

## Mapping Archaeological Excavations at Fort Ouiatenon

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**Background:** Archaeological excavation is inherently destructive—once a site is excavated, it only exists in any documentation created during this process. Therefore, archaeologists take meticulous notes and draw detailed maps to record sites as they are excavated. However, this mapping procedure is not standardized across the discipline. Therefore, archaeologists would benefit from a software designed to map archaeological investigations and store archaeological data.

I created an Android application called Mapp to fill this need. The app allows archaeologists to store pictures and notes about each area of the excavation. Using Mapp, archaeologists can access data from across the site to better understand the larger context of the area they are excavating. To promote accessibility, the app is free and open source. This means that other archaeologists can collaborate in the development of the app if they think of another feature which would be useful.

**Methodology:** Mapp uses pictures to create maps of an excavation. The app allows archaeologists to take pictures of the floor of an excavation. They can then use the app to highlight important artifacts and features in this picture (see Figure 1). When the user saves their work, it is uploaded to a server for other archaeologists to access (with permission). If the device has no internet connection (as at many remote archaeological sites), the data is saved to the phone to be uploaded later.

I was able to conduct preliminary testing of Mapp during an excavation at Fort Ouiatenon in the summer of 2022. During the four-week excavation, archaeologists used both Mapp (running on a Samsung Galaxy Tablet) and traditional paper techniques to document their findings. At the end of the project, archaeologists completed a survey that compared Mapp to the traditional paper documentation techniques. This survey revealed that, overall, users preferred to document with Mapp. However, sun, rain, and connectivity issues presented obstacles.

### FOR FURTHER READING:

Strezewski, Michael, and Robert G. McCullough  
2019  
Fort Ouiatenon, 1717–2019: 300+ Years of Indiana History. *Indiana Archaeology* 14(1). Accessed April 20, 2022.



**Figure 1.** A screenshot of Mapp’s mapping screen. First, users upload an image of the excavation. Mapp then allows them to highlight and label items in the image to indicate where they were found. Excavation image courtesy of the Fort St. Joseph Archaeological Project.



**Figure 2.** Students take measurements for mapping at Fort Ouiatenon in the summer of 2022. These measurements will be used to draw detailed maps of the excavation which document where artifacts and structures were found. Mapp is designed to streamline this process by replacing these drawings with annotated images.