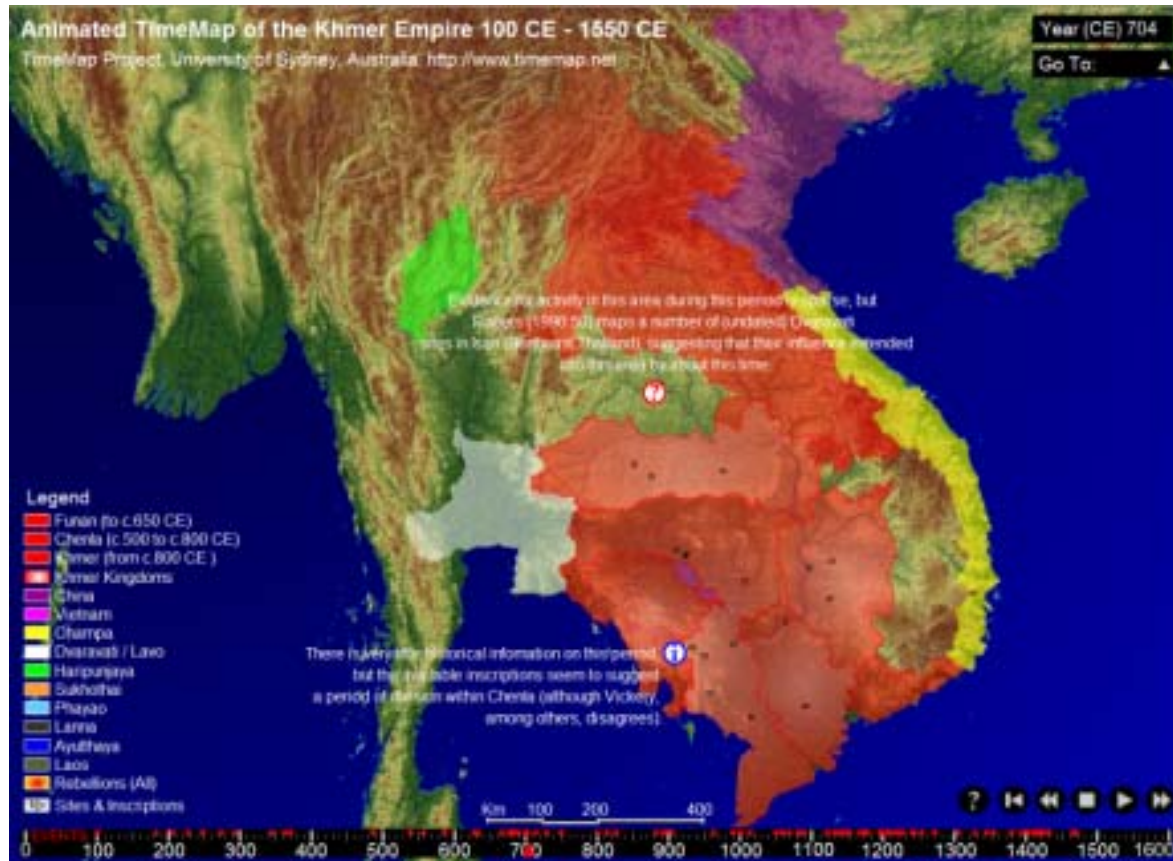


ALOV TimeMap Applet developed by Artem Osmakov and Leonid Vasilenko for the TimeMap Project, University of Sydney.
 Please report problems to johnson@ad.archaeology.usyd.edu.au

