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The International Journal for the History of Cartography

IMAGO MUNDI is the only international scholarly journal solely concerned with the study of early maps in all its aspects. The illustrated articles, in English with trilingual abstracts, deal with all facets of the history and interpretation of maps and mapmaking in any part of the world, at any period.

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• Articles (about ten per issue)
• Book reviews; and notices of books received
• Bibliography (with indexes of authors, places and subjects)
• Chronicle of new maps, exhibitions, publications, acquisitions
• Reports, notices and obituaries
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The first trip was to the NARA 2—the National Archives location in College Park, Maryland for a tour and presentation. Many do not realize that for six years the National Archives has been able to enjoy a very spacious and state-of-the-art facility, and that researchers have near unlimited access to the holdings; all attendees, especially those from outside the US, were very impressed with the breadth of the holdings. The second tour was to the Jefferson exhibit and other areas of great interest at the Jefferson Building of the Library of Congress. The meeting formally opened with a reception and tour at the Geography and Map Division in the Madison Building; several exceptional treasures had been brought from the vault for display. Nearly fourteen total hours of presentations were heard from US and international scholars and researchers, among them four Washington Map Society members. The 123 conference registrants had much to choose from: the Vinland Map, globes, exploration of many places, the origins of Columbus, and much more. The meeting ended with a full-day trip to Charlottesville. Next year’s meeting will be in Denver.

MIAMI INTERNATIONAL MAP FAIR: FEBRUARY 2-4, 2001

The Eighth Annual Miami (Florida) International Map Fair, to be held February 2-4, 2001, is the only event of its kind in the Western Hemisphere. Dealers from around the world exhibit and sell antique maps. Scholarly presentations are held. Many friendships are made and renewed. While many of the attendees are serious map collectors, this event also builds awareness of antique maps and encourages new collectors. And, after all, it is Miami in February—an added reason to escape colder climates. For more detailed information and a registration kit, contact Map Fair Coordinator Marsha Kanner at (305) 375-1492 or by email at mapfair@historical-museum.org or see the home page at www.historical-museum.org

ONLINE MAP CATALOGS IN NORTH AMERICA AND EUROPE

David Allen of the State University of New York at Stony Brook has posted an interesting page of information about links to online map library catalogs in both North America and Europe. This is a good way to do the travelling and researching, but without travel costs. Try:
http://www.sunysb.edu/libmap/libcats.htm

NEW POSTING TO LOC ONLINE COLLECTIONS

The most recent addition to the American Memory online collections The American Revolution and Its Era: Maps and Charts of North America and the West Indies, 1750-1789 presents an important historical record of the mapping of North America and the Caribbean online. Advancements in mapmaking tools and the onset of the French and Indian War and, later, the American Revolution, created a flurry of activity in European and North American mapmaking and publishing. This online collection will include well over two thousand different maps and manuscripts, with easily as many or more unnumbered copies, many with distinct colorations and annotations. This collection can be found at the following URL: http://memory.loc.gov/ammem/umhtml/umhtml.html

Almost six hundred manuscript drawings, a large number of which are the original manuscript drawings of such famous mapmakers as John Montresor, Samuel Holland, Claude Joseph Sauthier, John Hills and William Gerard De Braham. They also include many maps from the personal collections of William Faden, Admiral Richard Howe and the comte de Rochambeau, as well as large groups of maps by three of the best eighteenth-century map publishers in London: Thomas Jefferys, William Faden and Joseph Frederick Wallet Des Barres. Historical cartographers can compare multiple editions, states, and impressions of several of the most important maps of the period, follow the development of a particular map from the manuscript sketch to the finished printed version and its foreign derivatives, and examine the cartographic styles and techniques of surveyors and mapmakers from six different

THE ATLASES OF A.J. JOHNSON

by Ira S. Laurie

BACKGROUND

Avin J. Johnson entered into the business of publishing atlases in 1860. Having previously been a book canvasser who sold maps and atlases for the well-known map and atlas publisher, J.H. Colton, Johnson was introduced to the profitability of atlases as a reference book. Whether he originally planned to start his book publishing business with atlases or not is unknown. It does appear that, when he came to New York City in 1857, he 'began to support Colton in the publishing of his atlases and maps. In 1859, the firm of Johnson & Browning published an edition of Colton's General Atlas and the next year Johnson's firm published the first edition of his own atlas, titled, Johnson's New Illustrated (Steel Plate) Family Atlas, With Descriptions Geographical, Statistical and Historical. The early editions of Family Atlas, as it is most commonly referred to, was comprised of maps developed by the Colton firm, and the title page announces that the publishers, Johnson & Browning, are "formerly (successors to J.H. Colton and Company)." This confused language might be taken to indicate that Johnson thought he had taken over the Colton firm, stating both that the new firm of Johnson and Browning was formerly known as J.H. Colton and Company, and that the firm of Johnson and Browning was successors to Colton. Whatever Johnson thought when the Family Atlas first appeared, and in spite of the fact that his atlases referred to him as successor to Colton through the 1865 edition, Colton did continue to publish his atlases. Rather than successor, Johnson became a competitor of the Colton firm, and the Family Atlas became a competitor to the atlases of both Colton and S. Augustus Mitchell, the other prominent atlas publisher of the day, as described in more detail by this author in another article.

JOHNSON'S

FAMILY ATLAS,

WITH DESCRIPTIONS

GEOPHRAICAL, STATISTICAL AND HISTORICAL

by Ira S. Laurie

NEW YORK

J. H. JOHNSON AND J. J. BROWNING


Title Page, late 1860 Atlas

EDITIONS

The Family Atlas was produced in editions dated every year from 1860 to 1887, with five known exceptions, 1871, 1875, 1876, 1878, and 1882. These for the most part were not true editions, but the years printed on the title pages can be more accurately described as production dates for an individual atlas. Rather than wait until a set of every year to start printing a new edition which includes all of the changes made over the last year, in Johnson's atlases they began using a newly updated or designed map as soon as it was available. More than likely, they started using the new map when they ran out of the old version. As a result, several atlases with the same date on the title page may have different states of the same maps de-
pending on the time of the year the atlas was assembled. This was especially true in the early half of the 1860’s, and less likely in the 1880’s. There were no changes at all between 1884 and 1887, the years when Johnson died and the company closed.

