

A Look at the Map Library of the Benemérita Universidad Autónoma de Puebla, Mexico

Ir a versión en español

DOI: 10.30763/Intervencion.291.v2n28.70.2023 • YEAR 14, NO. 28: 255-265

Submitted: 25.04.2023 • Accepted: 18.08.2023 • Published: 16.02.2024

Yaselda Chavarin Pineda

Benemérita Universidad Autónoma de Puebla (BUAP), México

yaselda.chavarinp@correo.buap.mx

ORCID: <https://orcid.org/0000-0003-4524-0115>

Miguel Ángel Valera Pérez

Benemérita Universidad Autónoma de Puebla (BUAP), México

miguel.valera@correo.buap.mx

ORCID: <https://orcid.org/0000-0002-2093-8122>

Maria Guadalupe Tenorio Arvide

Benemérita Universidad Autónoma de Puebla (BUAP), México

tenorio.arvide@correo.buap.mx | ORCID <https://orcid.org/0000-0001-6125-4782>

Translated by Fernanda Andablo

ABSTRACT

This review of the Jorge A. Vivó Escoto Map Library (MJAV by its acronym in Spanish) of the Benemérita Universidad Autónoma de Puebla (BUAP, Meritorious Autonomous University of Puebla, Mexico) presents a brief description of the activities and outlines some of the collections that conform its documentary archive. Among these we find maps, plans, aerial photographs, as well as documents that date back more than 100 years, primarily documenting the changes of the territory of Puebla and Mexican territory. It also presents the challenges, tasks, and initiatives, with the latter aimed at enhancing the management of the map library for the benefit of future generations.

KEYWORDS

cartography, map library, documentary collections, documentary preservation

Intervención

JULIO-DICIEMBRE 2023
 JULY-DECEMBER 2023

Map libraries are centers where cartographic documents are stored and preserved (Galera, 1991, p. 19). The Jorge A. Vivó Escoto Map Library (MJAV by its acronym in Spanish) of the Benemérita Universidad Autónoma de Puebla (BUAP, Mexico) is in the city of Puebla. It is considered the best and most complete of its kind in the region (Ruíz-Córdova, 1998, p. 22) because it has strengthened the knowledge of the area by supporting external research and multiple thesis projects at both undergraduate and postgraduate levels. The cartographic collection constitutes an important documentary source within the institution and the state of Puebla. It tells the history of cartography, how terrestrial space has been modified over time, and how it has been interpreted in the region.

The MJAV is named in memory and honor of the Cuban geographer who vastly contributed to creating Mexican cartography and dedicated much of his life to the training of professional geographers. The MJAV was created in 1979 in response to the requirement for geographical information that would support the academic activity of its researchers. Later, in 1984, the cartographic laboratory was created to carry out photointerpretation activities and to generate a new cartography. This cartographic collection space was initially located in the first patio of the *Edificio Carolino* in the city of Puebla and was part of the now lost Earth Sciences Center (Figures 1 and 2). Nevertheless, during the June 1999 earthquake, the integrity of the building was compromised, and the Map Library had to be relocated elsewhere in the city: to the computing center on 11 Sur and 49 Poniente streets. Years later, it was relocated to the building known as *Casa de las Bóvedas*, in the historic center of the capital of Puebla, until 2020, when it was resettled in the building of the *Ex Convento de las Clarisas*, on the well-known *calle de los dulces* or “candy street” of the Historic Center of Puebla.

Currently, the MJAV is coordinated by the Centro de Investigación en Ciencias Agrícolas del Instituto de Ciencias (Agricultural Sciences Research Center of the Institute of Sciences); this has benefited many postgraduate and undergraduate students from similar and related fields of study. The professionals who work in the Map Library have helped the university community by consulting the collection. Furthermore, they have contributed by directing many thesis projects and tutoring the postgraduate courses in Environmental Sciences, Anthropology, and History and the undergraduate courses in Environmental Engineering, Topographic and Hydrological Engineering, Geodesy, History, Sociology and Architecture.

