

ATLAS supports a wide range of input and output devices, and if a user needs a new one, Strategic Mapping will send one for free. Support of various spatial data formats is good once the user has purchased ATLAS Import/Export for \$495, however, a user must stick to a common spatial data format (DXF, Etak, TIGER, DIME, and comma or tab-delimited ASCII files), because Strategic Mapping uses a protected file format, for which the user does not have access. Support of attribute data formats is excellent, given that ATLAS interfaces with D-Base-compatible databases and the new versions import and export to spreadsheets.

Map design flexibility is quite good. Fine-screen shading patterns are available, as well as a wide range of point and line symbols. There is complete control of map elements, such as the map, inset, legends, lettering, and cartographic orientation.

A final criticism is that ATLAS does not always use standard cartographic terminology. What cartographers know as point-symbol mapping will be called "PIN" mapping. Idiomatic, or user-defined choropleth classification methods are called "discontinuous" and "continuous." This is a misnomer, since a requirement of choropleth maps is that data be discrete. "Quantiles," for the case of equal numbers of data values in a class, is odd terminology when there are not five classes. Other terminology could also be more standardized, like area or polygon instead of "region." This is not just a problem for ATLAS, though; consider that a line segment can be called a vector, arc, line, segment, string, chain, or one-cell.

References

Werner, R.J. and Young, J. 1991. A Checklist to Evaluate Mapping Software. *Journal of Geography*. 90 (3): 118-120.

interview

The following interview with Malcolm Swanston, of Swanston Publishing, the designers and producers of the State of the World Atlas was conducted in February of 1992 by Andrew J. Skinner of the University of Derby, UK. A review of the fourth edition of The State of the World Atlas appears in this issue of Cartographic Perspectives (pages 21-22).

MALCOLM SWANSTON AND THE STATE OF THE WORLD ATLAS: PUTTING DERBY ON THE MAP

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In 1981 Michael Kidron and Ronald Segal, in association with Pluto Press in London, published the *State of the World Atlas*, a political atlas that in its own words tried to be "truly international, not only in showing the world wide incidence of this or that condition or event, but in associating that incidence with an underlying structure." Editorially it was unusual in taking a political stance ("It is our contention that the destructive aspects of the state have come crucially to exceed the constructive ones"). Graphically it was dramatic, using saturated colors and bold symbols on a standardized projection (Winkels Tripel), mixed with cartograms and graphics.

Contemporary reviews were mixed. David Fairbairn in the *Journal of the British Cartographic Society* (1981) describes it as "a refreshing change from conventional atlases," but complains that "...cartographers were not chosen to meet the challenge of mapping

such diverse and intricate data. It is only by attempting important projects such as this that cartographers will be able to convince the public of their increasing usefulness in recording the changing world scene." Robin Kinross in the *Information Design Journal* (1982) praises the "vast amount of relevant information" but is more critical of the graphic presentation (although he describes the cartograms as "the most interesting and potentially effective graphic experiment...a simplification of the form of each state into an abstract rectilinear shape").

I have always been impressed by the look of the atlas, and colleagues who use it have very favorable opinions. It has been well received by the market, and it has been interesting to watch the publishers develop the theme into a number of companion atlases (also to see the number of imitations that have appeared on the scene).

It seemed to catch the cartographic world by surprise, not least because the design and production was done by a small and virtually unknown company with no cartographic 'track record.' The company was called Swanston and Associates, and was based in the British city of Derby (pronounced *Darby*), which has a strong printing industry but no traditional cartographic links.

In February of 1992 Malcolm Swanston agreed to talk to me about the origins of the *State of the World Atlas* and subsequent publications.

I first visited Swanston and Associates (now Swanston Publishing) in the early eighties when they occupied a number of small rooms in an old Georgian building in the center of Derby. It seemed remarkable to me at the time that such a notable publication had such humble beginnings. Now they are in more spacious accommodation half a mile away, and as

with so many similar establishments the drawing boards have been replaced by microcomputers.

Malcolm Swanston admits that setting up in the provinces gave him some pleasure. He trained at the Derby School of Art, and then went into advertising in Nottingham, London and Brighton before returning to Derby to work with the drawing office of Rolls Royce (Aero Engines). About 15 years ago he decided to set up his own business.