There were only eight times over the 27 years that the atlases were published in which all the maps changed at the same time; there were six other times when all but one to three maps changed (and these changed either one atlas before or later). For the most part the creation of a “pseudoedition” was related to changes in pagination due to added maps, changes in the name of Johnson’s company and the related publisher attributions on the title page and maps, and changes in whether the back side of the maps were printed plain or with gazetteer pages. These same items, along with geographical changes, map title changes, and other incidental changes, are also used in determining the various states of the individual maps. A discussion of the most prominent factors used in determining pseudo-editions of the atlases and map states follows.

Publisher Attribution Changes

While A.J. Johnson was the major publisher of the Family Atlas throughout its existence, the name of his company changed a number of times. Each atlas and each map within it included an attribution that identifies the name of the Johnson’s company at that time. This was one of the most consistent changes found in the maps, and in each atlas, every map included an attribution of the publisher, “Published by...,” identical to that on the title page of the atlas. While one might find an atlas in which the maps had two different versions of the border, on each map the attribution of the publisher were always the same.

From 1860 to early 1863, the name of the company that published the atlases was Johnson & Browning. Ross C. Browning was an agent who worked in Johnson’s book canvassing business in Cleveland prior to moving to New York. The one of the first atlases published gave the city of publication as Richmond, where Browning appears to have lived in 1860. Another atlas with identical maps was published with New York as the city of publication. Later 1860 atlases and those from all years following were published in New York. Only two atlases have been identified so far with the Richmond designation, indicating that it was a short lived practice and a testimony to Browning’s role, most likely as a financier and sales representative, in the publishing of the atlases.

In 1863, Johnson and Ward became the name of the company publishing the Family Atlas. Benjamin P. Ward, like Browning had been an agent for Johnson, who appears to have been brought in...
RISTOW PRIZE 2000

The Walter W. Ristow Prize in the History of Cartography and Map Librarianship seeks to recognize achievement in the history of cartography and map librarianship and is offered annually by the Washington Map Society. In 2000, for the first time in the seven-year history of the Prize, the judges felt that the no entry was worthy of a prize. No award was given in 2000.

IMCOS ANNUAL SYMPOSIUM IN ICELAND

Several WMS members were among the 93 persons attending the International Map Collectors’ Society Annual international Symposium, this year held in Iceland from September 15-17. Some arrived early (or stayed later) and took advantage of extra days to tour the rugged land of ice and fire. Ice because of the several glaciers that cover a good bit of the island. Fire because of the periodic volcanic eruptions and the intense sub-surface activity evidenced by geysers and subterranean hot springs. The country’s inhabitants get the majority of their heating provided by hot water that is tapped and piped to the populated areas. Pipes also are laid under sidewalks and roadbeds to keep them snow- and ice-free in the winter; on trips into the countryside you can see the massive system of piping that is visible above ground. Everywhere too are outdoor swimming pools used year-round – the hot water is natural and even has to be cooled before bathing is possible. First populated by Vikings in the year 874, it was from Iceland that some departed in the year 1000 and became the first Europeans to set foot in North America. Sixty percent of the nation’s GDP comes from the fishing industry, and the coastline has numerous fishing villages. The fish was indeed fresh and prepared well. This is perhaps the youngest country in the world, for the volcanic terrain was in some areas still molten lava as recently as 500 years ago. We had a chance to visit one of the spots where the North American and European tectonic plates come together. The symposium contained a number of presentations on the mapping of Iceland, and there were several major map exhibitions focusing on early to recent mapping of the island. The President of Iceland came during the conference to open the exhibit at the National and University Library where many of the events took place. The Mayor of Reykjavik hosted us at Hofdi House, site of the Reykjavik conference in 1986. Reykjavik, the capital and site of the symposium, is not large, but two-thirds of the country’s population of 275,000 lives there. A nice way to close the visit was a 6-hour bus trip (which ended at the airport in time for flights to the US) to the southwest of the country; the trip included two hours at the Blue Lagoon spa, where we had a chance to soak in the thermal waters while brisk 45 mph/50 mph F winds whooshed around the volcanic crater. Next year’s symposium will be held in Chicago and Milwaukee.

Ortelius, 1590

as a financial backer, when Browning left. Even while receiving attribution as a joint publisher with Johnson, Ward never really was part of the company, and remained out in the field as a major agent in charge of selling the atlases by subscription in the west (Cleveland and Chicago). The company remained Johnson and Ward until 1866, after which Johnson bought Ward’s interest in the business.

Johnson ran the company himself from 1866 on, and starting in early 1866 the atlases and maps simply attributed as “Published by A.J. Johnson.” This was about the same time that Johnson’s relationship with J.H. Colton changed. Prior to this time, the publisher attribution on the atlas title page had recognized the role of Colton in the development of the maps in the atlases, and both the Johnson and Browning and Johnson and Ward companies were both noted as being “successors to J.H. Colton.” As Johnson became the sole publisher of the Family Atlas, he no longer gave Colton credit for a role in the development of the maps, which was appropriate because by that time most of the original Colton-derived maps had been replaced by maps drawn by Johnson’s company.

The company remained A.J. Johnson, Publisher, until 1879. In that year, Johnson’s son was brought into the business and the attribution on the atlas title pages and the maps became “A.J. Johnson and Son.” This lasted only a short time, and by 1881, the name had changed to “A.J. Johnson and Co.” even though his son remained with the business and ran it after his father’s death. The Johnson firm published under this name until it closed in 1887.

The publisher attribution is one of major items that change on the maps that aid in state identification. Although the name of the company changed five times, there are six versions of the publisher attribution. This occurs because there were two versions of the Johnson and Ward attribution. Starting in 1860, both the Johnson and Browning and the Johnson and Ward attributions were printed in plain block letters. Published by Johnson & Browning and Published by Johnson & Ward. A fancier font for the Johnson and Ward publisher attribution, Published by Johnson & Ward, began being used in late 1862. By early 1863, all but three of the maps had made this change, and those three started using the fancier font in 1864. This same double-faced type was used for the publisher attribution through 1887. The following chart demonstrates the history of publisher attributions throughout the publishing life of the Family Atlas.

