

lems are all minor and will not distract the average reader nor diminish the books effectiveness.

In his introductory chapter Monmonier includes a statement of purpose: "This book's principal goal is to dispel this cartographic mystique and promote a more informed use of maps based upon an understanding and appreciation of their flexibility as a medium of communication." The author has more than succeeded in achieving this goal. *How To Lie With Maps*, despite its somewhat cynical tone, is a positive contribution to cartographic literature. It can be used as a review volume for cartography students, who tend to enjoy the relaxed, conversational style. The discussion of visual variables in Chapter Three, for example, is a clear and concise summary that provides a good review. This will hopefully encourage students to be aware of map blunders and to be more critical in their interpretation and evaluation of maps. It should also be a required volume for planners, business professionals, advertisers and others creating maps for the general public.

Monmonier is to be applauded once again for raising the cartographic consciousness of the general public. DeBlij's closing comments in the forward concisely sum up the book: "This fascinating volume deals with such serious issues in a lively, often humorous, always engrossing way. Read it, and the maps you view henceforth will have new meaning." □

ATLAS/SOFTWARE REVIEW

Atlas de Suelos de la Republica Argentina. Aeroterra S.A. Buenos Aires: Fundación ArgenINTA, Instituto Nacional de Tecnología Agropecuaria, 1995. Atlas can be purchased from WBA Trading Limited, Inc., P.O. Box 2501, Kensington, MD 20981-2501 (\$200).

System Requirements: CD-ROM drive, IBM DOS format, Windows 3.0, PC 386, 4 MB RAM.

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The CD-ROM Soils Atlas of Argentina is the result of a cooperative effort between a government office, the National Institute of Agricultural Technology (INTA), and a private company, Aeroterra S.A. This effort was led by Carlos Scoppa and Gustavo Macarini of INTA, and Carlos Viola and Omar Baleani of Aeroterra S.A. The CD-ROM atlas was produced by digitizing and updating information from the book form of the *Atlas de Suelos de la Republica Argentina* published by INTA in 1985. This task involved digitizing 1:500,000 and 1:1,000,000 scale soils data and adjusting the information to the Gauss Kruger Coordinate System, Zone 3. However, a tremendous amount of useful ancillary data was also been added to the CD-ROM atlas that significantly increases its utility.

The digitized soil maps have been subdivided by provinces and can be called up either at the national or provincial scale. The associated soils database contains 31 information fields. These fields include Soils Cartographic Units and the Orders, Suborders, and principle components of Groups which comprise these units. These categories correspond to the USDA Comprehensive Soil Taxonomic System which is now being adopted in Argentina and worldwide. A corresponding image file (in a separate subdirectory) contains photographs of both contextual landscapes and soil profiles for most of the soil orders. Other information fields include principle, secondary, and tertiary limitations of the soil units, and a productivity index of

the soil units. Information is also given for the drainage, hydric characteristics, fluvial erosivity, eolian erosivity, slope, salinity, sodicity, and superficial and subhorizon textures of the principle components of the soil groups.

In addition to the cartographic soil data and associated soil data base, the atlas contains a wealth of related data. Supplemental physical geographic information includes topography (300 meter contours), hydrography (principle water courses), subterranean groundwater basins, and various types of climatic data (Koeppen climate types, mean annual temperature, minimum and maximum average temperature, mean annual precipitation, average mean humidity, and average atmospheric pressure). These data are in both cartographic and tabular form. In a separate subdirectory national coverage of LANDSAT 5 imagery is included. LANDSAT TM images are also contained in this subdirectory, but only of selected areas. Additionally, the atlas incorporates cartographic and tabular data on political divisions, population centers, highways, railways, and airports.

Supporting textual information is supplied in a separate subdirectory. The text includes information on the creation and use of the atlas, data sources, and descriptive and analytical data on Argentine soils.

The principal utility of the atlas is its flexibility in data manipulation and combination. For example, one can easily overlay a national or provincial soil map with isoline data on topography, temperature, or precipitation to quickly portray the effects of these variables on the spatial variability of soil development. A user can then easily call up images of the landscapes and profiles associated with these soils and corresponding textual information.

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
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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