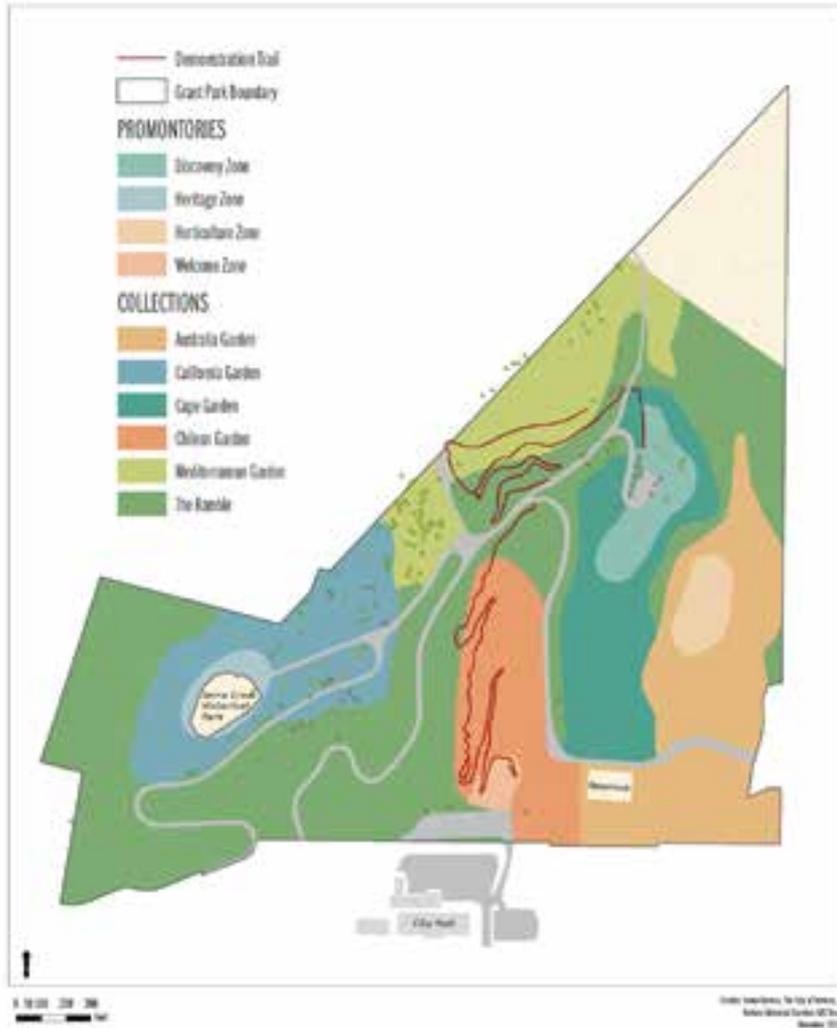


# Engage and Guide Your Visitors with a Mobile Tours App Hosted on ArcGIS Online

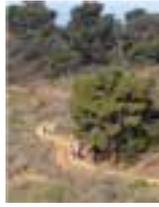
Michele Dunham, Joe Cahill, Nate Strout, and Abby Hird  
Esri User Conference July 2015





## About Ventura Botanical Gardens (VBG) in Grant Park

- The land covers 109 acres. Resident Kenneth Grant and his wife Toni deeded the initial 30-acre parcel to the City of San Buenaventura in 1918 for a public park or resort.
- Grant Park is bordered to south by the City of Ventura's historic downtown district and the Pacific Ocean; to the west by the Ventura River; to the north by open coastal sage scrub and grass land; and to the east by midtown Ventura.
- VBG built its first Demonstration Trail in 2012 and planted its first gardens in the Chilean Collection in January of 2014.
- Ventura Botanical Gardens is a new Mediterranean climate region garden for Southern California.



## Education is a Core Mission of Botanic Gardens, Zoos, and Parks

- Monthly *botany*, *geology*, and *birding* tours along VBG's new 1 ¼ mile Demonstration Trail attracted large groups.
- The trail and its close proximity to the historic downtown presented many opportunities to engage the community through Story Maps.



Geologist John Dunham guides interested participants on an educational tour of the Demonstration Trail in Grant Park.



The Mission San Buenaventura founded in 1782.



Mission period agricultural stone terraces along the trail.



*Eriogyne curvispina* in bloom. Planted January in the Chilean garden.



Historic photo of the Ventura Anticline prior to the building of California Highway 101.



Pleistocene fossils found along the Demonstration Trail.



