A New Technology for Telling the Preservation Story: ESRI ArcGIS StoryMap

By Lisa Craig

Recently Amber Mason Eskew, a preservation planner from Athens, Georgia, posted this query on NAPC’s listserv, NAPC-L: “We want to put together a story map for [a] proposed district and are wanting any examples...lessons learned are good too.” She went on to say, “we are lucky to have a GIS team with a grad student intern who specializes in story maps. So we want to make the most of this available expertise and not miss out on things we just didn’t know to ask for.”

Those with story map experiences responded to Amber’s request with story map links. Kim Gant, Certified Local Government (CLG) Manager for the Washington Department of Archaeology and Historic Preservation, highlighted the City of Bellingham, Washington, for its Downtown Historic Walking Tour story map.

Bardstown, Kentucky, used ArcGIS Story Map to develop A Walk Through Time: Bardstown Digital Walking Tour, a story map for residents and tourists. A popular destination on the Kentucky Bourbon Trail, Bardstown wanted to create community value for historic resources not associated with the bourbon industry. As they gathered and digitized photos for what they thought would be some type of mobile app, they discovered the ESRI ArcGIS StoryMap. According to Vicki Birenberg, CLG Coordinator for the Kentucky Heritage Council, the entire project cost $17,000 with the CLG subgrant award covering just over $7,800. “As part of our state’s historic preservation plan, we included a goal of focusing on local communities that includes partnering with our Main Streets to enhance and provide preservation-related links to economic revitalization, including the development of heritage-based tourism. The digital walking tour using the story map seemed to dovetail nicely.”

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While some consulting firms can set up a story map framework for as little as $5,000, most communities have used a combination of either their own city GIS staff working with the city preservation officer or an intern to complete the work. In Boulder Colorado, Marcy Cameron, City Historic Preservation Planner, credited their intern, with launching a story map of Boulder’s oldest individual landmarks, Story Map Tour – First 25.

The Historic Licking Riverside Neighborhood in Covington, Kentucky, was celebrated by the American Planning Association as a Great Neighborhood with the 2013 Great Places in America award. The Historic Licking Riverside Neighborhood story map was produced as a tool to bring neighbors, business owners and city leadership together to proudly celebrate City of Bellingham, Washington Historic Tour: Old Highway 99 story map.

**TIPS FOR DESIGNING STORY MAPS**

- Start simple and with the basics – use your GIS captured survey data to develop maps that can be clearly understood by the viewer.
- Devote adequate time to brainstorming and developing an outline. Then choose the Story Map template that best fits your desired product.
- Try not to use any links that take the user outside of the story map product. Keep the audience paging through your story map.
- Don’t make it text heavy. Have a good editor.
- Incorporate only high-resolution photos.
- Keep the story map current and updated when new survey information is available or when activities promoted via the story map have concluded.
- Provide a link to your story map via social media whenever you add new or updated information.
Covington’s unique sense of community. According to Christopher Myers, head of Covington’s historic preservation office, the story map “gave residents a new opportunity to recognize that preservation matters – quality of life and quality of place can only increase when we sensitively invest or reinvest in our neighborhoods.”

**What is a StoryMap?**

Because of the versatility of the story map product, commissions can use the tool for multiple purposes including: virtual tours, travelogues, preservation planning, public outreach and engagement and posting meeting information. Which format works best for your purposes is one of the first decisions to make. ESRI, the global market leader in Geographic Information Systems and the powerhouse behind most local and state government GIS data mapping has several application templates.

ESRI authored ArcGIS StoryMaps as an application to create customized maps to enhance digital storytelling. By adding images and text, an interactive narrative is produced that brands a program, project or initiative. According to ESRI, “Story maps use geography as a means of organizing and presenting information. They tell the story of a place, event, issue, trend, or pattern in a geographic context. They combine interactive maps with other rich content – text, photos, video, and audio – within user experiences that are basic and intuitive.

**Is Special Training Required to Design a Story Map?**

Creating a story map is not difficult, but it can be time consuming. Some communities invest resources in training city staff. The City of Cambridge, Massachusetts, decided to use story maps to efficiently promote services and activities and invested in story map training for staff responsible for these activities. Staff shared completed story maps within their agencies, with the public, with the ArcGIS Online homepage, other organizations and social media. The City of Cambridge advises other local governments to “spread the word of how easy to create and versatile the story maps are.”

The Cambridge Historic Preservation Commission focused its first story map on a resource
type. To create Lunch Carts and Dining Cars of Cambridge, Massachusetts the Commission used the ArcGIS Story Map Tour format to illustrate in pictures, narrative and mapping the locations of the earliest horse-drawn lunch carts, as well as the streamlined stainless steel cars that populated Cambridge’s street scene. A tour of diner photos and an invitation for viewers to share their diner memories are included in this interactive map.

What Story Map Formats Are Best?
According to ESRI, the Story Map Tour app template presents a linear, place-based narrative featuring images or videos. Each “story action” in the tour narrative is geo-located so readers can click sequentially through the tour. They can also browse by interacting with the map or using an optional thumbnail carousel. This is the most common use of the ESRI Story Map for historic preservation programs, offering a brief thumbnail history and photos (current or historic) illustrating the property, its location and specific details, including perhaps the year of construction, architectural style, historic name, architect or resource type. The Bardstown, Bellingham and Boulder story maps are representative of the tour format.