Swanston: *I had a deep interest in Geography and History as well as in Art and Design, so I wanted to try and find a way of combining all of those interests into one. The first thing I did was to talk to the publishing industry, the greatest consumer of illustrated and cartographic products as I understood at that time. I struck up a relationship with Pluto Press, and we undertook to design and produce the first State of the World Atlas. On top of that I made contact with other publishers and worked on a commission basis on their titles. By 1985 Swanston and Associates had grown to such an extent that I could consider forming my own publishing company. I had a series of titles that I had developed which I took to the Frankfurt Book Fair and the American Booksellers Convention and sold as packages.*

All of this work was in the field of Cartography and Information Graphics using the design capabilities in Derby. When Pluto Press came onto the market in 1988, he bought the titles originally produced by Swanston and Associates, and now owns the whole series.

I was particularly interested in who had originated the design concept of *State of the World Atlas*. Malcolm Swanston was quick to emphasize the cooperative nature of the venture.

Swanston: *The authors came up with fairly novel concepts, and then novel titles for expressing these concepts, which were passed to a*

designer in London and our team in Derby. I've always encouraged people to express their ideas and everyone in the Company was invited to criticize the map design. There were a lot of sparks flying.

Having studied the original *State of the World Atlas* again, I feel that two maps in particular are disappointing: 'The Longer Reach' compared newsprint consumption with telephone usage (a connection that I do not fully accept) and employed a visually disturbing hatch-symbol scheme. 'Fouling the Nest' depicted pollution using what appeared to be a crayoned shading that clashed with the design of the rest of the Atlas (Kinross describes this map as "a joy to encounter after laboring through most of the fifty-two previous spreads").

Both had the feeling of experiments that had not worked, and both were substantially revised in the second edition. I asked how far experimentation was seen as part of the design process, and Malcolm Swanston agreed that there was a little bit of this.

Swanston: *We were looking at things from a different perspective, and were willing to try out some novel ways of expressing and understanding them. In all new products there are some parts that do not work so well, but you have to let them go first then stand back and see if they work or not. At the same time you have to be aware of subjectivity—what works for some people does not work for others, so you have to try and take that on board as well. We also have a lot of feedback from the market—people write to us all of the time—and we have various bodies and individuals that advise us. We always look at these letters and documents and try to react to them.*

I was interested in whether the authors had envisaged a series of atlases from the beginning, or whether the success of the first had encouraged them to look at new ideas. Swanston felt that it was a bit of both. There was the

hope that there might be a series, but also some caution. When the *State of the World Atlas* did take off they felt that they wanted to take advantage of the success, and the established design concept was relatively easy to adapt to new titles such as *The War Atlas*.

One of the surprising (and possibly disturbing) things about the first edition of the *State of the World Atlas* was that cartographers were not involved in the production (although unlike Fairbairn I have doubts as to whether the cartographic establishment at that time would have been capable of anything as radical as this). Swanston had talked to cartographers, but was aware that in coming from a design background he wanted a different look to the one usually produced by cartographers.

Swanston: *Some of them were pro and some anti, but I was aware that we were upsetting a lot of people at the time. I'm gratified now that after several years the ones that were most upset now seem to be most for us.*

Was the success of the *State of the World Atlas* because of or despite of the lack of 'cartographic' involvement?

Swanston: *I think because my training was to bring a message to the public as quickly and as cleverly as possible—that's what graphic design is all about—I wanted to apply those same rules to a map. I think to a degree we were successful, but having worked with cartographers almost continuously since, I see that we did some naïve as well as some innovative things. What I've tried to do is 'iron out' the naïveté and increase the readability and sophistication of the series without losing the initial 'verve'.*

I put to him a view that has bothered me for some time—that Cartography needs the fresh ideas coming from graphic designers far more than Graphic Design needs the input from cartographers. The success of the Pluto Press series seemed to support this view.