## The Ventura Botanical Gardens Story Trail Project

### Fall 2012

- An all volunteer team composed of botanists, birders, geologists, horticulturalists, cultural anthropologists, historians, and retired Hollywood screen writers collaborated and wrote an audio script for 18 tour stops along the Demonstration Trail.
- Requirements for the App were finalized.

### Winter 2013

- Stephanie Edwards recorded the audio script at Goldmine Studios in Ventura.

### Fall 2013

- VBG and the University of Redlands Center for Spatial Studies signed a contract to develop the App.

### Fall 2014

- App is published to the iTunes and Google Play Stores.



Stephanie Edwards recording at Goldmine Studio in Ventura.



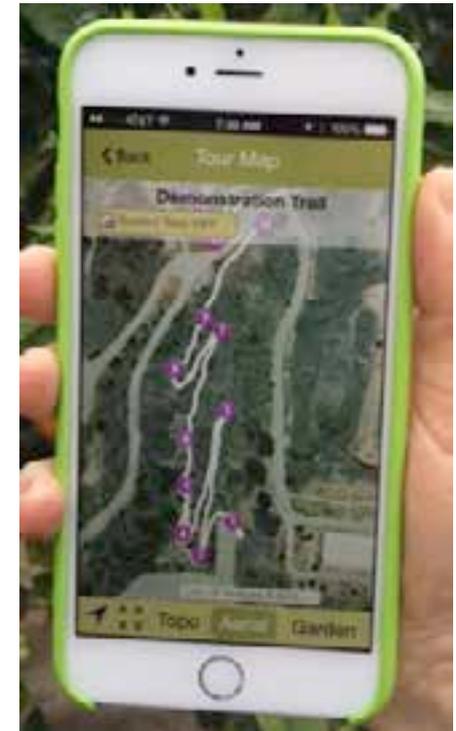
Recording day from left to right: Michael Beeler, Alex Uvari, Michele Dunham, Joe Cahill, Stephanie Edwards, Holly White, Jeff Cowan, Tracy Long, Doug Halter, and Diane Beeler.



## A Mobile Tours App on ArcGIS Online

*"It's All About the Maps"*

- Experience **multiple tours** on **multiple basemaps** on **multiple devices**.
- Access **audio**, **video**, and **slideshow** content for each tour stop.
- **Find your way**. **Tour maps** are **GPS-enabled** and **interactive**. Tap on a tour stop to access its multimedia content.
- A **Guided Tour option** senses the location of a visitor to a tour stop and alerts them with a choice to explore the stop's multimedia content.
- **No** on-premise servers or other IT **infrastructure** required.





## Tour Stop Screen



Tap on the Map icon to Switch to the Tour Map

Tapping on the arrows will move you forward or back through the tour stops.

This is the multimedia control bar. Tap on the far left icon to listen to the audio clip. The middle icon displays a picture list. The far right icon plays a video. If an icon is grayed out, the respective content isn't available.

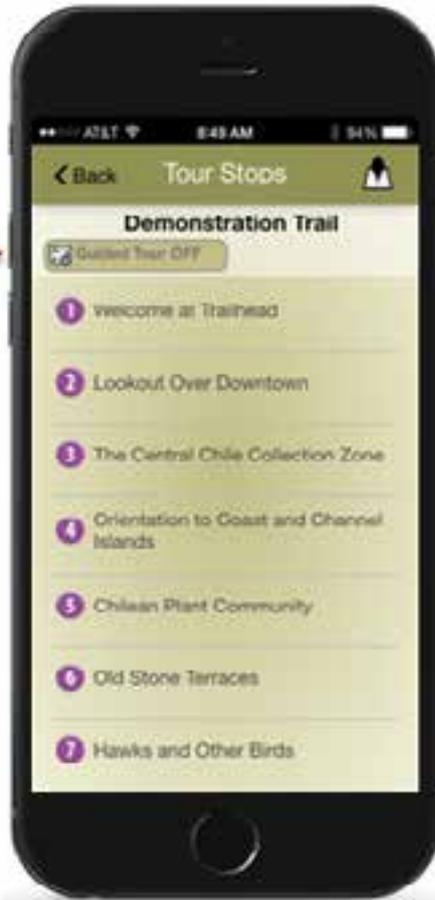


Tapping on the sound icon changes the multimedia control bar to the audio player.

