

The atlas includes a Spanish language version of ArcView 1.0 which allows any user simple access. However, users with ArcView 2.0 or higher can directly import the CD-ROM data. This reviewer easily perused the atlas using ArcView 2.1 which offers significant improvements in efficiency over the included 1.0 version.

The principal limitation of this atlas is one of scale. Data are derived from sources at 1:500,000 or 1:1,000,000 scales and in many cases have been generalized even further during digitization. Users are limited to rather coarse portrayals of data at either a national or provincial level. Therefore one cannot examine such critical relationships as soils and land use except in a highly limited and rudimentary fashion.

The atlas is also not without some data problems. For example, in some cases where multiple images of certain soils are indicated in the index and text only a single image can be called up under various headings.

On the whole, this atlas offers a comprehensive overview of the distribution of soils in Argentina. The inclusion of both soils and a wide variety of other data, and the relative ease with which these data can be combined increase the utility of the atlas as a research and teaching tool. This atlas should be of interest to anyone with an interest in the influence of important soil forming factors on the spatial variation of soil development or the influence of soils on human spatial patterns. The atlas should also be of interest to scholars and students of Argentina and Latin America in general. □

ATLAS/SOFTWARE REVIEW

Atlas Estadístico Republica Argentina. Instituto Nacional De Estadística Y Censos. Buenos Aires: Aeroterra S.A., 1995. 300 pp., 141 maps, \$250 (both the book and CD-ROM). The book can only be purchased with the CD-ROM, but the CD-ROM can be purchased separately (\$200). Atlas can be purchased from WBA Trading Limited, Inc., P.O. Box 2501, Kensington, MD 20981-2501, fax (301) 984-9323, email (wbrooner@cais.com)

System Requirements: PC 386 or higher, Windows 3.0 or 3.11, 4MB RAM (8MB recommended), 12MB disk space to install software (additional 250MB disk space for database if desired, or may be accessed from CD-ROM), color monitor, CD-ROM drive. The CD ROM includes Arcview 1.0 (in Spanish) to allow simple user access; users with ArcView 2.0 or higher can directly import the CD-ROM data.

Reviewed by
Robert South
Department of Geography
University of Cincinnati

The *Statistical Atlas of Argentina* is a compendium of data presented in a colorful series of thematically arranged maps. The Atlas is organized in three parts: (1) an introductory series of maps devoted to national characteristics, (2) a more detailed presentation of demographic and social indices, and (3) economic data. All of the maps in the Atlas (141 maps) are national outline maps printed page size (approximately 8 1/2" X 12"), and with the exception of the introductory series, are accompanied by a preceding page of explanatory text.

The introductory section of the *Statistical Atlas of Argentina* is an

overview of national characteristics. There are eleven maps in this section, and appropriately the first map is a political map of Argentina by province. This is followed by several physical maps: morphology, vegetation, climate, mean temperature, and major river systems. The later part of this introductory section is devoted to transportation-networks: airports, the railroad system, pipelines, and major highways.

Part Two of the Atlas presents a series of maps (62) on demographic and social statistics. This section is introduced by several pages of text that primarily discusses population growth and historic trends including immigration. National census population data 1895-1991 are presented in a table as well as a graph depicting population growth by region. Most of the maps provide a detailed spatial presentation of demographic data and social indices. Each map is accompanied by a preceding page of text which highlights and summarizes the mapped data. There are eleven thematic sections in this part of the Atlas. The first set of maps is devoted to a variety of population themes (14 maps) as exemplified by population density, percent urban population, and birth & death rates. This set is followed in order by thematic maps on households (percent households headed by women, for example), education, health, employment, housing (percent housing connected to public water supply), social issues (percent population sixty years and older receiving pensions), leisure activities (density of video stores and libraries by province), and tourism-principal tourist destinations.