One of the activities taking place in the Map Library is the use of Geographic Information Systems (GIS). This is promoted through

Intervención

JULIO-DICIEMBRE 2023
 JULY-DECEMBER 2023

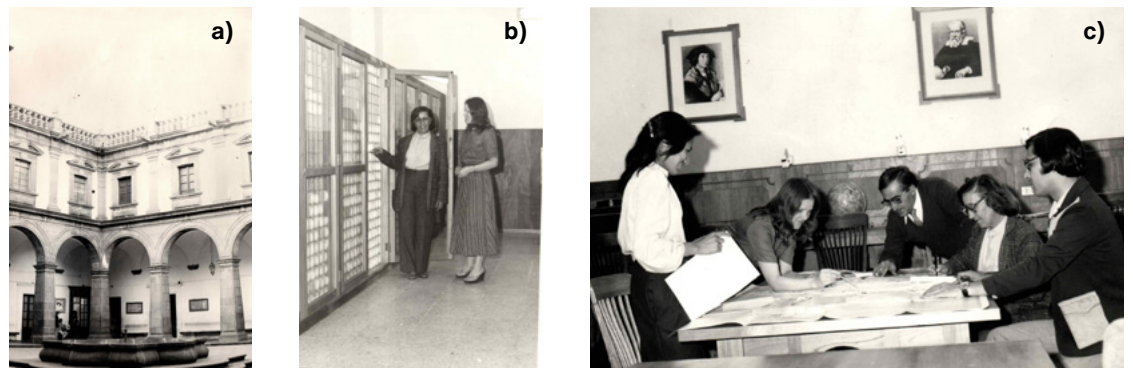


FIGURE 1. a) First courtyard of the *Edificio Carolino* in 1979; b) On the right, geographer Ludmila Biriukova (first director of the Map Library), with a visitor on the left; c) Cartography consultation in the Map Library among students, researchers, and Map Library professionals, 1979 (Courtesy: Mapoteca Jorge A. Vivó, 2023).

FIGURE 2. The student Blanca Téllez Morales (now a research professor at the BUAP Faculty of Architecture), in a demonstration of INEGI charts during a consultation, 1979 (Courtesy: Mapoteca Jorge A. Vivó, 2023).



mentoring programs and courses regarding the management of geographic data in different sciences, both for the preparation of maps based on existing cartography and for the acquisition of new data for its processing, analysis, and final presentation. There is also a course regarding the management and understanding of the Digital Map of Mexico held in collaboration with the Instituto Nacional de Geografía y Estadística (INEGI, National Institute of Geography and Statistics). All these activities have the purpose of consolidating a multidisciplinary space, essential for an extensive teaching of spatial foundations (Benner & Slayton, 2020, p. 227).

COLLECTION

The collection of the Map Library consists of more than 13 000 documents, organized in various cartographic collections. These are mainly classified according to their represented geographical area, their antiquity, and their authorship. Document materials vary; most of them are made of paper, some others are cloth mounted, and a few are made of plastic. Furthermore, the production techniques are diverse: it is possible to find originally hand-drawn maps, printed ones, and heliographic copies, among others. Some of the documents are donations from private collectors, both from public and private institutions, while others are purchases made by the BUAP to increase the collection. However, there is no record of the origin of the documents, except for those from INEGI, along with the maps, which were delivered to the Map Library as part of its external consultation network (RCE, in Spanish). Several details are explained below, such as authorship, the represented sites, and the number of documents in the most notable collections.