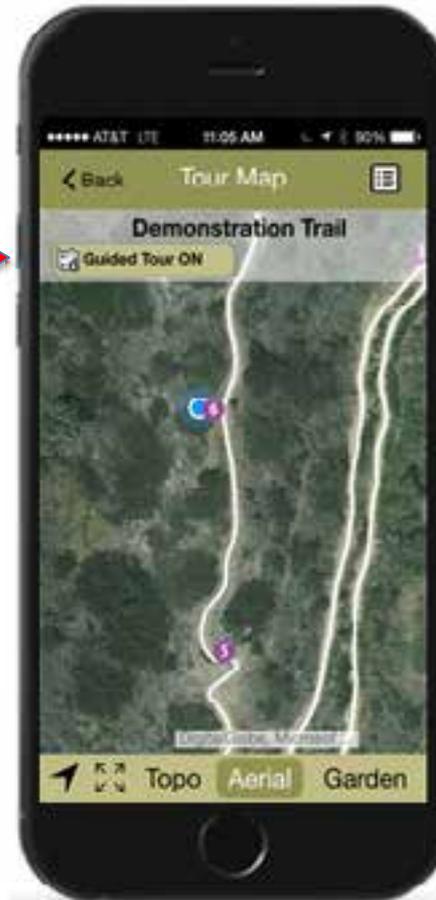


## Guided Tour with Geofencing

Tapping the  
Guided  
Tour Off  
button  
switches  
the Guided  
Tour mode  
to On.



With the  
phone's  
GPS  
enabled and  
the Guided  
Tour On, a  
user  
approaching  
Stop 6 here  
will receive  
a notification  
alert.



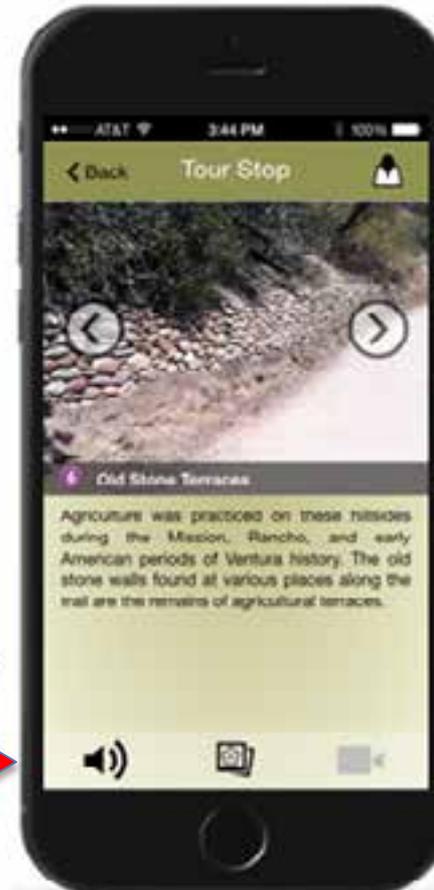


## Guided Tour with Geofencing

The user may choose to explore the stop or ignore the alert.

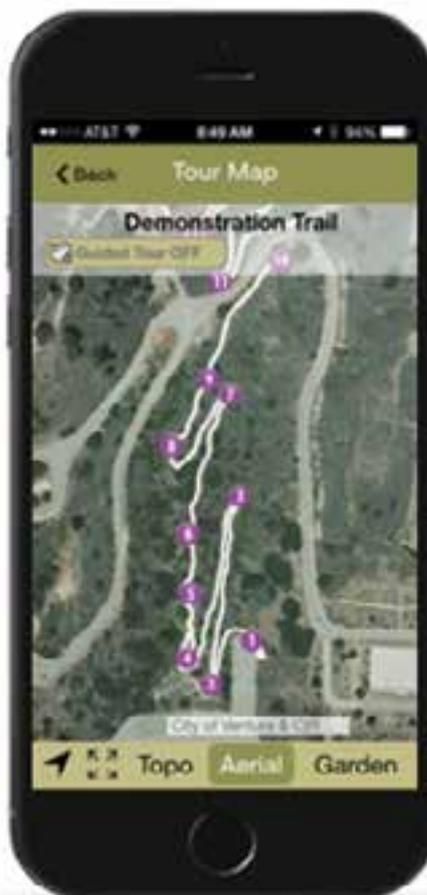
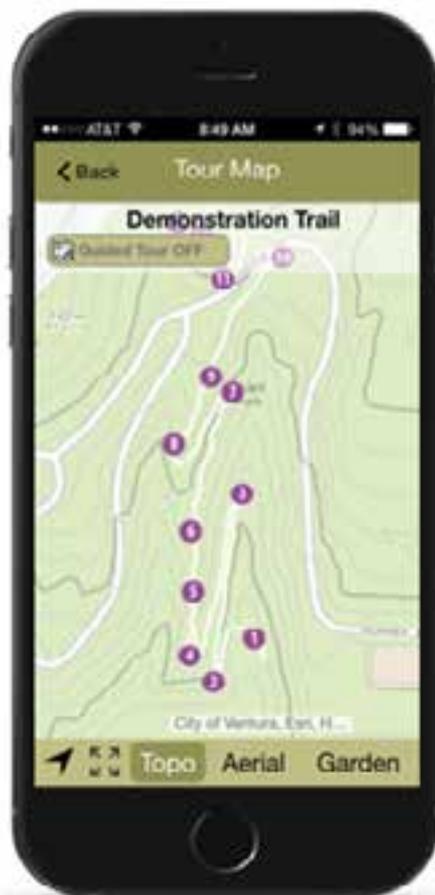


