

First Peoples: Archaeology at Meadowcroft Rockshelter



*A Teacher's Guide to using the
GigaPan images*

Contents

About the First Peoples GigaPan Images	2
Click to learn more about GigaPan	2
Key to the First Peoples GigaPan Images.....	3
Anatomy of a First Peoples GigaPan Image	Error! Bookmark not defined.
Using the First Peoples GigaPan Images.....	5
What to Expect.....	7
Suggestions for Exploring the Images.....	8
Using a GigaMap or GigaPoint	9
First Peoples GigaPan Activity Plans.....	Error! Bookmark not defined.
Learning by Looking Activity.....	Error! Bookmark not defined.
Learning to Look Worksheet	Error! Bookmark not defined.
Introductory GigaPan Exploration of Meadowcroft Rockshelter Activity .	Error! Bookmark not defined.
Introduction to Meadowcroft Rockshelter GigaPan Exploration Worksheet	Error! Bookmark not defined.

About the First Peoples GigaPan Images

A series of five high-resolution GigaPan images of Meadowcroft Rockshelter serve as the core of the *First Peoples: Archaeology at Meadowcroft Rockshelter* resources. These extreme resolution images are overlaid with multimedia interest points. The interest points include video interviews with experts, animations, graphics, photographs and text that provide context as students or visitors interactively explore the Rockshelter using a computer. The images support mediated, unmediated, and theme-based interactive explorations, encouraging students to begin to look with the eye of a scientist in a compelling visual mode that is accessible, responsive to individual interests and engaging.

For optimal viewing, please ensure that you use Google Chrome, Mozilla Firefox, or Safari browsers.

Click to learn more about [GigaPan](#)

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Key to the First Peoples GigaPan Images

The images are titled based on their relative location at the site:

<i>Upper Image</i>	The Upper image is taken from the upper viewing platform looking West and houses more on Archaeology and the ecological setting of the Rockshelter. The Archaeology subject tab supplements the Advanced Archaeology material from the Firestack image. The Ecology subject tab focuses on the flora and fauna that are recorded within the many studies of the Rockshelter's ecofacts.	
<i>Fire Stack Image</i>	The Firestack image is named for the section of the site in the center of the image. This profile has evidence of firefloors and hearths stacked atop one another. To the left in the image is the East Face, which is the longest profile of the site. The Archaeology subject tab houses information on methodology that is a little more advanced than the basic how-to of the archaeological process on the Front image.	
<i>Front Image</i>	The Front image is a head on view of the excavation taken from the lowermost viewing platform. The Archaeology subject tab locates points to use for teaching the archaeological process that was used at the Rockshelter. The Geology tab highlights points related to the creation of Rockshelter itself, and the site's stratigraphy.	

<i>Exterior Image</i>	The Exterior image was taken from under a Sycamore tree on the south back of Cross Creek looking North and up toward the Rockshelter. This image is home to a majority of the natural sciences that can be studied at the Rockshelter. The Geology subject tab highlights points that describe the natural processes that created the valley and Rockshelter. The Ecology subject tab points out the ecological setting of the Rockshelter, and people's relationship to it.	
<i>Lower Image</i>	The Lower image houses the lesson on the antiquity of the Rockshelter deposits, and their impact on the Theories of the peopling of the Americas. The culture tab is focused on the cultural history of the people using the Rockshelter as evidenced by the material culture they left behind. There is also a lone Geology point referencing the complicated stratigraphy of the Meadowcroft Rockshelter.	