Aerial photographs

The collection consists of 2 746 photographs taken in the 1950s and even up to the year 2000, which primarily show the surface of Puebla. The material available here is attributed to the Sistema Nacional de Fotografía Aérea (SINFA, National Aerial Photography System of the INEGI), Petróleos Mexicanos (PEMEX), Compañía Mexicana Aerofoto (Mexican Aerial photograph Enterprise), Fotogramétrica Catastral (Cadastral Photogrammetric), Sistemas de Información Geográfica (GIS, 2000), and the General Office of the State of Morelos of the Secretaría de Recursos Hidráulicos (SRH, Secretariat of Hydraulic Resources). Furthermore, there are plenty of copies from the Dirección de Estudios del Territorio Nacional (Detenal, Directorate of National Territory Studies) captured in the 1970s. These photographs have been essential for obtaining topographic maps of natural resources because they are a “faithful representation of the area at the time of the exhibition”¹ (INEGI, 2005, p. 2) (Figure 3).

Plans and charts of Puebla and its surroundings

This collection consists of 554 documents, ranging from the year 1650 to the 1990s. On the one hand, some of the most important maps record the changes that have occurred throughout the

¹ Editorial translation. All quotes are translations from the original texts in Spanish.

Intervención

JULIO-DICIEMBRE 2023
 JULY-DECEMBER 2023

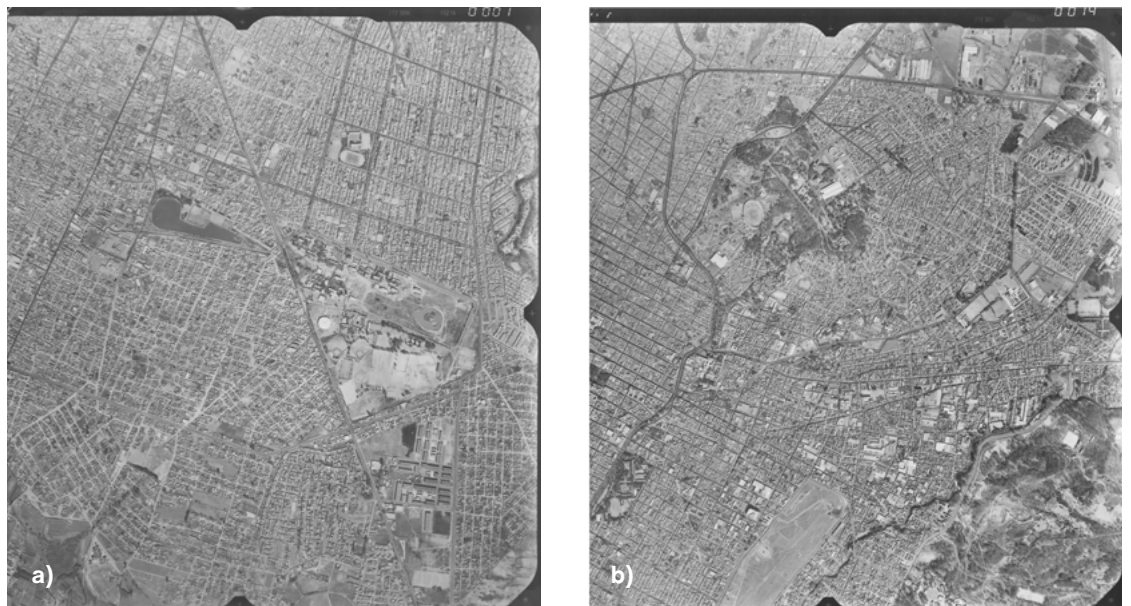


FIGURE 3. SINFA-INEGI aerial photographs, Puebla, E14B43, 1993; a) Ciudad Universitaria area and b) downtown Puebla (Photographs: Yaselda Chavarin Pineda, 2023; courtesy: Archive from the Mapoteca Jorge A. Vivó, 2023).

history and development of the city of Puebla; on the other hand, the most consulted documents in the entire collection are the city plans from the years 1917, 1923, 1931 (Figure 4) and 1936 due to their scale, details, and antiquity. Furthermore, in the cartographic laboratory, a series of important thematic maps of the city were elaborated in 1984 (Figure 5). These maps present the types of industrial spaces, urban transport system, communal land zones (*tierras ejidales*), production processes, among others.