Accepting the alert takes the user to the Tour Stop 6 screen with access to audio, image slideshow, and video content.



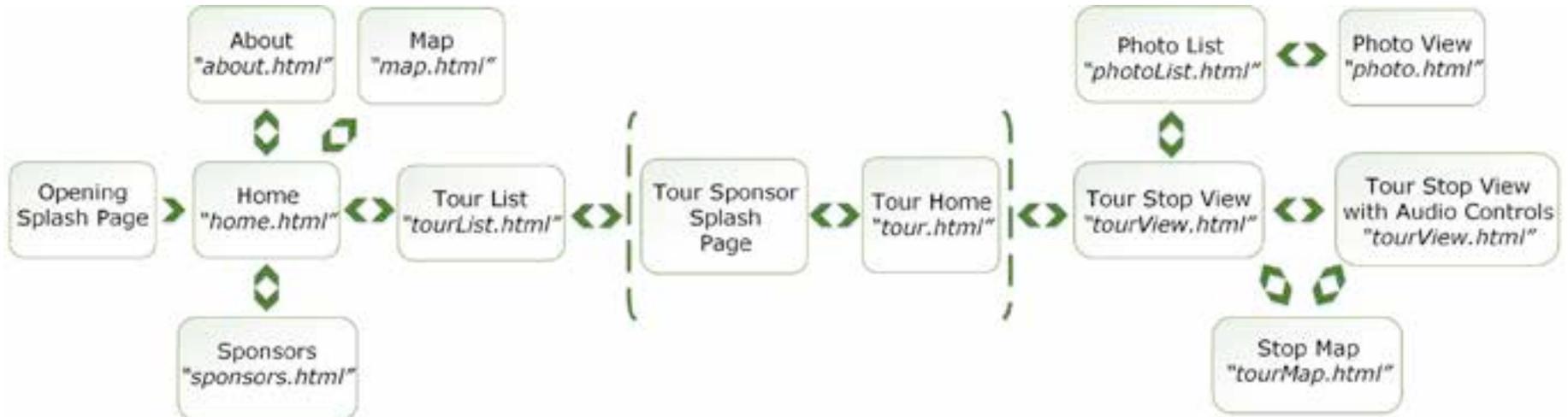


## Tour Map Screen





## Application Site Map





 **esri ArcGIS Online**

**Application Data**

StoryTrails Config

Key (PK)
Value
Shape * (Point)

Tours

TourTag (FK)
Name
Description
StopService (FK)
DefaultMap
Visible
Distance
FID
Shape * (Point)

Tour Stop Service

StopTag (FK)
StopOrder
StopTag
Name
Caption
PrimaryImage
FlickrSetId
AudioClip URL
VideoClip URL
Visible
FID
Shape * (Point)

App Sponsors

Name (PK)
TourTag (FK)
SponsorLevel
Type
LogoURL
Caption
Website
Address
FID
Shape * (Point)

**Application Basemaps**

Garden Map



Aerial Imagery



 **World Topo**  
Community Maps Program



## Application Infrastructure Costs

- No on-premise infrastructure required with minimal annual subscription costs.
  - Join the Esri Nonprofit Program - \$100 / year = 1 Advanced Desktop license and access to 1 user / 100 credits to ArcGIS Online
  - SoundCloud annual subscription to “Pro Unlimited” \$135/year.
  - Flickr and YouTube are free.
  - Apple Developer \$99/year and Google Developer \$25/year.



