

PostGIS Saves Human History

Middle Eastern Geodatabase for Antiquities – Jordan (MEGA-J)

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Full Disclosure: about Farallon



- System developers/integrators with emphasis in GIS
- Vendor-agnostic approach to technical solutions.
 - Competent in multitude of technical platforms.
- Leaders in free and open source GIS
- Client list includes:
 - Government (all levels), NGO's, Insurance

The Problem



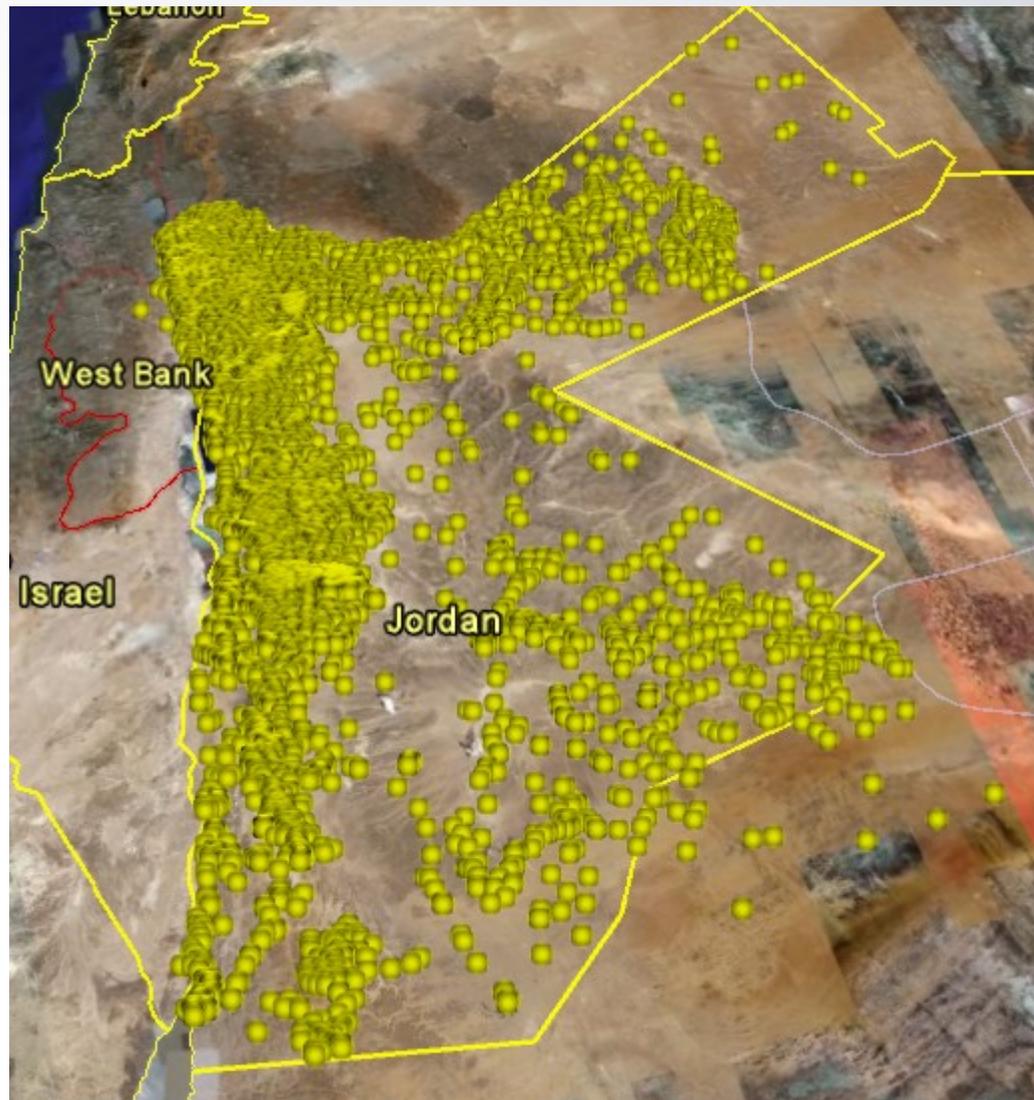
- Immigration to Jordan results in ongoing and explosive urbanization
- Developers ignore and bulldoze archeology