Charts of the Geographical and Exploring Commission

From the collection of charts of the Comisión Geográfico-Exploradora (Geographical and Exploring Commission), we can find 137 pieces of the Mexican Republic general chart (Figure 6). It was created in 1877 by order of the then President Porfirio Díaz, who, alongside with the Minister of Development, Vicente Riva Palacio, agreed on the importance of exploring, measuring, and mapping the territory to consolidate the government, defend against foreign invasions, and promote the economic development (Craib, 2013, pp. 163-164).

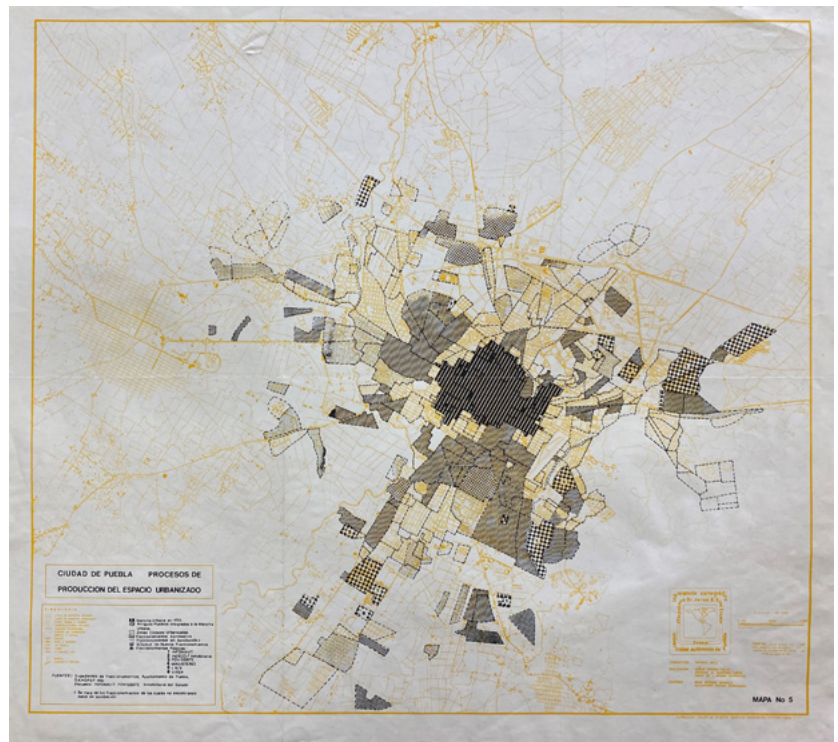
Intervención

JULIO-DICIEMBRE 2023
 JULY-DECEMBER 2023

FIGURE 4. General Chart from the city of Puebla, Armando Macedo, 1931 (Photograph: Yaselda Chavarin Pineda, 2023; courtesy: Mapoteca Jorge A. Vivó, 2023).



FIGURE 5. Thematic map of the city of Puebla. Production processes of urbanized space, BUAP Cartographic Laboratory, 1984 (Photograph: Yaselda Chavarin Pineda, 2023; courtesy: Mapoteca Jorge A. Vivó, 2023).