The third and largest section of the Atlas consists of 68 maps devoted to economic topics. The section is prefaced with several pages of statistical tables and text on national economic indices pertaining

to gross internal product (PBI), public sector expenditures, and imports-exports. The first set of thematic maps consists of mapped agricultural data and comprises the most comprehensive series of maps in the Atlas devoted to one topic (30 maps). With few exceptions most of the agricultural maps are choropleth maps with superimposed proportional circles which accentuates spatial patterns. This series is introduced with several maps on the agricultural sector—number of operating farms, total acreage planted, total pasture land—followed with maps of specific agricultural products—wheat, corn, sunflowers, cattle as well as other agriculture topics (number of tractors, for example).

Following agriculture are maps on mineral production and industry. Argentina is generally considered one of the “newly” industrialized nations and the importance of this theme is reflected in the numbers of maps (22 maps on industry). Mineral production includes maps on metal and nonmetal production by value, and semiprecious stones. Maps on the secondary sector include oil and gas production and reserves, manufacturing and manufactured products (wood, paper, publishing,). The remaining maps in this series comprise an eclectic group of economic themes: energy, commerce and services, communications, public finance, and exports by province (in percent).

The *Statistical Atlas of Argentina* provides an overview of considerable statistical data mapped at a national scale. Particularly useful as a general reference is the introductory series: political, physical, and transportation maps. The Atlas is well organized by subject area and related themes are color referenced. With the exception of the introductory series nearly all the maps are choropleth maps, and the selection of color to denote spatial intensity of activity in all

the maps is quite pleasing.

Detail in a map depends upon scale, however, and for many of the thematic maps in the Atlas this presents a problem. All of the maps use the same outline of Argentina, but much of the data is mapped by province as opposed to more detailed administrative or geographic units (departments), undoubtedly a result of data availability. Of the 141 maps in the Atlas, ninety-two (62 percent) are national maps by province, but only the most generalized information can be gleaned from mapped data at this scale. Most of the maps at a more detailed unit scale are on two topics: population (10 maps) and agriculture (23 maps). Thus, this series presents not only the most information, but is also the most comprehensive in terms of number of maps devoted to one topic. Particularly noteworthy are maps on population density by department with a detailed inset of the federal capitol (Buenos Aires, p. 23), and a series of colorful crop maps: wheat production on the Pampas and soybeans along the Parana (pp. 173-177).

Additional information is provided on the agricultural maps by the interesting use of proportional circles and dots superimposed upon the choropleth pattern. For example, a choropleth map of sheep production depicts average number of herds for sheep by department, and superimposed on each department is a proportional circle depicting number of sheep (p. 187). It would be helpful, however, if the Atlas contained an index map of departments by name. It should be noted that all maps have the primary source of data noted, thus for any serious researcher, the search for more detailed information has been greatly facilitated.

The *Statistical Atlas of Argentina* provides a wealth of geographic information on Argentina. The Atlas comprises a particularly useful

set of maps on general features followed by 130 thematic maps grouped into nineteen topical areas. This Atlas contains maps on everything from literacy rates to sunflowers. While detail may be lacking for many subject areas, the breadth of mapped information is impressive. Many thematic maps, however, included were probably selected because of data availability rather than relevancy of the subject. Nevertheless, the Atlas will be a useful reference for a diverse readership seeking information on a variety of topics. The highlight of this statistical Atlas is the series of maps on Argentine agriculture, impressive not only for the breadth of coverage but also scale of presentation.

Editor's Note: William (Bill) Brooner, of WBA Trading Limited, requested that additional information about the *Atlas Estadístico República Argentina* be provided for readers interested in the CD. The following is the excerpt that Mr. Brooner provided:

The *Atlas Estadístico República Argentina* is the first publication by the Instituto Nacional de Estadística y Censos (INDEC) which presents their statistical database with its corresponding geographic reference for each province and Department of Argentina.

The Atlas Estadístico includes a printed publication (reviewed by Professor South), digital data on the CD-ROM, and ArcView 1.0 which permits use of the database to analyze and generate additional regional thematic maps. The CD-ROM contains not only the geographic view presented in the publication, but also all of the cartographic and tabular data necessary to generate new maps according to user-defined criteria through ArcView 1.0 (included on the CD-ROM) or any upgraded versions of ArcView. It also contains a data manager for exporting information

and analyzing tabular statistical data.

