Mapping the Universe: the interactive history of astronomy

by Paul Murdin

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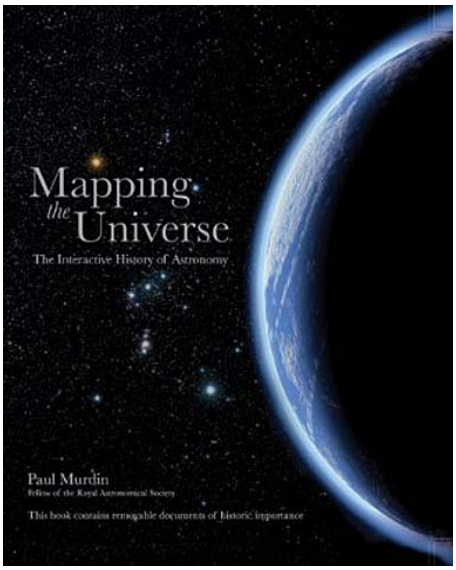

Both the title and the subtitle of this book have the potential to confuse its readership. Paul Murdin's narrative does not really address the mapping of the night sky in any literal sense, and the experience of reading that narrative – although undoubtedly pleasurable – is not interactive in any way that would be readily understood by the contemporary reader. Instead we are presented with a straightforward and engaging popular history of how humankind's perceptions of the universe have been progressively modified both by the development of ever more complex technologies and by the dramatic shifts that such technologies have forced upon our understanding of the universe we inhabit.

The tale that Murdin tells is, of course, the grandest and most inspiring of narratives, and his treatment of it is both secure and deft, as one might expect from an astronomer and writer of his stature and experience. It is also firmly centred on the personalities that have contributed so much to the history of astronomy. Even as the technologies become ever more sophisticated and compelling – from Galileo's application to the sky of his rudimentary optical tube to the remarkable triumphs of the Hubble space telescope and interplanetary probes – Murdin never loses sight of the human achievement.

Inevitably, any outline account of the rich history of astronomy must be selective and partial, and the present book is no exception. Yet Murdin has been remarkably judicious in his selection of what to include and what to pass over, and the book never loses impetus or focus. Neither does it sell short the grandeur of the tale it has to tell.

The 'interactive' element of this book consists of a selection of facsimile documents from the history of astronomy, contained in document envelopes throughout the text. These range from a watercolour of the great comet of 1532 and Galileo's telescopic observations of Jupiter and the Moon in 1610 through to the remarkable imagery produced by the HST, the *Mars Reconnaissance Orbiter* and the *Cassini* probe. They are beautifully reproduced, but the reader expecting a truly interactive experience will be disappointed.

In summary, this volume is a coffee-table book designed for the general reader. However, unlike many such books, it is accurate, authoritative and well written. The newcomer to the history of astronomy will gain much from it.

Bill Leatherbarrow

Professor Bill Leatherbarrow is President of the BAA and Director of the Lunar Section.

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The CMB temperature maps doesnâ€™t contain photons emitted by stars. It only represents the residual photons from when the universe when it was 300,000 years old. On average, CMB temperature is -273.15 degrees Celsius. This means only microwave antennas can pick up the frequency. According to the theory, CMB radiation should appear the same everywhere.Â At 10-34 seconds: Universe undergoes rapid inflationary expansion. Because the universe expanded at faster the speed of light, the light from those parts of the universe can never catch up to us. At this point, there was only intense energy and no particles. At 10-32 seconds: First subatomic particles that made matter started forming. From 10-11 seconds: Four forces of the universe are entirely separated. Astronomy is one of humanity's oldest and most fascinating sciences, beginning with the practices of the early astronomers and their assumptions.Â It explained the prograde and retrograde motions of the planets. It took Earth out of its spot as the center of the universe. And, it expanded the size of the universe. In a geocentric model, the size of the universe is limited so that it can revolve once every 24 hours, or else the stars would get slung off due to centrifugal force. So, maybe the Church did fear more than a demotion of our place in the universe since a deeper understanding of the universe was changing with Copernicus's ideas. While it was a major step in the right direction, Copernicusâ€™ theories were still quite cumberso

Astronomy throughout History. The study of planets, stars, galaxies, and intergalactic and interstellar space falls under the field of astronomy. Thousands of years ago, the earliest civilizations observed the heavens. Because astronomers of the past set the foundation for today's astronomy, it is an interesting journey to take a look through the history of astronomy. How did they figure out how big around the Earth is? Who was the first astronomer to recognize galaxies outside our own? What must've it been like to look through Galileo's first telescope to see the craters on the

Astronomy is the oldest of the natural sciences, dating back to antiquity, with its origins in the religious, mythological, cosmological, calendrical, and astrological beliefs and practices of prehistory: vestiges of these are still found in astrology, a discipline long interwoven with public and governmental astronomy. It was not completely separated in Europe (see astrology and astronomy) during the Copernican Revolution starting in 1543. In some cultures, astronomical data was used for astrological The detailed new map will help astronomers piece together a murky period of the universe's expansion known as "the gap." "We know both the ancient history of the universe and its recent expansion history fairly well, but there's a troublesome gap in the middle 11 billion years," Kyle Dawson, a cosmologist at the University of Utah and lead researcher of the project, said in a statement. "For five years, we have worked to fill in that gap."Â Processes observed operating today in astronomy are not the same as the early universe in BB cosmology (e.g. inflation, BBN, PBH forming, SMBH forming, quasars forming, Population III stars forming). Reply. Torbjorn Larsson 31 July 2020 02:02. Mapping the Universe book. Read reviews from worldâ€™s largest community for readers. From the earliest beginnings of our species, the night sky has been a...Â Start by marking â€œMapping the Universe: The Interactive History of Astronomyâ€ as Want to Read: Want to Read savingâ€¦ Want to Read. Currently Reading. Read. Other editions. Enlarge cover. History of Astronomy: We have very little in the form of recorded information on early man's impression of the heavens, mostly some drawings of eclipses, comets, supernovae such as the Pueblo Petrograph (see below). However, early man was clearly frightened/overwhelmed by the sky. One of the earliest recorded astronomical observations is the Nebra sky disk from northern Europe dating approximately 1,600 BC.Â Lastly, geocentric ideas seem more `natural' to a philosopher. Earth at the center of the Universe is a very ego-centric idea, and has an aesthetic appeal. Ptolemy (200 A.D.) was an ancient astronomer, geographer, and mathematician who took the geocentric theory of the solar system and gave it a mathematical foundation (called the "Ptolemaic system"). An interactive three-dimensional chart of the nearest stars and galaxies to the Sun. Rotate and zoom the Universe to see the structure of the cosmos.Â The Sun is at the large orange dot at the center of this three-dimensional atlas of the Universe. Initially, the local stars around the Sun are shown, color coded depending whether they are cool red stars or hot blue ones. Gradually the view will zoom out, revealing open clusters of stars in our galaxy (red dots), the whole flat disk of the Milky Way with globular clusters of stars around it (purple dots), and then the Local Group of other galaxies around our own (blue dots). Once the view zooms out to contain both the Sun and the center of the Milky Way, a white line connects the two, giving