New Orleans After Katrina
*GIS and Cultural Resources Recovery*

The Design and Implementation of a Community Based, Public Participation Geographic Information System

Aram Lief

School of Urban Planning
& Regional Studies
University of New Orleans
Map of Greater Carrollton, New Orleans
Mapping Places

East Carrollton, New Orleans

Legend
- Point of Origin
- No Bike Route
- East Carrollton
- Commercial
- Commercial Zones
- Schools
- Universities
- Outdoors
- Bicycle Path
- Carrollton Cemetery
- Railroad

Scale 1:9,000
1 inch equals 750 feet

© 2007 by Aram Lief

Aram Lief April 2008
NEW YORK

Green Mapmaking in the USA's Big Apple

GREEN MAP ATLAS

A project of the Green Map System: promoting sustainability and citizen action in communities around the world through locally created maps of the natural and cultural environment
(left to right) The first Green Apple Tour in 1992 included Audubon's eco-smart headquarters, New York Harbor School students at the helm, learning about local waterways. © Green Map System © Allison Newman 2003

Credits

New York’s Story written by:
Wendy E. Brawer
Green Map System
PO Box 249
New York, NY 10002 - 0249
USA
tel: +1 (212) 674 1631

Locator globes and maps © Map Resources®. All rights reserved. All map, web and promo images © Green Map System
Other Photos:
page 2) Beth Ferguson
page 3) GMS, Paper Sky, GMS, Beth Ferguson
page 6) Peter Meitler, GMS, Beth Ferguson, Regina Hair

<< Green Apple staff and volunteers illuminate an inviting path towards a sustainable NYC

Want These Maps?

online: www.GreenAppleMap.org
email: info@GreenAppleMap.org
or visit the online store at
www.greenatlas.org

www.greenmap.org is your global link to every local Green Map project, multilingual icon posters, an invitation to participate, and more.

© Green Map® System, Inc. 2004
PO Box 249, New York, NY 10002 USA
info@greenmap.org
Making Maps

Viewing on Your Screen
After opening PDF with Adobe Acrobat Reader 5 or higher, click "Control L" for a full screen view. Click again to restore scroll bars and desktop (Mac: "apple L").

Use the magnifier to zoom in on details.

Printing Your Copy
The Atlas fits on either A4 or US letter-size paper (recycled, of course!). Color printing is best, or keep it simple with black and white. Our design purposely minimizes toner use to conserve resources and your printer, too. Select "landscape" (horizontal) in your printer’s settings. Print on both sides of the sheet (duplex), whenever possible. Test your printer first—you may need to print the Even pages first, then turn the stack over and print the Odd pages.

Binding
Print a double sided copy and make sure all the pages are in order (including Atlas cover pages). Then, bind along the left side. 1.5 cm (1/2 inch) from the edge, you can:

- punch small holes and sew together
- use 3 to 5 staples
- use brads or binder clips
- use a copy shop’s binding service
- bind with a strip of cardboard (download and print the optional spine).

Once bound, your Atlas will become sturdy enough to stand up in a bookcase, be read over and over, and last a long time.

Exhibiting the Atlas
The Atlas can be printed out, mounted and exhibited, so several people can view a single copy. You may want to obtain copies of the featured Green Maps to display, too. Tell us about your exhibit and we will list it with other Atlas events online.

We encourage your creative and ecological approaches to binding the Atlas—please share your best ideas with us. Email: atlas@greenmap.org

Consider making a copy for your local library!
Mapping Places

My Neighborhood, East Carrollton, New Orleans
Schools

My Route to School, East Carrollton, New Orleans

Legend
- Point of Origin
- Route to School
- Roads
- East Carrollton Cemetery
- East Carrollton Streets

Scale 1:2,000

© 2007 by Aram Lief

Aram Lief April 2008
Family-Owned Businesses
Books

Snowballs

Aram Lief April 2008
Neighborhood Cafes
Need Coffee?
Try the Chicory
Mapping Storm Damage

East Carrollton, New Orleans
Tornado 2007

Aram Lief April 2008
Map of Hurricane Katrina Flood Extent

My Neighborhood, East Carrollton, New Orleans
### Types of Data Used in the PPGIS Model

#### Formal Data
- Aerial Photographs
- Building Footprints
- Digital Spatial Video
- Elevation Models
- Land Parcels
- Land Cover
- Land use zoning
- Development Plans
- Housing Statistics
- Population Statistics
- Topographic Maps
- Transportation

#### Informal Data
- Crime Hot Spots
- Historic Sites
- Location of Local Assets
- Location of Local Businesses
- Neighborhood Hazard Sites
- Personal Video
- Pollution
- Photographs
- Resident’s Views and Perceptions
- Sites of Interest
- Storm Damage/ Personal Property
- Traffic Congestion and Potholes

---

Aram Lief April 2008
Generic Schematic for a PPGIS System

Source:
“Towards a methodology for mapping ‘regions of sustainability’ using PPGIS”
By Jonathan Ball
Map Layers

Source:
“Towards a methodology for mapping ‘regions of sustainability’ using PPGIS”
By Jonathan Ball

The community defines the scope of the social landscape and other factors of local importance. This is accomplished either by group work with a sketch artist or by direct interaction through a VR PPGIS.

Socioregion
Economic region
Ecoregion
Toporegion
Climatic region
Georegion

Mainly based on local knowledge with some expert input
Largely based on expert knowledge with some community input

REGIONS FOR SUSTAINABILITY
## Empowerment Models

### Table 5: Distinguishing Characteristics of Empowerment Models

<table>
<thead>
<tr>
<th></th>
<th>Atomic Individual</th>
<th>Embedded Individual</th>
<th>Mediated</th>
<th>Socio-Political</th>
<th>Political</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus</td>
<td>• Individual</td>
<td>• Individual</td>
<td>• Individual • Community</td>
<td>• Individual • Community</td>
<td>• Community</td>
</tr>
<tr>
<td>Goal</td>
<td>• Personal satisfaction • Increased coping ability</td>
<td>• Personal satisfaction • Competence in negotiating daily environment</td>
<td>• Knowledge and information for proper decision making</td>
<td>• Individual development • Expanded access to community resources</td>
<td>• Expanded access to community services, goods and rights</td>
</tr>
<tr>
<td>Process</td>
<td>• Therapy • Daily Living Skills • Self-help</td>
<td>• Organizational Participation</td>
<td>• Professional client relationship</td>
<td>• Organizational participation • Collaborative grass-roots action</td>
<td>• Political action, voting, protest • Political representation</td>
</tr>
<tr>
<td>Power Experience</td>
<td>• Nurturing support • Direct and Control Self</td>
<td>• Nurturing support</td>
<td>• Support • Strengthen self • Control by helping • Moralized action</td>
<td>• Support • Strengthen self • Influence, coerce others • Togetherness</td>
<td>• Influence, coerce others • Assertion</td>
</tr>
</tbody>
</table>

Source:
“Methodology Matters” By LeRoy A. Heckman
PPGIS Task Models

A Task Model Framework for Studying GIS-Supported Neighborhood Planning

Source: “Methodology Matters” By LeRoy A. Heckman
Participatory Research Questions

Figure 12: Participatory Research - Context and Questions

Neighborhood Planning - Research Context

University Researcher’s Question(s)

Neighborhood Participants’ Planning Research Questions

Source:
“Methodology Matters” By LeRoy A. Heckman