<table>
<thead>
<tr>
<th>Publisher Attribution</th>
<th>Font</th>
<th>Years Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johnson &amp; Browning</td>
<td>Plain Block Letters</td>
<td>1860-1862</td>
</tr>
<tr>
<td>Johnson &amp; Ward</td>
<td>Plain Block Letters</td>
<td>1862-1863</td>
</tr>
<tr>
<td>Johnson &amp; Ward</td>
<td>Double Face Letters</td>
<td>1866-1877</td>
</tr>
<tr>
<td>A.J. Johnson</td>
<td>Double Face Letters</td>
<td>1879-1880</td>
</tr>
<tr>
<td>A.J. Johnson and Co.</td>
<td>Double Face Letters</td>
<td>1881-1887</td>
</tr>
</tbody>
</table>

BORDERS

Perhaps the most well known changes in the maps of the A.J. Johnson atlases are the map borders. Over the years the atlases were published, there were four different borders that appear on the maps. The borders were used in various years and can be used to help identify the various states of the individual maps. The first border was used starting in 1860. The second border first appeared in 1863. During that year 40 percent of the maps began to use the second border; the other 60 percent adopted the second border during 1864. The second border was used through 1869. All of the maps began to use the third border in 1870. The fourth border is a variant of the third border; but distinctly different. It was used on all maps from some time in 1883 through 1887, however, 12 maps...
Examples of Borders

also used the fourth border for one year extra prior year, 1880.

MAP TITLE CHANGES

Several of the maps have a change in title one or more times, while the map itself remained basically the same. The reason this was done was to include new states of the union as they were established. This occurred most often with the maps that included several central or western states, but it also happened in the east when West Virginia was established in 1863. The following chart details the title changes and new states established for those maps in which title changes occurred on the same basic map.

PAGE NUMBERS AND REVERSE SIDES

The page numbers and contents of the reverse side are second most consistent items that define "editions" of the Family Atlas. Johnson and other atlas publishers of his era advertised the gazetteer part of their atlases with as much gusto as they did the maps. The title page of the early editions proudly announced that the atlas included "descriptions geographical, statistical, and historical, including the latest federal census, a geographical index and a chron-

<table>
<thead>
<tr>
<th>Original Title (date)</th>
<th>Name(s) Added</th>
<th>Year Added</th>
<th>Map State</th>
<th>Year Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nebraska &amp; Kansas (1860)</td>
<td>Dakota</td>
<td>1861</td>
<td>3</td>
<td>Dakota Territory 1861</td>
</tr>
<tr>
<td></td>
<td>Colorado</td>
<td>1861</td>
<td>3</td>
<td>Colorado Territory 1861</td>
</tr>
<tr>
<td></td>
<td>Montana</td>
<td>1864</td>
<td>9</td>
<td>Montana Territory 1864</td>
</tr>
<tr>
<td>Nebraska, Dakota, Idaho, &amp; Montana (1865)</td>
<td>Wyoming</td>
<td>1869</td>
<td>4</td>
<td>Wyoming Territory 1868</td>
</tr>
<tr>
<td>Washington &amp; Oregon (1860)</td>
<td>Idaho</td>
<td>1863</td>
<td>8</td>
<td>Idaho Territory 1863</td>
</tr>
<tr>
<td>California, Territories of New Mexico &amp; Utah (1860)</td>
<td>Arizona</td>
<td>1863</td>
<td>8</td>
<td>Arizona Territory 1863</td>
</tr>
<tr>
<td></td>
<td>Colorado</td>
<td>1863</td>
<td>8</td>
<td>Colorado Territory 1861</td>
</tr>
<tr>
<td></td>
<td>Nevada</td>
<td>1863</td>
<td>8</td>
<td>Nevada Territory 1861</td>
</tr>
</tbody>
</table>
logical history of the Civil War in America, and the existing religious denominations in the world. Text by Richard Swainson Fisher. (1866 edition) It is interesting to note that Fisher also wrote the "Descriptions" for Colton’s atlases of that era. When the atlases were first published they included a “Descriptions” sections on Physical Geography, and several sections on Descriptive Geography of various areas of the world, and a Geographical Index; an Appendix to the Geographical Index was added in 1864. These were updated on occasion, and after 1867 were no longer attributed to atlas. There were several sections that regularly appeared on the reverse side of the United States maps: a Geographical Index, the Appendix to the Geographical Index, History, Physical Geography, Animals. Two other sections show up for two or three years: History of Mexico and History of West India. Other sections appear on the reverse of the maps of other areas of the world. The following chart demonstrates the contents of the reverse sides of the United States maps used from 1863-1872.

<table>
<thead>
<tr>
<th>Reverse Side Sections</th>
<th>Years Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Geography</td>
<td>1866-1872</td>
</tr>
<tr>
<td>Natural History: Interesting and Curious Animals</td>
<td>1870-1872</td>
</tr>
<tr>
<td>Geographical Index</td>
<td>1863-1872</td>
</tr>
<tr>
<td>Appendix to Geographical Index</td>
<td>1864-1872</td>
</tr>
<tr>
<td>Geography of North America: Historical and Statistical View of North America</td>
<td>1863-1870</td>
</tr>
<tr>
<td>Historical and Statistical View of the United States</td>
<td>1863-1870</td>
</tr>
<tr>
<td>Historical and Statistical View of Mexico and Central America</td>
<td>1865-1868</td>
</tr>
<tr>
<td>Historical and Statistical View of the West Indian Islands or Columbian Archipelago</td>
<td>1865-1868</td>
</tr>
</tbody>
</table>

Fisher Regardless of the fact that Johnson kept the maps up to date from year to year, the Geographical Index and the Appendix to the Geographical Index did not change from the 1860’s through 1887. In 1870, there were major changes to all of the “Descriptions” other than the Geographical Indexes; they were from that time on attributed to A. Currot, with a section on religions by Rosewell D. Hitchcock.