Time



Khmer Empire animation



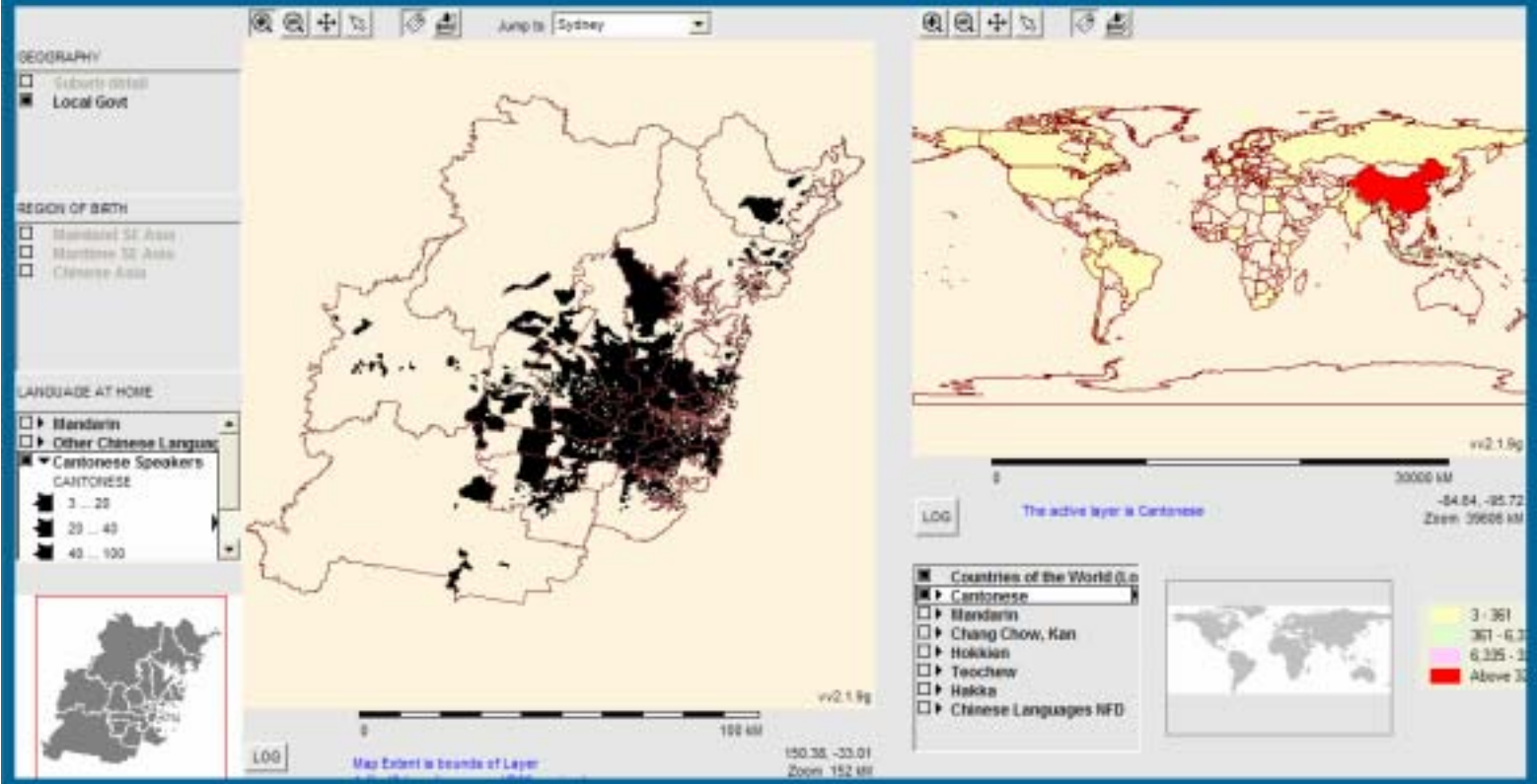
Diversity Sydney : An Atlas of Cultural Diversity

© 2003 Brian Cooper, WESTER Ltd. [data] and University of Sydney Archaeological Computing Laboratory (TimeMap software)

[Project Description](#)

Sydney Chinese languages and region of birth

World Distribution of Chinese language groups (groups with more than 400 speakers in 1995)





Issues

- Explicit definitions
- Complexity
- New paradigm
- Costs
- Bandwidth
- Persistence

Where next?

- Why limit to 2D?