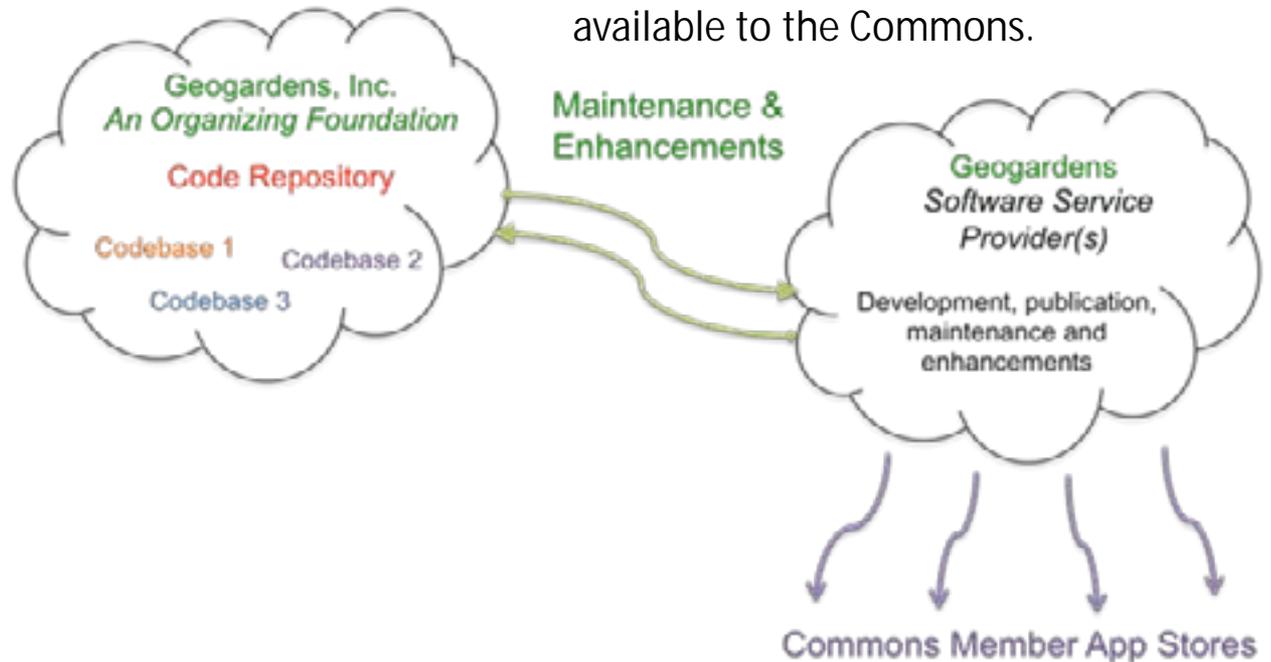


## A Vision for How to *Share in the Code*

1. Commons members select their preferred codebase from the Geogardens-code-repository. Members work with, and pay directly, a Geogardens-member-approved software service provider to brand, publish, and update their App. Members own copyright to the *published* (executable) App and the Commons retains rights to the codebase.

2. Commons members define and prioritize new functionality to be added to the codebase.

3. Codebase enhancements adhere to a General Public License (GPL v.2) "*Share and Share Alike*", whereby new functionality is added to the code repository and made available to the Commons.





## General Public Licensing (GPL) v. 2 *"Share and Share Alike"*

- A good initial framework.



Copyright



Copyleft

- ‘Strong’ copyleft GPL v. 2 licensing states *"the rights of redistribution of modified versions"* of a work *"are the same as those"* of copying the initial work.

<http://copyleft.org/>





## Today's Cooperative Framework

- In 1895, the International Co-operative Alliance (ICA) was formed.
- ICA revised and formally ratified the *Rochdale protocol* into a standard governance model for cooperatives.
- Today, the ICA ( <http://ica.coop/> ) is headquartered in Geneva, Switzerland and represents 272 co-operative federations and organizations in 94 countries.



Rifkin J., 2014, *The Zero Marginal Cost Society, The Internet of Things, The Collaborative Commons, and The Eclipse of Capitalism*. Palgrave MacMillan, St. Martins Press, pp. 211-212.



## The Geogardens Tours App

- Collaborate with us and demonstrate a tour in your garden!
- The BGCI Care for the Rare (C4R) Demo Tour at Rancho Santa Ana Botanic Garden





## Acknowledgements and Thanks

- The University of Redlands Center for Spatial Studies  
*Nathan Strout, Vani Nellaiappan, Rodolfo Godinez,  
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Shelli Stockton*
- The University of Oregon's Infographics Lab  
*Ken Kato*



Redlands development team members  
from left to right: Nathan Strout,  
Rodolfo Godinez, and Vani Nellaiappan.