From 1860 to early 1863, these sections were in separate areas of the atlas from the maps, and the backs of all of the maps were blank. At some time during 1863, the “Descriptions” began to be printed on the reverse side of the maps. This continued through 1872, after which the “Descriptions” were removed from the reverse of the maps and returned to separate sections of the atlas. During the years when the “Descriptions” were on the reverse of the maps, they were occasionally moved around creating states of the various maps. When these changes occurred, they affected every map in the atlas, defining an pseudo-edition of the

Pagination of the maps changed frequently, usually due to the addition of a new map or subtraction of an old one. When these changes took place at the beginning of the atlas, such as the addition of the United States map in 1861 or the deletion of the New England map in 1862, all of the maps changed page number. When a map was added closer to the back of the atlas, only the portion of the maps after that in the atlas changed page number.

**Geographical Detail Changes**

An extremely important feature of the maps of the Family Atlas was the fact that the geographical detail was updated on a regular basis. As discussed in a later section of this paper, it was important for sales promotion that the atlases be as up to date as possible. As a result, the maps in Johnson’s atlases, as well as Colton and Mitchell’s, can be used to track the growth of the United States, including new towns and cities, new counties, new states and state boundaries, and new townships. Most of the map states detailed in this
1863 version of Pennsylvania, Virginia, Delaware, and Maryland 1860 map, state 8 (new West VA with VA state name overlapping into WV) (Johnson and Ward)
the left page frame worked without a problem. This should be corrected in the next edition.

This CD-ROM is of value to the individual collector or dealer who wants background and price information about specific maps, or images of many maps. Unfortunately only about 3000 maps and 1500 images appear. I look forward to future editions with additional maps and images. The fourth edition should be published December 2000. It will include 5000 items and 2100 images. The purchase price of the third edition included a free upgrade to the fourth edition.

---John W. Docktor is a past President of the Washington Map Society. He is a frequent contributor to The Portolan. The author of several articles, he also reviewed The British Library Map Catalogue on CD-ROM (Issue 47, Spring 2000).

Newly drawn 1864 version of Virginia, Delaware, Maryland and West Virginia map, state 1 (WV and VA state names in the right places) (Johnson and Ward)
study, have accompanying changes in the geographical detail, along with the more easily recognizable changes in the map borders, pagination, publisher attribution, and contents of the reverse sides. There are even a few map states for which the only defining quality is one or more geographical changes.

Counties. The most easily recognizable geographical changes are the development of new counties. Every new county that was created in the United States between 1860 and 1882, as listed in Knox’s American Counties, was added to any map in which that county can be seen (whether or not it is in one of the titled states). For the most part, new counties showed up on the maps within two years of their establishment.

States. New states tended to be added much more expeditiously. West Virginia, for example, was introduced on the map during the year of its division from Virginia. It was obviously added in a hurry, and early states of maps on which West Virginia was shown, often have the name “Virginia” placed infringing on West Virginia’s territory. The Virginia map was redrawn in 1864; in this new map the name “Virginia” is placed so that it no longer infringes on the state of West Virginia. Other new states and territories were entered similarly as fast as they were established. For the most part, territories were shown as if they were states. Arizona was added as part of New Mexico until 1863 when it formally became a territory. Wyoming was shown several years before it formally became a territory. The above chart demonstrates the year that new territories and states appeared on the atlas

Railroads. The growth of the railroads in the United States is equally well represented on the Colton/Johnson and Johnson maps. Railroads are depicted in three ways in the Family Atlas. There is no legend, so it is not clear exactly what the different markings mean, however, one can guess. Railroads marked with cross hatched lines, designated as "RR(m)" by this author, appear to be established in the United States. Those marked with solid lines, designated as "RR(s)", appear to be either proposed railroads or those under construction, or both. An RR(s) often becomes an RR(m) in later states of a map. At times, an RR(s) will slowly evolve into an RR(m) in stages over several years. On a rare occasion, some railroads are depicted with a dashed line, designated as "RR(d)" by this author. It appears as if the RR(d) is proposed railroad, and they are just as likely to disappear in later editions than they are to become an RR(s) or RR(m). Research on the development of the railroads done by the Johnson firm sometimes indicated that a railroad had been placed on a map in error, or had been abandoned; these were removed from the maps. An example of this is found on the North and South Carolina map of 1860, where in 1865, on state 8 of the map, a railroad present on early map states, from Greensboro, North Carolina to Danville, Virginia, disappears. For the most part, railroad changes on the maps are not the sole defining feature of map state, however they are some of the more interesting features of the maps over the years.

Recently I had the opportunity to examine the CD-ROM Map Collectors Library Series, 3rd Edition. This CD will run on any MAC or IBM compatible computer with a web browser like Internet Explorer or Netscape. Easy to follow instructions tell how to load the program into the web browser.

Mr. Hess has made information about more than 3000 fifteenth to nineteenth century maps readily available at the fingertips of a researcher. Images of about 1500 maps appear along with the description of the map. The information is taken from his quarterly auction catalogues as well as some stock items. The current CD-ROM has information from fifteen auctions, but future editions will contain material from previous auctions and a large quantity of additional text images, and annotations.

Items can be searched for by "World Regions" or "Maps by Date." Twenty-four major cartographers have an additional listing of their maps by name of "Cartographer." A listing of "Specialty Items" includes Antiquarian Books, Atlases, Celestial, Globes & Instruments, Pocket & Folding Maps, Prints & Title Pages, Reference Books, and Wall Maps.

A typical listing (see below) will give the name of the cartographer, year of publication, title, date, description of the map including condition, reference(s), auction date (YYMM), and hammer price (FP) if sold or estimated price range (EP) if not sold. A "View" symbol provides a link to available images.

The listings provide useful background information about numerous maps. The references tell you where to look if you wish to learn more about the map. The price helps to give an indication about the value of a map. The information is similar to that which is found in Rosenthal’s Antique Map Price Record & Handbook; but Rosenthal provides a much smaller amount of background information, fewer references, and no images of maps. On the other hand, each of Rosenthal’s (former editor was Jolly) sixteen volumes contains about 4750 maps compared to 3000 on this CD-ROM.