Swanston: *I would have agreed with that at the time I was working on the first edition, but since then I have changed my views. There were some things I didn't appreciate then—use of different projections and scales that apply to mapping the surface of the planet and making it's story accessible and understandable, so I wouldn't now say that it is completely one-sided. After fifteen years in this game I've come to appreciate cartography more, and I wouldn't make the same mistakes. If you have to take sides I don't think either has got the story entirely right.*

The first project I was involved in was the Times Atlas of World History, and we are working on the fifth edition now (it is being converted to digital form). In revising it we are applying some fairly basic cartographic principles which we ignored as graphic designers. Of all the books I have worked on, that one deserves the most criticism, but because of the different scales and use of perspective it was always going to be open to attack. It was innovative in its day, sold a million copies worldwide and still sells well. People understand it and enjoy it, which is the point of what we are doing. I now want to improve it graphically and cartographically.

People like information books, and if they can access the information in a user-friendly way then they will keep buying them. Sales of the State of the World Atlas in the USA were 25,000 for the first publication, and have been creeping up by 2-3000 every year since. The initial print run for the new edition is 35,000, and we expect to reprint before the year is out.

Swanston envisages being involved in the same sort of work for the foreseeable future, and recent events in Eastern Europe and the USSR have proved how ephemeral the map can be. He takes this a point further...

Swanston: *In a sense political frontiers don't change very often, but governments change and populations flee across frontiers. The big changes*

like those of the former USSR always attract a lot of attention, but there is a lot of subliminal change as well and this is reflected in the Pluto Press series. We map change and different evaluations of the change to help the perception of what is happening in the World and how to deal with it.

Looking back at the Pluto Press series it is perhaps surprising that the 4th edition of the New State of the World Atlas is the first to use computer technology in its design and production. The two-dimensional look, use of a single map projection and heavy reliance on pictorial symbols give even the early editions a computer-produced appearance.

Swanston: *The first State of the World Atlas was produced manually—we drew the coastlines, copied them to film and cut pantone for color. From the second edition until now we have done linework only and provided the printer with color specifications. The 1991 edition is the first produced entirely by computer, and it's a natural. We have built a global database so that we can change colors at the touch of a key and delete, replace and move symbols. At the moment we are working on a reprint of the New State of the World Atlas for Germany, and we are adding the former republics of the USSR.*

While we talked I was sitting alongside the film (less the typography) for a Japanese version of New State of the World Atlas. I was shown a previous Japanese edition which was completed using a larger page format to accommodate the typography, to be added later in Japan. The first edition sold well, and they expect big things of the new edition as the Japanese "become more aware of the global situation than they were twenty years ago."

The system in use is Apple Macintosh based, and most of the work is done with Adobe Illustrator 3. Malcolm Swanston describes the software as having been 'tweaked' to their requirements,

but won't give any more details! Output is via a Linotronic 300 Imagesetter onto film or bromide.

How much time do they expect to take compiling and producing an Atlas (given that previous thematic atlases have contained information that is sometimes years out of date at the time of printing)?

Swanston: *It can vary, but we are aiming for a twelve month turnaround on all titles. At the moment it is about once every two years, although reprints will include some updating. We want to try and cut the time lag from data collection to interpretation and printing as much as possible, and I would like to be in a position where the New State of the World Atlas is seen as something like the Statesman's Yearbook in visual form. The computer system allows us to be more up to date. We can keep the map open to the last possible moment and include lots of things that otherwise we are not capable of doing.*

Swanston Publishing envisages staying with Apple Macintosh systems for the immediate future. They have invested about £100 000 in the system and expect to spend a further £20 000 this year introducing new software and installing new workstations. They also have a person working full-time on multimedia developments, with support from their agent in New York, and expect to be in the Compact Disc market within twelve to eighteen months.

Swanston: *What I would like to do is get the framework of the book out, and let the purchaser be involved themselves in annual updating. We also want to get into the educational market which is expected to grow rapidly in the UK over the next few years, and we want to look at the interactive aspect, allowing users to compare two aspects simultaneously on a base like the State of the World Atlas. We are entering this market with enthusiasm, but a certain amount of wariness.*

Alongside this the more con-

ventional work continues. Due to follow the latest edition of the *New State of the World Atlas* in the next two years are companion volumes on World Religions and World Health. A *State of the United States* is about to go into production with a projected publication date of 1994.