The Solution



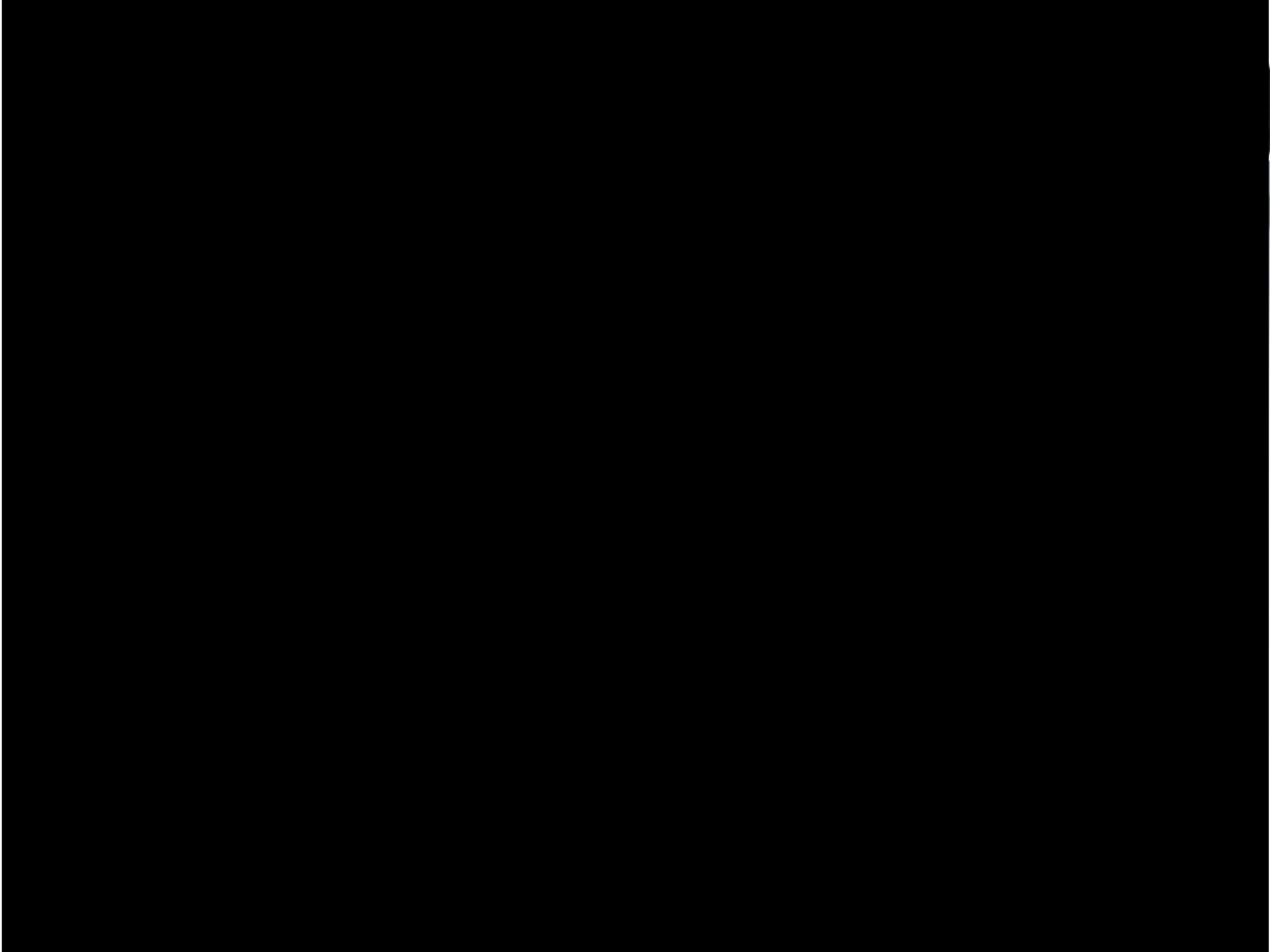
A Kingdom-wide Inventory of Archeological Sites



The Solution



That can integrate with other data to help planners do a better job of preserving human heritage



The Partners



- The Getty Conservation Institute
- The World Monuments Fund
- The Jordanian Department of Antiquities
- Farallon Geographics

Incomplete list of Requirements...



- Must capture and polygonal extent of sites... polygons, not just points
- Supports robust spatial data validation and integrity rules
- Robust Reporting Capabilities
- Sustainability: DoA will be the final owner
- Flexible: expected that system will be redeployed in other Middle Eastern countries with minimal expense

MEGA-J Technical Components...