Problems with this publication were few. There is no detailed list of references cited, and there is no consistency in the shortened form of the reference used in the listings. For example, the figure below illustrates maps with references to “Snyder” in the first, "Snyder: Views of Philadelphia Before 1800" in the second, and "Snyder: City of Independence" in the third. Only the knowledgeable collector would know that these three references are to the same book: Martin P. Snyder, City of Independence, Views of Philadelphia Before 1800, Privately Published, 1975. Mr. Hess told me that consistency in the shortened form of references, and a page listing cited references are planned for the next edition.

The buyer’s premium is not included in the hammer price. A better sense of value would be available if the price included the premium. The CD-ROM does mention that the buyer’s premium is not included in the price, but it does not give any information about the percentage of the premium. The next edition will make mention of the fact that there is a 10% buyer’s premium.

A technical problem was encountered on the "CD-ROM Home" page. The hyperlinks for "cartographers" and "arranged by date" in the text produced an error message, but the same links in
what the work deserved. In contrast, these qualities mark Gregory McIntosh's Pir Reis Map of 1513.

The book dwells on other studies with its volume (230 pages compared to Kahle's 52) as well as with its thorough examination of every relevant aspect of the subject. After an introduction that places the work in the context of past and contemporary studies, the author presents a brief but adequate summary of Pir Reis's life (chapter 1), and then a general description of the map (ch. 2). He includes transla-
tions of both the author's colophon and of the impor-
tant inscription in which Pir Reis tells how he has produced the map (pp. 15-16). Then follows a series of chapters describing and analyzing specific segments of the map: ch. 3 (Europe and Africa), 4 (The Atlantic Islands), 5 (South America), 6 (The Southern Ocean and the Lesser Antilles) and 9 (Hispaniola and the Bahamas), and 10 (Cuba and Central America). Between chapters 6 and 8 McIntosh makes a sidetrip to discuss in chapter 7 the "Chistopher Columbus Inscription," a long text located in the interior of Brazil and relating the Columbus story as understood and paraphrased by the Turkish mariner.

The fact that the West Indies and Central America (chapters 8-10) stand together somewhat out of se-
quence can be attributed in part to their importance for the main theme in McIntosh's investigation, that of the "Columbian legacy": which of the maps made by Columbus was the source of Pir Reis's work? Throughout his book, Mr. McIntosh underpins his argument with drawings showing the contours and inscriptions as they appear on the Pir Reis map as well as on other maps, and here his painstaking analysis reaches its climax. His verdict, expressed even more forcefully in the final chapter, ch. 11 (Conclusions) is that the Pir Reis map could not have been a result of the Genoese explorer's later voyages but rather of his first two sailings (1492-94). Hence the striking "primitiveness" and "rudimen-
tary nature" of the depiction of this area, reflecting Columbus's belief that he had reached Asia by sail-
ing westward: Hispaniola (the Dominican Republic and Haiti) is turned ninety degrees to conform to the position of Cipango (Japan), while Cuba is part of Cathay (China). In other words, Kahle was wrong when he thought he should date Pir Reis's model to 1498.

Mr. McIntosh does not say so explicitly, but his whole book does so implicitly: as a testimony to the earliest traces of Columbus's understanding of his achieve-
ment, the "primitiveness" of Pir Reis's map is an asset, not a drawback. It is an important document for other reasons as well of course, and the least of its function as a gauge of Ottoman and Islamic awareness of the voyages of discoveries. The book's author pays due attention to that too, and for good reason later in the text. In the final chapter, in which must have displayed the Indian Ocean and the seas and regions beyond it and paraphrased the story of Portuguese voyages to those parts. He also defini-
tively dispenses of that type of science fiction literature which attributes far-fetched features to the map, as for example Charles Hapgood's or Erich von Däniken's books do.

Mr. McIntosh can be congratulated for having writ-
ten what for a long time will remain a definitive study of Pir Reis's justly famous map. His argument is supported by a thorough annotation. Perusal of the manuscript by an Ottomanist would have saved the book from minor infelicities caused by an un-
standable unfamiliarity with that side of the subject. Thus Sultan Selim I, the conqueror of Egypt, would not have been called Selim the Conqueror, an epithet reserved for the conqueror of Constantinople, Selim's grandfather Mehmet II, and the "Lord of the Two Horns," as Alexander the Great was known to the Islamic world, would have been spelled cor-
cRectly Iskender din-i-Karna; while a whole para-
graph on p. 100 discussing the possible meaning of the inscription "Triz matos ic delier demel olar" would have been made unnecessary by simply translating it as "Triz matos, which [in Turkish] means three fools/maids, mato or mato being the Italian equivalent of the Turkish delir.

But it is also a pity that the editors of the book did not realize the potential of the Pir Reis map when the book's title page is not in color or, better still, a larger foldout which would have brought the map's trend and any unexplained quanta-

Citys. Similar to the railroadss, during the era of the Family Atlas there was a significant growth in the number of cities and towns. As maps changed, they represented this new population growth. There are no instances, however, where a new city or town was the sole change defining a new map state. Unlike Colton, who included numerous city maps in his atlases, Johnson used only a few. Starting with the 1840s, DC in 1860, New York City was added in 1862, with Boston and Philadel-

Plotted by not being added until 1870 and 1873 respec-
tively. These city maps demonstrate the growth in these cities, including new neighborhoods, roads, trains, buildings, parks, and ferries. For example, a series of changes are seen on the New York City map of 1862, showing how from 1874 to 1883 the access roads to the Brooklyn Bridge, called the "E. River Road," were added. In 1874, state 8 of the map, the bridge is shown without connecting ac-

cess roads. In 1880, state 10, proposed access roads are shown with dotted lines; late in 1883, state 11, the roads were shown completed, depicted with solid lines.

Picture Changes

During the years that Johnson used Colton de-

duced maps in the Family Atlas, Johnson also often added pictures as decorations for the maps. Al-

most all of these pictures can be found on large Colton wall maps, and it is clear that Johnson's relationship with Colton included the use of these pictures. Johnson added these pictures to some of the maps that were identical to those used by Colton in his own atlases, but Colton published them without the pictures. These pictures become imperative in the Johnson maps, not only because they are the make the maps pleasingly decorative, but also because a particular picture would appear and disappear from the map, and/or its place-

ment might have changed. Sometimes the picture even changed. For the most part, the changes re-
garding the pictures follow no pattern, and often make little sense. The changes are very useful, however, in determining the state of a map.