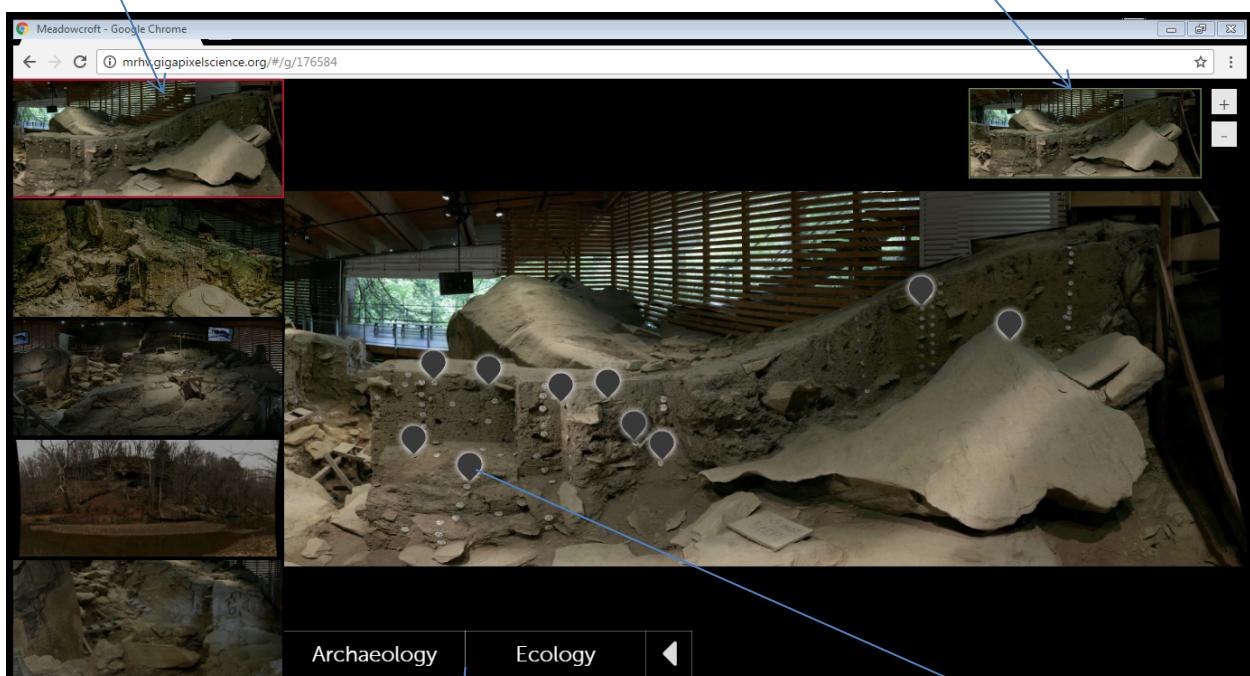
Using the First Peoples GigaPan Images

Exploring the First Peoples GigaPan Images is easy! The technology was specifically designed for interactive exploration by people of all ages and experience levels. Engaging with the images is intuitive, however, if you are leading an exploration using a projection rather than individual computer screens, it may be useful to preview the images.

1. Access the Images.
 - > Visit the [Meadowcroft website](#)
 - > Visit the [First Peoples GigaPan website](#)
2. Click on one of the thematic tabs at the bottom of the screen. Your action will highlight green interest points related to that theme. Some points are highlighted in multiple themes. The points are numbered in a suggested order, but can be used as you choose.

Click on any of these images to enter. Image titles appear when the cursor hovers over them.

Orientation screen: indicates where you are within the image.



Thematic tab bar: Clicking a category will highlight interest points relating to the selected theme. Click on the triangle to minimize the bar.