Database: **PostgreSQL with PostGIS**

- Supports native spatial data, accessible with SQL in a robust relational database

Client Application: **Quantum GIS**

- Spatial data editing, ad-hoc outputs

Data Publishing Platform: **GeoServer**

- Web-enables spatial data using open standards

Rendering Environment: **OpenLayers** with Google Basemap Data

- Java Script map widget creator. Consumes spatial information from most any standards-based source

Why Open Source?



Remember the requirements...

- Sustainability:
 - Proprietary s/w maintenance = one year of typical Jordanian government salary
 - In the end, DoA will own the system
 - Other (potentially Third World) countries will deploy the system in the future

- Technical:
 - Data validation, integrity supported (based on spatial criteria)
 - Access to database by multiple GIS clients
 - Complex reporting capabilities, both spatial and non-spatial

Project Status



- Beta data model created
- Workflow (using QGIS and PostGIS) deployed in Jordan for initial data capture
- Final Data Model and Code Base currently under development
- RC 1 expected in Spring 2009

Middle Eastern Geodatabase of Antiquities
Online Archeological Site Inventory

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[Sites](#) | [Site Elements](#) | [GPS Coordinates](#) | [Places](#)

- Contact 
- Login 
- Settings 
- Help 

Map Type: Topography

 Send |  Print



Search Results 

Activities 

-  **Add a New Site**
Enter the location and descriptive information for a newly discovered site into the MEGA-J database
[Upload GPS Points to help locate the site](#)
-  **Add a New Site Element**
Enter the location and descriptive information for a new site element
[Upload GPS Points to help locate the site](#)
-  **Add a New Survey**
Enter the location and descriptive information for a new survey into the MEGA-J database
-  **Print Site, Site Element And Monitoring Cards**
[Print out new field data collection forms](#)
-  **Add a Reference**
Add a bibliographic reference to the MEGA-J database

Collections 

Middle Eastern Geodatabase of Antiquities
Online Archeological Site Inventory

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Map Type: Aerial | Jordan > Maan > Al Jafar

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Map Type: Aerial | Jordan > Maan > Al Jafar

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Search Results

Sort By:

- + Tell Aback**
XYZ-12345-AA
This Tell was first described by Agnos (et. Al.) in 1926 and is located near the City of...
- + Tell Alj**
XYZ-12345-AA
This Tell was first described by Agnos (et. Al.) in 1926 and is located near the City of...
- Tell Dalgity**
XYX-23456-BB
This Tell was first described by Agnos (et. Al.) in 1926 and is located near the City of...

Site Facts:
Age: Pre-Bronze III to Ummeyyaid
Site Elements: 12
Last Inspection: Never Inspected

Tasks:
[Zoom to Site](#) | [Edit Site](#) | [Site Report](#)
[Add Site Element](#) | [Add Monitoring Event](#)

Reports | Jordan > Maan > Al Jafar > Site XYX-23456-BB

- General Information
- Site Elements**
- Monitoring Reports
- Photographs
- Comments

Official Name: Tell Dalgity

Coordinates: 33° 23' 41" N 43° 13' 09" E

Site Description: This is where we might put the first couple of lines of the site description. In some cases, a site description might not exist, so we might post a "no description available". Sometimes the description might be long, meaning that it is truncated. Users can expand the description... [Show full description](#)

Site Facts:

| | | | |
|--------------|------------------------|-------------|--------------|
| Total Area: | 23.45 ha | Ownership: | DoA |
| Perimeter: | 2.56 km | Topography: | Valley Floor |
| Buffer Zone: | 200 m | Survey: | None |
| Age: | Bronze III to Nabatean | | |

Entered By: Catreana Yousef
Date Entered: September 1, 2007

Last Update: August 31, 2008

Additional Site Names:

These are local names, alternate spellings, or alternate language names for the site:

- Name 1
- Name 2 that might be in another language

Bibliographic References:

List bibliography here. We may want to think about whether a bibliography warrants its own tab...

(Im)ponderables



- “The new source of power is not money in the hands of a few but information in the hands of many.”
 - John Naisbitt, Megatrends
- “The application of GIS is limited only by the imagination of those who use it”
 - Jack Dangermond, President, ESRI
- “Fundamentally, successful OSS projects are not created by releasing free source code – they are created through the growth of communities of shared interest.”
 - Paul Ramsey, Director, Refrations Research



Thank You!

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