One example comes from the 1860 map of Delaware and Maryland. On the first state of the map, there is a depiction of the U.S. Capitol building. In 1862, this disappears in map state 4, being re-

placed by an inset map of the District of Columbia. By late 1864, map state 11, all of the pictures are gone. In another example, there is a picture of the Washington Monument on the 1860 map of the District of Columbia. When it first appears, in 1860, map state 1, there is shading around the spire of the monument. In 1862, state 2, the shading disappears, only to show up again in 1864, state 6, and disappear again in 1868. In 1865, state 7, and return again in 1867, state 9.

On the North and South Carolina map of 1860, the size of the font of part or all of the picture's title changes in size. On the Missouri, KS map of 1860 there are three pictures, two of which keep chang-

position with each other, between 1860 and 1865. It almost seems as though, when a map was going through a renewal, the mapmaker simply assembled the plate had to decide each time where each picture went on each map; and, sometimes it was done differently than others.

Other Incidental Changes

Before Johnson began to produce his own maps, the Family Atlas used maps previously drawn and used by Colton. Several of the Johnson atlas maps were created by the folio size printing of part of a larger wall map. To these maps, Johnson added some sub-

borders. The change in the borders is discussed above, but there were also changes in the sub-borders. Here was printed the longitude and latitude of the area depicted on the map. The font and placement of the statements "Longitude from Washington" or "Longitude from Greenwich" would at time change on vari-

ous maps. Indeed, at the time the longitude or latitude values would inexplicably change, only to be cor-

rected again later. One example of this can be found in the Arkansas, Mississippi and Louisiana map of 1860, where in 1862, state 5, the longitude from Washington, which had been "12'-17'", is mis-
takenly printed as "94'-99". It remained this way until state 18 of the map, in 1863, when it reverted back to "12'-17'".

On occasion, there were blemishes that occurred in the map plate, which took some time to be fixed. One example is the area that shows the District of Columbia map of 1860, where, in 1862, state 4, a blemish shows up in the word "State Capital" in
Piri Reis (ca. 1480-1554) was an Ottoman mariner and the author of a portolan, Kitâb-i Bahriye, which is a master-piece of its kind and time. This book, written in Turkish and provided with over two hundred charts, was completed in 1526 and dedicated to Sultan Süleyman the Magnificent. It is a navigational description of the Mediterranean, but in a long versified introduction the author mentions a map of the world which he had made in 1513 and four years later presented it to Süleyman’s father, Sultan Selim the Grim, in Cairo at the conclusion of the Turkish conquest of Egypt. Nothing is known of what the sultan did with the present except for the plausibly theory that, finding it too unwieldy for practical use, he tore off one part, about a third, which represents the Atlantic Ocean with its eastern and western coasts, and kept the rest which showed all those lands and seas where the action that mattered to him was. The "discarded" third was not thrown away, but found its way into the imperial library at the Topkapı Palace, Istanbul, where it lay forgotten until in 1929 one Turkish and two German scholars recognized its identity and worth and brought it to the limelight of the world.

We are fortunate that a part of Piri Reis’ cartographic masterpiece had to perish, it was not this third. First of all, it is here that the Turkish mariner placed a colophon in which he identified himself and the place and date of the mappamundi’s execution. Most importantly, however, the map is partly based on what must have been one of the earliest sketches of the New World made by Columbus. We know that because Piri Reis mentions Columbus as his principal source in one of the many informative inscriptions on the map, in his portolan, and through internal evidence.

Soon after its emergence from obscurity in 1929, the map became an international sensation and an object of legitimate pride in Turkey. Kemal Atatürk, the republic’s president, considered it an eloquent argument for his country’s rightful place in the community of discovery and progress, and instructed experts to produce a facsimile of the original, together with an accompanying text of analysis and translation of the map’s legends into modern Turkish, English, French, and Italian (Ankara, 1935). Meanwhile other scholars, and increasingly also science fiction writers, began poring over the map made accessible through the above-mentioned publication, and, stimulating each other, produced a considerable body of literature that is likely to keep growing.

The scholar who had the greatest merit in the early study of the map was one of its three discoverers, the eminent German orientalist Paul Kahle (1875-1964). In 1933 he published his pioneering Die Verschollene Columbus-Karte von 1488 in einer türkischen Weltkarte von 1513, which became the basis for most other studies, including the 1935 Turkish one. Kahle’s monograph could not do the subject full justice, however. Cartography was not the principal specialty of this scholar renowned for his studies of Semitic philology and Near Eastern civilizations, so that his examination of the map in the context of contemporary cartographic heritage fell short of
ated an aggressive program for mapping the state. The federally funded mapping programs, such as the U.S. Coast Survey, were incomplete when Virginia seceded from the Union. The lack of adequate cartographic information, particularly for the interior topography, would play an important role for both sides during the Civil War.

Richard W. Stephenson, former head of the Library of Congress Geography and Map Reading Room, and co-editor of Virginia in Maps, provides invaluable insight into the cartography available to both sides at the outbreak of the war, as well as efforts made to secure new and adequate maps in "An Unfamiliar Country: The Commonwealth During the Civil War." One advantage the North had over the South was that the federal government was able to rely on the organizational structure already set in place. The first federal mapping project of the war involved commissioning the U.S. Coast Survey and the Corps of Topographical Engineers to survey the roads, bridges, paths, woods, fields, streams, houses, and outbuildings of northern Virginia, due to its close proximity to Washington.

Stephenson also discussed the important advantage Union troops had by having access to lithographic presses and photography. These processes greatly accelerated the production of maps generated in the U.S. Coast Survey office. In addition to having inadequate printing facilities and surveying equipment, the Confederacy suffered from a lack of adequate personnel charged with the task of producing maps. Those that did serve as topographical engineers for the Confederacy and the maps they produced are discussed in this chapter. Maps were also published by private firms, newspapers, and journals for public consumption in both the north and south. Stephenson concludes by pointing out that the thousands of maps produced during the war, often under life-threatening conditions, forced mapmakers to develop faster, more adaptable techniques for reproduction. These maps remained in use for years to follow, and were relied upon to plan Virginia’s economic regeneration.