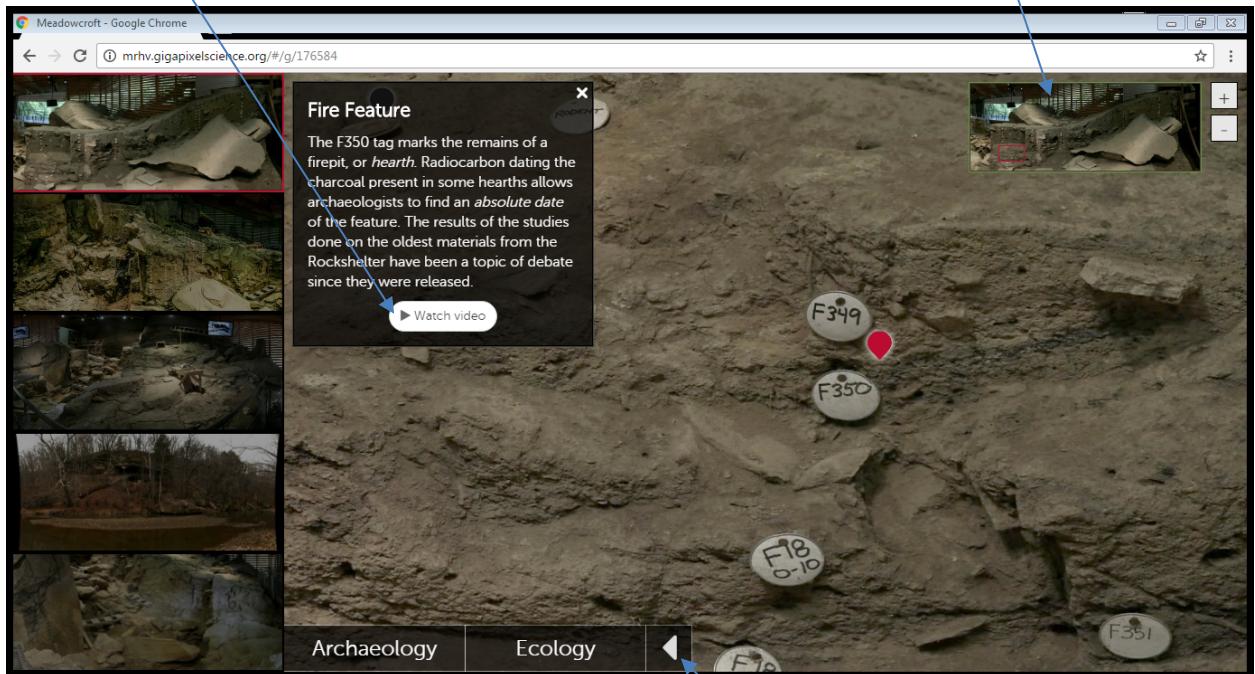
Interest Points: Click a point shadow to view the point. You can also access these by clicking a theme; all points related to the theme will be highlighted.

3. Click on a tear-drop marker to view the interest point. The computer will zoom to the area indicated. You can zoom in further by using the scroll wheel on your mouse, or the +/- buttons provided on the screen.

*Your computer may have to “learn” the ____ of the images. If it seems like the zoom is off, hit the orientation screen in the upper right hand corner, and re-click the desired point.

Choosing an interest point turns the marker red. To interact with the multi-media content click the play button for video, or click on the image to enlarge it.

Orientation screen: Clicking anywhere in this image at any time returns you to the original zoom.



4. A text box for the interest point will appear. If there is a multimedia clip, click the “watch video” button to play it. If the interest point includes an image or chart, click the image to enlarge it.
5. Click another interest point or choose another thematic tab. To minimize the thematic tab bar, click the arrow.

What to Expect

Exploring the *First Peoples: Archaeology at Meadowcroft Rockshelter* GigaPan images is fun! The images can be used for a variety of learning activities, or simply to deliver content in an interactive manner.

GigaPan exploration often takes a bottom-up approach: students begin with individual learning points and slowly progress to understand the whole picture. Teachers can choose to help facilitate this process, or they can let the learning happen naturally. No matter how the interaction occurs, teachers can expect several results:

- **Students are empowered** as they explore the images. They quickly learn to browse the images and find materials that they want to engage. Exploration of the images is intuitive and students need very little instruction to learn how to successfully navigate the experience. Students of all grade levels are able to navigate the images with ease. Even the youngest learners with little to no reading ability know to click the interest points and play the multimedia.
- **Students demonstrate intrinsic motivation** as they engage with the images; the content is engaging and they enjoy the activity. Many teachers have observed that within just minutes of introducing a GigaPan image, they can hear audio from embedded multimedia and clicks as students explore the images. They also sometimes it difficult to get students to stop interacting with the images when time is up; you may wish to issue a two minute warning to prepare your students for transition.
- **Students demonstrate increased inquiry skills**, particularly the ability to make observations and inferences, after viewing the images. Many students are able to recall information contained within the text and multimedia points. They also asked questions about materials that they observed in the images but which were not highlighted in the interest points.
- **Students demonstrate increased understanding and retention of content** after interacting with the images. In evaluations completed a week or more after students engaged with the images, students recalled more than students who physically visited the site.
- **Students use sophisticated commentary to describe their experience.** They were able to correctly use new terminology in writings and discussions. Teachers also found that discussions were fuller and that students were empowered to give critical evidence to support their statements.

Suggestions for Exploring the Images

There are many ways to integrate the *First Peoples* GigaPan Images into classroom learning. While self-guided exploration is always one option, many teachers prefer to deliver content using the best means for their objectives. The list below offers some suggestions for teacher-facilitated lessons.

If your students are already familiar with GigaPan images or with interacting with a website during class time, you may be comfortable just letting the students explore the images (or assigning one image for them to explore). In this case, you may want to project a goal or give students a list of objectives that you need them to accomplish. Let the students explore the images and then use the remaining class time to discuss what they have learned. It will be interesting to hear their observations and how they arrive at the “Big Ideas” based on what they viewed.

1. Teacher-Directed Thematic Exploration

Choose one of the themes that you are interested in learning about. Guide students through the appropriate points, supplementing the embedded content with information from the Teacher’s Guides.

2. Create a Scavenger Hunt

Preview the images and create a series of prompts or clues to guide your students through the site. You can also view the GigaPan lessons and use the GigaPan map to create a scavenger hunt for a particular theme.

3. Create a Worksheet

Create questions and have students search the images to find the appropriate answers. If you are pressed for time, use the GigaPan lesson maps to quickly find content location and content summaries so that you can build your worksheet without searching.

4. GigaPan Lessons

The work is done for you! Choose one of the thematic *First Peoples* lessons. The lesson lists all the materials you need to complete the lesson, outlines objectives, terms and concepts, a procedure with a GigaPan map (see page 9) that walks you through the lesson content, ideas for alternative delivery, and suggestions for post-exploration enrichment activities. Teachers can facilitate these lessons or adapt them for student-guided inquiry.

Using a GigaMap or GigaPoint as part of an Exploration Activity

The majority of the *First Peoples: Archaeology at Meadowcroft Rockshelter* GigaPan activities reference GigaMaps and GigaPoints. These terms simply refer to tools that organize content.

GigaPoints are located within the GigaPan images; they are also referred to as Interest Points. These are highlighted on the images (if you have selected a thematic tab, the points will also be numbered in a suggested sequence).

GigaMaps are larger organizational tools that present suggested sequences for exploring a theme across multiple images. The map is organized in table format and each column communicates a type of information about an image.

- The first three columns (GigaPan Image, Tab, Point #) indicate the location of the image. For instance, the map below references the Front Image, the Archaeology Tab, Point #2.
- The “Content Description” Column summarizes the text that you will find embedded in the image.
- The “Multimedia/ Visual” column gives a summary of what the visual material is. If there is multimedia, the run time (ex. 1m 23 s) will be listed.
- Finally the “Transitions” column offers a fragment or sentence that can be used to draw a connection between the current image and the next image/ point on the map.

Sample GigaMap						
GigaPan Image	Tab	Point #	Title	Content Description	Multimedia/ Visual	Transitions
Front	Archaeology	2	Groundhog Hole	Albert Miller , local farmer and founder of Meadowcroft Village , found the first evidence of a prehistoric occupation of the Rockshelter when he investigated a burrow along the cliff face.	A scan of Albert Miller's discovery journal entry.	Albert Miller employed amateur archaeological techniques to investigate the Rockshelter. He realized that his findings were significant and that any excavation needed to follow established procedures to preserve any cultural evidence...