The CD-ROM contains three graphical interfaces which facilitate use of the data base: display maps at departmental, provincial or national levels; consult tabular information in customized EXCEL tables; and view detailed commentaries on any of the displayed information.

Installation and operating instructions for the CD-ROM are presented in the Atlas. The CD-ROM contains all of the mapped data, at departmental and provincial levels which have been aggregated to national level in the published Atlas, along with the statistical (attribute) data in customized EXCEL tables. The CD-ROM also contains eight Landsat TM and NOAA satellite images which are not published in the printed edition.

With the digital data users can realize the flexibility and ease of creating new thematic maps, from department to national level through overlaying, combining, and analyzing any of the georeferenced social, demographic, economic, or other data contained in the Atlas Estadístico using ArcView. In addition, the georeferenced data in the Atlas Estadístico may be registered and combined with any of the georeferenced data contained on the Atlas de Suelos de la Republica Argentina.

Readers seeking more information on this CD can check ESRI's home page under products and solutions: http://www.esri.com/base/data/catalog/wba/wba_des.html □

SOFTWARE REVIEW

Geoscope

Version tested: 1.0, US\$150. From LMSOFT, 1280 Bernard St. W., Suite 401, Outremont, Québec H2V 1V9, Canada. Phone: (514) 948-1000. Fax: (514) 948-0511. e-mail: info@lmsoft.ca

*Reviewed by Mark D. Schwartz
Department of Geography
University of Wisconsin-Milwaukee*

System Requirements: The program will run on a PC with a 286 or better processor (640KB or more RAM for minimal operation, 1.4 MB RAM or more for optimal operation), VGA graphics adapter, 40 Mb hard disk (7-8.2 MB free), Microsoft-compatible mouse, and CD-ROM drive (ISO 9660). The evaluation was done on a Gateway Pentium 133-MHZ system, with 32 MB of memory, and a Matrox MGA Millennium video card with 2 MB WRAM.

System Considerations: It is important to underscore that this program was written for the DOS environment. I found it rather quaint to be back working with a program that was designed for DOS (i.e. works with less than 2MB RAM), yet also interesting to discover it also uses a CD-ROM drive. Although these minimum standards may allow it to run on older pc's, the DOS environment does impose considerable restrictions on access speed. For example, it took several minutes to load an image file from the regional data CD-ROM. Once I got used to these serious limitations, I found that the program had a lot to offer. Program flow control is almost exclusively *point and click*, and the graphics are surprisingly good for this constrained situation. Nevertheless, I do not recommend running this program under any version of Windows, but in DOS alone (a big problem if you have

already converted to Windows 95). I tried running it from an icon in Windows for Workgroups version 3.11 and kept getting general protection faults.

Software Support: The software and a 12 minute video which describes it can be obtained from: Maxine Leverett, Educational Technology Rep., Addison-Wesley Publishers, P.O. Box 580, 26 Prince Andrew Place, Don Mills, Ontario M3C 2T8, Canada. Phone: (416) 447-5101. Fax: (416) 447-7755. E-mail: maxinel@aw.com (There may be other sources for obtaining the software as well, but this reviewer is not aware of them.)

Geoscope defines itself as an *Interactive Global Change Encyclopedia*, since it allows the user interactive access to various images, text, tabular data, and diagrams. The program starts on the premise that you are arriving back at planet Earth from an extended stellar voyage, and dock with the orbiting Earth Observation Station. After entering the station, you take your seat in front of the *control panel* which allows you access and view data about Earth and analyze its features. This control panel concept is important, as the icon of a chair is displayed on most screens, allowing a quick return to the main menu. All of the data files used by the program are on one of the two included CD-ROMs (one for global data and the other for regional data). Data files must be moved from the CD-ROMs to the hard disk before they can be used. The usage of temporary hard disk space is termed the *Workspace* and is an integral component to data accessibility. The program offers a File Management Module to supervise this process.

Four other modules control the various program options:

1. *Explore*—This module facilitates viewing the impressive col-