Swanston Publishing appears to have found its niche in the cartographic market. They now have control over their own work, design of the series of atlases has been tightened up and lots of new ideas are in the pipeline. Their move into computer based production would seem to have been late, but they now have full capability and are ready to move into the multimedia market if its predicted expansion happens.

The innovative style of the series has had an impact on cartographic design despite the reservations expressed at the time, and the success of the company has proved that a market exists for creative thematic cartography in atlas as well as newspaper publishing.

References

Kidron, Michael and Segal, Ronald. 1981. *The State of the World Atlas*. London: Pan Books.

Fairbairn, David. 1981. Review: "The State of the World Atlas." *The Cartographic Journal*, 18(2): 146-148.

Kinross, Robin. 1982. Review: "The State of the World Atlas." *International Design Journal*, 3.

Kidron, Michael and Smith, Dan. 1983. *The War Atlas*. London: Pan Books.

Kidron, Michael and Segal, Ronald. (forthcoming). *The New State of the World Atlas, Fourth Edition*.

announcements

Sixth Annual Geographic Information Systems Conference

The Department of Geography and Environmental Planning at Towson State University, along with over 10 professional organizations, are sponsoring the *Sixth Annual Geographic Information Systems Conference* (TSU/GIS '93) from Wednesday, March 24 through Saturday, March 27, 1993. The theme of TSU/GIS '93 is "GIS Applications for the 1990s." In addition to plenary and concurrent paper sessions, the conference will feature an exhibit area, job mart, pre-conference and post-conference workshops, and a meeting of the Maryland Geographic Information Systems Committee (MDGIS). For more information contact Dr. John M. Morgan, III, Department of Geography and Environmental Planning, Towson State University, Baltimore, Maryland 21204-7097, U.S.A., (410) 830-2964 (voice) and (410) 830-3482 (FAX).

The Power of Maps

Over 300 historic and contemporary maps dating from 1500 B.C. to the present will be on view at Cooper-Hewitt, National Museum of Design, Smithsonian Institution, 2 East 91st Street, New York, NY 10128, from October 6, 1992, through March 7, 1993.

The Power of Maps is the first exhibition to examine the significance of maps as instruments of communication, persuasion and authority. *The Power of Maps* demonstrates all maps—whether rare or familiar, old or new, Western or non-Western—are more than simply guides to help you find your way. Like advertisements and other forms of graphic design, maps express particular viewpoints in support of specific

interests. Depending on their function and purpose, all maps present information selectively, shaping our view of the world and our place in it. *The Power of Maps* presents a wide variety of maps from around the world, ranging from a 1500 B.C. clay tablet from Mesopotamia and a 19th-century Sioux map, to a 6-foot diameter rotating globe and a contemporary supercomputer map of the ozone hole over Antarctica. Highlights also include a 13th-century world map on vellum; a 1513 map documenting the voyages of Columbus to the New World; a 1701 chart of Earth's magnetic variations by Edmund Halley; a 1784 map from Captain Cook's voyage to the Pacific Ocean; a Native American star chart from the Pawnee tribe; a contemporary topographical map of the Great Sphinx in Egypt; and a global "hotspots" map used to develop ecosystem conservation strategies.

The Power of Maps also encourages audience participation with interactive computer stations set up for visitors to work with state-of-the-art geographic information systems software. It is accompanied by an educational program including lectures, seminars, workshops and tours, as well as programs designed for schools, teachers and families. A publication by co-curator Denis Wood, *The Power of Maps*, has been published by The Guilford Press to coincide with the opening of the exhibition. The illustrated, 256-page, softcover book sells for \$15.95. For further information on the book, contact Rahel Crowley at The Guilford Press (212) 431-9800. For more information on the exhibit contact: Philippa Polskin/Betsy Ennis, Arts & Communications Counselors, (212) 593-6488/(212) 715-1540. Gwen Loeffler, Public Affairs, Cooper-Hewitt, National Museum of Design, Smithsonian Institution, (212) 860-6894.