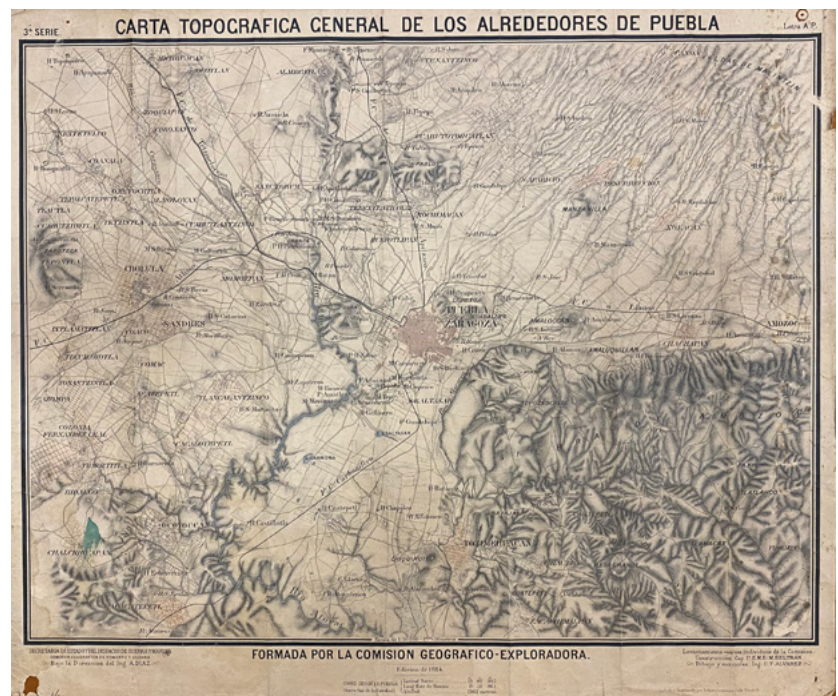
INEGI charts

The collection of INEGI charts is the most extensive in the collection, with around 10 000 pieces. As a higher education institution, the MJAV is ascribed to the external consultation network of INEGI and, since the beginning of its operation, it has safeguarded the cartographic and bibliographic materials of said institute, in addition to the documents produced by the Secretaría de Programación y

Intervención

JULIO-DICIEMBRE 2023
JULY-DECEMBER 2023

FIGURE 6. General topographical chart of the surroundings of Puebla, Geographical-Exploring Commission, 1884 (Photographs: Yaselda Chavarin Pineda, 2023; courtesy: Archive from the Mapoteca Jorge A. Vivó, 2023).



Presupuesto (SPP, Programming and Budget Secretariat) and the Comisión de Estudios del Territorio Nacional (Cetenal, Studies Commission of the National Territory). Up to this day, INEGI maintains an agreement with the MAJV with the purpose of sharing its information with the entire population (Figure 7). Moreover, a monthly consultation report is delivered, both physically on the maps, and online, on the resources of said institute.

Old maps

This collection consists of 32 large-format maps. From these, three general charts stand out: the first is the one about the Mexican Republic, from 1894, elaborated by the Ministerio de Fomento (Ministry of Development); the second one is of the state of Puebla, from 1908, by the Geographical-Exploring Commission; and the third one is from the communication routes of the United Mexican States, from 1907, edited by Alfredo A. Jiménez, as well as other charts of various parts of the world, such as Africa and Europe. This is of special significance for historical studies since old maps are important elements in the investigation of the area and territory.

Relief maps and Braille code

The MAJV also possess a collection of 38 relief maps and 8 in Spanish Braille code, created by INEGI on plastic support. Elaborated be-

