Re-Designing PIDBA (The Paleoindian Database of the Americas): Enhancing the Accessibility of Information and the User Experience

Stephen J. Yerka, David Echeverry, David G. Anderson, and D. Shane Miller
-1Department of Anthropology, The University of Tennessee, Knoxville, Tennessee 37996
-2Department of Anthropology, University of Arizona, Tucson, Arizona 85721

Abstract

PIDBA is a two-decade-long project to compile Paleoindian data from multiple sources. One goal of the project is to provide archaeologists a resource to conduct original research with test data. PIDBA has continued growing over the past two decades, as new data is collected, analyzed, and presented to users. As of 2015, PIDBA contains attribute data of Paleoindian points, range of geographic boundaries, publication dates, and images of artifacts. This article illustrates the information that is accessible at the site, outlines the website in becoming more accessible to researchers.

PIDBA could not exist without the work of many experts in the field who have condensed the site and project-level survey of Paleoindian artifacts. Objects, find labels, morphological and statistical analysis as well as site interpretations have been submitted and included through the perseverance and persistence of these dedicated researchers.

Our goal is that PIDBA has been to take these data and bring them together for the archaeological community to access and analyze. This article will focus on past changes and future directions of PIDBA.

This project, which initially took over two decades ago, has been data sharing through multiple data centers. One of the main strengths of PIDBA has been that it is a group of expert-based and maintained for the benefit of the research community. The project has been designed to be used by archaeologists of all backgrounds and all levels of experience.

Second key changes are being made in the delivery of information from PIDBA. Even, images and data of individual artifacts, projects are presented more clearly and efficiently. Secondly, the traditional point attribute data can now be in a standard format that is more compatible with the programs archaeologists use to analyze or examine artifacts. Finally, the PIDBA database has begun to look at typological data in a GIS-compatible map output. These data allow researchers to see and better understand the cultural and prehistoric processes that have produced Paleoindian points and early Holocene art.

Enhancing Accessibility: PIDBA Images

The compilation and presentation of primary data from multiple sources has been a major challenge facing the archaeological profession in the PIDBA. Available on-line at http://pidba.noaa.gov, integrates databases and GIS technology to make available over 20,000 projectile points, artifact data on >75,000 artifacts, and images data on >7,500 points from across North America.

To explore the site, simply Google “PIDBA” ...

... we have made a lot of changes recently!

Using PIDBA Data to Develop Paleoindian Settlement Models

The goal of our research is to examine the site and project-level survey data for the purpose of testing models of early Paleolithic settlement on the American continents. To date, we have focused on developing a first level of reality testing of the “staging area” model of early Paleoindian settlement. As the PIDBA database has increased, we have been able to use the computer software tools and GIS techniques to examine the data in new ways. Using this approach, we have been able to demonstrate that the existence of staging areas is dependent on a number of factors, including the presence of particular species of plants, the availability of water, and the cultural traditions of the people involved.

Photographs, measurements, references and GIS layers can be connected or joined through survey numbers, state, county, and in some cases even more detailed provenance.

All data is referenced to the original reports from which they were derived. In the new database structure, points reference a key number that is associated with a report, or published survey, or unpublished survey.

This way when information is retrieved from the database a list of appropriate references can be generated automatically.

The right hand panel shows some of the many ways PIDBA has been utilized by researchers to develop and challenge Paleoindian settlement models.

Enhancing Accessibility: PIDBA Information Management

Over the last five years, the primary artifact database that has been developed in curatorial projects have been converted into a relational database with standardized attributes to encourage all of the data to be stored in a consistent way. As this data is stored, it is being converted into a relational database with standardized attributes to encourage all of the data to be stored in a consistent way. This database is now being used to enhance the accessibility and usability of the data. The data is organized into a series of tables, each representing a specific type of data, such as site, artifact, or publication. Each table is connected to one or more other tables through a foreign key, which allows the data to be linked across tables. This structure makes it easier for researchers to query and analyze the data, as well as to export it in a variety of formats.

The PIDBA Information Management tool is designed to be user-friendly and intuitive, with clear and concise instructions for every step of the process. It also includes a robust help system and technical support, which are available to assist users with any questions or problems they may encounter. The tool is also designed to be flexible, allowing users to customize their searches and analyses according to their specific needs.

The PIDBA Information Management tool is a powerful and versatile tool that is designed to help archaeologists and researchers make the most of their data. By providing a comprehensive set of tools for organizing, analyzing, and exporting data, the tool helps users to better understand the data and to make informed decisions. It is a valuable resource for anyone working with Paleoindian data.