

The American Geographical Society's Bowman Expeditions seek to improve geographic understanding at home and abroad: Spotlight on *México Indígena*

Since 1851 the American Geographical Society (AGS) has been recognized worldwide as a pioneer in geographical research and education. Our mission is to link the business, professional, and scholarly worlds in the creation and application of geographical knowledge, methods, and technology to address economic, social, and environmental issues. To this end, AGS and collaborating universities send teams of geographers to foreign countries to build a comprehensive multi-scale geographic information system (GIS) for each region, collect open-source GIS data, conduct participatory GIS, build lasting relationships among American and foreign scholars and institutions, conduct geographic research on issues of national interest to the United States and host countries, train a new cadre of regional experts, disseminate GIS data freely to the public here and abroad, and publish results in scholarly journals and popular media.

Our purpose is to improve U. S. understanding of foreign lands and peoples and, thereby, to reduce international misunderstandings, provide a knowledge foundation for peaceful resolution of conflicts, and improve humanitarian assistance in case of natural disasters, technological accidents, terrorist acts, and wars. Each project is called a Bowman Expedition in honor of former AGS Director Isaiah Bowman, one of the greatest scholar-statesmen of the 20th Century, who served as geographer and close advisor to Presidents Woodrow Wilson and Franklin D. Roosevelt, served as chief advisor to the American Delegation at the Paris Peace Conference of 1919, and played a key role in establishing the United Nations.

"México Indígena" was the first Bowman Expedition and is the prototype for all subsequent expeditions. From 2005 through 2008, we worked in two indigenous regions of Mexico, studying the effects of changes brought on by Mexico's massive new land tenure program. We put geographic tools in the hands of the communities to help them use the power of GIS and maps to support their property claims and cultural rights, educate their youth, and plan conservation and community development strategies.

México Indígena is an academic, transparent investigation led by Associate Professor Peter H. Herlihy of the University of Kansas (KU) and conducted entirely by university faculty and students with the knowledge, consent, and enthusiastic participation of indigenous authorities and local investigators chosen by their communities to work directly with the research team. A key role of the AGS is to ensure that the researchers maintain their academic freedom and independence.

AGS President and KU Professor Jerome E. Dobson conceived the Bowman Expedition program in the belief that "geographic knowledge is essential to maintain peace, resolve conflicts, and provide humanitarian assistance around the world" – a topic we discuss in the *Geographical Review* (Volume 93, Issue 3, July 2008). The goal is worldwide coverage (see <http://www.amergeog.org/bowman-expeditions.htm>). To date, expeditions have been sent to Mexico, the Antilles Region, Colombia, Jordan, and Kazakhstan.

The AGS Bowman Expedition program operates according to a strict set of ethical guidelines for foreign field research posted on the *México Indígena* website

(http://web.ku.edu/~mexind/ethics_statement_prototype.htm). The program has never requested nor has it received any funding from the controversial Human Terrain System (HTS) program, whose design differs in crucial ways from our posted guidelines. The *México Indígena* research project was approved by the Institutional Review Board at the University of Kansas.

Research topics are chosen by each expedition leader, and results are shared with all of the participants and the general public. The *México Indígena* expedition represents collaboration between the AGS, KU, Carleton University (Canada), and the Autonomous University of San Luis Potosí (Mexico). The project has had two objectives: (1) as the first expedition, to develop a prototype for the Bowman Expeditions for the AGS, and (2) to develop a geographic, multiscale analysis of the new property regime in Mexico, in particular the *Programa de Certificación de Derechos Ejidales y Titulación de Solares* (Program for the Certification of Ejido Rights and Titling of House Plots, PROCEDE) and its influence in indigenous communities. For the analysis we combined public information at various levels or geographic scales to understand the impacts of land certification in the rural sector. The results show that while privatization can bring benefits to some sectors of Mexican society, they also threaten indigenous lifeways through the introduction of individualistic and capitalistic practices. Land certification changes the historic guarantees of the inalienability of *ejido* and communal property and puts at risk the patrimony of rural families. It is hoped that the results will have a positive impact on understanding and disseminating the problems of the new neoliberal reforms on indigenous peoples in the country.

We use participatory research mapping (PRM), a methodology that we initially developed in Central America to provide technical training (and global positioning system, or GPS receivers) to local people who participate directly in the research. Together, we produce standardized maps for the indigenous communities that they use to promote their culture and traditions, protect their territorial rights, and plan their own projects. These maps combine, for the first time, the government cartography of the National Institute of Statistics, Geography and Informatics (*Instituto Nacional de Estadística, Geografía e Informática*, INEGI) and cadastral information of the National Agrarian Registry (*Registro Agrario Nacional*, RAN) with local community knowledge.

Financing for the AGS Bowman Expeditions can come from any source, public or private. When Dobson first sought funding for the program, he found a champion in the Foreign Military Studies Office (FMSO) at Ft. Leavenworth, Kansas. Subsequently, FMSO has financed the expedition to Mexico, as well as others to Colombia, the Antilles and Jordan, through the Radiance Corporation that administers the contracts between FMSO, AGS, and the universities. Support for the first stage of this project also came as a research grant from the sectorial fund of the Consejo Nacional de Ciencia y Tecnología (*CONACYT*) and the Secretary of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT) through the UASLP Coordinación de Ciencias Sociales y Humanidades, as well as from the U.S./México Fulbright García Robles program, for financing the participation of professors and students in the participatory mapping during 2005-06. Additional support came from the universities. All sources have been publicized on our web page from the beginning and announced repeatedly in presentations and publications.

The PRM methodology implemented in this project was approved by local assemblies and authorities in each of the eleven communities in which research was undertaken. Participation in the research was, of course, voluntary and not imposed. Local populations were involved and informed from the initial research design to the final development and publication of findings. The maps and other information generated have been submitted to the communities in digital and paper formats. For the first time, the maps document community boundaries together with topographic data and geographic and cultural information provided by the communities themselves. These maps combine the information needed for improved management of their lands and natural resources and are valuable for future generations as they document the knowledge of elders of places and sites of historical and cultural importance.

In keeping with the policies of the Bowman Expeditions, the final results are available to the public through the *México Indígena* web site (<http://web.ku.edu/~mexind/index.htm>), and in publications and student theses. The original database is safeguarded and housed at the two universities (KU and UASLP). While the final results are publicly available, no personal information is released to anyone outside of the research team. The idea of sharing the final results with the general public was discussed and approved by the communities, and their published maps now are available on the project web site – now even used by community members themselves and soon available in Spanish.

We hope the maps and data will continue to be used as a tool by the local communities in their efforts to maintain control, protect, and manage their ancestral lands. The Zapotec community of San Miguel Tiltepec in the Sierra Juárez of Oaxaca, for example, is using their new standard map in dialogue with government officials to correct an error in the delimitation of their boundary, and to locate their environmental services area. This community held an assembly of *comuneros* (the maximum authority of the community) on December 13, 2008 for the presentation and approval of the final maps. They listened to an opposing argument by an activist from outside the municipality, and then formally approved the maps and their inclusion on the project's web site (http://web.ku.edu/~mexind/oaxaca_community_maps.htm); and they implored us to continue helping the community with future projects. We seek no higher endorsement of our work or the AGS Bowman program.