Intervención

JULIO-DICIEMBRE 2023
 JULY-DECEMBER 2023

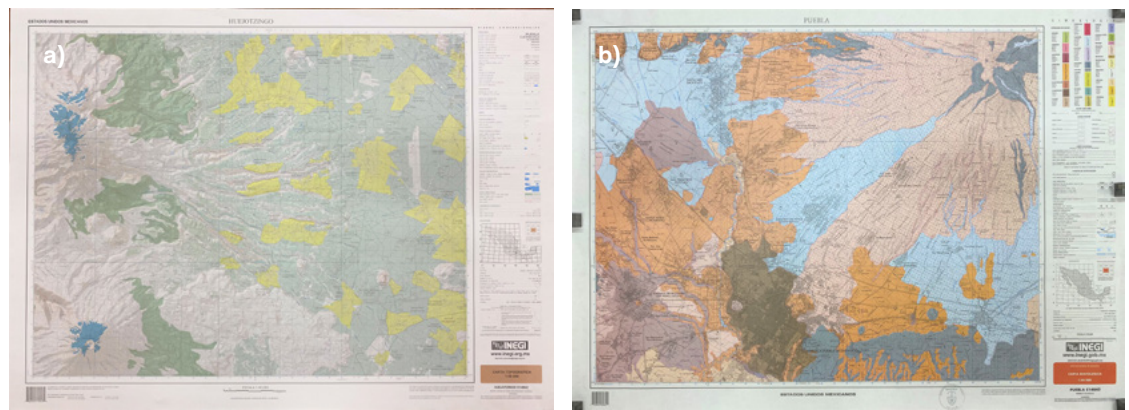


FIGURE 7. a) Topographic map of the municipality of Huejotzingo, Puebla, INEGI, 2011; b) pedological chart of Puebla, Puebla, INEGI, 1982 (Photographs: Yaselda Chavarin Pineda, 2023; courtesy: Mapoteca Jorge A. Vivó, 2023).

tween 2012 and 2013, these maps show different characteristics on a national scale, such as types of vegetation, climates, and types of soil, among others. They constitute an important didactic tool for blind and visually impaired people to gain knowledge about the geographical information of the national territory. Although the number of users is very limited because few people know of the existence of these materials, it is planned to spread information about them through guided tours to increase interaction with these maps and the use of the documents.

National Geographic International Map Collection and Atlases Collection

The Map Library possess 11 atlases of Mexico, including atlases of roads and streets, geographic, agricultural and one climatological, from 1926, among others. In reference to world atlases, there are 22 from various places, such as the United States, Brazil, and Cuba, and some universal ones that cover the 20th century. The National Geographic Collection, with its 69 maps, stands out because of the ones from the regions of the United States, North America, and Latin America. In addition, there is a map of China from 1945, made of a fabric support in good preserved condition, and which stands out from the rest of the maps that are made only of paper, such as the documents from the 1960s and 1970s from Europe, Africa, Asia, and Antarctica.

THE MAP LIBRARY TOWARDS THE FUTURE

The Map Library has a commitment of guaranteeing access to high-quality documentation; thus, the digitization of the most consulted documents has become a necessity. In order to meet this important requirement, the MJAV is working on digitizing some of its most valuable and consulted collections, among which are some of the ones mentioned above: the cartographies and municipalities of the state of Puebla, as well as the national one.

The digitization of documents will benefit many people who are familiar with electronic devices. Nonetheless, a good part of the population still does not know how to use them and, therefore, will require a paper or plastic copy to access the information. It is planned that for the occasions in which this case occurs, there will be a collection of facsimiles of such documents, which would allow the consultation and use of information without the need to manipulate the original cartography. The services of the Map Library seek to respond to the call from the United Nations contained in the 2030 Agenda for Sustainable Development. Within objective 16, it recognizes the need to promote just, peaceful, and inclusive societies by guaranteeing public access to information and protection for the fundamental freedoms (Tawfik, 2021).

The MJAV has an updated inventory of each of its collections. Soon, one of its challenges will be the creation of a material catalog for its subsequent digitization. By doing this, it can take further steps in the development of the cartographic preservation program, which allows the existing collection to be made available to the community.

FINAL CONSIDERATIONS

The MJAV constitutes a site of enormous importance in teaching and research with a spatial focus, having a strong impact on Environmental Sciences, History, Anthropology, Architecture, Topography, among others. The documents from these collections have helped the development of countless thesis projects, both from undergraduate and postgraduate students, as well as research by people outside the institution. The main challenge that the Map Library faces is the preservation of its documents for the use and benefit of future generations. There is undoubtedly a lot of work to be done to achieve this; however, the institution and its professionals have the purpose of including the needed mechanisms to adapt the management of the Map Library to new trends and challenges that arise globally for the preservation of cultural and historical heritage.