The final chapter in the book, "Modern Mapping: From Saddles to Satellites," by Gary W. North, recently retired from the U.S. Geological Survey, and Richard Stephenson, explains how the twentieth century use of aerial photography, photogrammetry, three-dimensional models, remotely sensed data, and orbiting satellites, have enabled mapmakers to produce the most precise, accurate, and detailed maps to date. The authors begin by describing the progression of various forms of maps made after the antebellum era, such as the need for large-scale fire insurance maps of cities and towns and the popular panoramic maps or bird’s-eye views. Important legislation was passed that led to the establishment of the U.S. Geological Survey. Maps were made to preserve Virginia’s oyster beds, provide accurate aeronautical maps and charts, and create oceanic and atmospheric maps for the waterways. By the twentieth century, maps were used to chart social statistics and trends useful for city planning. The growth of the automobile industry created the need for accurate road maps, and the Corps of Topographical Engineers concluded by describing how satellite mapping has created entirely new methods for gathering and disseminating information, not only on the geography of specific regions, but also to map changes and document growth. On a more personal level, sophisticated geographic information systems are readily available for home and office computers, allowing one to determine the specific information desired.

Virginia in Maps is one of the most important works of its kind and provides invaluable information to historians and cartographic historians alike. One leaves this book unfettered from the five essays, the quality of the map collections from which they drew upon for their work, and the skills of photographers, designers, and printers of the volume. As certain important historic maps have been referred to by modern scholars as "mother maps," Virginia in Maps will prove to be a "mother atlas" for students of Virginia history.

—Margaret Pritchard, a member of the Washington Map Society, since 1981 has been Curator of Prints, Maps and Wallpaper at the Colonial Williamsburg Foundation (CWF), Williamsburg, Virginia. This review does not necessarily reflect the views of the CWF.

The map legend. The blemish, over the letters "it" in the word capital, remained until map state 6, in 1863, where it was repaired with what appears to be hard drawn letters "it". In the next map state, 7, in the same year, the repair was made with the "it" now being in the original font. Many such changes can be used to determine states of the maps.

A Short Note About Printing

The title page of the Family Atlas prominently states that it is a "Steel Plate" atlas. This was used to demonstrate the high quality of the product and to enhance sales. However, Ristow suggests, and the wisdom of others observing the maps concurs, that the maps used in the atlases were actually lithographs. He points out in his book, American Maps and Mapmakers, that the title page on the cover of the Johnson Family Atlas, at the Library of Congress has the following notation on the contents page, "The maps are transferred and Printed by D. McLellan & Bros. 26 Spruce Street, New York." Ristow further indicates that McLellan and his brothers were lithographers. The plates are felt to have originally been drawn on steel plates, and later transferred to stones for the actual printing of the atlases.

Selting Atlases By Subscription

The Johnson firm sold almost all of its atlases and books by subscription through door to door canvassers. In a letter by Johnson, he alludes to the fact only on a rare occasion when would an atlas be sold through the publishing office itself. Other major atlas publishers of the times, Colton and Mitchell, also sold their atlases by this method. This practice is described in more detail elsewhere by Lourie3, Boske4, and Harrington5. The importance of this practice in terms of the map states in Johnson atlases is that the updating of maps was available to the public at a lower cost. This allowed the "gentleman" to have the best and most up-to-date atlas in his home; and, the atlases needed to be changed often enough for the salesmen to convince the "gentleman" that the acquisition of the newest edition was necessary. This appeared to be a successful sales technique, and, although Johnson had a practice of placing an advertisement coupon in some of his atlases offering to sell the buyer updated versions of any of the maps for a small price (and extra spines were included in the atlases for the purpose of inserting these maps), it is this author’s experience that this rarely if ever happened. A supposition can be made that Johnson’s salesmen urged prior customers to buy new atlases rather than use the update option.

Conclusion

Avin J. Johnson was not the most famous of American atlas publishers of the 19th Century, in fact in most cartography history he is merely an after thought. However, his atlases were extremely popular, as evidenced by their current availability relative to those of his contemporaries, and his success as a salesmen and publisher helped establish the atlas as vital family reference book. Johnson most likely played a role in financially saving the failing Colton firm around 1860, which is probably as important, if not greater, contribution to cartography.

ENDNOTES

1. Lourie, J.S., article in Marator’s World, in press.
3. Lourie, Ibid.

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About the Author — and the Meeting

In a meeting of the Washington Map Society on the evening of Thursday, September 28, 2000, forty members and guests of the Society heard Ira Lourie speak on his research into the work of 19th century atlas publisher Alvin J. Johnson.

Ira S. Lourie, who has lived most of his life in the Washington, D.C. area, earned a B.A. in psychology at the George Washington University in 1964, followed by his M.D. at the same institution in 1968. He is a child psychiatrist by trade, who has spent his professional life developing and implementing child mental health policy, first at the National Institute of Mental Health where he worked for 20 years, and now as a partner in the Human Service Collaborative, a consulting business. Dr. Lourie is a member of the Washington Map Society and lives in Rockville, Maryland.

Dr. Lourie has been a collector of maps, mostly of Maryland and the Chesapeake Bay, since 1975. His first map by Johnson, a Maryland map, was a "throw-in" with an expensive map he had purchased from Graham Arader. While on a 1985 Washington Map Society field trip to the "On the Map" exhibit at Washington College in Chestertown, MD, he saw the Morrisey Collection, that contained many excellent maps of Maryland and the Chesapeake Bay, including various states of the Johnson and Colton maps of Maryland. The various sections of Johnson/Richmond maps in this private collection caught his interest. About 10 years ago, he "bought all of the maps of Maryland that a Federal bureau map could be found," Dr. Lourie was looking for a way to continue my map collecting without going broke. As he had always liked his Johnson maps of Maryland, he began to focus his interest on those United States maps, and in 1988 he contacted Alvin J. Johnson.