Another innovative way to use the tour application is to introduce staff and commissioners to the community, telling them more about the expertise and personality of the preservation team. The Trust for Public Land, for example, shares information about each member of its GIS team – where they’re from, what they like to do, and their roles and responsibilities. The Story Map Journal combines narrative text with maps and other content through sections that readers can scroll through. Each section has an associated map, image, video or web page. “Story actions” can be defined in the narrative text so that clicking on a word automatically zooms the section’s map to a specific location.

The Story Map Cascade combines narrative text with maps, images and multimedia content in a full screen scrolling experience. Sections containing text and in-line media are interspersed with “immersive” sections that fill the screen with maps, 3D scenes, images, and videos. Cascade is a compelling public engagement tool with in-depth stories that are easy to navigate. Uses relevant to historic preservation programs are annual reports, preservation plans, strategic plans or any document in which the agency or organization must deliver a summary of goals, objectives or activities. The Story Map for the Historic Licking Riverside Neighborhood is an example of the Cascade.

The Story Map Shortlist lets you organize points of interest into tabs that make it fun for users to explore an area. Readers can click on the places, either in the tabs or on the map. This template can be useful for promoting and marketing events.
It can help viewers explore event venues and can be embedded directly into the event website.

The Story Map SeriesSM app presents a series of maps via tabs, numbered bullets, or expandable “side accordion” control. In addition to maps, images, video and web content are included as a powerful way to engage viewers. As with the Story Map Journal, “story actions” can be defined in the narrative text so that by clicking a word the reader automatically zooms to a specific map location. This format was used for the City of Annapolis “Weather It Together” Story Map “Landmark at Risk: Protecting the Historic Seaport of Annapolis, Maryland.”

The Annapolis Story Map Experience

In 2016 the City of Annapolis Historic Preservation Division produced a story map for the award-winning “Weather It Together” planning initiative, using a private consulting firm, an in-house GIS coordinator, an intern, city preservation staff and two community volunteers as editors. Working closely with Michael Baker International, the story map consulting firm, the city was able to better communicate its planning and implementation efforts towards reducing tidal flooding and the impacts of sea level rise on the downtown historic district. The Landmark at Risk story map is now a go-to resource, not only for the citizens of Annapolis, but for other communities facing the challenges of flooding.

Rebecca Ramsay, a USICOMOS intern from New Zealand, engaged specifically to support “Weather It Together,” served as a primary editor and technical assistant for the Landmarks at Risk story map. Today in her work as an archaeologist with the Auckland Council, she is using the story map product to share the history and the revitalization of a Maori portage. “It’s great to be able to take learnings from the “Landmark at Risk” story map and apply them to a new product.” She offers a key tip from her experience, “Clearly brainstorm and outline what content and message you want to portray in the final product. Having the outline helps you determine which mapping template might work best for the story you’re telling. It’s then easy to plug in text, maps, and images, etc., and even easier to update.”

One of the unexpected benefits of this story map’s development and use was the support received from state and federal agencies across the country, with GIS and FEMA staff hailing it as a best practice in natural hazard risk communication from one of the few jurisdictions in the nation to examine hazards from a historic preservation perspective.

Story Mapping Statewide Planning Priorities

Another organization that used a story map approach to communicate the increased challenge of rising sea level on coastal resources is The Trustees of Reservations. The Trustees developed the Argilla Road Project story map to communicate
The vulnerability of this key access point for more than 350,000 annual visitors to the historic Crane Estate. In order to maintain the accessibility of this much-loved resource, the Trustees are planning a road raising strategy paired with nature-based designs to protect the elevated road from erosion. This is a statewide priority and a roadmap for building resilience in similar coastal roads across the state.

The Story Map Series has also been used for statewide planning in Delaware where the Institute for Public Administration (IPA) developed a series of story maps to illustrate Delaware’s Complete Communities Planning framework. Each story map conveys one of the five elements of a complete community, including historic preservation – Inclusive and Active: Historic Preservation.

It’s clear that as preservation moves forward local and state historic preservation programs must incorporate new technologies into how we communicate and educate communities about the value of saving places. Building the capacity of non-GIS users is an important starting point and I hope to see more of these training opportunities at historic preservation state and national convenings.

In the meantime, just get started. By telling your community’s story through an interactive medium like Story Map, the words, images, and maps you share will produce a generous response from your community with the same – their stories, their photos, and their documents – all hosted in a central, shared location accessible to not just your commission or your community, but to the broader alliance of preservation organizations and professionals.

Bellingham, Washington - http://www.iqmap.org/storymaps/MapTour_hist/index.html?appid=dabad7063f144a2682afdbb8bcc9c14

Bardstown, Kentucky - https://bardstown.maps.arcgis.com/apps/MapTour/index.html?appid=f7832f875b246f3b8190c3a32368288


Cambridge, Massachusetts - http://cambridgegis.maps.arcgis.com/apps/MapTour/index.html?appid=65917125a3594d86a801447dd92ff1


Trust for Public Land - http://web.tplgis.org/StoryMaps/GIS_staff/