REFERENCES

Benner, J. & Slayton, E. (2020). Supporting Geography and GIS Education. Libraries Now and into the Future. *Journal of Map and Geography Libraries*, 16(3), 225-228. doi: <https://doi.org/10.1080/15420353.2021.1965404>

Craib, R. B. (2013). *México cartográfico. Una historia de límites fijos y paisajes fugitivos*. Instituto de Investigaciones Históricas-Instituto de Geografía-Centro de Investigaciones sobre América-Universidad Nacional Autónoma de México. www.historicas.unam.mx/publicaciones/publicadigital/libros/608/mexico_cartografico.html

Galera, M. (1991). *La cartografia de la Península Ibèrica i la seva extensió al continent americà*. Generalitat de Catalunya. <http://biblioteca.icc.cat/pdfctc/cartpeniber.pdf>

Instituto Nacional de Estadística y Geografía. (2005). *Guía para la interpretación de cartografía. Fotografía aérea*. INEGI. https://www.inegi.org.mx/temas/imagenes/fotoaerea/areahistorica/doc/guia_interpCarto.pdf

Ruíz-Córdova, H. (1998). Mapoteca "Jorge A. Vivó", la mejor de la región. *Gaceta UAP*, 6.

Tawfik, J. (September 27th, 2021). *Promoviendo el acceso universal a la información dentro de la Agenda 2030 para el Desarrollo Sostenible*. Organización de las Naciones Unidas. <https://www.un.org/es/cr%C3%B3nica-onu/promoviendo-el-acceso-universal-la-informaci%C3%B3n-dentro-de-la-agenda-2030-para-el>

ABOUT THE AUTHORS**Yaselda Chavarin Pineda**

Benemérita Universidad Autónoma de Puebla (BUAP), Mexico

yaselda.chavarinp@correo.buap.mx

ORCID: <https://orcid.org/0000-0003-4524-0115>

Responsible for the management of the preservation activities of the cartographic documents of the Jorge A. Vivó Map Library and the Cartographic Laboratory of the BUAP since 2021. Doctor in Environmental Sciences, collaborator and teacher of the Biotechnology and Environmental Engineering careers and the Postgraduate Program in Environmental Sciences from the BUAP. Among her publications are articles about soil quality in protected natural areas and water and soil contamination. In addition, she has taught workshops on geographic information systems and their application to environmental studies.

Miguel Ángel Valera Pérez

Benemérita Universidad Autónoma de Puebla (BUAP), Mexico

miguel.valera@correo.buap.mx

ORCID: <https://orcid.org/0000-0002-2093-8122>

Doctor in Environmental Sciences, currently a Full-Time Research Professor, assigned to the Agricultural Sciences Research Center of the Institute of Sciences of the BUAP, developing lines of research in Geochemistry, Geomatic, and Environmental Prospective. He has an active collaboration with the Jorge A Vivó Map Library, the Postgraduate program in Environmental Sciences in the Area of Natural Resources, and the degree in Environmental Engineering. Investigator of the National Researcher Level System 1 (SNI).

PLECA. Detail of the general topographic chart of the surroundings of Puebla, Comisión Geográfico-Exploradora, 1884 (Photograph: Yaselda Chavarin Pineda, 2023; courtesy: Mapoteca Jorge A. Vivó, 2023).

Maria Guadalupe Tenorio Arvide

Benemérita Universidad Autónoma de Puebla (BUAP), Mexico

tenorio.arvide@correo.buap.mx

ORCID: <https://orcid.org/0000-0001-6125-4782>

Doctor in Environmental Sciences, currently Full-Time Research Professor. She is part of the Agricultural Sciences Research Center of the Institute of Sciences of the BUAP, developing lines of research in Geochemistry, Geomatic, and Environmental Prospective. She has an active collaboration with the Cartographic Laboratory of the Jorge A. Vivó Map Library and the Postgraduate Program in Environmental Sciences in the Area of Natural Resources.