He visited the Library of Congress and found its startling collection of 1860s Johnson atlases and began to study the various Johnson/Richmond maps, as well as Colton's versions and Gray's. His "obsessive soul" then took over and he began to study all of Johnson's U.S. maps. Travel in his work took Dr. Lourie to many places and he used to take his Union catalogue list with him so he could study the Johnson atlases in various local collections wherever he was. Dr. Lourie had trouble finding enough editions, especially from 1870-80, in one place to be able to compare them. He considered loans, but discovered libraries usually would not do that. He even considered a grant to study photography and do computer scanning in libraries, but such grant money was not very available. Then Dr. Lourie met David Rumsey (one of the few collectors both openly interested in and scholarly on 19th century American maps), who led him to Roger Baskes, both of whom not only invited him into their excellent collections but also loaned atlases to him so he could study them at leisure in his own home. Dr. Lourie has studied a total of 86 Johnson atlases from the period 1860-67, including 16 at the Library of Congress, 23 in David Rumsey's collection, and others in the New York Public Library and the Yale Library. He has found these rapidly changing maps to be an excellent way to view the historical development of the U.S., its states, counties, and cities, especially in the West, without a lot of detailed maps.

In addition to the three questions Dr. Lourie answered during his presentation, at its end he fielded another three from his fascinated audience. Johnson's only major competitors were Mitchell and Colton; Rand McNally, Hammond, and Cram entered the market in the 1890s and 20th century, with an emphasis on publishing. Prices on Johnson maps have risen steadily over the last 20 years, from $25 for good individual maps to $100 today on the Internet or $125 from a dealer; at prices are skyrocketing. The American Civil War had several impacts on Johnson's atlases. First, West Virginia was quickly added as a new state, as were maps of Richmond and Montgomery; the Postcard discussion has dealt with the identical editions of the 1860 Johnson and Ward atlases, one "Published in Richmond, Virginia" and all others "Published in New York." According to the New York City directory of that year, Ross Browning is listed as living in Richmond (the Richmond directory for the same year has not survived). The shape of the territory was changed from New York to Richmond to establish a Southern presence for the company. He bought a printing shop and when war actually happened a year later, he quickly moved back to New York. The Confederacy used his presses to print currency. By 1863 the New York state directory listed Browning and Johnson as holding a clothes washer patent, a year later just Browning held the patent, and then he went on to make a fortune with it.

Washington Map Society Vice President, Program Chair, and Portolante Editor Tom Sander recognized Dr. Lourie for being attracted to such a uniform system of map collecting and bravely and determinedly beginning the scholarship on it. He presented Dr. Lourie with the very first of the new map magnifiers, engraved with the name and logo of the Washington Map Society; in its own cloth carrying case.

—Steven Vogel, Secretary of the Washington Map Society

Venturers such as John Lederer began exploring the Virginia piedmont, an act that ultimately stimulated the Indian trade. Helbert also acknowledges the importance of Native American contribution to the early European exploration of Virginia.

By the next century, the English had established a permanent foothold in Virginia. In his article "Colonial to Commonwealth: The Eighteenth Century," Donald H. Cresswell begins by discussing how the colony's policy of land distribution, which required legal land surveys to substantiate individual ownership, provided a basic unit for maps in Virginia since they provided valuable information for makers of larger maps of the colony. These surveys documented the agrarian nature of colonial Virginia and the subsequent need for aspiring landholders to expand westward, a further need for recording the land. Maps were made to claim land and to establish boundary lines. Some of the most important eighteenth-century maps resulted from the European struggle to control the Ohio and Mississippi Valleys. Works such as John Mitchell's monumental map were produced to substantiate England's claim against French encroachment on the frontier.

Virginia also held a prominent position relative to other maps. A large body of Revolutionary War regional maps were produced to illustrate troop positions, movements, or skirmishes in areas that would otherwise not have been mapped in such detail. William & Mary's last map produced by the French prior to the siege of Yorktown and thus these two cities provided a rich resource for the Revolutionary War era. Much of the map-making effort was subsequently used to good advantage for peaceful purposes as well, such as the collection of road maps among the Chesapeake. The Coles from information gathering during the war.

Ronald E. Grim, Specialist in Cartographic History in the Geography and Map Division of the Library of Congress, begins his essay, "Building Virginia: The Antebellum Years," by describing how the political and economic decline during the decades of that era, spurred political leaders to take an active role in boosting Virginia's economy. According to Grim, state mapping during this period covered Virginia's political, and economic climate.

Virginia was the first of the southern states to boast their own state map. Bishop James Madison's 1807 Map of Virginia Formed from Actual Surveys was compiled from existing state-boundary surveys, county surveys, and recent observations of longitude and latitude. By 1816, the state legislature passed an act to secure an accurate survey of each county so that a new general map could be compiled. It took ten years to map the land and assemble the draughts. The engineer selected to prepare the general map was Herman Böye. Skillfully engraved by Henry S. Tanner of Philadelphia, who was the primary mapper for Virginia for the state for forty years. As new counties were added and internal improvement projects were initiated, such as the state turnpike system that was under-con- dicated and revisions were authorized. Ultimately under the direction of Lewis van Buchholz. The new data, including not only geographical drafts, but also insightful correspondence between county officials and the state, are now in the Library of Virginia and provide an invaluable resource to modern map scholars. Although other maps of Virginia were produced prior to the Civil War, Grim acknowledges that the Madison, Böye, and Buchholz were the "mother maps" subsequently used as sources for other published works.

The nineteenth century witnessed new efforts at mapmaking that reflected Virginia's internal improvement projects. The state attempted to unite canals, rivers, and increase the number of public highways. To facilitate these efforts the Surveyor General was appointed to survey and map the proposed project, supervise works in progress, and inspect completed projects. Despite new efforts to improve internal transportation in Virginia, the Chesapeake remained the primary transportation artery in Tidewater. By the 1840s and 1850s, it had become necessary for maps to include more detailed information to accommodate the larger vessels constructed in the nineteenth century, thus the Chesapeake was surveyed as part of the United States Coastal Survey. Much of the cartographic work surviving from the office of the engineers survives and is preserved in the Library of Virginia.

During the three decades prior to the Civil War, the Board of Public Works assembled an impressive collection of maps of Virginia to support the operation of the railroads and the state turnpike. Grim concludes his essay by pointing out that by the beginning of the Civil War, state leaders, acting in a