

Young Stars in Their Baby Blanket of Dust

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Newborn stars peek out from beneath their natal blanket of dust in this dynamic image of the Rho Ophiuchi dark cloud from NASA's Spitzer Space Telescope. Called "Rho Oph" by astronomers, it's one of the closest star-forming regions to our own solar system. Located near the constellations Scorpius and Ophiuchus, the nebula is about 407 light years away from Earth.

Rho Oph is a complex made up of a large main cloud of molecular hydrogen, a key molecule allowing new stars to form from cold cosmic gas, with two long streamers trailing off in different directions. Recent studies using the latest X-ray and infrared observations reveal more than 300 young stellar objects within the large central cloud. Their median age is only 300,000 years, very young compared to some of the universe's oldest stars, which are more than 12 billion years old.

This false-color image of Rho Oph's main cloud, Lynds 1688, was created with data from Spitzer's infrared array camera, which has the highest spatial resolution of Spitzer's three imaging instruments, and its multiband imaging photometer, best for detecting cooler materials. Blue represents 3.6-micron light; green shows light of 8 microns; and red is 24-micron light. The multiple wavelengths reveal different aspects of the dust surrounding and between the embedded stars, yielding information about the stars and their birthplace.



The colors in this image reflect the relative temperatures and evolutionary states of the various stars. The youngest stars are surrounded by dusty disks of gas from which they, and their potential planetary systems, are forming. These young disk systems show up as red in this image. Some of these young stellar objects are surrounded by their own compact nebulae. More evolved stars, which have shed their natal material, are blue.

The extended white nebula in the center right of the image is a region of the cloud which is glowing in infrared light due to the heating of dust by bright young stars near the right edge of the cloud. Fainter multi-hued diffuse emission fills the image. The color of the nebulosity depends on the temperature, composition and size of the dust grains. Most of the stars forming now are concentrated in a filament of cold, dense gas that shows up as a dark cloud in the lower center and left side of the image against the

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Many people in the cartographic world know of The Times Atlas of the World, published by HarperCollins, and also of the renowned Edinburgh company from days gone by of John Bartholomew & Son. But perhaps not so many know of the strong connections between the two, and how inextricably the history and heritage of HarperCollins's current map and atlas publishing are linked to that of the Bartholomews.

John C Bartholomew



It is in this context that HarperCollins are mourning the loss of the last of the Bartholomew line with a direct involvement, and continuing interest in the company. John Christopher Bartholomew, (born 15 January 1923) died on 16 January 2008, just a day after his eighty-fifth birthday. He had continued to take a direct interest in the mapping activities of HarperCollins, most recently passing back very favourable comments on the new 12th Edition of The Times Comprehensive Atlas of the World – a product which reflects many standards and policies which John was instrumental in defining. He had also, until very recently, continued to visit their offices in Bishopbriggs to assist in the judging of the HarperCollins-sponsored British Cartographic Society John Bartholomew Award for Small-Scale Mapping. This involvement reflects wider interest in many societies. At various times through his career he was president of the Royal Scottish Geographical Society (as his father and grandfather before him), the British Cartographic Society and more recently the Scottish Rights of Way Society (ScotWays). He was also vice president of the International Cartographic Association.

To his great pleasure, he was able to witness recently the award of £220,000 by the John R Murray Charitable Trust to the National Library of Scotland for the conservation and cataloguing of the Bartholomew Archive – a huge collection of manuscripts, printing records, glass plates, atlases, etc recording in great detail the history of the business – which was donated (some items were sold) to the library by the company. This award is a significant step in increasing awareness and accessibility of the collection.

In terms of history, by the late 18th century the city of Edinburgh was well established as the centre of Scotland's flourishing publishing industry. Without doubt, one of the company's responsible for this enviable reputation was John Bartholomew & Son. From humble beginnings the Bartholomew firm became the world's pre-eminent publisher of maps and atlases. It was George Bartholomew (1784-1871), an engraver for Daniel Lizars of Edinburgh, and the first of five generations in the Bartholomew map making dynasty, who initially set the Bartholomew family on the road to cartographic fame. However, it was his son John Bartholomew (1805-1861) that really established the reputation of the Bartholomew firm. Setting up in business as a map engraver in 1826, he soon gained recognition as a skilled cartographer and businessman. Under the subsequent guidance of John (Junior, 1831–1893), John George (1860–1920), John (1890–1962), and John C, the business continued to prosper by introducing new production techniques and by pushing cartographic design to new levels of excellence. Under John C's direction, the firm produced many leading atlases and maps, including the Times Atlas of the World, Bartholomew's Concise Atlas, gazetteers, school atlases and the much-loved Half-Inch Contoured Map of Britain.

In 1980 the business was sold to Reader's Digest and then in 1985 to News International, at which time it was merged with Times Books. In the same year Geographia and its subsidiary Nicholson Publications were acquired. In 1989 Bartholomew/Times was merged with Collins Publishers in the UK and Harper & Row in the US to create Harper Collins Publishers. While the company has undergone many changes over the years, some things remain constant – the never ending search for cartographic excellence, recognition of the firm's immense cartographic heritage and legacy, and the close relationship with the Bartholomew family.

John is survived by his wife Ginette, and five sons.

Mick Ashworth
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