

Visions and Voices and the USC Libraries have collaborated to create a series of resource guides that allow you to build on your experiences at many Visions and Voices events. Explore the resources listed below and continue your journey of inquiry and discovery!

CALENDAR ODDITIES

USC LIBRARIES RESOURCE GUIDE

EVENT DATE: October 27, 2010

KENNETH KLEIN of the **USC LIBRARIES** has prepared the following research guide to help you learn more. An online version of this guide with links to calendar converters and additional reading suggestions is available at libguides.usc.edu/calendars.

Introduction

Calendars (and time itself) are functions of culture; informed by mathematics and astronomy, but shaped in their particulars by the overall understanding of cosmic, natural and social relationships underlying a community's life. Some of us will date this Visions and Voices event as taking place on October 27, 2010 (Gregorian). Others may regard the day as being the 19th day of Cheshvan in the year 5771 (Hebrew), the 5th day of the 8th month in the year 1389 (Persian Jalali), the 3rd day of the 9th month of the 99th year of the Republic of China (Chinese lunar), the guisi day of the bingxu month (both by the 60-cyclical reckoning) of the Iron Tiger year in the 17th Rabjung (Tibetan), Dhu'l Qa'dah 19, 1431 (Islamic) or October 14, 2010 (Julian). Japan has long adopted the Gregorian calendar for months and days, but dates the year according to the year of the reigning Emperor, so this is the 27th day of the 10th month of Heisei 22. It is also the same month and day in North Korea, but this is the 99th year (dating from Kim Il-song's birth year).

Panelists' Books

***Something Incredibly Wonderful Happens:
Frank Oppenheimer and the World He Made Up***

By K.C. Cole

Leavey Library QC16.0618C65 2009
Science & Engineering Library QC16.0618C65 2009

***The Universe and the Teacup:
The Mathematics of Truth and Beauty***

By K.C. Cole

Doheny Memorial Library QA36.C65 1998
Science & Engineering Library QA36.C65 1998

Mind over Matter: Conversations with the Cosmos

By K. C. Cole

Doheny Memorial Library Q162.C584 2003
Leavey Library Q162.C584 2003

The Babylonian Theory of the Planets

By Noel M. Swerdlow

Science & Engineering Library QB19.S94 1998

Polyominoes: Puzzles, Patterns, Problems, and Packings

By Solomon W. Golomb

Leavey Library QA166.75.G65 1994

Biscuits of Number Theory

Edited by Arthur T. Benjamin

Science & Engineering Library QA241.B57 2009

Related Books

Calendrical Calculations

By Nachum Dershowitz

This book does the math.

Doheny Memorial Library CE12.D473 2008

Marking Time: The Epic Quest to Invent the Perfect Calendar

By Duncan Steel

Doheny Memorial Library CE6.S74 2000

The Oxford Companion to the Year

By Bonnie J. Blackburn and Leofranc Holford-Strevens

Doheny Memorial Library CE73.B553 1999

The Book of Calendars

By Frank Parise

Leavey Library CE11.B66 2002x

The Dance of Time: The Origins of the Calendar

By Michael Judge

Doheny Memorial Library CE6.J83 2004
Leavey Library CE6.J83 2004

The History of Time: A Very Short Introduction

By Leofranc Holford-Strevens

Doheny Memorial Library CE11.H65 2005

Recommended Databases

Find these databases through the E-Resources tab on the USC Libraries homepage at www.usc.edu/libraries.

Encyclopedia of Astronomy & Astrophysics

Full text of 2,750+ articles

Web of Science (Web of Knowledge)

Citations from 10,000+ journals and 120,000+ conferences

Out of This World Time

Livin' on Titan Time

Imagine you have moved from Earth to Titan, Saturn's largest moon. You have somehow gotten past the methane atmosphere and lakes and the seasons of cold/colder/really cold/and frigid. How do you mark time? Titan is in synchronous rotation with Saturn, meaning that in the time it takes to rotate it also orbits Saturn (15 days, 22 hours in Earth time). From any given location on Titan, Saturn will remain in the same position in the sky, so a year or a day based on Titan's relationship with Saturn would be meaningless. That still, however, does give you a measurement of a "day," relative to the sun, that is just a bit longer than half an Earth month. How about the time it takes Titan (and Saturn) to orbit the Sun? That is 10,759 Earth-days (29.5 Earth years); an Earth-normal human lifetime should give you two or maybe three times around the sun; more practical for marking life stages than life events. Titan is in a 3:4 orbital resonance with Hyperion, another of Saturn's moons. This means that in the time it takes Titan to orbit Saturn 3 times, Hyperion orbits 4 times. So, from Titan, Hyperion would appear to describe a complete cycle every 11 days and 22.5 hours (in Earth terms). So, there are two measures, one of 15 days + 22 hours and another that is 11 days + 22.5 hours. You could still, of course, use your Earth watch and calculate time according to how it passes "back home." Be prepared, though, for the younger generation to roll their eyes at how old planet you are.

Learn about the Darian Calendar for Titan at pweb.jps.net/~tgangale/mars/saturn/Darian_Titan_main.htm.

Martian Calendars

In spite of the fact that we have had a presence on Mars for only a few decades, several people have developed calendars for marking Martian time. Check out the Mars Calendar from the Institute for Advanced Physics at <http://www.iapweb.org/MartianCalendar>.

See a fuller list on the online version of this guide at libguides.usc.edu/calendars.